Placing and Admission to AIM

Nominated Adviser and Broker

N+1 SINGER

THIS DOCUMENT IS IMPORTANT AND REQUIRES YOUR IMMEDIATE ATTENTION. If you are in any doubt about the contents of this document, or the action you should take, you are recommended to seek immediately your own personal financial advice from your stockbroker, bank manager, solicitor, accountant or other independent financial adviser duly authorised under the Financial Services and Markets Act 2000 (as amended).

This document, which comprises an AIM admission document drawn up in accordance with the AIM Rules for Companies, has been issued in connection with the application for admission to trading on AIM of the entire issued and to be issued ordinary share capital of the Company. This document does not constitute an offer or constitute any part of an offer to the public within the meaning of sections 85 and 102B of FSMA. Accordingly this document does not comprise a prospectus within the meaning of section 85 of FSMA and has not been drawn up in accordance with the Prospectus Rules or approved by or filed with the Financial Conduct Authority or any other competent authority.

Application will be made for the Placing Shares and the Existing Ordinary Shares to be admitted to trading on AIM, a market operated by London Stock Exchange plc. AIM is a market designed primarily for emerging or smaller companies to which a higher investment risk tends to be attached than to larger or more established companies. AIM securities are not admitted to the Official List of the United Kingdom Listing Authority. A prospective investor should be aware of the risks of investing in such companies and should make the decision to invest only after careful consideration and, if appropriate, consultation with an independent financial adviser. Each AIM company is required pursuant to the AIM Rules for Companies to have a nominated adviser. The nominated adviser is required to make a declaration to the London Stock Exchange on Admission in the form set out in Schedule Two to the AIM Rules for Nominated Advisers. The London Stock Exchange has not itself examined or approved the contents of this document.

The Directors, whose names appear on page 6 of this document, and the Company accept responsibility for the information contained in this document. To the best of the knowledge and belief of the Directors and the Company (who have taken all reasonable care to ensure that such is the case), the information contained in this document is in accordance with the facts and does not omit anything likely to affect the import of such information. All the Directors accept individual and collective responsibility for compliance with the AIM Rules for Companies.

The whole of this document should be read. An investment in the Company is speculative. The attention of prospective investors is drawn in particular to Part II of this document which sets out certain risk factors relating to any investment in Ordinary Shares. All statements regarding the Group's business, financial position and prospects should be viewed in light of these risk factors.

Atlantis Resources Limited

(incorporated and registered in the Republic of Singapore with registered number 200517551R)

PLACING OF 12,765,957 NEW ORDINARY SHARES AT 94 PENCE PER ORDINARY SHARE AND ADMISSION OF THE ENTIRE ISSUED SHARE CAPITAL OF THE COMPANY TO TRADING ON AIM

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The Placing Shares will rank *pari passu* in all respects with the Existing Ordinary Shares and will rank in full for all dividends or other distributions declared, made or paid on the Ordinary Shares after Admission. It is expected that Admission will take place and that trading in the Ordinary Shares will commence on 20 February 2014. The Ordinary Shares are not traded on any recognised investment exchange and no other applications have been made.

This document does not constitute an offer to sell or issue, or the solicitation of an offer to subscribe for or buy, Ordinary Shares to any person in any jurisdiction to whom it is unlawful to make such offer or solicitation. In particular, this document is not for distribution in or into the United States of America, Canada, Japan, the Republic of Ireland, the Republic of South Africa or New Zealand. The issue of the Ordinary Shares has not been, and will not be, registered under the applicable securities laws of the United States of America, Canada, Japan, the Republic of Ireland, the Republic of South Africa or New Zealand and the Ordinary Shares may not be offered or sold directly or indirectly within the United States of America, Canada, Japan, the Republic of Ireland, the Republic of South Africa or New Zealand or to, or for the account or benefit of, any persons within the United States of America, Canada, Japan, the Republic of Ireland, the Republic of South Africa or New Zealand.

The distribution of this document in certain jurisdictions may be restricted by law and therefore persons into whose possession this document comes should inform themselves about and observe any such restriction. Any failure to comply with these restrictions may constitute a violation of the securities laws of any such jurisdiction.

The Ordinary Shares have not been and will not be registered under the US Securities Act or the securities laws of any US state or other jurisdiction and will not be offered or sold within the United States except pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the US Securities Act and other applicable laws.

The Ordinary Shares are only being offered and sold outside the United States in transactions complying with Regulation S, under the US Securities Act.

The Ordinary Shares have not been approved or disapproved by the US Securities and Exchange Commission or by any US state securities commission or authority, nor has any such US authority passed judgement on the accuracy or adequacy of this document. Any representation to the contrary is a criminal offence in the United States.

This document is not a prospectus or other disclosure document for the purposes of the Australian Corporations Act 2001 (Cth) (the "Corporations Act") and has not been lodged with the Australian Securities and Investments Commission in connection with the offer of the Ordinary Shares. The provision of this document to any person does not constitute an offer of Ordinary Shares to any person to whom such an offer or invitation would be unlawful. The invitation to subscribe for Ordinary Shares under the Placing has only been made to investors in Australia to whom an offer can be made without a disclosure document in accordance with Chapter 2D of the Corporations Act (as either a "sophisticated investor" or a "professional investor" who is exempt from the disclosure requirements under section 708(8) or (11) of the Corporations Act). It is a condition of any person receiving and retaining this document in Australia that they represent and warrant to the Company, its directors and the Nominated Advisor that they are a "sophisticated investor" or a "professional investor".

This document has not been registered as a prospectus with the Monetary Authority of Singapore in Singapore and may not be circulated or distributed in Singapore nor may any of the securities mentioned herein be offered for subscription or purchase, directly or indirectly, nor may any invitation to subscribe for or purchase any of such securities be made in Singapore except in circumstances in which such offer or sale is made pursuant to, and in accordance with the conditions of, an exemption invoked under Subdivision (4) Division I of Part XIII of the Securities and Futures Act, Chapter 289 of Singapore (the "SFA"), and to persons to whom such securities may be offered or sold under such exemption. Accordingly, such securities may not be offered or sold, nor may this document or any other offering document or material relating to such securities be circulated or distributed, directly or indirectly, to any person in Singapore other than (i) to an institutional investor pursuant to section 274 of the SFA or (ii) to other persons specified in, and in accordance with the conditions in, section 275 of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA. Section 276 of the SFA will have to be complied with upon the subsequent sale of any securities acquired pursuant to an exemption under section 274 or section 275 of the SFA.

N+1 Singer, which is authorised and regulated in the United Kingdom by the Financial Conduct Authority, is acting as nominated adviser and broker to the Company in connection with the proposed Placing and Admission and will not be acting for any other person or otherwise be responsible to any person for providing the protections afforded to customers of N+1 Singer or for advising any other person in respect of the proposed Placing and Admission. N+1 Singer's responsibilities as the Company's nominated adviser and broker under the AIM Rules for Companies and the AIM Rules for Nominated Advisers are owed solely to the London Stock Exchange and are not owed to the Company or to any Director or to any other person in respect of such person's decision to acquire shares in the Company in reliance on any part of this document. No representation or warranty, express or implied, is made by N+1 Singer as to any of the contents of this document (without limiting the statutory rights of any person to whom this document is issued). N+1 Singer has not authorised the contents of any part of this document and accepts no liability whatsoever for the accuracy of any information or opinions contained in this document or for the omission of any material information from this document, for which the Company and the Directors are solely responsible.

The information contained in this document has been prepared solely for the purposes of the Placing and Admission and is not intended to inform or be relied upon by any subsequent purchasers of Ordinary Shares (whether on or off market) and accordingly no duty of care is accepted in relation to them.

Copies of this document will be available free of charge during normal business hours on any day (except Saturdays, Sundays and public holidays) at the offices of N+1 Singer, One Bartholomew Lane, London EC2N 2AX from the date of this document until the date which is one month from the date of Admission. Additionally, an electronic version of this document will be available on the Company's website, www.atlantisresourcesltd.com.

FORWARD LOOKING STATEMENTS

This document includes statements that are, or may be deemed to be, "forward-looking statements". These statements relate to, among other things, analyses and other information that are based on forecasts of future results and estimates of amounts not yet determinable. These statements also relate to the Group's future prospects, developments and business strategies.

These forward-looking statements can be identified by their use of terms and phrases such as "anticipate", "believe", "could", "estimate", "expect", "intend", "may", "plan", "predict", "project", "will" or the negative of those variations, or comparable expressions, including references to assumptions. These statements are primarily contained in Part I of this document.

The forward-looking statements in this document, including statements concerning projections of the Group's future results, operations, profits and earnings, are based on current expectations and are subject to risks and uncertainties that could cause actual results to differ materially from those expressed or implied by those statements.

Certain risks to and uncertainties for the Group are specifically described in Part II of this document headed "Risk Factors". If one or more of these risks or uncertainties materialises, or if underlying assumptions prove incorrect, the Group's actual results may vary materially from those expected, estimated or projected. Given these risks and uncertainties, potential investors should not place any reliance on forward-looking statements.

Forward-looking statements may and often do differ materially from actual results. Any forward-looking statements in this document are based on certain factors and assumptions, including the Directors' current view with respect to future events, and are subject to risks relating to future events and other risks, uncertainties and assumptions relating to the Group's operations, results of operations, growth strategy and liquidity. Whilst the Directors consider these assumptions to be reasonable based upon information currently available, they may prove to be incorrect. Prospective investors should therefore specifically consider the risk factors contained in Part II of this document that could cause actual results to differ before making an investment decision. Save as required by law or by the AIM Rules for Companies, the Company undertakes no obligation to publicly release the results of any revisions to any forward-looking statements in this document that may occur due to any change in the Directors' expectations or to reflect events or circumstances after the date of this document.

MARKET AND FINANCIAL INFORMATION

The data, statistics and information and other statements in this document regarding the markets in which the Group operates, or the Group's position therein, are based on the Group's records or are taken or derived from statistical data and information derived from the sources described in this document.

In relation to these sources, such information has been accurately reproduced from the published information and, so far as the Directors are aware and are able to ascertain from the information provided by the suppliers of these sources, no facts have been omitted which would render such information inaccurate or misleading.

Various figures and percentages in tables in this document have been rounded and accordingly may not total. Certain financial data has also been rounded. As a result of this rounding, the totals of data presented in this document may vary slightly from the actual arithmetical totals of such data.

All times referred to in this document are, unless otherwise stated, references to London time.

CURRENCIES

Unless otherwise indicated, all references in this document to: (a) "GBP", "£", "pounds sterling", "pounds", "sterling", "pence" or "p" are to the lawful currency of the United Kingdom; (b) S$, Singapore Dollar, are to the lawful currency of Singapore; (c) US$, US Dollar, are to the lawful currency of the United States of America; (d) EUR, € are to the lawful currency of the European Union; (e) C$, Canadian Dollar are to the lawful currency of Canada; (f) ¥ CNY, the Chinese Yuan are to the lawful currency of China.

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PLACING STATISTICS, EXPECTED TIMETABLE OF PRINCIPAL EVENTS AND EXCHANGE RATES

PLACING STATISTICS

Placing Price	94 pence
Number of Existing Ordinary Shares	63,938,243
Number of Placing Shares	12,765,957
Number of Ordinary Shares in issue following the Placing and Admission	76,704,200
Proportion of Enlarged Share Capital represented by the Placing Shares	16.6 per cent.
Market capitalisation at the Placing Price	£72.1 million
Gross proceeds of the Placing	£12.0 million
Estimated net proceeds of the Placing	£10.6 million
International Security Identification Number (ISIN)	SG9999011118
SEDOL	BJ0XKM3
Tradeable Instrument Display Mnemonic (TIDM)	ARL

EXPECTED TIMETABLE OF PRINCIPAL EVENTS

	2014
Publication of this document	19 February
Admission effective and dealings in the Enlarged Share Capital commence on AIM	8.00 a.m. on 20 February
CREST accounts to be credited	8.00 a.m. on 20 February
Where applicable, share certificates in respect of Placing Shares to be despatched by	7 March

Each of the times and dates set out above and mentioned elsewhere in this document may be subject to change at the absolute discretion of the Company and N+1 Singer.

EXCHANGE RATES

Exchange rates used throughout this document:

S$1 = £0.47

US$1 = £0.60

US$1 = S$1.26

C$1 = £0.54

EUR1 = £0.82

CNY1 = £0.10

DIRECTORS, SECRETARY AND ADVISERS

Directors	John Mitchell Neill *(Non-Executive Chairman)* Timothy James Cornelius *(Chief Executive Officer)* Duncan Stuart Black *(Chief Financial Officer)* Michael Robert Lloyd *(Non-Executive Director)* Ian Anthony Macdonald *(Non-Executive Director)* Rune Nilsen *(Non-Executive Director)* John Anthony Clifford Woodley *(Non-Executive Director)*
Company Secretary	Boardroom Corporate & Advisory Services Pte Ltd 50 Raffles Place # 32-01 Singapore Land Tower Singapore 048623
Registered Office	65 Niven Road Republic of Singapore 228414
Website	www.atlantisresourcesltd.com
Nominated Adviser and Broker	N+1 Singer Advisory LLP One Bartholomew Lane London EC2N 2AX
Legal advisers to the Company as to English Law	Ashurst LLP Broadwalk House 5 Appold Street London EC2A 2HA
Legal advisers to the Company as to Singapore Law	TSMP Law Corporation 6 Battery Road Level 41 Singapore 049909
Legal advisers to the Nominated Adviser and Broker	DLA Piper UK LLP 3 Noble Street London EC2V 7EE
Reporting Accountants to the Company	Deloitte LLP Athene Place 66 Shoe Lane London EC4A 3BQ
Auditors to the Company	Deloitte & Touche LLP 6 Shenton Way Tower Two # 32-00 Singapore 068809
Public Relations adviser to the Company	FTI Consulting Holborn Gate 26 Southampton Buildings London WC2A 1PB
Depositary	Capita IRG Trustees Limited The Registry 34 Beckenham Road Beckenham BR3 4TU
Registrar	Boardroom Corporate & Advisory Services Pte Ltd 50 Raffles Place # 32-01 Singapore Land Tower Singapore 048623
Technical Consultants	Ricardo – AEA Ltd 18 Blythswood Square Glasgow G2 4AD

DEFINITIONS

The following definitions apply in this document unless the context otherwise requires.

"A Shares"	class A ordinary shares in the capital of the Company, which will with effect from Admission be consolidated into Existing Ordinary Shares
"Act"	the UK Companies Act 2006, as amended from time to time
"ADEME"	Agence de l'Environnement et de la Maîtrise de l'Energie, the French government's environment and energy management agency
"Admission"	admission of the Existing Ordinary Shares and the Placing Shares to trading on AIM becoming effective in accordance with the AIM Rules
"AIM"	AIM, a market operated by the London Stock Exchange
"AIM Rules"	the AIM Rules for Companies issued by the London Stock Exchange and those of its other rules which govern the admission to trading on, and the operation of companies on, AIM
"Andritz Hydro Hammerfest"	Andritz Hydro Hammerfest, part of the Andritz Hydro GmbH group, a global supplier of electro-mechanical equipment and services for the hydropower industry
"AR1000"	the AR1000 tidal turbine generator of the Company
"AR1500"	the AR1500 tidal turbine generator of the Company
"AR1500 Design Contract"	an agreement between (1) Atlantis and (2) Lockheed Martin dated 12 September 2013 pursuant to which Lockheed Martin has agreed to undertake the detailed design for the AR1500 and act as systems integrator with Atlantis's other contractors in relation to the AR1500, further details of which are set out in paragraph 9.1 of Part VII of this document
"AREVA Renouvelables"	AREVA Renouvelables SAS
"ARI"	Atlantis Resources International Pte. Ltd., a subsidiary of the Company
"Articles"	the articles of association of the Company effective on Admission
"Award"	an award of a specified number of shares in the capital of the Company granted under the LTIP
"B Shares"	class B non-voting preference shares in the capital of the Company, which will cease to exist on Admission
"Board" or "Directors"	the current board of directors of the Company, whose names are set out on page 6 of this document
"Business Day"	a day (other than Saturdays or Sundays or public holidays) when the banks are open for business in London
"C Shares"	class C non-voting preference shares in the capital of the Company, which will cease to exist on Admission

"CECEP"	CECEP Chongqing Industry Co. Ltd, a company incorporated in the People's Republic of China
"CECEP Cooperation Agreement"	an agreement between (1) the Company and (2) CECEP pursuant to which the parties have agreed to establish the China Demonstration Project, further details of which are set out in paragraph 9.4 of Part VII of this document
"CECEP Ocean Energy"	CECEP Zhejiang Ocean Energy Development Co. Ltd
"CECEP Turbine Supply Agreement"	an agreement between (1) ARI and (2) CECEP Ocean Energy pursuant to which ARI has agreed supply of an AR1000 to CECEP Ocean Energy for deployment at the China Demonstration Project, further details of which are set out in paragraph 9.4 of Part VII of this document
"certificated" or "in certificated form"	the description of a share or other security that is not in uncertificated form (that is, not in CREST)
"China Demonstration Project"	the tidal energy demonstration project in Guishan Channel, Daishan Waters, Zhoushan, Zhejiang Province, China
"City Code"	The City Code on Takeovers and Mergers of the United Kingdom
"Code"	The Corporate Governance Code published by the Quoted Companies Alliance
"Companies Acts"	has the meaning contained in section 2 of the Act
"Company" or "Atlantis"	Atlantis Resources Limited, a company incorporated in the Republic of Singapore with registration number 20051755IR
"Consolidation"	the consolidation of A Shares on the basis of one Existing Ordinary Share for every 30 A Shares, which will become effective on Admission
"Conversion"	the conversion of B Shares and C Shares into A Shares occurring conditional on Admission in accordance with the PLC Articles (and immediately prior to the Consolidation)
"CREST"	the relevant system (as defined in the CREST Regulations) in respect of which Euroclear is the Operator (as defined in the UK CREST Regulations)
"CREST Regulations"	the Uncertificated Securities Regulations 2001 (SI 2001 No.3755) (as amended from time to time)
"CTGC"	China Three Gorges Corporation
"DECC"	Department for Energy and Climate Change, a ministerial department of the UK government
"Depositary"	Capita IRG Trustees Limited (No. 2729260) of The Registry, 34 Beckenham Road, Beckenham, Kent BR3 4TU
"Depositary Interests"	dematerialised interests representing underlying Ordinary Shares in the ratio of 1:1, that can be settled electronically through and held in CREST, as issued by the Depositary or its nominees who hold the underlying securities on trust, further details of which are set out in paragraph 15 of Part I of this document

"DFEM"	Dongfang Electric Machinery Co. Ltd, a subsidiary of Dongfang Electric Corporation Limited
"DHI"	DHI Group
"Disclosure and Transparency Rules"	the disclosure and transparency rules made by the FCA
"DNV"	Det Norske Veritas
"EMEC"	European Marine Energy Centre, a research centre focusing on wave and tidal power development
"Enlarged Share Capital"	the issued share capital of the Company immediately following Admission, comprising of the Existing Ordinary Shares and the Placing Shares
"ETI"	Energy Technologies Institute, a public-private partnership for research and development between UK government and industry
"Euroclear"	Euroclear UK & Ireland Limited
"Existing Ordinary Shares"	the Ordinary Shares in issue immediately following the Consolidation and prior to the Placing
"Financial Conduct Authority" or "FCA"	the Financial Conduct Authority of the United Kingdom
"FORCE"	Fundy Ocean Research Centre for Energy, a research centre focusing on tidal power development
"FSMA"	the Financial Services and Markets Act 2000, as amended
"GPCL"	Gujarat Power Corporation Ltd
"Group"	the Company and its subsidiaries
"GWEC"	Global Wind Energy Council, the international trade association for the wind power industry
"IEA"	International Energy Agency, an autonomous organisation for ensuring reliable, affordable and clean energy for its 28 member countries
"IEC"	International Electrotechnical Commission, the international standards and conformity assessment body for all fields of electrotechnology
"Involution"	Involution Technologies Ltd
"IPCC"	Intergovernmental Panel on Climate Change, an international body for the assessment of climate change established by the United Nations and World Meteorological Association
"IPMDL"	International Power Marine Developments Ltd
"Lockheed" or "Lockheed Martin"	Lockheed Martin Corporation, a corporation organised and existing under the laws of the State of Maryland, and/or one of its subsidiaries or affiliates as the context may require

"Lock-In Agreements"	the agreements between (1) certain shareholders of the Company, (2) N+1 Singer and (3) the Company dated 19 February 2014 further details of which are set out in paragraph 9.12 of Part VII of this document
"London Stock Exchange"	London Stock Exchange plc
"2013 Long Term Incentive Plan" or "LTIP"	the 2013 long term incentive plan adopted by the Company, further details of which are set out in paragraph 8.2 of Part VII of this document
"MCT"	Marine Current Turbines Ltd
"MeyGen"	MeyGen Limited, a subsidiary of the Company
"MeyGen AfL"	the agreement for lease between (1) MeyGen and (2) TCE dated 21 October 2010, details of which are set out in paragraph 9.2 of Part VII of this document
"MeyGen Lease"	the draft MeyGen lease described at paragraph 9.2 of Part VII of this document, which is an annexure to the MeyGen AfL
"MeyGen Project"	the MeyGen tidal stream project in the Pentland Firth, Scotland
"Morgan Stanley Renewables"	Morgan Stanley Renewables Development I (Cayman) Limited
"MSCGI"	Morgan Stanley Capital Group Inc.
"N+1 Singer"	N+1 Singer Advisory LLP, nominated adviser and broker to the Company and its affiliates
"NaREC"	National Renewable Energy Centre, a research centre in the UK focused on land based testing of renewable energy technologies
"Official List"	the Official List of the UK Listing Authority
"Option"	a right to acquire a specified number of shares in the capital of the Company at a specified exercise price granted under the CSOP or the LTIP, as appropriate
"Ordinary Shares"	ordinary shares in the capital of the Company
"Placee"	a person subscribing for Placing Shares under the Placing at the Placing Price
"Placing"	the conditional placing by N+1 Singer of the Placing Shares at the Placing Price pursuant to and on the terms and conditions set out in the Placing Agreement
"Placing Agreement"	the conditional agreement dated 19 February 2014 relating to the Placing between (1) the Company, (2) certain of the Directors and (3) N+1 Singer, further details of which are set out in paragraph 9.11 of Part VII of this document
"Placing Price"	94 pence per Placing Share
"Placing Shares"	the 12,765,957 Ordinary Shares to be issued at the Placing Price by the Company pursuant to the Placing
"PLC Articles"	the memorandum and articles of association of the Company in force as at the date of this document

"Registrar"	Boardroom Corporate & Advisory Services Pte Ltd
"Relationship Agreement"	the relationship agreement dated 19 February 2014 between (1) the Company, (2) Morgan Stanley Renewables and (3) N+1 Singer, further details of which are set out in paragraph 9.10 of Part VII of this document
"Ricardo-AEA"	Ricardo-AEA Ltd, technical consultant to the Company
"SDTC"	Sustainable Development Technology Canada, a not for profit foundation constituted pursuant to Canadian legislation for the purpose of fostering the development and adoption of technologies that contribute to mitigating, substituting or sequestering greenhouse gas emissions and reducing air pollution
"Share Option Plan" or "CSOP"	the Company's 2009 share option plan, further details of which are set out in paragraph 8.1 of Part VII
"Shareholders"	holders of Ordinary Shares
"Shareholders' Agreement"	the shareholders' agreement in relation to the Company made between (1) the existing shareholders of the Company and (2) the Company dated 31 March 2009 as amended since that date
"Singapore Act"	the Companies Act, Chapter 50 of Singapore or any statutory modification for the time being in force
"Singapore Code"	the Singapore Code on Takeovers and Mergers issued by the Monetary Authority of Singapore pursuant to section 321 of the Singapore Securities and Futures Act (Cap. 289) as amended from time to time
"Statkraft"	Statkraft AS
"TCE"	The Crown Estate Commissioners
"Teaming Agreement"	an agreement between (1) Atlantis and (2) Lockheed Martin dated 12 September 2013, pursuant to which Atlantis and Lockheed Martin agreed to work together on an exclusive basis to develop projects throughout the world related to the production of electricity from free tidal stream currents and to design tidal turbine systems, further details of which are set out in paragraph 9.1 of Part VII of this document
"Technical Report"	the independent technical report of Ricardo-AEA dated 19 February 2014 which is reproduced in its entirety in Part III of this document
"The Switch"	The Switch Limited, supplier of permanent magnet generators
"UK Listing Authority" or "UKLA"	the United Kingdom Listing Authority
"uncertificated" or "in uncertificated form"	shares held in uncertificated form in CREST and title to which, by virtue of the UK CREST Regulations, may be transferred by means of CREST
"United Kingdom" or "UK"	the United Kingdom of Great Britain and Northern Ireland
"US"	the United States of America
"US Securities Act"	the US Securities Act of 1933, as amended
"VAT"	UK Value Added Tax

GLOSSARY

The following terms are used in this document.

AD	Anaerobic digestion
ADCP	acoustic Doppler current profiler
AfL	Agreement for Lease
CCGT	Combined cycle gas turbine
CfD	Contracts for Difference
CHP	Combined heat and power
EIA	environmental impact assessment
EMR	Electricity Market Reform
FEED	front end engineering design
GW	gigawatt
HVDC	high voltage direct current
kWh	kilowatt hour
LCoE	levelised cost of energy
M&A	merger and acquisition
MEAD	Marine Energy Array Demonstrator
MoU	Memorandum of Understanding
MSW	Municipal solid waste
MW	megawatt
MWh	megawatt hour
PPA	Power Purchase Agreement
PV	photovoltaic
ROCs	Renewables Obligation Certificates
ROS	Renewables Obligation (Scotland) Order
ROVs	remotely operated vehicles
TEC	tidal energy converter
terawatt	one million megawatts

PART I

INFORMATION ON THE GROUP

1. Introduction

Atlantis Resources Limited is a vertically integrated turbine supplier and project developer in the tidal power industry, that has spent over US$100 million to date developing its technology and projects. The Company holds equity positions in a diverse portfolio of tidal stream development projects, which includes 100 per cent. ownership of MeyGen Limited, the company developing the MeyGen Project in Scotland. The Directors believe that the MeyGen Project is the largest consented tidal stream power project in Europe, and is scheduled to commence power production in 2015. Alongside its project development interests, the Company owns a portfolio of patents and patent applications relating to tidal power generation and sells tidal generation equipment and engineering services to third party developers as well as its own projects. The Company, which is revenue generating, also conducts industrial research and development and provides specialist consulting services globally.

The Directors believe that the combination of rigorously developed technology and a geographically diverse portfolio have positioned the Company well for future growth. Atlantis has exclusive agreements with a range of international industrial partners; Lockheed Martin Corporation is working with Atlantis to complete the detailed design and systems integration of the Company's 1.5MW AR1500 turbine, and the Directors believe that future low cost manufacturing can be achieved through the Company's strategic agreement with Dongfang Electric Machinery Co. Ltd. In the projects sphere, the Company is working with AREVA Renouvelables in France, Lockheed and Irving Shipbuilding in Canada and Gujarat Power Corporation Limited in India, and is in discussions with The Crown Estate, the Department of Energy and Climate Change and the Scottish government for the delivery of the MeyGen Project.

The Company intends to use the proceeds of the Placing to fund its contribution to the MeyGen Project, to deliver the AR1500 detailed design with Lockheed, and to prepare its AR1000 turbine for deployment in a demonstration project in China.

2. History and Background

2.1 *Overview*

Atlantis was incorporated in Singapore in December 2005 after acquiring the intellectual property of Atlantis Energy Limited, an early stage developer of tidal turbine technology. That early stage technology has been extensively tested and improved upon over more than a decade, and the Company is now developing what the Directors believe to be one of the most powerful single rotor tidal stream turbines developed to date.

In parallel with its technology advancement, the Company has initiated and developed tidal energy projects at greenfield sites around the world through its involvement in shaping national and regional policy, attracting commercial sponsors and securing consents and permits for construction. This project development focus was sharpened by the acquisition in 2008 of Current Resources Ltd (now Atlantis Operations (UK) Ltd), MSCGI's marine power origination arm. As a result of these activities, the Directors believe that the Company is at the forefront of the tidal power industry in having created its own pipeline of potential projects for its turbines. Furthermore, as a project originator, the Directors believe that the Company is well placed to secure a sale premium on its projects as each matures beyond the small scale proof of feasibility and the consent stage. At this point, the Company expects to attract investors and potential acquirers to complete construction of the large scale arrays using the Company's turbines.

In 2006, shortly after its incorporation, the Directors believe that the Company was among the first in the world to successfully connect a tidal stream turbine to grid and export power when the Aquanator, its 100kW track based shallow water turbine, was commissioned at the Company's San Remo test site in Australia. In the following year, Morgan Stanley Renewables became an investor in Atlantis, subsequently building up to a maximum 49.9 per cent. shareholding in the Company. In 2008 the Aquanator was decommissioned to make way for the Company's next product and technological development, the Nereus turbine, further information on which can be found in paragraph 4.2.1 of this Part I. This 150kW turbine had already been proven in tow tests, during which the test device is suspended under a barge and dragged through the water to simulate operating conditions, and continued its success when in operation at San Remo from 2008. Meanwhile, the Company was developing a 140kW prototype of its AS Solon turbine through tow testing

and computational modelling, demonstrating a mechanical efficiency of 48 per cent. The AS Solon turbine, further information on which can be found in paragraph 4.2.2 of this Part I, was the precursor to the Company's next generation of turbines, the AR series, which are currently being developed for the most energetic tidal stream sites in the world. During 2010 and 2011, the Company deployed a 1MW turbine, which the Directors believe to be the most powerful single axis tidal stream turbine then built, at the European Marine Energy Centre in the Orkney Islands. In 2012 this same turbine, the AR1000, became the first to use the UK's new tidal turbine dry testing facility at the National Renewable Energy Centre. The Company's next turbine, the AR1500, is designed to deliver a maximum power of 1.5MW and is currently under development with Lockheed for deployment in 2015. The detailed design for the AR1500 is being carried out with Lockheed as part of a comprehensive technology development and delivery relationship which was cemented in September 2013 with the signature of the Teaming Agreement, providing for investment by Lockheed of US$10 million into tidal energy technology and joint projects through design, component development and systems integration services. Lockheed and the Company expect to complete the detailed design of the AR1500 during the first half of 2014. The Teaming Agreement is summarised in paragraph 9.1 of Part VII.

Alongside its technology development activity, the Company has been originating projects and building strategic relationships around the world. In 2007 the Company had identified the Inner Sound of Scotland's Pentland Firth as one of the best sites in the world for tidal stream energy, and in 2009 completed a full concept design for a 390MW project at that site. In 2010, following a competitive tendering round by The Crown Estate, the Company won an agreement for lease for the Inner Sound as part of a consortium which also included MSCGI and International Power Marine Developments Ltd. The three parties became shareholders in the project company, MeyGen, and continued to develop the project design. In 2013, MeyGen was awarded the final consents required for construction and operation of the first phase of the project, becoming what the Directors believe to be the largest fully consented tidal stream project in Europe.

Following the award of the offshore consents, in October 2013 the Company reached agreement with MSCGI and IPMDL to acquire sole ownership of the project. This puts the Company in control of what the Directors believe to be the most advanced large scale tidal energy project in world, and provides an ideal location for the demonstration of the Company's AR1500 turbine technology as part of the project build out.

The Company has not only been active in the UK; in 2011 it was awarded a berth at the Fundy Ocean Research Centre for Energy in Nova Scotia, Canada, an open ocean testing site for tidal stream devices. In 2013, it was announced that the Company had been conditionally awarded up to C$5 million in grant funding towards the project from Sustainable Development Technology Canada, and it is intended that this funding will be used towards installation of an AR1500 turbine at the FORCE berth in 2016 prior to build out of a commercial scale project in the Bay of Fundy under Nova Scotia's attractive power tariffs for tidal energy.

In China, the Company reached a strategic agreement with DFEM for future low cost turbine manufacture, and in November 2012 signed a supply agreement with the China Energy Conservation and Environmental Protection group to deliver onshore equipment and a 1MW turbine to the Daishan demonstration project in the Zhejiang province. The Company expects to provide its existing AR1000 turbine to the project in 2014 following a programme of refurbishment works.

In India, the Company has identified more areas of tidal resource and since 2009 has been working with GPCL to complete the concept design and consenting for a 250MW project in the Gulf of Kutch.

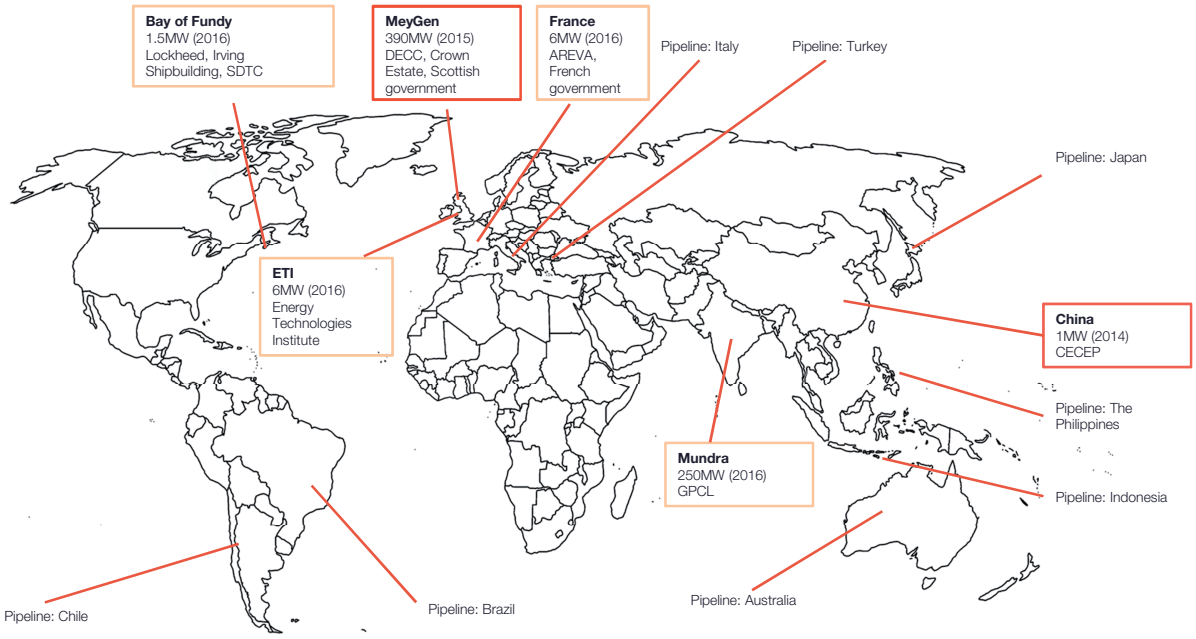
In France, the Company signed a memorandum of understanding with AREVA Renouvelables in June 2013 for exclusive cooperation in the French government's call for expressions of interest in development of pilot tidal farms in Normandy and Brittany, under which selected consortia will receive both capital support and feed-in-tariffs to develop projects and deploy turbines at selected sites in northern France.

In the UK, the international experience gained by the Company in tidal technology and project development has enabled the Company to lead a multi-million pound research programme sponsored by the Energy Technologies Institute, a public-private partnership between the UK government and global companies (BP plc, Caterpillar Inc., EDF Energy plc, E.ON UK plc, Rolls-Royce plc and Royal Dutch Shell plc). This programme, which also involves Black & Veatch and Lockheed, goes beyond turbine development and identifies whole system solutions to tidal power. The next phase of the ETI programme is scheduled to be awarded in 2014 and is expected to culminate in the construction of the optimised architecture as part of a 6MW array in 2016. It is proposed that this array, in which the Company expects to be an equity participant, will use the Company's turbines and be installed at the MeyGen site.

2.2 *International Presence*

The Company has project opportunities in locations around the world, and offices in the UK, Singapore and Australia. The Singapore office is chiefly a centre for provision of corporate services, including the Company's finance department, and is the base for engineering staff managing delivery of the Company's projects in Asia and its strategic relationship with DFEM. The majority of the engineering team is located in Bristol, and London is the current base for the business development team and the MeyGen team. The UK has been the hub for recent technology testing, both at NaREC in the north east of England and EMEC in the far north of Scotland, and during 2015 MeyGen's Inner Sound site in Scotland's Pentland Firth will play an important role in the demonstration of the AR1500 turbine which is currently being developed from the Bristol office in collaboration with the Company's engineering partner, Lockheed. Figure 2.1 also shows other early-stage global opportunities which the Company is pursuing.

FIGURE 2.1 | GLOBAL PROJECT OPPORTUNITIES



2.3 *Funding History*

Atlantis has received approximately US$73 million of equity funding and US$16 million of shareholder loans to date in a series of equity and shareholder loan fund raises from investors to support research and development, field testing, patent portfolio investment and project origination activities. It has also received over US$7 million in grant funding since 2009, over US$7 million in commercial consultancy revenue from governments, private developers and utilities and US$2 million in turbine equipment sales.

Approximately £10 million has been spent to date on the development of the MeyGen Project, which is now wholly owned by the Company.

3. Industry Overview

3.1 *Drivers for Clean Energy Generation*

There are two main drivers for development of low carbon and renewable energy generation capacity:

- to ensure a secure energy supply in the face of dwindling resources of traditional fossil fuels, increasing energy demand, and continuing political instability in many oil and gas producing regions; and
- to reduce the emissions of the greenhouse gases contributing to climate change. The level of atmospheric carbon dioxide recently passed 400 parts per million, a level which the Intergovernmental Panel on Climate Change and others believe could trigger irreversible global warming of 3 to 5 degrees Celsius in comparison to pre-industrial levels.

Many governments worldwide have set ambitious targets for the deployment of alternative energy technologies. In early 2013, 138 countries had some type of policy target or renewable energy support

policy at the national level, up from 52 countries in early 2005. This is reflected in growing rates of renewable energy installed capacity and consumption. In 2012, renewable capacity made up more than half of total net additions to global generating capacity and almost 70 per cent. of additions in the European Union. Overall, renewable energy sources accounted for almost 22 per cent. of global electricity supply in 2012, made up chiefly of hydropower, wind and solar power.

3.2 *Introduction to Tidal Energy*

The world's oceans, covering over 70 per cent. of the world's surface, have long been recognised as a vast energy resource. Science can now harness the power of waves, changes in surface elevation, differences in temperature and salinity, and the horizontal movement of water driven by the tides, wind and thermohaline circulation.

Electricity generation from the tides has the benefit of innate predictability, as tidal behaviour is governed by the relative movements of the earth, sun and moon rather than weather conditions. Generation from the tidal currents has the added advantage of minimal environmental and visual impact, as it does not rely on complete blockage of channels or waterways. Tidal barrage schemes, conversely, which exploit the rise and fall of the sea's surface under the influence of the sun and moon, can bring widespread and substantial changes to the local habitat, particularly in the inter-tidal zone. The relative merits of each approach should, of course, be evaluated when considering any site with both large tidal range and fast currents, but the versatility, scalability and low impact of tidal current technology often brings it under consideration for sites where a tidal barrage project is not viable.

FIGURE 3.1 | TIDAL STREAM VS. TIDAL BARRAGE

Tidal barrage: A barrage is constructed across a bay or inlet to create a captive reservoir. The rise and fall of the tides produces a head difference between the reservoir and the open ocean and this is used to drive turbines fitted in the barrage.
Example: La Rance, France

Tidal stream: Tidal stream turbines use the kinetic power of tidal currents in the same way that wind turbines use the movement of the air. This type of generation has lower capital cost and minimal environmental and visual impact.
Example: The Company's AR1000 turbine

The Company has not, as yet, demonstrated the viability of exploiting other, non-tidal types of marine currents, such as the Florida Current, or the Agulhas Current off the coast of South Africa. Such currents exhibit fluctuations on a much longer timescale than tidal currents, with some being almost entirely unidirectional throughout the year. A near-constant and unidirectional flow can allow simplification of the technology and result in high capacity factors, but the very deep water and far offshore locations which characterise many such sites cause challenges for cost effective installation, power export and access for on-going maintenance which have yet to be resolved. These opportunities are an important future focus for research and development for the Company and may ultimately lead to the deployment of new turbine variants.

Near-constant and unidirectional water flow can be found not only offshore, but in rivers and non-tidal estuaries. Traditional hydropower has long dominated electricity generation from renewable sources in resource rich countries such as Brazil, Norway, New Zealand and Scotland, but so called run-of-river schemes have typically been on a smaller scale, supplying a handful of off-grid domestic consumers. These run-of-river schemes do not require the creation of large artificial reservoirs, with the extensive civil works, population relocation and environmental disruption which these entail. They can also be used to supplement

existing hydropower schemes; the Itaipu Dam, for example, on the border of Paraguay and Brazil, pours an average of almost 680MW of power through its spillway alone, some of which could be captured by free-stream turbines downstream of the dam, making use of the power infrastructure already in place at such sites. Whilst this is not ocean energy, the resource types are complementary and well suited to parallel development programmes. This is another market opportunity for the Company's technologies in the future.

There are four broad classes of tidal stream power extraction devices:

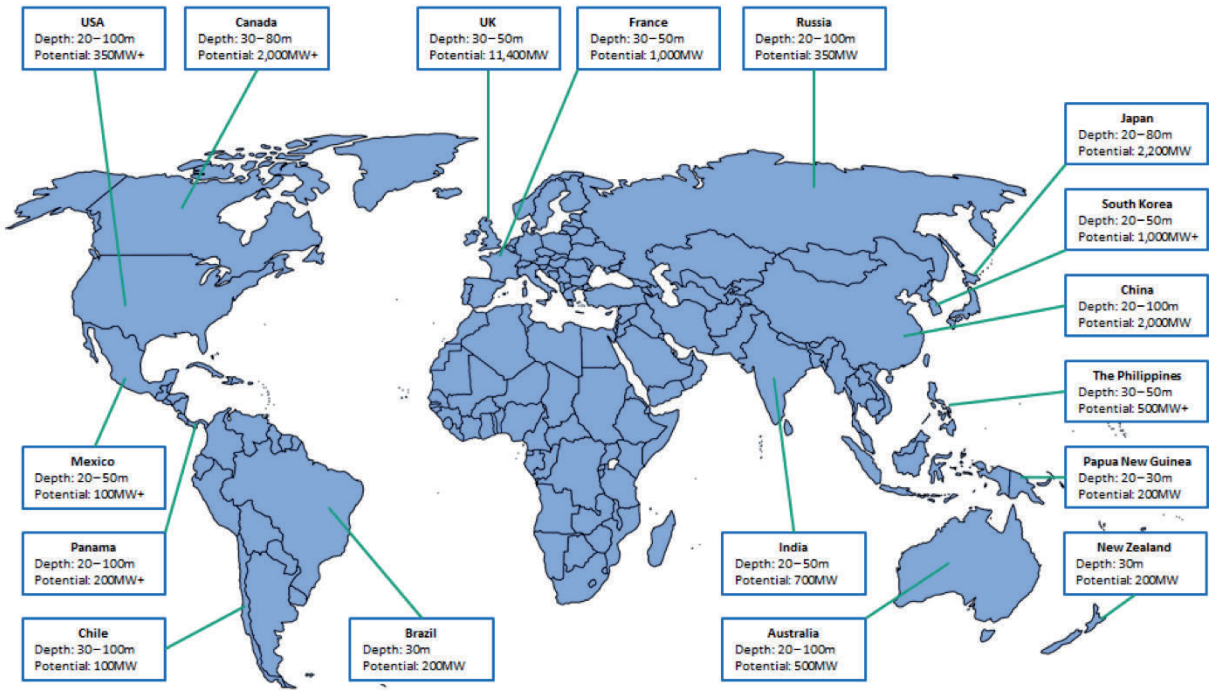
- horizontal axis turbines;
- vertical axis turbines;
- oscillating hydrofoils; and
- other, including Venturi effect devices which make use of the changes in pressure and velocity of a flow through a restriction.

Seven other developers have now installed or are in the process of installing full scale devices of at least 1MW, all of which the Directors believe fall into the horizontal axis category. Some developers continue to pursue alternative concepts with some success, but generally the industry has converged on horizontal axis turbines, like the wind industry before it. Further details on competition can be found in paragraph 9 of this Part I.

3.3 *Estimated Global Resource*

The Directors believe that the best tidal stream sites are characterised by high average flow speeds, medium water depths, proximity to electrical export infrastructure, level bathymetry and few competing site users. As the technology becomes more established, so the number of commercially viable sites will increase; lower cost and more efficient devices can operate profitably in less energetic flow regimes and proven installation and deployment techniques can be used in more challenging offshore environments. The Directors believe that there is a currently quantified global resource of 25GW of potential installed capacity, as shown in Figure 3.2, which was derived from a global resource study commissioned by the Company.

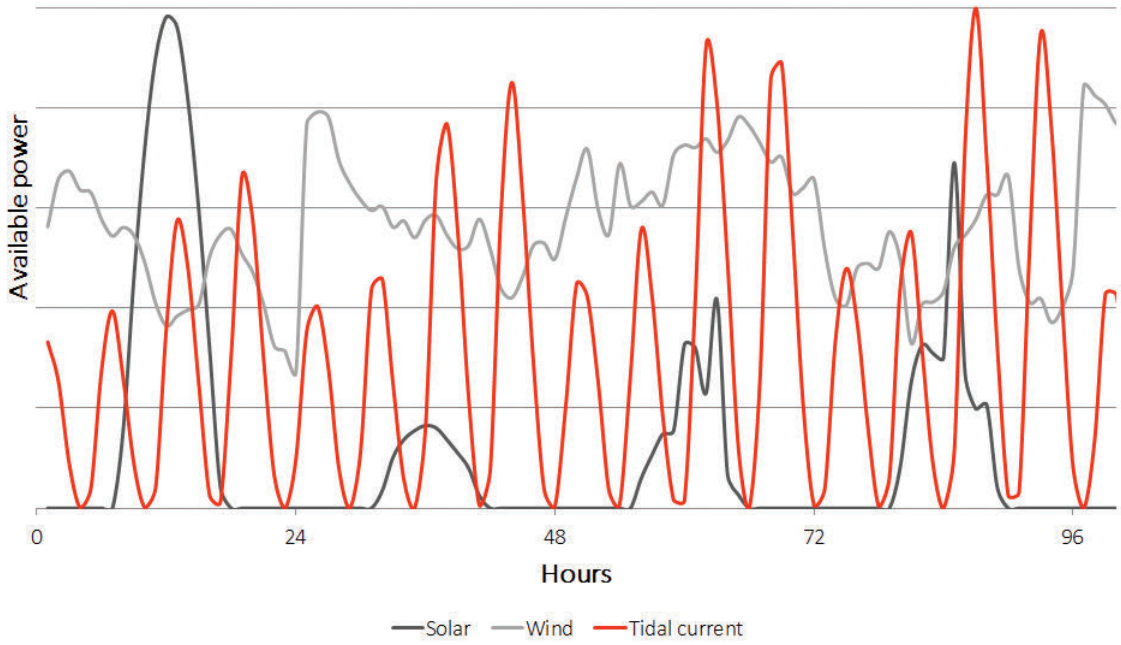
FIGURE 3.2 | CURRENTLY QUANTIFIED GLOBAL RESOURCE (DHI STUDY ON BEHALF OF THE COMPANY)



3.4 *Tidal Energy in the Alternative Energy Mix*

Tidal energy's greatest advantage over other alternative energy sources is that it is almost entirely independent of the weather and hence, although it is variable, it is also predictable. Other variable renewables, including wind, wave, solar and hydroelectricity are affected, on varying timescales, by climatic fluctuations which can create challenges for the balancing of the transmission system. Hydroelectricity is subject to seasonal changes and very vulnerable to droughts; available solar power varies at seasonal, daily and instantaneous timescales; and wind and, to a lesser extent, wave climates fluctuate on both seasonal and very short term timescales. Available tidal power at a typical semidiurnal site also shows variation on several timescales as the tide ebbs and floods through the spring-neap cycles, but that variation can be accurately forecast well in advance, thus greatly facilitating network balancing for network operators. Figure 3.3 shows the incident power for a solar site in the US, a wind site in the UK and a tidal site in the UK.

FIGURE 3.3 | VARIABILITY IN INCIDENT POWER FOR DIFFERENT RESOURCES (AT 1 HOUR RESOLUTION FOR 4 DAYS)



As wind and solar technologies mature, so the market growth is expected to slow, as shown in Figure 3.4; tidal energy, conversely, is projected to show high and sustained growth for the duration of International Energy Agency forecasts as shown in Figure 3.4 and Figure 3.5. The Current Policies Scenario forecasts the development of the energy mix under an assumption that no changes are made to energy policies from the year of publication, and the New Policies Scenario takes account of broad policy commitments and plans that have been announced by countries even if the measures required to implement these commitments have yet to be confirmed. The latter case serves as the IEA's baseline scenario.

FIGURE 3.4 | PROJECTED GROWTH IN RENEWABLE GENERATION UNDER CURRENT POLICIES SCENARIO (IEA)

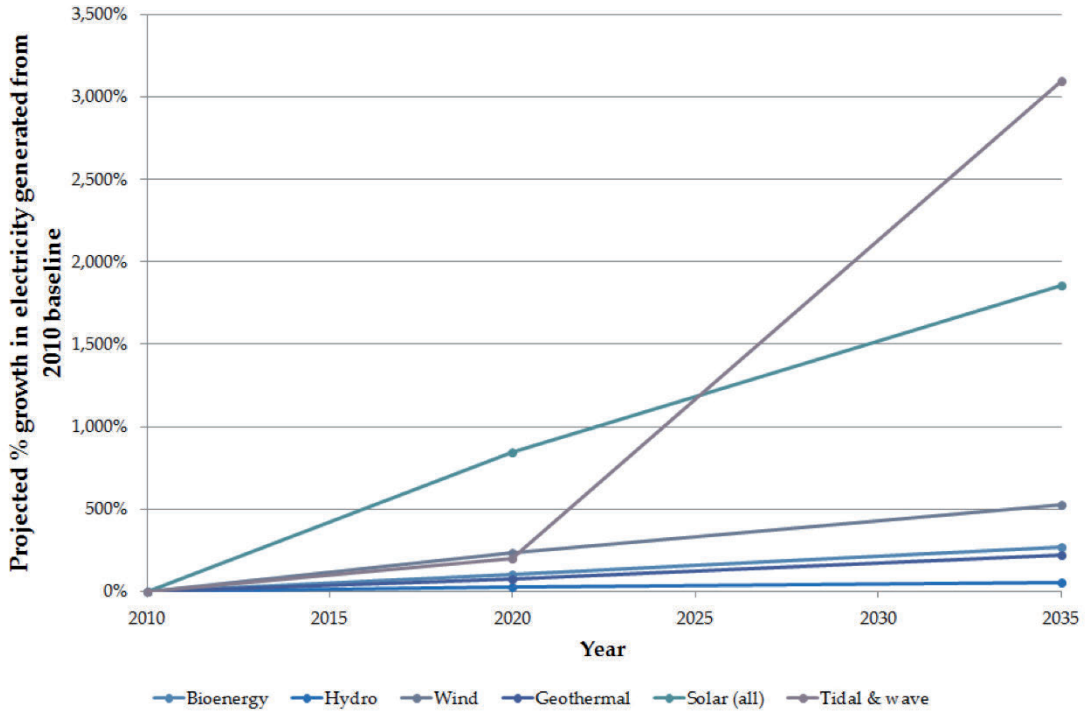
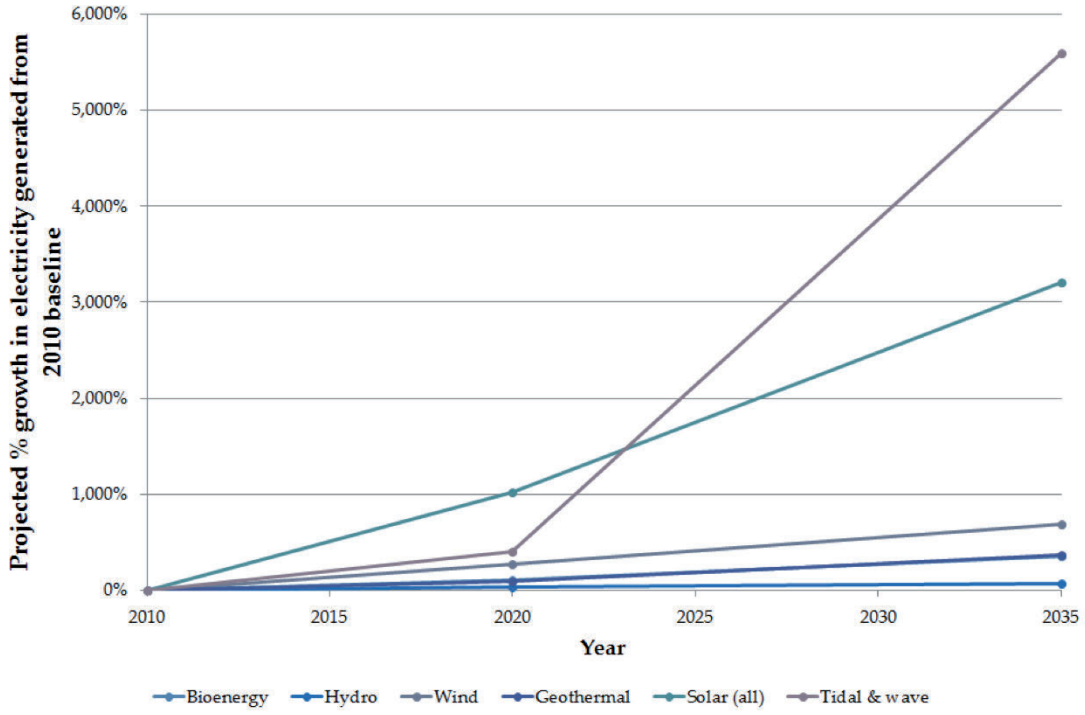
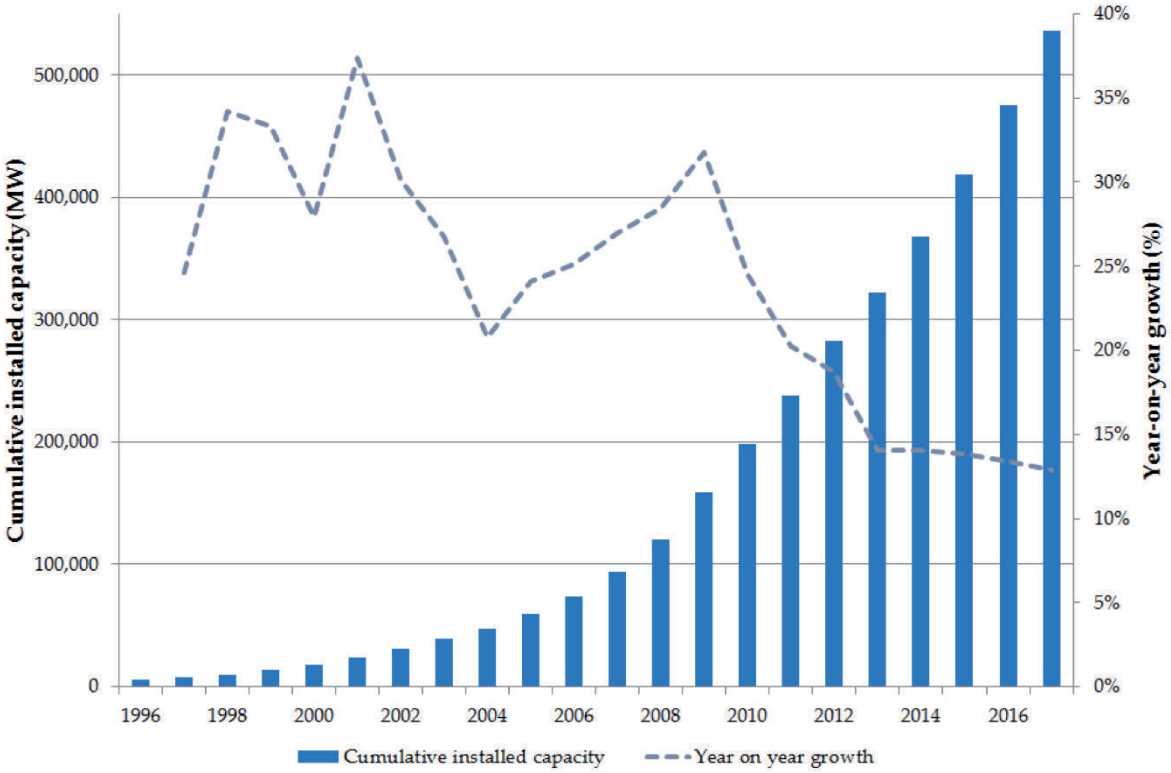


FIGURE 3.5 | PROJECTED GROWTH IN RENEWABLE GENERATION UNDER NEW POLICIES SCENARIO (IEA)



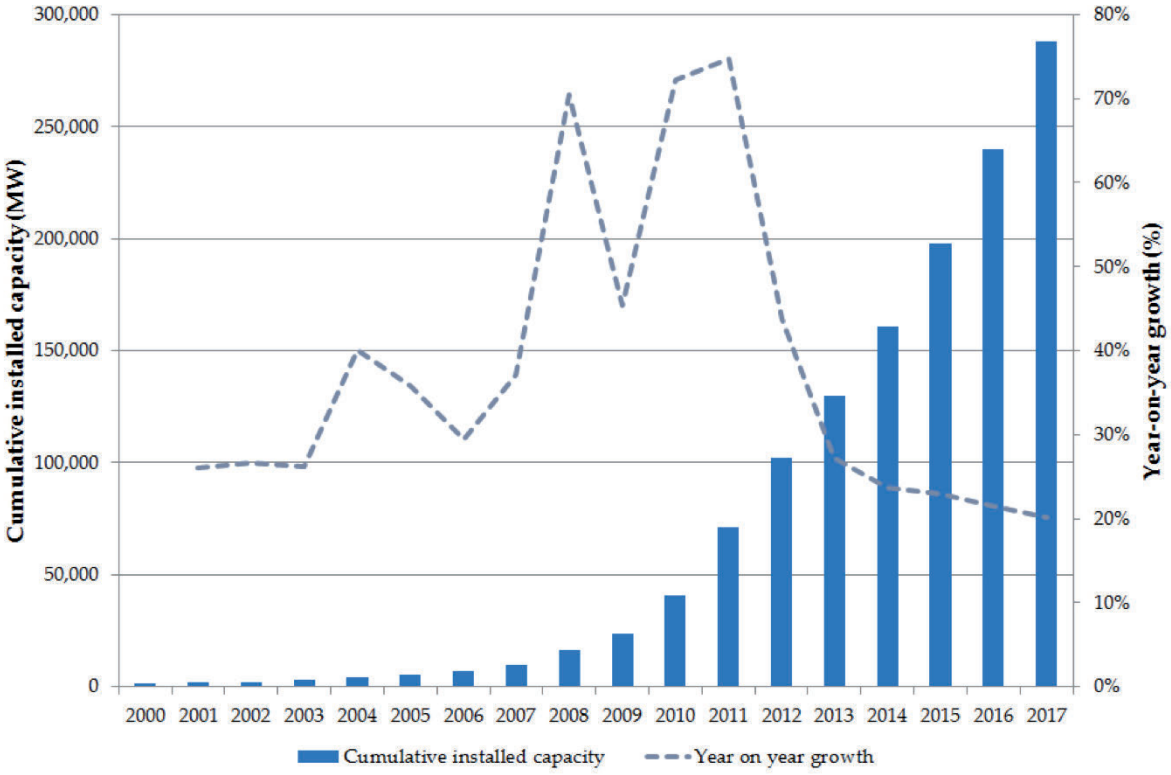
Wind energy, one of the most established renewable energy technologies, has now expanded into the offshore sector. Wind energy generation still shows double digit annual growth (Figure 3.6), but scientists have estimated that the maximum average extractable power from the wind globally is 1,000GW. This is equivalent to an installed capacity of approximately 3,000GW – just ten times today's level.

FIGURE 3.6 | HISTORICAL AND FORECAST WIND CAPACITY GROWTH (GLOBAL WIND ENERGY COUNCIL)



Year on year growth in global solar power is also now thought to have peaked (Figure 3.7) and, whilst the total incident solar power far exceeds global electricity demand, the practically extractable resource is constrained by land use restrictions, availability of specialist materials and the lack of international high voltage direct current links to export power from desert regions.

FIGURE 3.7 | HISTORICAL AND FORECAST SOLAR CAPACITY GROWTH (EUROPEAN PHOTOVOLTAIC INDUSTRY ASSOCIATION)



3.5 ***Cost of Energy***

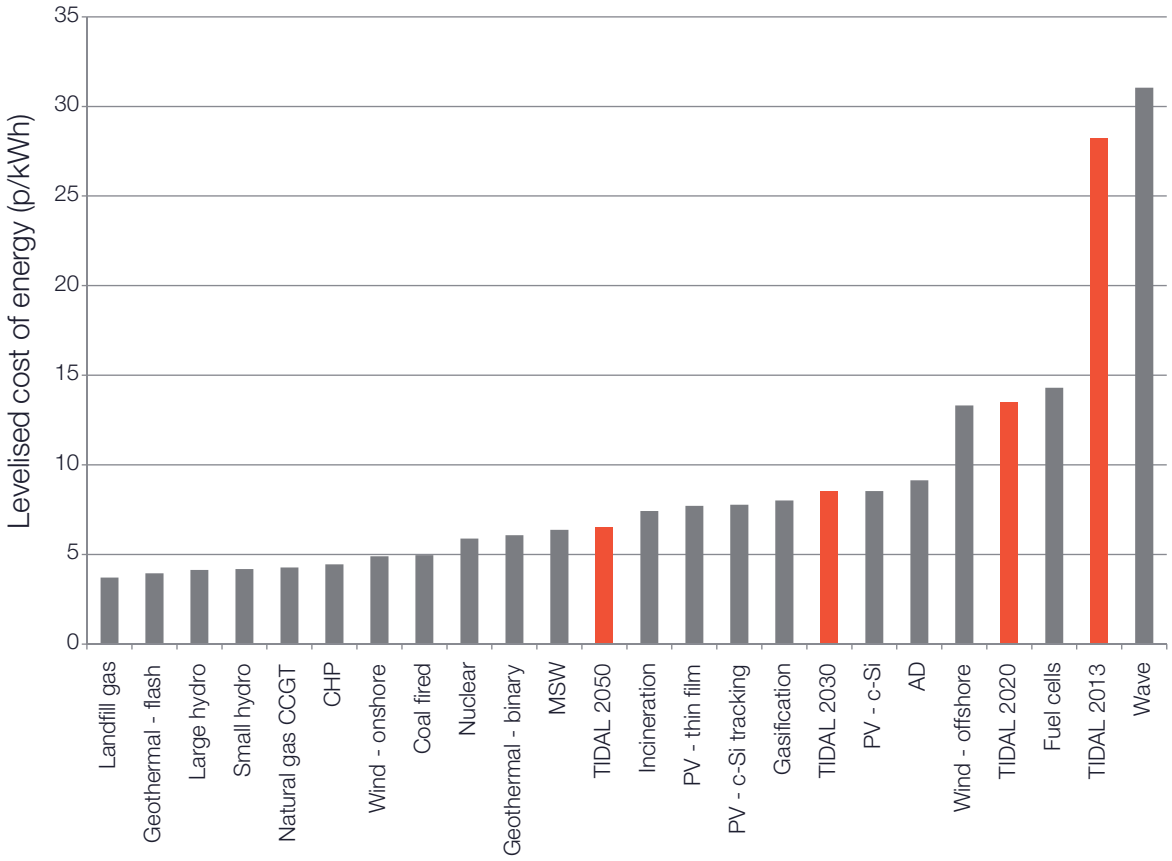
Although the power of the tides has been used for centuries in traditional tide mills, in its modern form it is a relative newcomer to the alternative energy sector. The Directors believe that the Company was the first developer to install a megawatt scale device in open ocean conditions, and is expected now to be one of the first developers to lead the way in the deployment of the first demonstration arrays. As a fledgling industry, tidal current power has not yet achieved cost parity with established renewable energy sources such as onshore wind; however, the Directors believe tidal energy is likely to follow the path of other low carbon technologies.

Tidal current energy has many synergies with offshore wind. The maturity of the offshore wind industry is substantially more advanced than wave energy and tidal stream; twenty-one years since the first offshore wind farm of 5MW was constructed in Denmark, global installed capacity now stands at over 5.4GW. The levelised cost of energy for offshore wind energy in the UK has stabilised at £140/MWh and a target of £100/MWh is considered achievable for 2020. Developers are now seeking to develop more challenging sites – further offshore and in deeper waters. This requires innovation in foundation, installation, maintenance and power export technologies, all of which can transcend the wind industry to bring cost reductions and efficiency improvements to tidal projects.

Wind energy, both on and offshore, has not shown such a consistent rate of cost reduction as other new energy technologies, in large part because of the impact of rising commodity prices from 2003; the price of copper and steel increased by threefold between 2005 and 2008. Supply chain bottlenecks also applied an upward pressure on prices as skills, equipment and manufacturing capacity struggled to keep pace with the rate of project development. In the two decades to 2011, wind energy had shown cost reductions of 10 per cent. for every doubling of capacity, and in the fifteen years to 1995 the rate of cost reduction was as high as 18 per cent. Current estimates for offshore wind cost reductions are a conservative 3 per cent., as the economies of scale to be derived from larger turbines and larger arrays are offset in part by the challenges and expense of deeper water sites further offshore. Tidal energy is expected to show a cost reduction rate of 9 to 17 per cent. for each doubling of capacity as the industry grows, though this could be higher in the initial stages of development. Tidal energy has a more constrained opportunity for economies of scale through increases in unit size than, for example, wind power, because of the limitations of water depth. However, cross-application of technological, manufacturing and material innovations arising from decades of research and development in wind energy and oil and gas can provide an alternative shortcut to cost reduction. The high energy density of tidal streams also leads to more compact generating units and thus a lower sensitivity to fluctuations in commodity prices.

In 2012 the Company was awarded the lead role in the tidal industry's most concerted and broad research and development effort yet to identify routes to a lower cost of energy as part of a project funded by the ETI. Phase 1 of the ETI project, from June 2012 to September 2013, was focused on identifying innovations in the whole tidal energy plant, from the incident water flow to the grid connection. The impacts of the innovations have been assessed and many thousands of combinations evaluated to ascertain the system configuration which will yield the lowest cost of energy. This programme, costing over £3 million and drawing on 37 industry participants, has resulted in a concept for tidal energy arrays which can deliver a cost of energy in line with that achieved by offshore wind. The results showed that by 2020 an architecture can be developed which it is believed would deliver a cost of energy less than 40 per cent. of that expected of today's tidal projects. These cost reductions are to be achieved through specific innovations in foundations, power export, rotor size and deployment technology, rather than application of a general cost reduction rate. Furthermore, the projected costs do not take account of the potential for low-cost manufacturing in China, an approach which the Company plans to develop with DFEM for its commercial AR1500 turbines. The ETI's roadmap figures for cost reduction and the comparative costs of other generating technologies are shown in Figure 3.8.

FIGURE 3.8 | LEVELISED COST OF ENERGY



3.6 *Policy Environment*

Over the past decade, the growth in support for renewable energy has been significant. 71 countries and a further 28 states or provinces now have a feed-in policy in place to support renewables as compared to a total of just 29 in 2003. 22 countries and 54 states or provinces have enacted a renewable portfolio standard to dictate the proportion of energy to be derived from renewable sources, up from 21 in total ten years previously.

In the UK, where a quarter of European tidal resource is located, support is strong. The Scottish government has signalled its commitment to tackling climate change and shown a demonstrable desire for renewable energy development through both legislation and policy. The Climate Change (Scotland) Act 2009 imposes a legal commitment on the Scottish government to reduce emissions by 42 per cent. from 1990 levels by 2020 and by 80 per cent. by 2050, a target which can only be achieved through substantial exploitation of Scotland's considerable sustainable resources.

In July 2011 the Scottish government published the 2020 Routemap for Renewable Energy in Scotland, updating and extending the 2009 Scottish Renewables Action Plan to reflect Scotland's ambition to meet 100 per cent. of its electricity demand from renewable resources by 2020. In recognition of its particularly abundant marine energy resource, the Scottish government has set up the Saltire Prize, a £10 million challenge to accelerate the commercial development of marine energy.

The Renewables Obligation (Scotland) Order came into effect in 2002 and is the Scottish government's main financial mechanism for increasing renewable generation. The ROS places an obligation on licensed electricity suppliers to source an increasing proportion of electricity from renewable sources, and to show this commitment by means of Renewables Obligation Certificates. ROCs are awarded to accredited renewable generators for each unit of electricity produced, and can then be traded with other parties, ultimately being used by the electricity suppliers to demonstrate fulfilment of their obligation under the ROS. For the financial year 2013/2014, 0.206 ROCs must be provided by the electricity suppliers for each MWh of electricity produced. Each MWh of tidal stream electricity earns five ROCs at present, the highest banding available; this is intended to ensure the commercial appeal of early projects and stimulate Scotland's

accession to a leading role in marine energy for the future. The ROS has recently been amended to provide a legal guarantee that it will apply to accredited schemes until 2037, but no new schemes will be accredited from 2017 when the Renewables Obligation will be replaced throughout the UK under the Electricity Market Reform. A new market mechanism, Contracts for Difference, will be introduced which sets a strike price for each technology type; when market electricity prices are below the strike prices generators will receive top-up payments, and if the market price rises above the strike price the generator will repay the difference. This approach will reduce exposure to wholesale price volatility and therefore decrease project risk. In June 2013 the Department for Energy and Climate Change published a draft strike price of £305 per MWh for tidal stream projects entering into a CfD between 2014 and 2019. The strike prices were confirmed by DECC in December 2013.

4. The Business

4.1 ***Business Model and Strategy***

The Company plans to develop multiple revenue streams across a global marketplace in geographically diverse jurisdictions from a combination of government, private developers and utilities via turbine and hardware sales, proceeds from the sale of project development rights, consulting contracts, grants and industry sponsored research and development programmes. The three key revenue streams are expected to be derived through sale of:

1. Turbines and associated technology
2. Project development rights
3. Consultancy and project management services

To support and achieve these revenue streams, the Company has five central business functions, as described below.

4.1.1 *Technology development and delivery*

One of the Company's two core business activities is selling tidal power turbine systems to utility customers and project developers. The technology development team, numbering 15 and located predominantly in Bristol, is responsible for the design and delivery of the Company's turbines and for continuing research and development in components and turbine systems, which can involve prototyping and testing for novel components and manufacturing processes and includes the management of any associated intellectual property. The in-house team coordinates and manages a portfolio of subcontractors during design and delivery, including, for the AR1500 design, Lockheed, Garrad Hassan, The Switch and Involution.

4.1.2 *Project development*

The Company's other core business is tidal power project development, for which the Company is recognised as a leading project developer in the tidal power sector. The Company's project development division, currently comprising 4 dedicated staff located in London, has previously been involved in the development of the MeyGen Project from a greenfield, undeveloped site through to a fully permitted project, including front end engineering design, grid connection and environmental consenting for the first 86MW, and continues to identify resource rich locations at which to replicate this process. For new markets, the Company expects to continue to be a significant shareholder in the relevant project company during the demonstration phase, which the Directors anticipate would typically comprise deployment and operation of one to ten turbines, in order to prove the technical and commercial viability of the site. Having secured future turbine supply rights, the Company then expects to sell on its stake in the project company to recover its investment as well as an additional developer's premium.

4.1.3 *Consulting*

From 2014, the Company intends to build a dedicated consulting team to provide resource analysis, techno-economic feasibility, engineering design and offshore management services to clients either at the preliminary stages of assessing the economic potential of a project location or during more mature project development. These services are currently provided through the technology development and delivery team, but a dedicated unit will allow active pursuit of consulting opportunities and hence growth of this revenue stream. The consulting team will work closely with the project development team to provide expertise through greenfield development and, subsequently, to the project company during development and construction.

The consulting team will be able to draw on additional resources from the technology development and delivery team on a contract to contract basis.

4.1.4 *Sales and marketing*

To promote sales of turbines, consultancy services and project development rights, the Company engages in sales and marketing efforts globally, responding to tenders and requests for proposals and initiating proactive efforts to promote tidal power generation within target resource rich markets. The Company's sales and marketing team, comprising 4 staff, works with governments to promote public policy that catalyses investment in marine power projects, including financial incentives, such as feed-in-tariffs, tax incentives and capital grants, and seabed ownership policy, such as leasing rounds, permitting procedures and development rights. In combination these create a domestic investment climate that is attractive to project sponsors and owner/operators, which are then targeted by the sales and marketing team with the ultimate goal of executing a turbine sales agreement for the supply of tidal turbines to be deployed at their project locations.

The turbine sales process typically has a long decision timeline, and therefore the project development and consulting teams play an important role in order cultivation and client relationship management during the initial feasibility assessment and permitting phase. More importantly, the Company seeks to control key tracts of seabed through early stage origination in order to limit the possibilities for other larger companies to enter the market in these locations, despite their turbine development activities. It is expected that this would provide the Company with a competitive advantage that is difficult to displace or replicate at attractive sites.

4.1.5 *Corporate services*

The corporate services team is responsible for support functions to enable the smooth running of the Company. This team manages the in-house accounting and finance functions and maintains oversight of the outsourced delivery of legal, human resources and information technology services.

4.2 ***Technology Overview***

The Company's core marine product is the AR series of tidal turbines, but this is supplemented by additional turbine types for varied applications (the AN and AS series) and by ancillary proprietary equipment including connection management systems and nacelle installation tools. Patents and patent applications to protect the Company's proprietary technology have been filed in what the Directors believe are all key jurisdictions, as described in paragraph 10 of Part VII of this document.

4.2.1 *AN series*

The AN series of turbines, or Nereus, is the direct descendent of the Company's very early prototypes and uses a track-based system mounted with multiple short hydrofoils, as shown in Figure 4.1. A Nereus turbine was grid connected at the Company's test site in San Remo, Australia, from 2008 and, although the Company has no projects currently under development which are suitable for this turbine class, the device remains the recommended solution for shallow, turbid flows such as river deltas and estuaries as the profile of the rotor allows the power capture area to be maximised even in shallow water, unlike a traditional circular rotor. At this time the Company does not expect further development capital to be spent on the AN series turbines.

FIGURE 4.1 | GRID CONNECTED NEREUS TURBINE, SAN REMO

4.2.2 *AS series*

In pursuit of greater efficiency, the Company developed the AS series of turbines, or Solon, as shown in Figure 4.2. The Solon can be fitted with either mono-directional or bi-directional blades and features a cowling to increase water flow across the blades. The results of large scale tow testing in 2008 were independently verified as proving the Solon to have the potential to be a market leading device, and the Company continues to develop this product line for deployment in deep river schemes and distributed generation projects.

FIGURE 4.2 | SOLON TURBINE DURING TOW TESTING, SINGAPORE HARBOUR

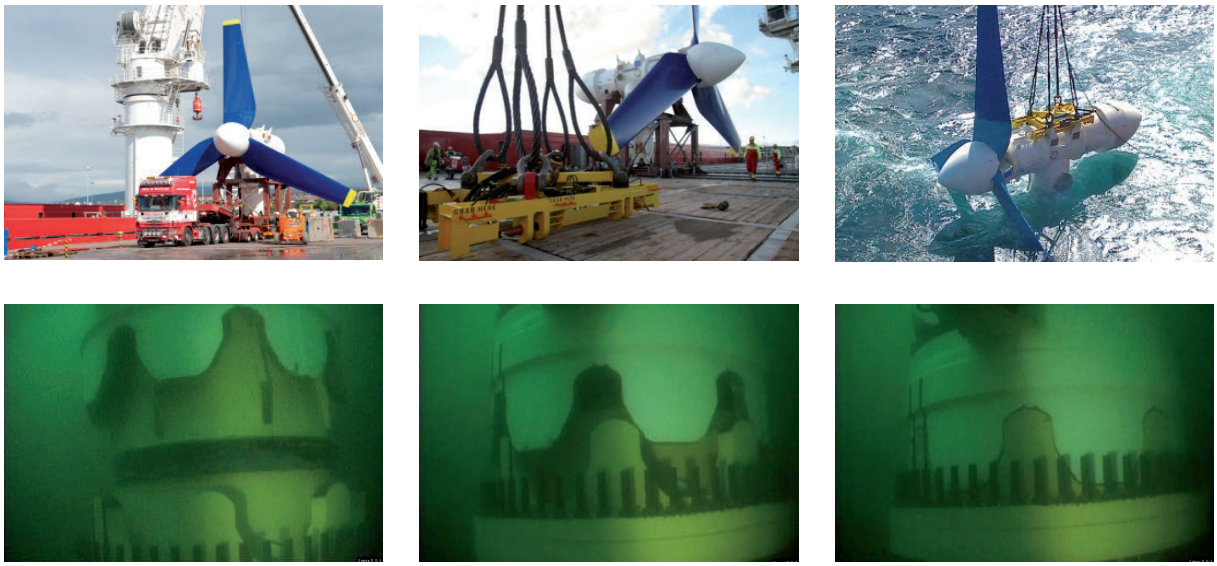
4.2.3 *AR series*

Whilst the Solon, owing to its shroud structure, is well suited to sites such as rivers and deep ocean currents with mono-directional or rectilinear flows and minimal wave loading, the Company recognised a requirement for a truly open ocean applicable design through which the world's most energetic tidal sites could be exploited. A new class of turbines, the AR series, was created, drawing on the blade, powertrain and control systems development of the AN and AS series of turbines.

In August 2010 the Company completed the design, construction and installation of the AK1000, which the Directors believe to be the most powerful single axis tidal turbine then built. The AK series was defined by its twin rotor design, which was predicated on a new and innovative manufacturing technique which greatly reduced the cost of the rotor blades. Flaws in the manufacturer's process, however, led to a blade failure when the turbine was installed at EMEC in the Orkney Islands. The blade manufacturer acknowledged responsibility for the fault, but the cost of replacement blades constructed with more established processes rendered the six bladed AK configuration uneconomic, and the turbine was adapted to a single rotor design with three blades of conventional fibre reinforced plastic. This new evolution, the AR1000, was successfully installed at EMEC in 2011, following which, in 2012, it was retrieved (following an electrical failure) for a programme of dry testing at NaREC in Northumberland, becoming the first device to use this new tidal turbine test facility. During this programme, the electrical system was tested to grid at full power, the controller algorithm was finely tuned, the powertrain efficiency and thermal performance were recorded over the full operating range, the brake performance was measured and optimised, and the turbine was put through continuous accelerated life-cycle testing equivalent to some 600MWh of subsea generation. This AR1000 turbine is now scheduled to be delivered to DFEM's Hangzhou facility in China for upgrading works before it is installed at the CECEP demonstration site near Zhoushan in Zhejiang province. Further details on the CECEP project are set out in paragraph 5.3 of this Part I.

FIGURE 4.3 | AR1000 DURING LOAD OUT TO EMEC

FIGURE 4.4 | AR1000 DURING INSTALLATION AT EMEC

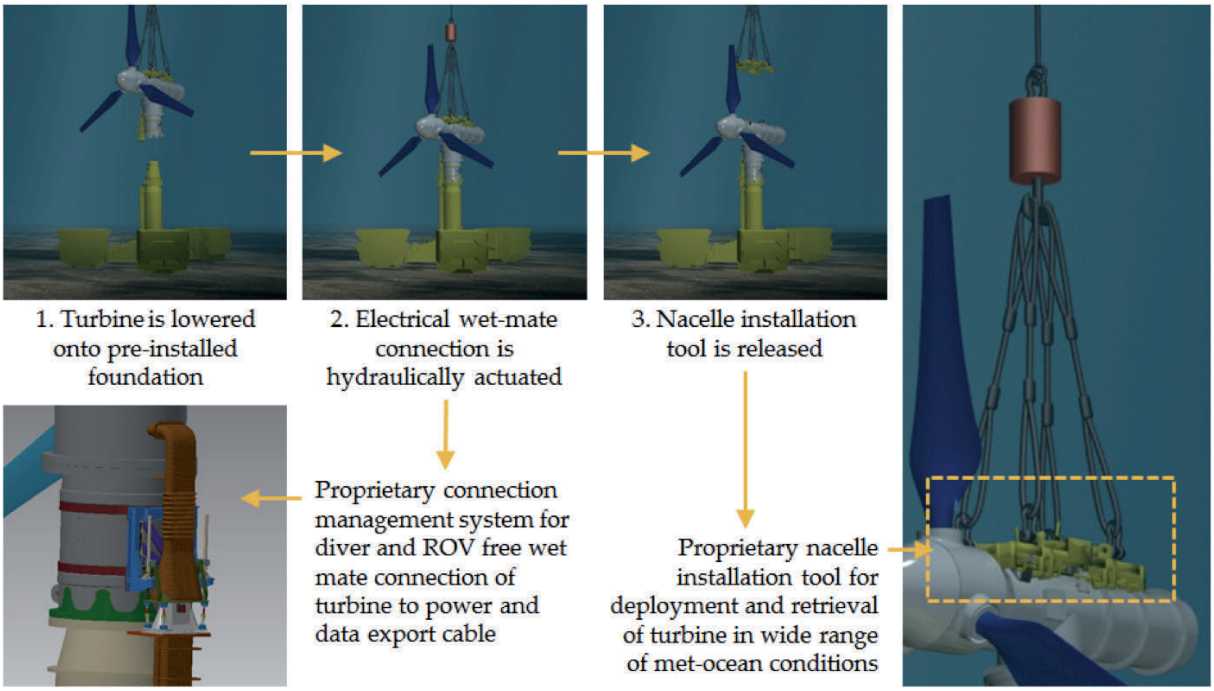


The Company's AR1000 turbine provides a robust solution which the Directors believe to be cost effective for medium energy sites in which the flows typically do not exceed 3m/s. The AR1500, being developed directly from the AR1000, is a third generation A-series turbine that will provide what the Directors believe is the optimal solution for the world's premium high flow tidal sites, such as those identified in Scotland, Canada and China. The AR1500 will incorporate a blade pitching system which extends the turbine's operating envelope, allowing electricity generation in flows of up to 5m/s. The pitch system is used only at flow speeds above the rated flow speed, once the turbine has reached its nameplate power output, and thus the duty cycle is expected to be significantly lower than for competitor turbines and so reliability is expected to be improved.

Alongside reliability, one of the greatest challenges for a tidal stream project is safe and cost effective deployment and retrieval of the subsea equipment, and the AR series has been designed with this specifically in mind. The Company has developed a proprietary nacelle installation tool and connection management system for reducing risk in offshore operations and broadening the range of safe working conditions whilst removing the need for interventions by divers or remotely operated vehicles. During testing at EMEC, the Company installed or retrieved the turbine a total of six times, and in so doing, reduced the subsea operations period from 90 minutes to 60 minutes. This is important in reducing exposure to weather risk and in minimising vessel charter time and, consequently, cost.

Ricardo-AEA has reported on the performance of the AR series, and a copy of its report is set out in Part III of this document.

FIGURE 4.5 | AR1500 DEPLOYMENT PROCESS

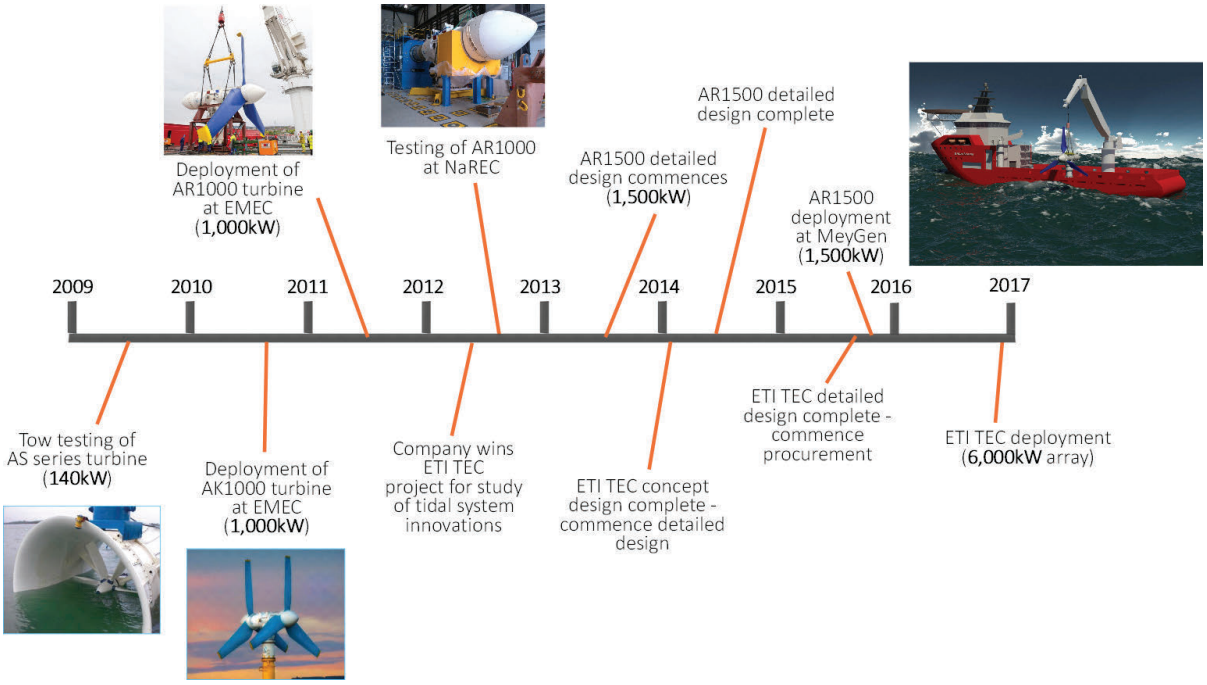


4.2.4 *ETI project*

The ETI Tidal Energy Converter programme commenced in 2012 with a remit to select and develop a project architecture which would deliver substantial reductions in the cost of tidal energy. The Company led a team of almost forty subcontractors with expertise across the industry to identify and characterise innovations in every aspect of the system – from the blades themselves to the power export equipment. These innovations were then combined in all feasible permutations to create thousands of possible architectures, and a modelled cost of energy was derived for each one. The most promising configurations were also assessed subjectively in a trade study to analyse factors such as safety, implementation risk and environmental impact, and a single preferred option was thus selected. Full implementation of this architecture requires advances in the component technology, and it is proposed that these advances are accelerated by the design and construction of an interim solution in 2016. This interim solution will include many of the elements of the fully optimised configuration and is projected to deliver 80 per cent. of the total anticipated reductions in the cost of energy. The Company's AR1500 turbine is designed as a complementary component of the system to be deployed in 2016. A detailed design stage (phase 2) is now planned for 2014, followed by procurement, construction and installation of a small (6MW) array of four turbines (phase 3) in 2015 and 2016 at the MeyGen site in the Inner Sound of the Pentland Firth, Scotland.

4.3 *Development Status and Path to Commercial Roll-Out*

FIGURE 4.6 | TECHNOLOGY DEVELOPMENT TIMELINE



The concept design and front end engineering of the AR1500 have been completed and the detailed component design and systems integration is expected to commence in early 2014. This is anticipated to be a six month process which the Directors expect will lead to a design for manufacture. The systems integration role will be carried out by Lockheed to produce a fully developed and cohesive turbine design. As part of this process, the Company's technology development team will coordinate the provision of information from specialist component designers including The Switch and Involution. Under the Teaming Agreement between the Company and Lockheed, further details of which are set out at in paragraph 9.1 of Part VII of this document, Lockheed will also be responsible for the design and construction of a yaw drive system and variable pitch unit for the AR1500, which it will fund as part of a US$10 million investment by way of project related services and in the design and construction of certain turbine components. These components will be assembled with the first AR1500 nacelle due for completion in 2015.

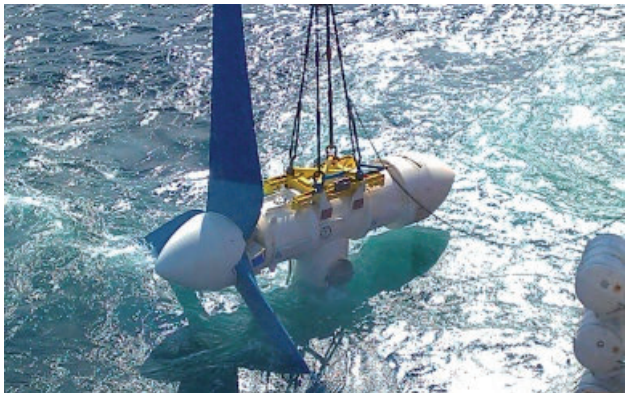
The AR1500 will be tested at NaREC before being deployed at the MeyGen Project for commissioning and operation as a grid connected demonstration unit in 2015.

In parallel with the build and deployment of the AR1500, the Company's existing AR1000 turbine is also expected to accumulate generating hours as a demonstration unit at the CECEP project in Zhejiang, China. In combination these development programmes can provide further evidence of the validity and robustness of the AR series turbines and their readiness for installation in commercial projects. The Company's scheduled development activities build on a long history of innovative testing, recent highlights of which are shown in Figure 4.7.

FIGURE 4.7 | SUMMARY OF RECENT TESTING ACTIVITY

Blade testing – the Company has been working with Det Norske Veritas to develop a new protocol for testing of tidal turbine blades and this was applied successfully to the new blades of the AR1000 in 2011.

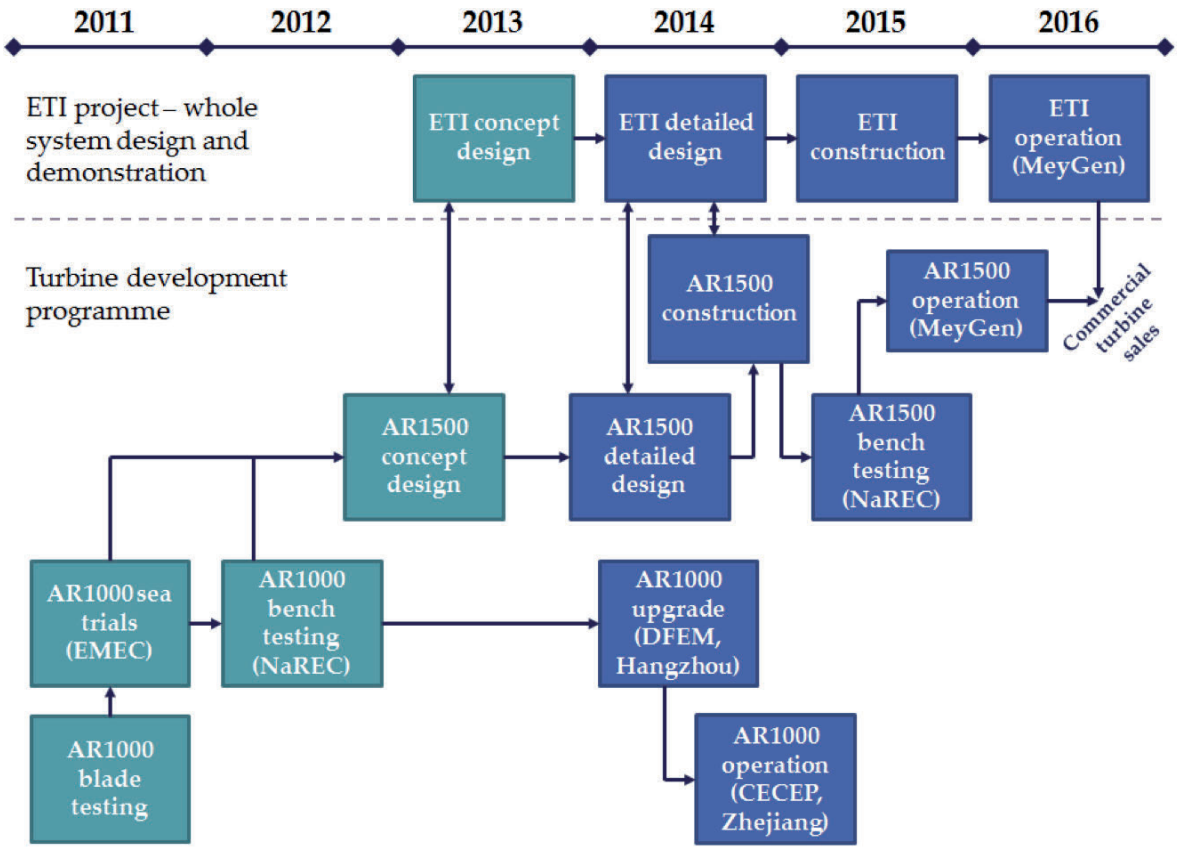
Sea trials – the Company has used its test berth at EMEC to repeatedly demonstrate the rapidity and efficacy of its turbine deployment and retrieval system. The sea trials have also proven that the turbine can survive the harsh open ocean environment of rapid tidal flows and heavy winter wave loading.



Dry testing – the AR1000 underwent a full programme of testing at NaREC, including thermal performance testing, drivetrain efficiency verification and accelerated lifecycle simulation.

The turbine development path is a critical element in the wider systems development that the Company is leading as part of the ETI project described in paragraph 4.2.4 of Part I of this document. The Directors believe that, together, the development activities will result in a proven tidal project architecture for roll out in commercial arrays. Figure 4.8 maps the sequence of activities that has been designed to systematically reduce risk and increase market confidence in advance of commercial turbine sales.

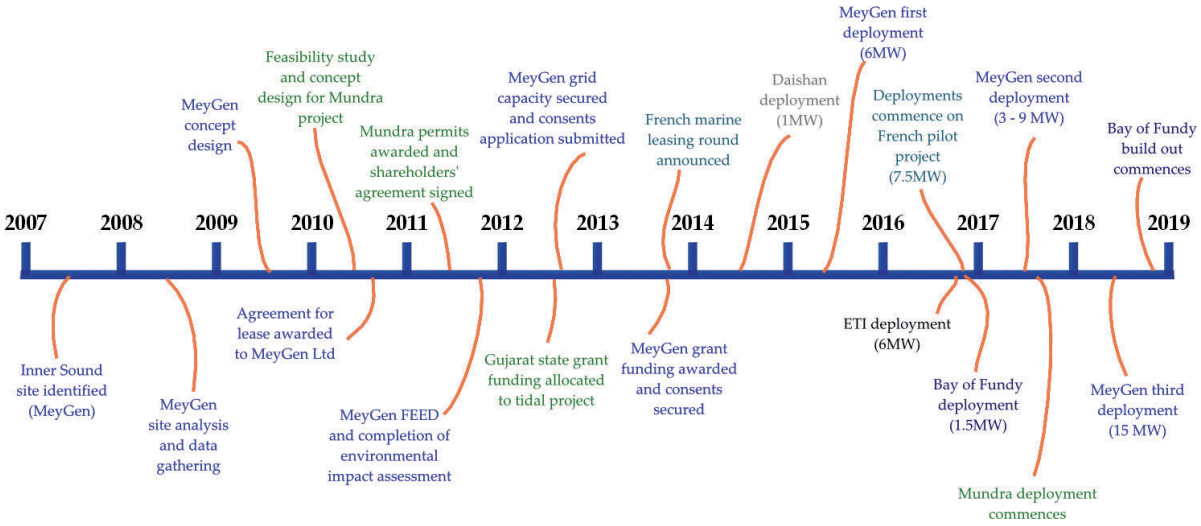
FIGURE 4.8 | PATH TO COMMERCIALISATION



4.4 *Project Pipeline*

The Company's project development team has already originated over 400MW of planned projects and will continue to be a decisive factor for the Company in the future, providing a sales channel for tidal turbine systems, opening new markets and attracting new clients internationally. The Company holds 100 per cent. of the equity in MeyGen in Scotland, and interests in the Mundra project in India and the FORCE project in Canada, which are described in more detail below. All of these projects will require further funding to be developed. The Company expects to continue to originate commercially viable projects, initially owning a majority share of the project equity whilst securing permits, consents, leases, grants and sources of project finance. The Company expects to receive revenue during the construction phase as the first arrays are established. As each project matures and the capital requirements increase, the Company will aim to fully or partially sell down its equity in the de-risked project to owner operators of tidal farms. This divestment of equity represents an additional potential revenue stream for the Company whilst retaining a sales channel for its turbines as each of the projects is built out. The Company has also developed sales opportunities separately from its co-owned projects, particularly in China. In 2012 the Company executed a turbine supply agreement with CECEP Ocean Energy, and is also pursuing opportunities to supply turbines to tidal projects under development by China Three Gorges Corporation.

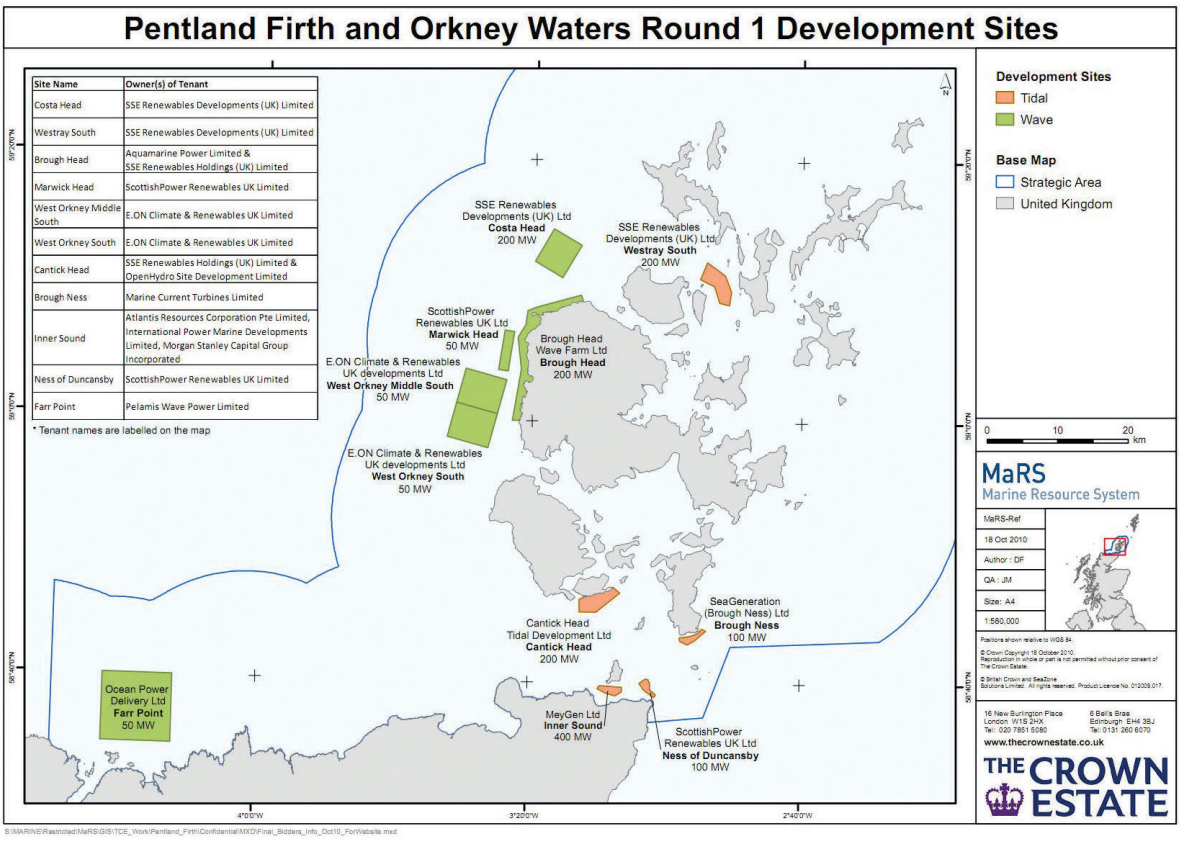
FIGURE 4.9 | PROPOSED PROJECTS TIMELINE



4.4.1 *MeyGen*

The Directors believe that MeyGen is the largest planned tidal stream energy project in the world at present, and its development would be an important milestone for the tidal energy sector. The Company first identified the Pentland Firth in Scotland as an attractive development site in 2007, following a global review of tidal resource. The Inner Sound, with its high flows in excess of 5 m/s, medium water depths and proximity to mainland Scotland, was considered to be the prime location for a tidal array and the Company conducted a campaign of resource measurements, stakeholder engagement and grid capacity reviews throughout 2008 and 2009. The Company also successfully lobbied The Crown Estate, owner of the seabed to twelve nautical miles offshore, to stage a seabed lease award process, as for offshore wind. The first round of this process was announced in September 2008, encompassing six wave and five tidal stream sites with a total capacity under the awarded agreements for lease of 1,600MW.

FIGURE 4.10 | THE CROWN ESTATE MARINE LEASING ROUND



The Inner Sound site, at 390MW, has almost twice the capacity of the next largest sites of 200MW each at Westray South and Cantick Head. An agreement for lease for this area of seabed was awarded to MeyGen in October 2010 by The Crown Estate following a competitive tendering process. This agreement is a contract granting the developer exclusive rights over the seabed for site investigations and other development purposes. To convert the agreement for lease to a lease, certain milestones are required to be achieved, details of which are set out at paragraph 9.2 of Part VII of this document. MeyGen will not achieve these milestones by the dates required. The Crown Estate is however aware of the progress MeyGen is making in relation to the MeyGen Project and these milestones and has confirmed that it is prepared to discuss an extension to these milestone deadlines and has no intention of terminating the AfL prior to these discussions, which are expected to be completed by no later than February 2014. Further details of the AfL (including details relating to the award of the AfL), are set out in paragraph 9 of Part VII of this document.

On award of the AfL, MeyGen was established as a joint venture between the Company, MSCGI and IPMDL with the sole purpose of developing the site to commercial fruition. The three shareholders funded the comprehensive project engineering and design, supply chain studies, engagement with contractors and preparation and submission of the required consents over almost three years.

In September 2013, MeyGen was awarded the final consents required for development of the first phase of the project. Following this award, the Company reached agreement with IPMDL and MSCGI to acquire their shares in MeyGen and take it forward to the construction phase. The acquisition, further details of which are set out in paragraph 9.2 of Part VII of this document, was completed in October 2013 and allows the Company to control the future stages of development of the MeyGen Project.

In parallel with the AR1500 deployment, MeyGen will continue with plans to install three turbines from Andritz Hydro Hammerfest in a mini-array at the Inner Sound, expected to be supported by grant funding from the Marine Energy Array Demonstrator fund administered by DECC and loan funding from The Crown Estate. The Andritz Hydro Hammerfest 1MW turbine has been successfully operating at EMEC during 2013 and so this dual supplier strategy for the first installation will provide risk reducing technology diversification whilst the Company's systems are proven in readiness for future project phases. It also ensures that the project can benefit from public and third party funding which has already been awarded. Andritz Hydro Hammerfest is also developing a 1.5MW turbine for the project. This turbine will reach its nameplate capacity in flows of 3.15m/s, and features a yaw drive, variable pitch system and dry mate connection.

History of MeyGen

2007

- Stakeholder engagement
- Initial review of flow in the whole Pentland Firth region
- Selection of Inner Sound site as optimum location

2008

- Stakeholder engagement
- Grid review
- Initial acoustic Doppler current profiler deployment for flow analysis in the Inner Sound
- Lobbying The Crown Estate for seabed lease award process
- Initial financial modelling of project economics
- MeyGen Limited incorporated as project company

2009

- Application to The Crown Estate for a 390MW seabed lease
- Concept design of the Inner Sound project
- Refined project financial modelling
- Further ADCP flow data collection and flow analysis leading to initial turbine array layout and optimisation
- Start of environmental baseline data collection including monthly bird and marine mammal surveys

2010

- Award of 390MW Inner Sound site AfL from The Crown Estate
- MeyGen Limited shareholder negotiations, including 15MW grid connection at Gills Bay
- Continuing stakeholder engagement and site baseline data collection

2011

- FEED for Phase 1 (86MW), including optimisation of turbine site layout for Phase 2
- Environmental baseline surveys and environmental impact assessment completed for Phase 1

2012

- 252MW of grid capacity secured
- Phase 1 consent applications submitted
- Procurement strategy defined
- Start of upgrade of Hastigrow-Gills Bay transmission lines to provide 15MW grid connection point in a new substation at Gills Bay (scheduled for mid-2014 commissioning)

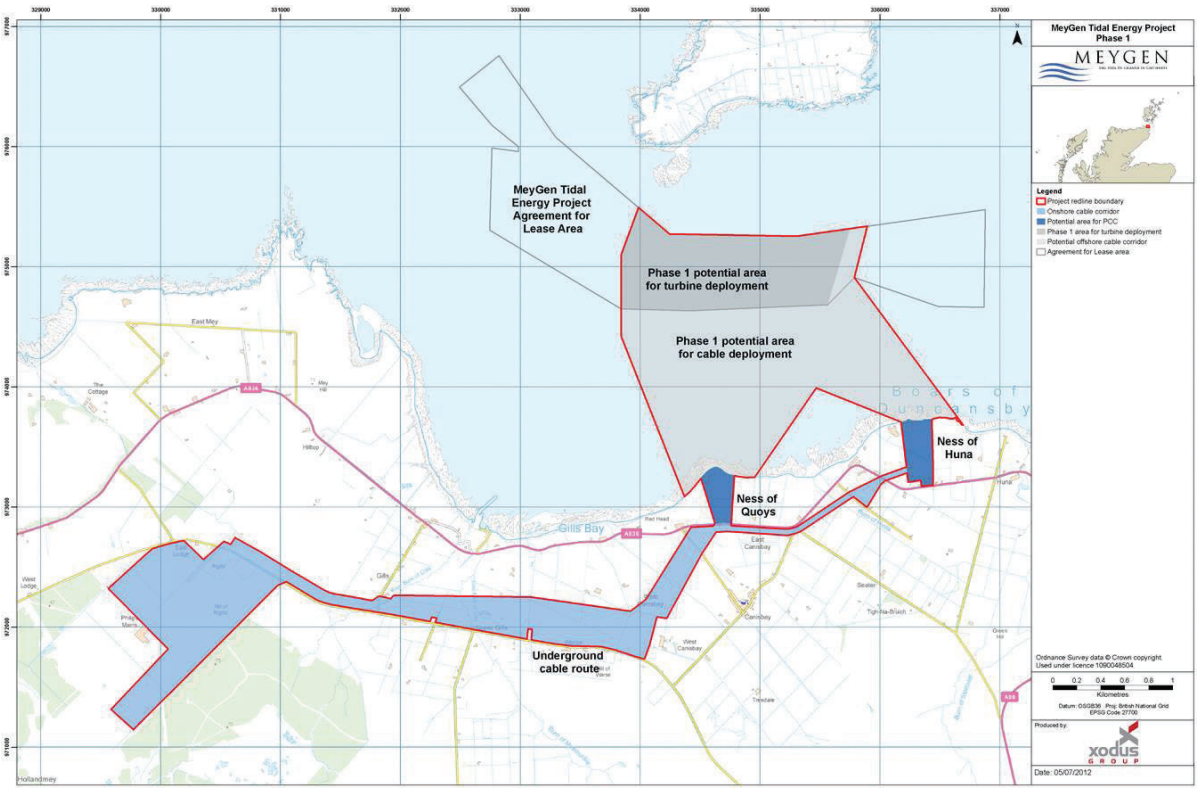
2013

- Conditional award of MEAD grant of £10 million from DECC
- Award of onshore planning consents for Phase 1
- Award of offshore planning consents for Phase 1
- Purchase by the Company of the shares in MeyGen owned by IPMDL and MSCGI.

Project Description

For the purposes of the consent application, the MeyGen Project is divided into two phases: Phase 1, comprising 86MW of installed capacity, and Phase 2, comprising the remaining 304MW. Both Phase 1 and Phase 2 are split into several sub-phases divided according to the proposed year of installation. The whole project area is 3.5 square kilometres comprising some of the fastest flowing waters in the UK, just 2km from Scotland's north-east tip. To the north of the site is the uninhabited island of Stroma, which creates a natural channel with the mainland to accelerate the millions of tonnes of water flowing between the North Sea and the Atlantic Ocean every day.

FIGURE 4.10 | PROJECT SITE, SHOWING OFFSHORE AND ONSHORE WORKS



The FEED, which was completed in December 2011, defined the Phase 1 project area, turbine layout and power export strategy, and shortlisted the two optimal onshore sites for accommodation of the power conversion centre and control buildings. Detailed design commenced in January 2012, and MeyGen formally submitted its application for consent for Phase 1 of the project in July of the same year, after almost four years of collection and processing of technical and environmental data for the site. During 2013, the project was awarded its onshore and offshore planning consents for Phase 1 and, crucially, MeyGen has also been successful in negotiating with Scottish Hydro Electric Power Distribution plc and National Grid Electricity Transmission plc to secure 252MW of grid capacity, to be delivered in phases from 2014 to 2019. An initial 15MW connection is expected to be available in 2014, followed by the remainder of the capacity in 2018 and 2019. Pursuant to MeyGen's grid connection agreement with Scottish Hydro Electric Power Distribution plc, MeyGen is to pay approximately £2.4 million for the provision of the connection. To date, approximately £1.1 million has been paid and the remainder is due to be paid upon certain milestones being achieved. If the connection is terminated or reduced within five years, MeyGen is liable to reimburse Scottish Hydro Electric Power Distribution plc approximately £0.9 million being a contribution made by Scottish Hydro Electric Power Distribution plc for providing the connection. Sufficient grid access can be a severe barrier to progress for projects remote from large consumers or strong transmission networks, and so this represents an important milestone on the road to delivery. Construction is now scheduled to commence in 2014, with the first turbines being deployed for commissioning in 2015. During 2016 the ETI system, incorporating the Company's AR1500 turbine, is expected to be installed at the site, and commercial deployments are planned to be put in train from 2017 onwards.

Phase 1A

In 2013, MeyGen was, in principle and subject to documentation, awarded £10 million in grant funding from the MEAD fund administered by DECC for the first turbine deployments of Phase 1, known as Phase 1A. This may be supplemented by a £10 million loan facility, currently under discussion with The Crown Estate, and funding from the proceeds of the Placing to fund the installation of an initial array of three 1.5MW turbines from Andritz Hydro Hammerfest at the Inner Sound site. In parallel, the Company's first AR1500 turbine is expected to be delivered for installation at the site in 2015. As the Company has the flexibility to incorporate more local supply chain elements than Andritz Hydro Hammerfest, discussions are underway with the Scottish government for funding to support delivery of the Company's AR1500 turbine. In total, approximately three quarters of the required capital expenditure for the four turbine array, budgeted at £41 million, is anticipated to be provided from external sources, (£10 million grant funding from DECC, a £10 million loan

from TCE and a £10 million loan from the Scottish government) but the Company will retain sole ownership. These external sources of funding are not yet committed. In the event that these external sources of funding are not forthcoming, the Directors will reconsider funding options for the project. In addition, on 29 December 2013, the Directorate-General for Energy of the European Commission confirmed the award of a European grant to Atlantis Operations (UK) Limited for up to €7,294,905 towards the development of the MeyGen Project further details of which are set out at paragraph 12.7 of Part VII of this document.

The electricity produced from the array and the associated ROCs will be sold under a power purchase agreement to generate revenue for MeyGen. Investors' attention is drawn to the risk factors in Part II of this document, and in particular the risk factor at paragraph 1.10 in relation to the funding of Phase 1A of the MeyGen Project.

Subsequent Phases

It is currently expected that approximately 12 months of operation from the first turbines in Phase 1A will be required prior to placing any orders for additional turbines for the remainder of Phase 1. This is necessary both to demonstrate the viability of the technology and to satisfy the regulatory authorities that the project does not have any significant detrimental impact on its environment. Phase 1B, the second tranche of turbines, is scheduled to be installed during 2017, and will be tailored to fit the balance of the initial 15MW grid connection which is due for commissioning during 2014. The remainder of the grid capacity is scheduled to become available in 2018 for Phase 1C and 2019 for Phase 1D, bringing the total Phase 1 capacity to 85.5MW. The Directors do not expect that the Company will retain full ownership of the MeyGen Project following completion of Phase 1A, but that it will sell down its equity holding and recycle the proceeds from such sale into early stage development of other projects.

The detailed design for Phase 2 of the project will be developed in parallel with the construction of Phase 1, and it is anticipated that the application for consent will be submitted to the Scottish government at the end of 2016.During this period, options for securing additional grid capacity beyond the existing 252MW will also be investigated.

4.4.2 *Fundy Ocean Research Centre for Energy*

The FORCE test site is located in the Minas Passage, a channel which connects the Minas Basin to Nova Scotia's Bay of Fundy in Canada.

FIGURE 4.11 | MAP OF MINAS PASSAGE IN NOVA SCOTIA'S BAY OF FUNDY

The Minas Basin experiences the highest tides in the world, and with each incoming tide an estimated 14 billion tonnes of sea water flows through the Minas Passage, creating rates of flow equivalent to all the world's fresh water rivers and streams combined. The current conditions of the permits for the test site limit the total capacity installed at any one time to 5MW but it is expected that as operating data accrues for those initial turbines, an application will be made to expand the consents. With this in mind, FORCE is installing four subsea cables with a combined capacity of 64MW to connect the subsea berths to the onshore grid. In 2011 Atlantis was awarded the right to undertake a tidal energy demonstration project at the FORCE tidal berth. The Company is proposing to undertake the project with Lockheed Martin and Irving

Shipbuilding Inc; however, before the project can commence Atlantis must obtain the necessary approvals and enter into a sub-lease with FORCE for the tidal berth. The key documents are currently under negotiation. The project was originally intended to commence in 2012, but in light of the fact that Atlantis is the only active party at the FORCE tidal berth, the Company does not consider the delay has jeopardised the project. The total capacity in the Minas Passage alone is estimated at several gigawatts and there is therefore the opportunity for significant expansion beyond the first AR1500, which subject to all approvals being obtained, is expected to be deployed in 2016. It is expected that several months of operating data would be required before subsequent turbine orders, and so commercial roll-out is unlikely to commence until 2018.

In 2013, it was announced that the Company had been conditionally awarded up to C$5 million in grant funding towards the project from SDTC, and it is intended that this funding will be used towards the installation of an AR1500 turbine at the FORCE berth in 2016 prior to build out of a commercial scale project in the Bay of Fundy under Nova Scotia's attractive power tariffs for tidal energy. A development tariff of C$530 per MWh has been set for the first 16,560 MWh of tidal stream energy produced from a project, dropping to C$420 per MWh thereafter. The conditions attached to the availability of the grant funding are set out at paragraph 12.4 of Part VII of this document.

4.4.3 *Mundra*

The state of Gujarat in north western India is working actively to exploit its significant resources of wind, solar and tidal energy to establish an international hub for renewable power. With the longest coastline of any Indian state and numerous inshore water management projects, Gujarat has the potential to develop tidal and hydrokinetic energy into substantial contributors to the electricity mix. Tidal power is well suited to Gujarat's distributed generation model, and the resultant job creation is aligned with India's broader inclusive growth agenda. The Gulf of Kutch and the Gulf of Khambhat have been identified as areas of rich offshore resource with good development potential, and since 2009, the Company has been working with GPCL to complete the concept design and consenting for a 250MW tidal current project in the Gulf of Kutch.

FIGURE 4.12 | PROJECT AREA IN THE GULF OF KUTCH

The primary development site is located towards the centre of the mouth of the Gulf of Kutch, fewer than 17km to the south of Mandvi Beach, which is adjacent to the proposed onshore site at Maska. The Ranwara Shoals, to the north of the site, create a shallow region through which flow is accelerated, resulting in ideal deployment conditions for the tidal turbines. The site experiences less extreme flows than, for example, the Pentland Firth (Scotland) and the Bay of Fundy (Canada).

In December 2009, the Company entered into a memorandum of understanding with Gujarat Power Corporation Limited to collaborate to investigate the establishment of tidal powered electricity generation projects in the state of Gujarat. Pursuant to the memorandum of understanding the Company undertook a technical and economic feasibility study of generating electricity from tidal flows in the Gulf of Kutch and the Gulf of Khambhat. The feasibility study indicated a significant and economically extractable resource in the Gulf of Kutch in particular, and recommended an initial 50MW project followed by a further 200MW project. The Company and GPCL are continuing to work together to progress the project, although as at the date of this document no formal development decision has been made. Further details of the project are set out at paragraph 9.7 of Part VII of this document.

The project has been well supported at state and national level. Gujarat Energy Transmission Corporation Limited has undertaken a preliminary load flow study to identify the necessary grid strengthening works and prepare a power evacuation scheme for the project. The Gujarat state government has awarded grant funding to GPCL to support FEED studies for the first 50MW of the commercial project and to enable a tariff to be set which will generate sufficient returns to attract investors. GPCL and the Company are now working to compile and submit the information required to substantiate the level of the required tidal power tariff. The Company currently anticipates that subject to the Company and GPCL formally agreeing to develop the project and all necessary consents, approvals and funding being obtained, the construction of the 50MW array would commence in 2016 with the installation of five initial turbines.

The project is currently the largest planned tidal array in Asia, and an important precursor to future development of other opportunities in the state, both offshore and inland. India, and the state of Gujarat in particular, is enacting an ambitious programme of incentives to increase renewable generation capacity to ensure a clean and secure energy future, and this renders it an attractive and important market for the Company.

4.4.4 *France*

Northern France is blessed with an abundance of fast moving tidal flows which have the potential to be harnessed for clean and sustainable electricity generation. It is estimated that 20 per cent. of Europe's total resource is located in these waters, and that there are between 5 and 14 terawatt hours of extractable energy flowing past Brittany and Normandy each year.

In May 2013 the Agence de l'Environnement et de la Maîtrise de l'Energie, the French government's department for environment and energy management, released a call for expressions of interest for projects demonstrating a technology innovation for marine energy. This was followed in October 2013 by a call for expressions of interest for the development of pilot projects of 4 to 10 devices in an open ocean environment. Public funding will be available to support these projects through a combination of grants, loans and feed-in tariffs for the electricity produced. Capital support of up to €30 million will be available for each pilot project, and the resulting electricity will be sold under a feed in tariff of €173 per MWh. The nominated sites for these pilot projects are Le Raz Blanchard and Le Passage du Fromveur.

FIGURE 4.13 | TIDAL ENERGY SITES IN NORTHERN FRANCE

The pilot projects would be installed and commissioned during 2016 and 2017, whereupon an invitation to tender will be launched for commercial development of the sites. The Company has signed a MoU with AREVA Renouvelables for exclusive cooperation in the call for expressions of interest for pilot projects and the subsequent invitation to tender for commercial scale projects. Under this MoU, the Company has responsibility for leading the response to the call and the tender, and AREVA Renouvelables will support the preparation of the responses, manage government stakeholders prior to and during the bidding process, and be responsible for the production of an industrial plan which details how the bid will bring socio-economic benefits to the region and to France. On award of a project, the Company would then contract AREVA Renouvelables to provide turbine assembly services from its new facility at Le Havre. Further details of the MoU are set out in paragraph 9.6 of Part VII of this document.

5. Strategic Relationships

5.1 *Lockheed Martin Corporation*

The Company has been working with Lockheed since 2009 on many aspects of turbine and system design, and Lockheed has been an important contributor to the successful first phase of the ETI TEC programme. In September 2013 the relationship was formalised with the signature of the Teaming Agreement which defines the roles which the two parties will carry out on an exclusive basis in the execution of tidal energy projects. Under this arrangement, Lockheed will be the supplier of design support services and certain system components for future projects, subject to conditions regarding commercial terms and eligibility. This will allow the Company to benefit from Lockheed's vast resource pool and supply chain influence, and enables Lockheed to secure a position in the growing tidal stream market. Lockheed will demonstrate its commitment to this market through the provision of US$10 million of project related services and in design and construction of certain components for the Company's AR1500 turbine to be deployed at the MeyGen Project in 2015.

This investment is to be structured as follows:

(a) US$3 million from the provision of engineering services for the AR1000 related yaw system development;

(b) US$5 million from the provision of engineering services and manufacturing for the AR1500 turbine system and nacelle, including the yaw drive, variable pitch system and other components for deployment and testing of the first AR1500;

(c) US$1 million from the provision of engineering services for systems integration for the AR1500; and

(d) US$1 million for business services to support the development of tidal energy projects generally.

Once extensively ocean tested, the components supplied by Lockheed are expected to benefit from a warranty provided by Lockheed. Further details on the Teaming Agreement are set out in paragraph 9.1 of Part VII of this document.

In addition to the design work to be undertaken by Lockheed under the Teaming Agreement, Lockheed and Atlantis have entered into the AR1500 Design Contract, pursuant to which Lockheed will undertake the detailed design and systems integration of the AR1500. Atlantis is to pay Lockheed approximately US$3.6 million in total for these services out of the proceeds of the Placing, structured as an initial payment of US$0.1 million and an advance payment of approximately US$1 million. Three further milestone payments of US$0.7 million, US$1.3 million and US$0.5 million will be due upon delivery of the system design disclosure, interim design disclosure and final design disclosure respectively. Further details on the AR1500 Design Contract are set out in paragraph 9.1 of Part VII of this document.

5.2 *Dongfang Electric Machinery Co.*

In 2012 the Company identified DFEM as an attractive candidate for low-cost manufacturing of turbines at commercial scale in order to meet a growing medium to long term order pipeline. Based in Deyang in the Sichuan province, DFEM is one of China's largest and most established manufacturers of electro-mechanical equipment, producing more than 35,000MW of capacity across its nuclear, steam, hydroelectric and wind turbine businesses in 2011 alone. It has established relationships with many multi-national companies, including GDF Suez S.A. and AREVA S.A., and is a wholly owned subsidiary of Dongfang Electric Corporation Ltd which is publicly listed in both Hong Kong and Shanghai. In 2013, DFEM and the Company signed a strategic agreement under which DFEM has agreed to a target price of US$3 million per unit for the first commercial AR1500 units to be supplied to the Company.

Under the strategic agreement, DFEM and the Company have also committed to work together to endeavour to secure turbine sales to CTGC's planned tidal project in Zhejiang Province. DFEM is already a preferred supplier of turbines to CTGC and is thus well positioned to secure orders for the project, the first phase of which is expected to be 30MW. The Company anticipates that an initial order for five AR1500 turbines could be made for delivery to CTGC in 2016.

The Company is now working with DFEM to agree a programme of upgrade works for the AR1000 turbine to be deployed at the China Demonstration Project by CECEP Ocean Energy in 2014, further information on which is set out below. This will give DFEM invaluable experience with the AR series turbine prior to construction of the AR1500 commercial units.

5.3 ***China Energy Conservation and Environmental Protection Group***

CECEP, established in 1988, is a Chinese state owned enterprise working to protect the environment through the conservation of energy, reduction of emissions and development of clean generating technology. CECEP has been a pioneer of China's growing wind energy industry, with 1.6GW of capacity installed or under construction. With 1.4GW of solar projects installed or under construction, CECEP plans to become one of the world's largest solar power producers by 2014.

China has a substantial tidal resource, estimated at almost 14GW of technically extractable capacity, approximately half of which can be found in Zhejiang Province, the site selected for the CECEP demonstrator turbine. China is anxious to take advantage of this natural resource and in 2010 the State Oceanic Administration announced a special fund of CNY 600 million (approximately £61 million), to be delivered in three rounds, for the advancement of marine energy technologies. From this programme, CECEP was awarded funding for a 1MW tidal stream demonstrator project.

In 2011 the Company was named as the successful turbine supplier following CECEP's international request for proposals. In September 2011 the Company and CECEP signed a MoU regarding collaboration on tidal power development in China, followed in December 2011 by a cooperation agreement describing the role of each party in the execution of a demonstration project in Zhejiang Province. The following November, the Company and CECEP Ocean Energy signed a supply agreement covering the turbine, advisory services and onshore equipment, including the power converter. Whilst the Company has received cash payment of approximately US$2 million for the onshore power conversion and control equipment, the turbine and advisory services will form the Company's contribution to the joint venture which is contemplated by the parties on successful completion of the demonstration project. This joint venture, in which CECEP would be the majority shareholder in accordance with regulations for state owned entities, would target development of further projects in China. Should the parties fail to agree a joint venture, CECEP may either pay the Company for the turbine, or retrieve it and return it to the Company at CECEP's expense if it has passed the acceptance tests, or if the turbine has not passed its acceptance tests, the Company would be required to retrieve the turbine at its own expense.

5.4 ***AREVA Renouvelables***

AREVA S.A. is the leading supplier of nuclear power solutions and, through AREVA Renouvelables, a growing presence in the renewable energy sector. It has developed its own offshore wind turbine and is contributing to France's pursuit of its targets for a growing proportion of renewable energy generation. The French government has also announced its ambitions with respect to marine energy, and AREVA Renouvelables now intends to make use of the supply chain synergies between offshore wind and tidal turbines to help realise these goals. AREVA Renouvelables is in the process of developing a new manufacturing facility for offshore wind turbines in Le Havre in northern France, and has signed a MoU with the Company under which AREVA Renouvelables will also use this plant for assembly of the Company's tidal turbines for projects in French waters. The two parties will also work exclusively together during the bidding process under the French government's marine leasing rounds for pilot and commercial projects.

6. Intellectual Property

The Directors are aware of the importance of patent protection, both for the defence of the Company's technology and for enhancing the commercial value of its products.

The Company's key intellectual property rights can be broadly categorised as patents and patent applications, trademarks and proprietary know-how and trade secrets primarily associated with its turbine technology.

The Company's intellectual property has been either developed by a member of the Group or a contractor and subsequently assigned to the Company, or has been developed by the Group's employees. In relation to intellectual property developed by employees, consultants and contractors, protection is afforded to the Company through its intellectual property assignment agreements which acknowledge that the Company will own all right, title and interest in any intellectual property and assigns such to the Company.

The Directors believe that the Company's patents, trademarks and other intellectual property are a source of value to the Company, and continue to seek to further develop and protect the Company's intellectual property assets.

Further details on the Group's patents and trademarks are set out in paragraph 10 of Part VII of this document.

7. Key Strengths

The Directors believe that the Company's key strengths can be summarised as follows:

- The Company is a significant player in an industry which can offer clean, predictable and sustainable electricity generation with minimal environmental and visual impact.
- The Company has already established a diverse portfolio of project development and turbine supply opportunities and is proactively originating projects to secure turbine sales and create shareholder value through project development. As the 100 per cent. owner of MeyGen, the developers of what the Directors believe to be the largest consented tidal stream power project in Europe, and with interests in projects in India and Canada, the Company is at the forefront of project development in the tidal stream industry and is thus well positioned to benefit from generous revenue subsidies on power sales. The Company's project development activity also acts as a barrier to entry for other turbine suppliers seeking sales opportunities in these attractive locations.
- The Company has successfully established strategic relationships with global partners to deliver its technology and projects. These include technology partner Lockheed, manufacturing partner DFEM, and project partners AREVA Renouvelables and GPCL.
- The Directors believe that the Company's technology and manufacturing relationships will enable it to offer flexible and competitively priced turbine solutions using supply chains tailored to each project. Unlike the majority of its competitors, it is not controlled by a large industrial player with fixed manufacturing bases but has instead selected a systems integration partner in Lockheed which will allow it to tailor supply chain solutions for each market. This facilitates fulfilment of local content requirements for specific projects and allows the Company to draw on its relationship with DFEM to reduce costs more rapidly and effectively than those turbine suppliers which are tied to European manufacture.
- The Directors and the senior management bring a wealth of experience, technical expertise and operational knowledge which the Directors believe positions the Company to successfully pursue its strategic objectives.

8. Current Trading and Prospects

Revenue in the year to 31 December 2013 was derived from the sale of equipment to CECEP Ocean Energy for its demonstration project in China, and from the provision of consulting services, including phase 1 of the ETI project referred to at paragraph 4.2.4 of this Part I. The Company's unaudited total revenue for the financial year ended 31 December 2013 is expected to be approximately S$6 million. The unaudited financial results for the Company for the six months ended 30 June 2013 are set out in Part IV of this document.

The Company's recent acquisition of the equity in MeyGen which it did not previously own gives the Company control of the entire MeyGen Project. During the engineering and consenting phase, the project has not generated any revenue from power sales. However, as the project matures, and turbine deployment commences, operating revenue is expected to accrue and the carrying value of the project is expected to have a significant effect on the Company's balance sheet in the short, medium and longer term. The unaudited financial results for MeyGen for the six months ended 30 June 2013 are set out in Part V of this document.

The Directors anticipate that the first phase of the MeyGen Project will receive financial support from DECC, through the MEAD fund, The Crown Estate and the Scottish government although none of this funding is yet committed. Phase 1A of the MeyGen Project is expected to cost £41 million, of which the Company expects to contribute approximately a quarter whilst retaining sole ownership.

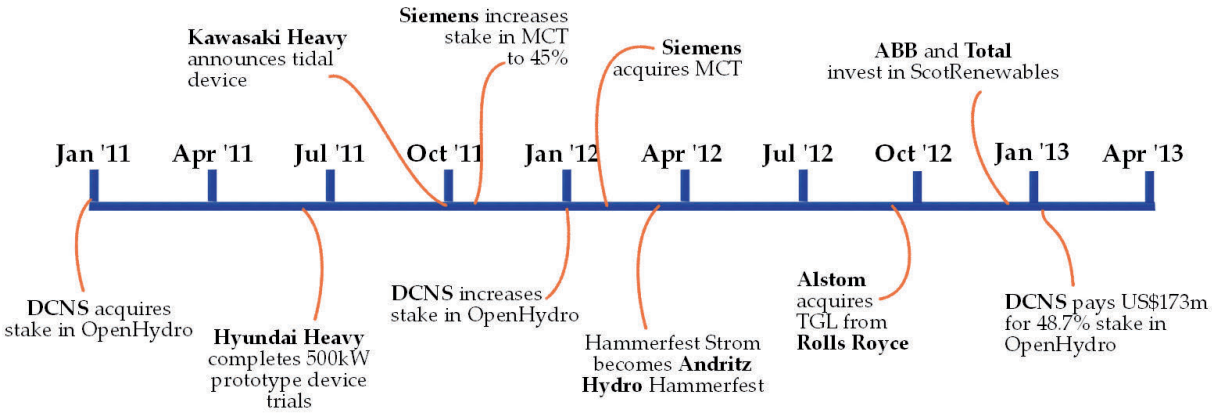
The Directors believe that there is also significant potential value attached to the Company's other projects under development or in planning, such as the deployment phase of the ETI project and the projects in India, Canada and France.

9. Competition

9.1 *Industry Overview*

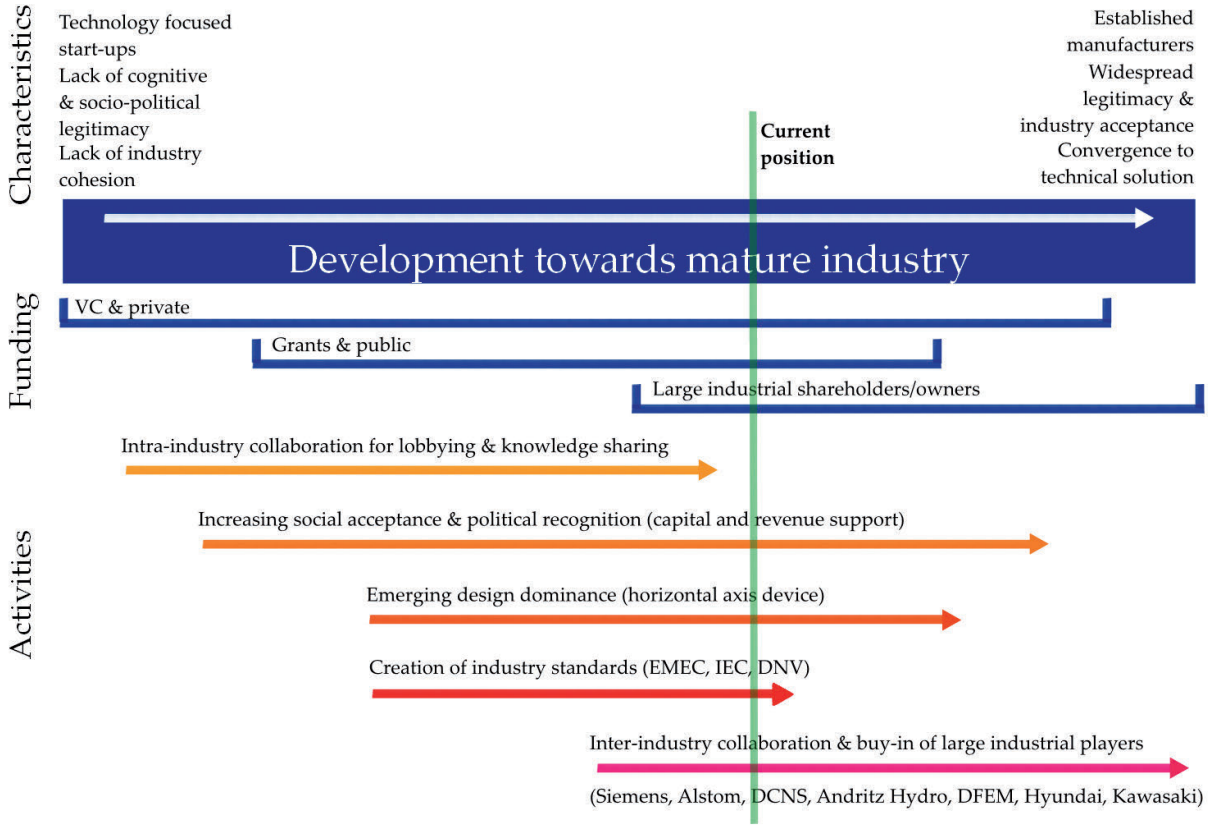
The tidal industry has matured significantly over the past two and a half years and become globally competitive with other alternative energies as large multinational engineering organisations have jostled to enter this new asset class of generation, taking majority stakes in technology developers or initiating internal turbine design programmes. As a result, the Directors note that there has been a significant level of M&A activity in the tidal power sector over the 24 months to January 2013, in particular. Following this activity, the Directors believe that the Company is one of the few late stage independent tidal technology companies that remain available for direct investment.

FIGURE 9.1 | INDUSTRY M&A ACTIVITY



The level of M&A activity is representative of a maturing industry, and tidal energy is following the typical development path shown in Figure 9.2.

FIGURE 9.2 | INDUSTRY DEVELOPMENT PROCESS



The Directors believe that there are eight technology developers who have currently installed or are planning to install a device of at least 1MW, including the Company. The competitor devices, as understood by the Directors from publicly available information, are described below.

9.2 ***Competitors***

9.2.1 *Alstom UK Ltd*

Most recent device	Alstom 1MW turbine
Rating of device	1MW at 2.6m/s
Location of deployment	EMEC, Scotland
Date of deployment	Installed January 2013, first power to grid in March and full power achieved in July 2013
Generation	130MWh generation to date from 1MW turbine and 250MWh from 500kW prototype installed from 2010-2012
Technology differentiators	The turbine is buoyant and can be towed out to the deployment site using a relatively small vessel. Once on site, it has to be winched down onto the foundation
Future turbines	None known
Projects planned	● 4 - 10MW pilot array reportedly scheduled for construction in 2014 – 2016 but no site information is available ● Up to 4 turbines expected to be deployed at the Scottish Power Renewables site in the Sound of Islay during 2015 and 2016
Ownership	Alstom UK Ltd

9.2.2 *Andritz Hydro Hammerfest*

Most recent device	HS1000
Rating of device	1MW
Location of deployment	EMEC, Scotland
Date of deployment	December 2011, exporting power in February 2012 and full power achieved in May 2012
Generation	800MWh generation to date from 1MW turbine which achieved 97 per cent. availability during a week of normal operation in 2013, and 1,500MWh from 300kW prototype turbine which was initially installed in 2003 and achieved 9,500 continuous operating hours and 98 per cent. availability between 2009 and 2011
Technology differentiators	1MW device has no yaw but the blades pitch through 180 degrees for bidirectional operation
Future turbines	1.5MW turbine is planned for MEAD project
Projects planned	● Up to 4 turbines (including some from Alstom UK Ltd) expected to be deployed at the Scottish Power Renewables site in the Sound of Islay during 2015 and 2016 ● MEAD project, Inner Sound (4.5MW) – deployment scheduled for 2015 ● Ness of Duncansby (95MW) – no deployment schedule available
Ownership	Andritz Hydro, Inversiones Financieras Perseo, the venture capital arm of Iberdrola S.A., Hammerfest Energi AS

9.2.3 *Kawasaki Heavy Industries Limited*

Most recent device	Kawasaki 1MW turbine
Rating of device	1MW
Location of deployment	EMEC, Scotland
Date of deployment	Scheduled for 2015
Generation	Not known
Technology differentiators	Not known
Future turbines	None known
Projects planned	None known
Ownership	Kawasaki Heavy Industries Limited

9.2.4 *Marine Current Turbines Ltd*

Most recent device	SeaGen
Rating of device	1.2MW (twin rotors)
Location of deployment	Strangford Lough
Date of deployment	2008
Generation	8,700 MWh generation to date from 1.2MW SeaGen in Strangford Lough
Technology differentiators	Surface piercing device with twin rotors
Future turbines	SeaGen 2.0MW (dry tested at NaREC)
Projects planned	● Kyle Rhea (<8MW) – in consenting ● Anglesey Skerries (<10MW) – construction scheduled to commence in 2014 and turbine installation in 2015 ● Brough Ness (100MW) – deployment scheduled to commence in 2017
Ownership	Siemens A.G.

9.2.5 *OpenHydro Group Ltd*

Most recent device	Open Centre Turbine
Rating of device	Not known
Location of deployment	Paimpol-Bréhat
Date of deployment	Repeated attempts since 2011
Generation	Cumulative operations of 4,000 hours from 250kW prototype at EMEC
Technology differentiators	Open centre turbine with direct drive generator
Future turbines	Not known
Projects planned	● Torr Head (100MW) – lease awarded with Bord Gáis in 2012 ● Brims Tidal Array (200MW) – consent application not yet submitted ● Admiralty Inlet (1MW) – consenting in progress
Ownership	DCNS S.A. is the controlling shareholder

9.2.6 *Scotrenewables Tidal Power Ltd*

Most recent device	SR250
Rating of device	250kW (twin rotors)
Location of deployment	EMEC, Scotland
Date of deployment	First power to grid in April 2012 and rated power achieved in November 2012
Generation	3 months of continuous grid connected operation in 2013
Technology differentiators	Floating device with twin rotors moored to seabed
Future turbines	SR2000 – 2MW turbine
Projects planned	● EMEC deployment of SR2000 ● Lashy Sound, Orkney Islands, (30MW) – initial 10MW planned for 2017
Ownership	Fred. Olsen Renewables, TOTAL S.A., ABB Technology Ventures

9.2.7 *Voith Hydro Ocean Current Technologies GmbH & Co. KG*

Most recent device	HyTide
Rating of device	1MW
Location of deployment	EMEC, Scotland
Date of deployment	Scheduled for 2013
Technology differentiators	No pitching or yawing
Future turbines	None known
Projects planned	None known
Ownership	Voith Hydro Holding GmbH & Co. KG, Innogy Renewables Technology Fund

Other technology developers include Hyundai Heavy Industries, Tocardo BV and Verdant Power. Whilst all the Company's main competitors have opted for horizontal axis turbines, there are differences in the technology offerings. Both Voith Hydro Ocean Current Technologies GmbH & Co. KG and OpenHydro Group Ltd are proponents of fixed pitch bidirectional blades, with a consequent sacrifice of efficiency and energy capture over the full flow distribution, in order to simplify the subsea plant to the greatest possible extent. The Alstom UK Ltd device is at the opposite extreme, containing even its complex power conditioning equipment in the subsea nacelle. Like the AR1500 and the Andritz Hydro Hammerfest HS1000, these turbines all have the advantage of being completely submerged and thus minimising any effect on the seascape and other site users. The MCT turbine, conversely, is surface piercing and therefore unsuitable for sites with particular sensitivities around vessel transit or visual impact. The floating Scotrenewables Tidal Power Ltd platform is similarly restricted.

To successfully compete with other turbine developers, the majority of which are controlled by large industrial entities, the Company plans to rely on a strategy of supply chain flexibility and lower cost. It has selected a system integration partner in Lockheed which will allow it to tailor supply chain solutions for each market. This facilitates fulfilment of local content requirements for specific projects and allows the Company to draw on its relationship with DFEM to reduce costs more readily than those turbine suppliers which are currently primarily tied to European manufacture.

9.3 ***Competitors' projects***

Project	Developer	Size (MW)	Country	Consent	Grid	First generation planned	Technology / OEM
Torr Head	Bord Gáis Energy	100	UK	Not yet awarded	Unknown	Unknown	OpenHydro
Sound of Islay	Scottish Power	10	UK	2011	Yes	2015	Alstom Andritz
Kyle Rhea	Siemens	8.0	UK	In progress	Connection study completed	Unknown	Siemens
Anglesey Skerries	Siemens	10	UK	Offshore consents awarded, onshore in progress	Secured for 2015	2015	Siemens
Paimpol Bréhat	EDF	2	France	2012	In progress	2014	OpenHydro
Admiralty Inlet	SnoPUD	1	USA	In progress	Unknown	2014	OpenHydro
Fair Head	DP Marine Deme Blue Energy	100	UK	Application to be submitted in 2014	Constrained	Unknown	Technology neutral
Brims	SSE Renewables	200	UK	Application to be submitted in 2014	Unknown	2019	OpenHydro
Ness of Duncansby	Scottish Power	95	UK	Scoping opinion received	Unknown	Unknown	Andritz

10. Board of Directors and Senior Management

10.1 ***Board of Directors***

John Neill, CBE, aged 66, *Non-Executive Chairman*

John joined Unipart Group of Companies from General Motors in 1974 and set out to establish a more independent and broadly based role for what was then British Leyland's Parts Division. In 1987 he led the management buyout of the company and began the process of changing not only the culture of the company but also the whole philosophy by which the business was run. He is a non-executive director of Rolls-Royce plc and was formerly a director of the Court of the Bank of England and a non-executive director of the Royal Mail and Charter International plc.

John was appointed Prince's Ambassador for the South East for 2009 by HRH The Prince of Wales.

Timothy Cornelius, aged 37, *Chief Executive Officer*

Timothy acquired a combination of academic, practical and commercial experience before taking the role of Chief Executive Officer of Atlantis in 2006. He accumulated a wealth of engineering and concept development experience through previous roles in underwater research and subsea engineering in the oil and gas sector with Submarine Escape and Rescue Service (Australia), Subsea Offshore, Halliburton Subsea and Subsea7, as well as business development and corporate accountability experience through director and executive roles.

Tim has a BSc in Marine Biology from Flinders University, an MBA from Bond University and remains a fully-certified submersible engineer, ROV pilot and commercial diver.

Duncan Black, aged 43, *Chief Financial Officer*

Duncan has 16 years of experience in the power generation and infrastructure sectors in senior operational and development roles, and as a fund manager, investment banker and engineer. Duncan's experience prior to joining Atlantis includes time as Chief Executive Officer of Babcock & Brown's Asia Infrastructure Fund LP, Chief Finance Officer of TRUenergy, one of Australia's largest power generator and retail businesses, and business development and finance roles with CLP Holdings Ltd and InterGen focused on power projects in Asia and Australia.

Duncan previously worked for Schroders Investment Bank, where he focused on project financing and M&A for power generation assets in Asia Pacific, prior to which he was an engineer for a UK construction firm.

Duncan graduated from Imperial College, London with a BEng (Hons) in Civil Engineering and PhD in Hydrodynamics.

Rune Nilsen, aged 44, *Non-Executive Director*

Rune has an MSc of Business and Economics from BI Norwegian Business School. He has worked at Statkraft since 1996, starting as a group controller and later heading the finance department in Innovation and Growth. Rune is currently working on a major project related to Statkraft's performance management and financial reporting systems. In addition to this he is engaged in projects related to Statkraft's osmotic power programme.

Ian Macdonald, aged 58, *Non-Executive Director*

Ian has been the President of Hong Leong Finance Ltd since February 2002. Hong Leong Finance Ltd is Singapore's largest finance company with a network of 28 branches island-wide.

Ian has been in the financial industry for more than 30 years and brings with him a wealth of experience in all aspects of financial services, particularly in the areas of business and consumer equipment financing.

Ian was formerly the National Manager of Business Finance at Australian Guarantee Corporation Limited, a subsidiary of Australian financial giant Westpac Banking Corporation.

Dr Mike Lloyd, aged 63, *Non-Executive Director*

Mike has more than forty years of experience in engineering, manufacturing and supply chain roles in the electrical machinery and power sectors. His senior leadership roles have included Group Manufacturing Director, President of Rolls Royce Gas Turbines Operations, Technical Director of GEC Large Machines and Managing Director of Alstom Transport. Mike is currently Chairman of Magnomatics, a venture capital-backed technology company, specialising in the development of innovative magnetic transmission drives for applications including wind turbines and hybrid vehicles. Mike is also a non-executive director of Ceres Power Holdings plc, Aerospace Tooling Ltd and RIMOR Ltd. He has a BSc in Electrical Engineering, a PhD in Electrical Machines and is a Fellow of the Royal Academy of Engineering.

John Woodley, aged 54, *Non-Executive Director*

John was previously co-head of the power and gas-related commodity business for Europe and Asia at MSCGI. He founded the very successful US electricity trading operations for MSCGI in New York in 1994. After ten years with MSCGI in New York, John moved to London to help build the electricity and electricity related energy business outside the US. John is now based in Switzerland and acts as a senior advisor to MSCGI.

10.2 ***Senior Management***

Drew Blaxland, *Chief Technology Officer*

Drew brings a wealth of experience to the Atlantis team in the fields of engineering management and design, asset management, business administration and financial modelling. Drew is from Sydney originally, and has spent a considerable portion of his professional career in the Balkans where he headed up the civilian United Nations engineering support to peace-keeping forces in Bosnia. He has an honours degree in Civil Engineering and an MBA from Bond University awarded with High Distinction.

Drew joined Atlantis in 2007. He has led the Atlantis technology development programmes from the AN and AS turbines through to the NaREC testing of the AR1000 and subsequent technology development relating to the AR1500 design programme and the ETI TEC programme.

Dan Pearson, *Chief Executive Officer of MeyGen*

Dan has extensive specialised experience in project development, financing and overall delivery of renewable energy projects. He has been involved in the successful development and commercial delivery of several renewable energy projects over more than a decade, including the Gunfleet Sands offshore windfarm in the UK and the Utgrunden offshore wind farm in Sweden. Dan has also had exposure to the underwriting and portfolio management of renewable energy investments throughout Europe.

Prior to joining Atlantis in 2009, Dan worked for The Crown Estate (Marine Estates), Enron Wind and General Electric. Dan has a BSc (Hons) in Marine Geography and an MSc in Offshore Marine Engineering from the University of Strathclyde.

11. The Placing

The Company is proposing to raise £12.0 million (before expenses) through a placing by N+1 Singer of 12,765,957 Ordinary Shares at a price of 94 pence per new Ordinary Share from new and existing shareholders.

N+1 Singer has entered into the Placing Agreement with the Company and certain of the Directors. Under the Placing Agreement, N+1 Singer has conditionally agreed, as agent of the Company, to use its reasonable endeavours to procure subscribers for the Placing Shares at the Placing Price.

The Placing is conditional, *inter alia*, on Admission taking place on or before 20 February 2014 (or such later date as the Company and N+1 Singer may agree, but in any event not later than 7 March 2014) and on the Placing Agreement becoming unconditional and not being terminated prior to Admission.

The Placing Shares will be issued credited as fully paid and will, on Admission, rank *pari passu* in all respects with the Existing Ordinary Shares including the right to receive all dividends or other distributions declared, made or paid after Admission. The Placing Shares to be issued by the Company pursuant to the Placing will represent approximately 16.6 per cent. of the Enlarged Share Capital. On Admission, at the Placing Price, the Company will have a market capitalisation of approximately £72.1 million.

Further details of the Placing Agreement are set out in paragraph 9.11 of Part VII of this document.

12. Reasons for Admission and Use of Proceeds

The net proceeds of the Placing receivable by the Company are expected to be approximately £10.6 million and are intended to be used as follows:

	£m
MeyGen expenditure	5.7
Atlantis corporate and operating expenditure	2.8
AR1500 design	1.1
AR1000 upgrade	1.0

The Directors believe that Admission will assist the Group in its development by (i) raising its profile in the renewables sector, (ii) providing investment to fund growth, (iii) increasing access to capital should further finance be required to expand the business of the Group, and (iv) incentivising existing and future employees. The Directors believe that funds to be committed to MeyGen by the Company, comprising capital costs and operations costs during construction, will, alongside grant funding from the MEAD fund administered by DECC, the Clearwater grant of €7,294,905 from the European Commission and funding from The Crown Estate and the Scottish government (currently under discussion), enable the first phase of the MeyGen Project to proceed and catalyse future deployments both in Scotland and abroad. It should however be noted that the funding from DECC, The Crown Estate and the Scottish government is not yet committed. A further use of funds from the Placing and the Clearwater grant is the completion of the detailed design for the AR1500 with Lockheed, which is scheduled for completion during the middle of 2014. Finally, the refurbishment of the existing AR1000 turbine will ready it for deployment at CECEP Ocean Energy's demonstration project in China, which the Directors believe to be an important milestone in the development of the Chinese tidal market.

13. Lock-ins and Orderly Market Agreements

Certain of the Directors and certain other existing shareholders including Morgan Stanley Renewables have undertaken to the Company and N+1 Singer to not, save in limited circumstances, dispose of any interests in Ordinary Shares for a period of 12 months from Admission and for a further 12 months thereafter to deal in their Ordinary Shares only through N+1 Singer. In aggregate, 40,125,375 Ordinary Shares representing 52.3 per cent. of the Enlarged Share Capital, will be subject to such arrangements.

Further details of these arrangements are set out in paragraphs 9.10 and 9.12 of Part VII of this document.

14. Share Incentive Arrangements

The Directors believe that the Company's success is highly dependent on the quality and loyalty of its employees. The Directors consider that to assist in the recruitment, retention and motivation of high quality staff, the Company must have an effective remuneration strategy and that an important part of this remuneration strategy is the ability to award equity incentives and, in particular, share options and share awards.

The Company has granted options over its Ordinary Shares to certain of its existing and former employees under the Share Option Plan. As at Admission, options over a total of 1,308,866 Ordinary Shares will be outstanding under the Share Option Plan representing 1.7 per cent. of the Enlarged Share Capital.

In addition, the Company has adopted the LTIP, pursuant to which options over Ordinary Shares have been granted to certain executives and non-executive directors conditionally on Admission. These LTIP awards vest as to one third on the first anniversary of the grant date, as to one third on the second anniversary of the grant date and as to the remaining one third on the third anniversary of the grant date and would, if they vest in full, result in the issue of a further 4,042,555 million Ordinary Shares representing 5.3 per cent. of the Enlarged Share Capital.

A summary of the terms of the Share Option Plan and the LTIP and further details of the options granted by the Company are set out in paragraphs 8.1 and 8.2 of Part VII of this document.

15. Admission, Settlement, CREST and Depositary Interests

Application will be made to the London Stock Exchange for all the Existing Ordinary Shares and the Placing Shares to be admitted to trading on AIM. It is expected that Admission will become effective and dealings in the Enlarged Share Capital will commence at 8.00 a.m. on 20 February 2014.

The requirements of the AIM Rules provide that the Company must, upon Admission becoming effective, have a facility for the electronic settlement of the Ordinary Shares. The shares of companies incorporated in England (and the shares of companies incorporated in certain other jurisdictions) which are quoted on AIM are settled through CREST, which is an electronic paperless share transfer and settlement system. The CREST system allows shares and other securities, (including Depositary Interests), to be held in electronic rather than paper form. However, with limited exceptions, only shares and other securities which are constituted under English law can be settled through the CREST system, regardless of the fact that they may be admitted to trading on AIM. As the Company is incorporated in Singapore its Ordinary Shares are not eligible to be held through CREST and, accordingly, the Company has established, via the Depositary, a depositary interest programme.

The Depositary Interests representing the Ordinary Shares will be issued to the individual Shareholders' CREST account on a one for one basis and with the Depositary providing the necessary custodial service. The Depositary Interests are themselves independent securities constituted under English law and can be traded and settled within the CREST system in the same way as any other CREST security. The Shareholders have the choice of whether to hold their Ordinary Shares in certificated form or in uncertificated form in the form of Depositary Interests. Shareholders who elect to hold their Ordinary Shares in uncertificated form through the Depositary Interest facility will be bound by a deed of trust.

The Company's share register, which will be kept by the Registrar, will show the nominee company, Capita IRG Trustees (Nominees) Limited, as the holder of the Ordinary Shares represented by Depositary Interests but the beneficial interest will remain with the Shareholders who will continue to receive all the rights attaching to the Ordinary Shares as they would have if they had themselves been entered on the Company's share register. Shareholders can withdraw their Ordinary Shares back into certificated form at any time using standard CREST messages. Transfers of Depositary Interests are subject to stamp duty reserve tax.

CREST is a voluntary system and holders of Ordinary Shares who wish to receive and retain share certificates will be able to do so. It is expected that, where Placees have asked to hold their Ordinary Shares in uncertificated form, they will have their CREST accounts credited with Depositary Interests on the day of Admission. Where Placees have requested to receive their Ordinary Shares in certificated form, share certificates will be despatched by first-class post within ten Business Days of the date of Admission. No temporary documents of title will be issued. Pending the receipt of definitive share certificates in respect of

the Placing Shares (other than in respect of those Placing Shares settled via Depositary Interests through CREST), transfers will be certified against the Company's share register.

The ISIN number of the Ordinary Shares is SG9999011118. The TIDM is ARL.

16. Dividend Policy

It is the intention of the Directors to achieve capital growth for Shareholders. The Directors therefore intend to retain any future profits in the Company for reinvestment in the business and, accordingly, are unlikely to declare dividends in the foreseeable future. However, the Directors will consider the payment of dividends, subject of the availability of distributable reserves, when they consider it is appropriate to do so.

17. Corporate Governance and Board Practices

The Directors acknowledge the importance of high standards of corporate governance. The Corporate Governance Code, published by the Quoted Companies Alliance in May 2013, sets out a minimum best practice standard for small and mid-size quoted companies, particularly AIM companies.

The Directors intend to comply with the requirements of the Code to the extent that they consider it appropriate and having regard to the Company's size, board structure, stage of development and resources. Upon Admission, the Board will consist of 7 directors, 5 of whom will be non-executive Directors.

Following Admission, the Board will meet at least 4 times a year to review, formulate and approve the Company's strategy, budget, corporate actions and major items of capital expenditure. The Board has established an audit committee, a remuneration committee, a nomination committee and a technology committee, with formally delegated duties and responsibilities and each with written terms of reference. Each of these committees will meet as and when appropriate save in the case of the remuneration and audit committees which will meet at least twice each year.

17.1 ***Audit Committee***

On Admission, the audit committee will be comprised of Ian Macdonald, John Woodley and Rune Nilsen and will be chaired by Ian Macdonald. The audit committee will have the primary responsibility for monitoring the quality of internal controls to ensure that the financial performance of the Company is properly measured and reported on. The audit committee will, *inter alia*, determine and examine matters relating to the financial affairs of the Company including the terms of engagement of the Company's auditors and, in consultation with the auditors, the scope of the audit. It will receive and review reports from management and the Company's auditors relating to the half yearly and annual accounts and the accounting and the internal control systems in use throughout the Company. The audit committee will have unrestricted access to the Company's external auditors.

17.2 ***Remuneration Committee***

On Admission, the remuneration committee will be comprised of John Neill, John Woodley and Mike Lloyd and will be chaired by John Neill. The remuneration committee will review the performance of the executive Directors and make recommendations to the Board in respect of the Directors' remuneration and benefits packages, including share options and the terms of their appointment. The remuneration committee will also make recommendations to the Board on proposals for the granting of share options and other equity incentives pursuant to any employee share option scheme or equity incentive plans in operation from time to time. In exercising this role, the Directors shall have regard to the recommendations put forward in the Code and, where appropriate, the QCA Remuneration Committee Guide and associated guidance.

17.3 ***Nomination Committee***

On Admission, the nomination committee will comprise of John Neill, John Woodley and Mike Lloyd and will be chaired by John Neill. The nomination committee will have responsibility for reviewing the structure, size and composition (including the skills, knowledge and experience) of the Board and giving full consideration to succession planning. The nomination committee will also have responsibility for recommending new appointments to the Board and to the other Board committees. It will be responsible for identifying suitable candidates for board membership and monitor the performance and suitability of the current Board on an on-going basis.

17.4 ***Technology Committee***

On Admission, the technology committee will comprise of Michael Lloyd, Rune Nilsen and John Woodley and will be chaired by Michael Lloyd. The technology committee will monitor and report on the status and development of technology within the Group, including reviewing the effectiveness of the Group's engineering, ensuring that the development of the Group's core technology is in accordance with the Company's business objectives and monitoring the Group's intellectual property. The committee will report to the Board on these aspects and will make such recommendations as it deems appropriate.

18. Share Dealing Code

The Company has adopted, with effect from Admission, a share dealing code for the Directors and certain employees, which is appropriate for a company whose shares are admitted to trading on AIM (particularly relating to the restrictions on dealings during close periods in accordance with Rule 21 of the AIM Rules for Companies) and the Company will take all reasonable steps to ensure compliance by the Directors and any relevant employees.

19. Taxation

Information regarding taxation is set out in paragraph 19 of Part VII of this document.

Investors who are in any doubt as to their tax position or who are subject to tax in jurisdictions other than the UK are strongly advised to consult their own independent financial adviser.

20. Applicable Takeover Code

As the Company is incorporated in Singapore it will not be subject to the City Code and accordingly Shareholders will not be afforded any protections under the City Code. However, Shareholders will have the benefit of the protections afforded by the Singapore Code. The Singapore Code is broadly similar to the City Code. A summary of certain provisions of the Singapore Code is set out in paragraph 20 of Part VII of this document.

21. Shareholder Notification and Disclosure Requirements

Shareholders are obliged to comply with the shareholding notification and disclosure requirements set out in the Articles. A summary of the notification requirements under the Articles is set out in paragraph 4 of Part VII of this document.

22. Further Information

Prospective investors should read the whole of this document which provides additional information on the Company and the Placing and not rely on summaries or individual parts only. Prospective investors' attention is drawn, in particular, to the Risk Factors set out in Part II of this document and the additional information set out in Part VII of this document.

PART II

RISK FACTORS

Any investment in the Ordinary Shares is subject to a number of risks. Accordingly, prospective investors should carefully consider the risks set out below in addition to all of the other information set out in this document before making any decision to invest in the Ordinary Shares. The Group's business, financial condition, results of operations and prospects could be materially and adversely affected by any or a combination of the risks described below. Additional risks and uncertainties relating to the Group's business that are not currently known to the Directors, or that the Directors currently deem immaterial, could also have a material adverse effect on the Group's business, financial condition, results of operations or prospects. If any such circumstances were to occur, the trading price of the Ordinary Shares could decline and investors could lose all or part of their investment. Prospective investors should consider carefully whether an investment in the Ordinary Shares is suitable for them in light of the information in this document and their personal circumstances. If prospective investors are in any doubt about any action they should take, they should consult a competent independent professional adviser authorised under FSMA who specialises in advising on the acquisition of securities traded on AIM before making any investment decision.

1. Risks relating to the Group

1.1 ***The Group has a limited history of operations***

Although the Company's management has experience in the Group's operating regions, the Group's business was only established in 2005. As a result, the Group has a limited operating history upon which prospective investors may assess its future performance. Prospective investors do not have the same level of historical operating information on which to base their investment decision as would be available with respect to a more established company. The Group's prospects must be considered in light of the risks, expenses and difficulties frequently encountered by companies in early stage of operations in markets that are often quickly evolving. If the Group is unable to successfully address or manage such risks, expenses or difficulties, this could have a material adverse effect on the Group's business, prospects, financial condition and results of operations, and the trading price of the Ordinary Shares.

1.2 ***There can be no certainty that the Group will achieve or sustain significant revenue***

Although the Directors have confidence in the Group's future revenue earning potential, as the Group's business is at an early stage of development there can be no certainty that the Group will achieve or sustain significant revenue, profitability or positive cash flow from its operating activities. This could impair the Group's ability to sustain operations or secure any required funding.

1.3 ***The future performance of the Company cannot be guaranteed***

There is no certainty and no representation or warranty is given by any person that the Company will be able to achieve any returns referred to in this document. The financial operations of the Group may be adversely affected by general economic conditions, by conditions within the global financial markets generally or by the particular financial condition of other parties doing business with the Group.

1.4 ***The Company's ability to pursue its strategy could be impacted by adverse global economic conditions***

Any economic downturn either globally or locally in any area in which the Group operates may have an adverse effect on the demand for the Group's products and services and the ability of the Directors to deliver against the Company's business plan.

In addition, although signs of economic recovery have been perceptible in certain countries, the sustainability of a global economic upturn is not yet assured. If global economic conditions remain uncertain, the Group itself might see lower levels of growth, which might have an adverse impact on the Group's operations and business results.

A more prolonged global economic downturn may restrict the Group's ability to realise a profit. The markets in which the Group offers its services are directly affected by many national and international factors that are beyond the Group's control.

1.5 ***The Company's ability to pursue its strategy could be impacted by changes in social and political factors***

The Company's ability to pursue its strategy may be affected by changes in social and political factors in the markets in which the Group currently operates or expects to operate. If such changes were to materialise the Directors may decide to change certain aspects of the Company's strategy. This may entail the development of alternative products and services, which could place additional strain on the Company's capital resources and may adversely impact on the revenue and profitability of the Group.

1.6 ***The Company's turbine technology is to a degree untested, may be subject to failures or may not operate to the performance standards anticipated***

The Company is involved in a business where its turbine technology is to a degree untested and in an industry which is at an early stage and which is developing. The AR1500 is currently in the design phase and neither the AR1000 nor the AR1500 have yet been deployed for significant periods of operation. There can therefore be no assurance that they will achieve their design life targets. The turbines being developed by the Group may be subject to failures and/or they may not achieve or operate to the performance standards that are anticipated by the Directors. A failure of the Group's turbine technology will damage the Group's reputation and will have a material adverse effect on the Group's financial condition, results of operations and prospects. Investors' attention is drawn to the independent expert's report prepared by Ricardo-AEA on the performance characteristics of the Company's AR series of turbines, which is set out in Part III of this document.

1.7 ***The Group is likely, in the future, to need to raise additional capital and the ability of the Company to pursue its strategy may be adversely impacted if it does not succeed in raising additional capital***

Whilst the Directors are satisfied that the working capital available to the Group will, from Admission, be sufficient for its present requirements, it is likely that the Group will need to raise additional capital in the future to pursue its business objectives. In particular, the Company's projects identified at paragraph 4 of Part I of this document will require further sources of funds if the development of the projects are to be progressed. There can be no guarantee that the Company will be able to raise the additional funds required to support these projects or the future growth of its business or that if it can raise such funds that they will be raised on commercially acceptable terms. The Group may need to raise additional capital from equity or debt sources. Any material change in market liquidity, the availability or the costs of wholesale funding could adversely impact the Group's ability to source the levels of funding required. If the Company is unable to obtain financing on terms acceptable to it then it may be forced to curtail its currently contemplated strategy which could have a material adverse effect on the Group's business, financial condition and operating results.

1.8 ***The MeyGen Project may cost significantly more than anticipated due to unforeseen challenges and difficulties***

The total cost of deploying the initial turbines in Phase 1A of the MeyGen Project (one AR1500 and three turbines from Andritz Hydro Hammerfest) in a mini array is estimated at approximately £41 million. However, in light of the fact that the MeyGen Project is still at an early stage, and the Company's AR1500 turbine is still in the design phase, the development of the MeyGen Project may cost more than expected and take longer to develop due to unforeseen challenges and difficulties.

1.9 ***The currently targeted timetables to connect the MeyGen Project turbines to the grid may get delayed***

The MeyGen Project has three grid connection agreements which are key to the offtake of the electricity to be generated. The currently targeted timetables to connect the MeyGen Project turbines to the grid may be delayed or there may be other changes requested or required and although there is a typical contractual mechanism for the parties to agree a variation to the timetable or other variations, such variation may not be agreed and if the dispute resolution process was followed to resolve such, an adverse decision would allow the termination of these connection agreements and so remove the power offtake capabilities of the MeyGen Project. Furthermore changes in law could adversely affect the terms or currently planned method upon which electricity is to be off-taken which could cause

material cost increases or delays to the offtake of electricity from the MeyGen Project. These events could have a material adverse effect on the Group's business and financial condition.

1.10 ***Phase 1A of the MeyGen Project is dependent upon MeyGen obtaining further sources of funding***

Phase 1A of the MeyGen Project is budgeted to cost £41 million. In total approximately three quarters of the funding is anticipated to be sourced from external sources including the DECC grant referred to in the risk factor described at paragraph 1.27. In addition, the Company is in discussions to supplement the grant funding with a loan facility of £10 million from The Crown Estate and funding of £10 million from the Scottish Government. If the external sources of funding are not forthcoming, the MeyGen Project would be delayed, and MeyGen may not be able to achieve the key milestones to allow the MeyGen Lease to be granted to it, any of which could have a material adverse effect on the Company's business, financial condition, operations and prospects.

1.11 ***The Group's projects are all at an early stage of development and therefore may never be developed***

The Group's projects are all at an early stage of development. As a result some or all of the projects may not meet their objectives or may otherwise never be developed. A failure of the Group to bring its projects into operation would reduce the sources of revenues available to the Group which would have a material adverse effect on the Company's business, operations, financial condition and prospects.

1.12 ***The Group is subject to risk from competitors who have greater capital and other resources than the Company***

The ability of the Company to pursue its strategy may be impacted by changes in the competitive environment in the markets in which the Group currently operates or expects to operate. Given the potential for growth in the renewable energy market, it is likely that the Group will face increasing competition from businesses which may have greater capital and other resources in both the tidal energy business and in other types of renewable energy. There is no assurance that the Group would be able to compete successfully in such market conditions. If the competitive environment in these markets was to increase significantly, this could have a material adverse effect on the Group's operations, financial condition and operating results.

1.13 ***The Group is subject to the risk that the current regulatory climate in which it operates may change***

The profitability of renewable energy facilities will be in part dependent upon the continuation of a favourable regulatory climate with respect to the continuing operations and the future growth and development of the independent power industry and environmentally preferred energy sources.

The EU Renewables Directive (the "**Directive**") has established Europe as the leading region for renewable energy investment. Pursuant to the Directive, the UK government has passed regulations to promote the generation of electricity from renewable sources (the "**Renewable Obligation**") which require licensed electricity suppliers to source specified percentages of electricity from renewable sources. Should the current governmental regulations or incentive programmes be modified, tidal power facilities and other renewable energy facilities may be adversely affected, which may have a material adverse effect on the returns to the Group. In particular, if production tax credits were to become unavailable to the owners of tidal power facilities, or the Renewable Obligation or country equivalent schemes were withdrawn as a result of a change in applicable legislation and not replaced with economic alternatives, the ability of the owners of tidal power facilities and/or borrowers to pay interest and principal on tidal power loans may be adversely affected, which could adversely affect the returns to the Group.

In other countries within which the Group operates, or may operate, there may be similar laws, regulations or incentive programmes in place which promote the generation of electricity from renewable sources. Should such laws, regulations or incentive programmes be modified, the Group's operations may be adversely affected, which may have a material adverse effect on the returns to the Company.

Certain countries in which the Group operates continue to negotiate and extend the international climate change regime established under the UN Framework Convention and the Kyoto Protocol. Any changes to the International Climate Change regime (dealing, for instance, with the legal status of emissions credits or their 'bankability' over different commitment periods) will need to be reflected as appropriate in legislation. Operations conducted under this on-going legislative process could give rise to political/sovereign risks where the on-going approval of a host country is needed for a project, in the same way as for any type of foreign direct investment.

1.14 ***The Group's business is subject to regulation with which it may be difficult to comply and which may change***

The international nature of the Group's operations means that it is subject to the national laws and regulations of a number of jurisdictions, including laws and regulations relating to health and safety and environment ("**HSE**") and pricing of electricity. In addition, the Group will be subject to laws in the relevant jurisdictions affecting foreign ownership, government participation, taxation, royalties, duties, rates of exchange and exchange control. The Group may incur substantial costs in order to maintain compliance with the existing laws and regulations, and failure to operate in strict compliance with applicable regulations may expose the Group to claims, costs and possible enforcement actions. The Group may incur additional compliance costs if any relevant laws and regulations are revised or if new laws and regulations affecting the Group's operations are passed.

1.15 ***The Group's operations expose it to significant compliance costs and liabilities in respect of environmental and/or health and safety matters***

The Group's operations and assets are affected by numerous international and national laws and regulations concerning HSE. These may include a wide variety of matters, such as prevention of waste and pollution, protection of the environment, labour regulations and worker safety. The technical requirements of these laws and regulations are becoming increasingly complex, stringently enforced and expensive to comply with and this trend is likely to continue. Furthermore, these laws and regulations may change in a manner which may require stricter or additional standards than those currently in effect and a heightened degree of responsibility for companies and their directors and employees. The failure to comply with current or future HSE laws and regulations may result in regulatory action, the imposition of fines or the payment of compensation to third parties, each of which could in turn have a material adverse effect on the Group's reputation, business, financial condition and results of operations.

1.16 ***The Group may become involved in legal proceedings based on environmental, health, public liability and safety issues and related matters***

As a result of the nature of the Group's business, it may become involved in a variety of legal proceedings based on environmental, health, public liability and safety issues and other related matters.

There can be no guarantee that in the future the Group's operations will not be considered a source of nuisance, pollution or other environmental harm or that claims will not be made against the Group in connection with its operations and their effect on the natural environment. This could lead to increased cost of compliance and/or abatement of power generation activities at the affected facilities. Any successful third-party claim could materially hinder the Group's operations, damage its reputation and/or result in the imposition of penalties or substantial liabilities, which could have a material adverse effect on the Group's business, prospects and financial condition.

1.17 ***The Group is subject to the risk of labour disputes and adverse employee relations***

The Group's contractors or service providers may be limited in their flexibility in dealing with their staff due to the presence of trade unions among their staff. If there is a material disagreement between contractors or service providers and their staff belonging to trade unions, the Group's operations could suffer an interruption or shutdown that could have a material adverse effect on its business, results of operations or financial condition.

1.18 ***The Group is subject to the risk that it may fail to obtain or maintain key licences, consents, permits or exemptions***

In order to develop its tidal energy projects around the world and conduct its operations in compliance with applicable laws and regulations, the Group will need to obtain and maintain numerous licences, consents, permits or exemptions from various government authorities and agencies. There can be no assurance that the Group will be able to obtain or maintain all necessary licences, consents, permits or exemptions that may be required to carry out its operations.

Any failure by the Group to obtain or maintain necessary licences, consents, permits or exemptions could result in a breach of applicable regulatory requirements or may prevent or restrict the Group's operations either of which could adversely affect the Group's operating and financial performance.

In particular, the Group has obtained various consents and licences in relation to the development of Phase 1 of the MeyGen Project. The loss of any such licences or the inability of the Group to comply with the terms of the licences would prevent the MeyGen Project from being developed, which would have a material adverse effect on the Group's business, financial condition and prospects.

1.19 ***The Group is subject to the risk of claims, fines or other actions for any breach of applicable laws and regulations***

Any breach by the Group of any applicable law or regulation in any country within which it operates could result in regulatory action, the imposition of fines or the payment of compensation to third parties, each of which could in turn have a material adverse effect on the Group's reputation, business, financial condition and results of operations.

1.20 ***The prices of wholesale electricity and other forms of energy are volatile and a decrease in wholesale electricity prices may adversely affect the Group's financial performance***

The price of wholesale electricity is volatile and subject to fluctuation. The price of wholesale electricity and other forms of energy may be determined by governmental organisations in the countries where the Group operates and such determinations may be based on political preferences which may be adverse to the Group's business interests. Governmental organisations may also indirectly affect or control the prices of other forms of energy which may result in the Group's business proposition becoming less competitive.

In liberalised markets such as the UK the market price of electricity is volatile and is affected by a variety of factors, including market demand for electricity, the generation mix of power plants, government support for other forms of power generation, as well as fluctuations in the market prices of commodities and foreign exchange.

Any material decline in wholesale electricity prices could result in a reduction of the Group's financial performance. It is impossible to predict accurately wholesale electricity price movements. Accordingly, wholesale electricity prices may not remain at their current levels. Future demand for the Group's turbines may be affected by fluctuations in wholesale electricity prices and the associated costs with buying in a volatile market place.

1.21 ***The Group's financial performance is subject to market demand for electricity***

The financial performance of the Group is, to a large extent, dependent on electricity demand in the locations where it has or is expected to have operations. A material decrease in such demand could have a material adverse effect on the Group's financial performance.

1.22 ***The Group's business could be adversely affected if it is unable to maintain relationships with contractors and suppliers***

The Company relies and will in future rely on relationships with a relatively small number of partners, manufacturers and suppliers for the development of its business and will continue to be reliant on third parties for further development. In relation to its suppliers, the Group has a number of significant relationships. For example, the Group is party to a number of contracts with third parties which are material to the development of the Group, details of which are set out in paragraph 9 of Part VII of this document.

The construction of tidal projects is likely to result in reliance upon the services delivered by one or more contractors. Furthermore, it is likely that the Group will develop relationships with certain contractors over time (for example, due to the quality of their work) and therefore rely on certain contractors over others. There is no guarantee that the Group will be able to replace any material manufacturer, supplier, or contractor in a timely manner or at all in the event that any of these relationships is discontinued or terminated. If the Group is unable to negotiate favourable contracts with manufacturers or suppliers or if any of them is unable to fulfil its obligations, or discontinues business with the Group, and if the Group is unable to find suitable replacements, the Group's business, prospects, and financial condition may be adversely affected.

1.23 ***The Group depends on a number of third parties for the operation of its business***

The Group is and will be reliant on relationships with a number of key third parties who provide or will provide products and services to the Group including power generators, power suppliers, power transporters and power distributors. The Group is or will be reliant on these third parties to perform their services in accordance with the terms of their contracts, which increases the Group's vulnerability to problems with the products and services they provide. The Group may not be successful in recovering any losses which result from the failure of third party suppliers to comply with their contractual obligations. Any significant disruption in the supply of products and services to the Group, or the inability to negotiate reasonable terms of renewal, or find suitable replacement suppliers if the relevant agreements expire or are terminated, could have a material adverse effect on the Group's reputation, business, financial condition and results of operations.

1.24 ***Atlantis is party to certain material agreements with Lockheed Martin, the termination of which would have a material adverse effect on the Group***

The Company has entered into a number of agreements with Lockheed Martin including the Teaming Agreement and the AR 1500 Design Contract. Under the Teaming Agreement, Atlantis and Lockheed Martin have agreed to work together on an exclusive basis to develop projects throughout the world related to the production of electrical energy from free stream tidal currents and to design tidal turbine systems. Subject to certain conditions, Lockheed Martin has agreed pursuant to the Teaming Agreement to invest US$10 million in the provision of project related services. A change of control of Atlantis and termination decision by Atlantis as a result thereof will trigger an obligation for Atlantis to pay Lockheed Martin US$10 million under the Teaming Agreement.

Under the AR1500 Design Contract, Lockheed Martin will design components for the AR1500 and will act as systems integrator with Atlantis's other contractors. Further details of the Teaming Agreement and the AR1500 Design Contract are set out in paragraph 9.1 of Part VII of this document.

Certain of Lockheed Martin's obligations under the Teaming Agreement and the AR1500 Design Contract are subject to certain conditions being satisfied, and both agreements can also be terminated in certain circumstances, further details of which are set out in paragraph 9.1 of Part VII of this document. The Directors consider both the Teaming Agreement and the AR1500 Design Contract to be material to the Group. Accordingly, if either agreement is terminated, or the conditions to certain of Lockheed Martin's obligations are not satisfied, or Lockheed Martin fails to perform its obligations pursuant to the agreements, then this would have a material adverse effect on the Group's business, financial condition and prospects.

1.25 ***Members of the Group are subject to material contracts, the termination of which could have a material adverse effect on the Company***

Aside from the contracts with Lockheed Martin described in the risk factor at paragraph 1.24 above, the Group has entered into various other agreements with partners, suppliers and other parties which the Directors regard as material to the success of the Group's business, details of which are set out in paragraph 9 of Part VII of this document. These agreements are subject to be terminated in certain circumstances if milestones are not achieved in a timely manner and in other circumstances. The termination of any such contracts through the failure of conditions, non-performance on the part of members of the Group or the counterparties to such contracts could have a material adverse effect on the Company's business, financial condition, operations and prospects.

1.26 ***The MeyGen Lease for the MeyGen Project is subject to certain milestones being achieved in a timely manner***

MeyGen has been granted an agreement for lease by The Crown Estate Commissioners in relation to the MeyGen Project. Details of the MeyGen AfL are set out in paragraph 9.2 of Part VII of this document. To enable MeyGen to develop the MeyGen Project, it will need in due course to be granted a lease from TCE on the terms set out in the annexure to the MeyGen AfL. The grant of the MeyGen Lease is subject to MeyGen electing to serve an option notice and also achieving certain milestones by certain dates, details of which are set out in paragraph 9.2 of Part VII of this document. MeyGen will not achieve these milestones by the dates required. The Crown Estate is however aware of the progress MeyGen is making in relation to the MeyGen Project and these milestones and has confirmed that it is prepared to discuss an extension to these milestone deadlines and has no intention of terminating the AfL prior to these discussions, which are expected to be completed by no later than February 2014. If the milestones are not achieved by the milestone deadlines as set out or as they may otherwise be agreed with TCE to be extended or amended, or the MeyGen AfL is otherwise terminated, TCE will not grant the MeyGen Lease, which would mean that the MeyGen Project could not be developed. This would have a material adverse effect on the Group's business, financial condition, operations and prospects.

1.27 ***Grant funding is required for the development of Phase 1A of the MeyGen Project***

Members of the Group have been awarded various grants, details of which are set out in paragraph 12 of Part VII of this document. Members of the Group are also currently in negotiations to be awarded further grants from various organisations in different jurisdictions, and the award of a grant of £10 million from DECC is required to fund Phase 1A of the MeyGen Project. The awards and draw downs of such grants are subject to various conditions being satisfied by the Group including the achievement of milestones, successful completion of negotiations with funding bodies and other matters. If the conditions or milestones are not met in a timely manner, or negotiations do not result in grants being awarded, the relevant member of the Group will not be in a position to draw down the grant funding, which may mean that the Company would need to find other sources of funding to replace such grants. In addition the grants which are currently under negotiation may not be awarded to the Group. An inability to draw down the grant funding and/or the failure to win the award of new grants could delay the development of some or all of the Group's projects including the MeyGen Project which could have a material adverse effect on the Company's business, financial condition, operations and prospects.

1.28 ***Loan funding is required for the development of Phase 1A of the MeyGen Project***

The Group is currently in negotiations with TCE over a loan of £10 million and with the Scottish government over a further loan of £10 million to fund Phase 1A of the MeyGen Project. If the loans are not awarded the Company would need to find other sources of funding for the development of the MeyGen Project. The failure to be awarded the loans or to find other alternative sources of finance could delay the development of Phase 1A of the MeyGen Project which could have a material adverse effect on the Company's business, financial condition, operations and prospects.

1.29 ***The Group depends on the support of governments and trade organisations for the operation of its business***

The Group considers that a good working relationship with governments and trade organisations is important to its operational and financial performance. Any adverse disruptions to these relationships may impact upon the Group's future operational and financial performance. Many of the Group's projects are likely to require political and financial support from governments in the relevant jurisdictions including in relation to the MeyGen Project, Scotland. If such support is not forthcoming, or should the relevant governments change their policies towards a project (or in the case of Scotland, if the people of Scotland vote for independence and as a consequence the Scottish government changes its policy towards the MeyGen Project), then the relevant project may not get developed which is likely to have a material adverse effect on the Company's business, financial condition, operations and prospects.

In addition, governments in the countries where the Group has operations may make decisions to support, politically or financially, competing energy generation businesses which may make the Group's business proposition less competitive or less viable in such countries. This could have a substantial adverse effect on the Group's business.

1.30 ***The Group's ability to pursue its strategy may be impacted should there be any disruption to its business continuity***

The Group's business operations, information systems and processes are vulnerable to damage or interruption from fires, power loss, telecommunication failures, bomb threats, explosions or other forms of terrorist activity and other natural and man-made disasters. These systems may also be subject to sabotage, vandalism, theft or similar misconduct. Any failure of the Group's systems could result in a loss of business continuity which could have an adverse effect on the Group's business, earnings and competitive position.

1.31 ***The Group's insurance policies may be inadequate to cover the cost of claims made against the Group***

While the Group maintains commercial insurance at a level it believes is appropriate against certain risks commonly insured in the industry, there is no guarantee that it will be able to obtain the desired levels of cover on acceptable terms in the future. Furthermore, the nature of these risks is such that liabilities could exceed policy limits or that certain risks could be excluded from the Group's insurance coverage. There are also risks against which the Group cannot insure or against which it may elect not to insure. The potential costs that could be associated with any liabilities not covered by insurance or in excess of insurance coverage may cause substantial delays and require significant capital outlays, adversely affecting the Group's earnings and competitive position in the future and, potentially, its financial position. The Group's operations could suffer losses which may not be fully compensated by insurance. In addition, certain types of risks may be, or may become, either uninsurable or not economically insurable, or may not be currently or in the future covered by the Group's insurance policies. Any of the foregoing could have a material adverse effect on the Group's operating results, business prospects and financial condition.

1.32 ***The Group's success is dependent upon the experience and talent of key personnel and on its ability to recruit and retain key personnel***

To a large extent, the Group's success will depend on the experience and talent of key personnel, in particular on the continued services and performance of its executive Directors and senior management and also on its ability to recruit and retain suitably qualified and experienced employees. The Directors cannot give assurances that members of the senior management team or other key employees or the executive Directors will continue to remain within the Group. The loss of the services of any of the Directors, members of senior management or other key employees or an inability of the Group to attract new personnel could have a material adverse effect upon the Group's business and results of operations. Finding and hiring any such replacements could be costly and might require the Company to grant significant equity awards or other incentive compensation, which could also adversely impact financial results.

1.33 ***The Group's intellectual property may be the subject of infringement by third parties or claims of infringement of third parties' intellectual property rights***

The Directors regard the intellectual property ("**IP**") rights that reside within the Company as a significant element contributing to its future success. Many participants in the alternative energy technology space have patents and patent applications and have demonstrated a readiness to pursue litigation based on allegations of patent or other IP infringement. The Company could incur substantial costs in defending or bringing a claim in relation to IP, whether or not successful. The Company could also spend significant sums in relation to any damages, re-branding or re-engineering services or acquisition of licences as a result of IP disputes. The Company's involvement in IP disputes may also distract the management's attention from the operation of the business. A successful claim for infringement against the Company, its failure to successfully bring an IP claim against a third party or its failure or inability to licence or develop infringed IP on acceptable terms and on a timely basis, could harm the Company's business, operating results and financial performance.

No assurance is given that the Company will develop technology which is capable of being protected or that any protection gained will be sufficiently broad in its scope to protect the Company's IP rights and exclude competitors from similar technology. Further, there can be no assurance that patent applications made in the future will be granted or that patents granted to the Company will be sufficiently broad in scope to provide protection for the Company's IP rights against third parties. There

can be no assurance that the validity or scope of any patents which may in the future be granted to the Company will not be questioned or asserted by other parties or that a third party will not claim prior rights in relation to IP used by the Company.

The Group has or may have operations in several countries. The judicial institutions making determinations on IP rights in these countries could reach decisions about the rights of the Group to use certain IP which are inconsistent or conflicting with decisions in other countries. Any such adverse decisions could materially harm the Company's business, operating results and, or financial performance.

1.34 ***Market perception and acceptance of the Company's turbines and business proposition might be slower than the Directors anticipate***

The Group may be affected by general market trends which are unrelated to the performance of the Group itself. As many alternative energy technologies are relatively new, the market perception and acceptance of the Group's turbine technology may not be as prompt as the Directors have anticipated. There can be no assurance that market acceptance will be forthcoming. A failure to obtain market acceptance of the Group's technology could have an adverse effect upon its financial results.

1.35 ***The Group may fail to manage the expansion of its business as currently contemplated***

The ability of the Group to implement its strategy requires the implementation of effective planning and management control systems. The implementation of the Group's strategy may place significant demands on its management, support functions, accounting, operational, financial, sales and marketing, personnel and other resources. If the Group is unable to manage the expansion of its business effectively, its business and financial results could suffer.

The value of an investment in the Company is dependent upon the Company achieving the aims set out in this document. There can be no guarantee that the Company will achieve the level of success that the Board currently expects.

1.36 ***The Group is subject to risks resulting from its involvement in joint ventures and may become a minority shareholder in certain companies, partnerships and ventures***

The Group is a party to and may enter into further joint ventures. There is a risk that a joint venture partner may not meet its obligations and as a result the Group may suffer additional costs or other losses. It is also possible that the interests of the Company and those of the Group's joint venture partners may not be aligned, resulting in project delays or additional costs and losses.

Further, the Group may have minority interests in the companies, partnerships and joint ventures in which it invests and may therefore be unable to exercise control over the operations of such companies, partnerships and joint ventures.

1.37 ***The international nature of the Group's operations makes it susceptible to challenges relating to distance, language, culture and other difficulties***

The Group may be subject to a number of risks and challenges which arise as a result of the international nature of the Group's business operations. These include, but are not limited to, challenges related to distance, language and cultural differences, the general economic conditions in each country or region, regulatory changes in relevant legal systems, political unrest, terrorism and the potential for other hostilities, public health risks, differences in payment cycles and difficulties in collecting accounts receivable. They also include, overlapping tax regimes, difficulties in repatriating funds held by international subsidiaries at favourable tax rates or at all, difficulties in transferring funds internationally and reduced protection for IP rights in certain jurisdictions.

If the Directors are unable to manage these risks and challenges to the Group's operations, its operating and financial results and overall business may be adversely affected.

1.38 ***The Group operates or will operate in jurisdictions such as China where the legal or arbitration systems are uncertain***

The Group has or may have operations in countries such as China or contractual relationships with counterparties in countries whose legal or arbitration systems are uncertain, unclear, susceptible to political influence or subject to corruption. Certain of the Group's contractual obligations for such operations are or may be necessarily subject to the laws of such countries and the settlement of any disputes within such countries. Therefore the outcome of any dispute resolution which the Group may face is, in certain countries, particularly uncertain and an adverse ruling or decision in such countries could have a material adverse effect on the financial position of the Group.

1.39 ***The Group could be exposed to adverse movement in currency exchange rates***

Since the Group will report its financial results in Singapore Dollars, fluctuations in rates of exchange between the Singapore Dollar and non-Singapore Dollar currencies may have a material adverse effect on the Group's results of operations. The Group will generate its revenue in a variety of currencies, including Singapore Dollars, US Dollars, sterling, Canadian Dollars and Euros. As a result, some of the Group's financial assets will be denominated in these currencies and fluctuations in these currencies could adversely affect its financial results. The Group may engage in currency hedging transactions intended to reduce the effect of fluctuations in foreign currency exchange rates on its results of operations. If the Group were to determine that it was in its best interests to enter into any currency hedging transactions in the future, there can be no assurance that it will be able to do so or that such transactions, if entered into, will materially reduce the effect of fluctuations in foreign currency exchange rates on its results of operations. In addition if, for any reason, exchange or price controls or other restrictions on the conversion of one currency into another currency were imposed, the Group's business could be adversely affected. There can be no assurance that such fluctuations in the future will not have a material adverse effect on revenues from international sales and consequently, the Group's business, operating results and financial performance.

1.40 ***The Group may be subject to claims from third parties for the sale of defective turbines and for claims in relation to its consulting activities***

The Group may be subject to claims relating to the sale of its turbines to third parties should its turbines be defective or not operate to the standards warranted. The Group will also be subject to claims arising from its consulting activities should the services provided not meet the standards expected by its clients. Should such claims materialise, they are likely to have a material adverse effect on the Group's reputation, its business, financial condition and prospects.

1.41 ***The Group may become the subject of or involved with significant disputes or litigation***

Whilst the Group will take such precautions as it regards appropriate to avoid or minimise the likelihood of any legal proceedings or claims, or any resulting financial loss to the Group, the Directors cannot preclude the possibility of litigation or disputes being brought against the Group. Any litigation or disputes brought in the future involving the Group's products or services could have a material adverse effect on the Group's business.

There can be no assurance that claimants in any litigation or dispute proceedings will not be able to devote substantially greater financial resources to any such proceedings or that the Group will prevail in any such litigation or dispute. Any litigation or dispute, whether or not determined in the Group's favour or settled by the Group, may be costly and may divert the efforts and attention of the Group's management and other personnel from normal business operations.

The Group's insurance may not necessarily cover any of the claims brought against the Group or may not be adequate to protect it against all liability that may be imposed. Any litigation, dispute or regulatory investigation or actions brought in the future could have a material adverse effect on the Group's reputation, business, financial condition and operating results.

1.42 ***The Group's operations could be subject to events of force majeure***

The Group's operations now or in the future may be adversely affected by risks outside the control of the Group including labour unrest, civil disorder, war, subversive activities or sabotage, fires, floods, explosions or other catastrophes, epidemics or quarantine restrictions which could have the effect of

making the performance of relevant contracts by members of the Group, or by their contract counterparties, impossible or substantially difficult to perform.

1.43 ***If the Group fails to maintain proper and effective internal controls, its ability to produce accurate and timely financial statements could be impaired and investors' views of the Group could be harmed as a result***

The Group has systems and controls in place to allow it to produce accurate and timely financial statements. If any of these systems or controls were to fail the Group may be unable to produce interim and annual financial statements accurately or on a timely basis. As such, investors may have concerns both over the lack of available financial information and the controls the Group has in place which could adversely affect the Company's share price.

1.44 ***The Group is subject to risks associated with tax***

The UK taxation implications of investing in the Company are dealt with in paragraph 19 Part VII of this document. The tax rules and their interpretation relating to an investment in the Company may change during the life of the Company. The levels of, and relief from, taxation may change. Any tax relief referred to in this document are those currently available and their application depends on the individual circumstances of investors.

Any change in the Company's tax status or its subsidiaries' tax status or the tax applicable to holding Ordinary Shares or in taxation legislation or its interpretation, could affect the value of the assets held by the Company or the Group or affect the Company's ability to provide returns to Shareholders and/or alter the post-tax return of Shareholders. Statements in this document in relation to tax and concerning the taxation of the Company, the Group and/or its investors in Ordinary Shares are based upon current tax law and practice which is subject to change. The taxation of an investment in the Company depends on the specific circumstances of the relevant investor.

The nature and amount of tax which members of the Group expect to pay and the reliefs expected to be available to any member of the Group are each dependent upon a number of assumptions, any one of which may change and which would, if so changed, affect the nature and amount of tax payable and reliefs available. In particular, the nature and amount of tax payable is dependent on the availability of relief under tax treaties in a number of jurisdictions and is subject to changes to the tax laws or practice in any of the jurisdictions affecting the Group. Any limitation in the availability of relief under these treaties, any change in the terms of any such treaty or any changes in tax law, interpretation or practice could increase the amount of tax payable by the Group. There is a risk that amounts paid or received under intra-group arrangements in the past and/or the future could be deemed for tax purposes to be lower or higher, as the case may be, or be disregarded for the purposes of calculating tax which may increase the Group's taxable income or decrease the amount of relief available to the Group with a consequential adverse effect on its financial and operating results.

1.45 ***The costs of compliance with AIM corporate governance and accounting requirements are significant***

The Company may incur significant costs associated with its public company reporting requirements, including costs associated with applicable AIM corporate governance requirements. The Company expects to incur significant legal and financial compliance costs as a result of these rules and regulations.

2. Risks relating to the tidal energy industry

2.1 ***The installation and long-term operation and maintenance of high technology equipment and systems in the ocean may be adversely affected by the Earth's natural forces, in particular the ocean's natural forces and conditions***

The Group is undertaking the installation and long-term operation and maintenance of high technology equipment and systems in the ocean. The difficulties created for such projects by the ocean's natural forces and conditions represent a challenge which must be successfully overcome in order for the Company's systems to function consistently over their projected economic life. In the event the Company's products or the systems with which they are integrated are unable to sustain functionality

during their projected economic life, the Company may be required to incur additional and unanticipated costs to replace, maintain or repair equipment and systems which may have an adverse effect on the Company's business and results of operations and may adversely impact the revenue and profitability of the Group. In addition, repair and maintenance programmes required to be undertaken in the ocean or offshore are particularly vulnerable to adverse weather conditions, which could result in substantial delays and material costs.

2.2 ***The price of tidal turbine equipment may be subject to market price volatility and changes to the price may lead to a corresponding change in the level of support that the industry receives from governments***

The market price of tidal turbine equipment can increase or decrease. This would generally be expected to lead to a corresponding change in the level of support that the industry receives from governments for new and existing renewable power generation projects, though it may not necessarily do so. The market price of tidal turbine equipment can be influenced by a number of factors, including the price and availability of raw materials, demand for tidal equipment and any import duties that may be imposed on such equipment. Changes in the cost of purchasing tidal turbine equipment could have a material adverse effect on the Group's business, financial position, results of operations and business prospects.

2.3 ***The tidal renewable energy generation industry is at an early stage of development and is to a large extent untested***

The tidal renewable energy generation industry is at an early stage of development and is to a large extent untested. The Company may encounter unexpected difficulties in producing electricity using its turbine technology. The cost of producing electricity from tidal turbines may not be competitive when compared with other renewable sources of electricity which may affect the support that the industry receives from government and/or developers. If any of these risks materialise, the Company may encounter difficulties in developing its business and meeting its business plan, which would have a material adverse effect on the Company's financial condition, results of operations and prospects.

2.4 ***Major breakthroughs in other renewable energy technologies may make tidal power unattractive as an energy source***

The cost and environmental effects of tidal power may affect the demand for tidal power projects. Tidal power is largely untested as a competitive source of renewable energy. In the event of improved cost competitiveness of other forms of renewable energy or major breakthroughs in other forms of renewable energy, such alternative forms of energy may become more attractive than tidal power and, accordingly, demand for tidal power may not materialise and/or drop significantly. As illustrated in Part I of this document the cost of tidal power in the energy mix is currently expensive. The cost is expected to reduce rapidly, however, such cost reductions may take longer than anticipated or not occur at all. These factors may result in a shift in demand toward other forms of renewable energy, such as solar, geothermal and wind. If any of the above factors takes place, the tidal power industry may be affected, and this may have a material and adverse effect on the Company's business prospects, results of operations and financial condition.

2.5 ***The lack of grid infrastructure may restrict or otherwise affect the development of tidal power projects***

Tidal power sites are selected primarily with reference to tidal power resources. Many prospective sites are far from major cities, making it very difficult to transmit electric power to the major markets where demand for electric power is higher. To transmit electric power to areas of high demand, it will often be necessary to build more grid infrastructure. As such infrastructure is expensive and has a large geographical span, the development of tidal power sites will often require adequate investment in and centralised planning of supporting grid facilities. The lack of grid infrastructure may restrict or otherwise affect the development of tidal power projects through preventing or delaying new construction or limiting the size of tidal power projects. This may have a material and adverse effect on the Company's ability to develop the Company's business and pursue its strategy.

2.6 ***The Company's ability to pursue its strategy will be impacted should there be any delay in connection of new sea-bed development sites to the local electricity grid***

The ability for new development sites to connect to the local electricity grid in a timely manner is reliant on the investment strategy of the local electricity distribution companies and the relevant regulatory framework. If sufficient capacity is not available to connect a new site to the grid, then additional work with substantial lead times may be incurred. Such delay may have an adverse effect on the Group's ability to sell its turbines and therefore its business, financial condition, trading performance and prospects may be adversely affected.

2.7 ***There are a limited number of offshore sites around the world where the Group's turbine technology is likely to be suitable to be installed***

There are a limited number of offshore sites around the world where the Group's turbine technology is likely to be attractive from a project development perspective. Such sites are likely to be attractive to other operators in the tidal energy industry, and it therefore may prove difficult for the Group to secure access to such sites either itself or through joint ventures with current or future partners either for the purposes of developing such sites or selling its turbine technology to other operators. If the Group fails to obtain access to such sites or to sell its turbine technology to other operators of such sites, the Group's financial condition, results of operations and prospects may be materially adversely affected.

2.8 ***The Group's turbines are reliant on electrical transmission networks which may reduce the amount of energy that its turbines can deliver***

The amount of electricity generated by a tidal turbine depends upon many factors. The condition of the electrical transmission network may reduce the amount of energy a turbine can deliver to the network. This may be caused by, amongst other factors, the failure of the transmission network operators' own equipment. Transmission network operators generally have low levels of liability when compared to the potential loss to the Group of lost generation. The inability to deliver output from a particular project may result in the Group's future sales being significantly lower than forecast, thereby having a material adverse effect on the Group's business, operations and financial performance.

2.9 ***Changes in technologies may render current technologies obsolete or require substantial capital investments***

The renewable energy industry has experienced rapid improvements in technology and sophistication in production of equipment. The use of modern technology and automation in manufacturing processes is essential to reduce costs and accelerate execution. Although the Group is developing its tidal technology to achieve the latest international technological standards, it may be required to implement new technology or to upgrade the machinery used for tidal energy production. The cost of implementing new technology and upgrading its machinery in the future could be significant and this could adversely affect its financial condition and results of operations.

2.10 ***The Company's ability to pursue its strategy will be impacted should there be any delay in developments of sea-bed sites due to planning consent***

The ability for a development site to receive timely planning consent will be dependent on local policy, the local political landscape and the owner of the relevant sea-beds. This will differ from country to country, and also be affected by the number of other applications in the pipeline. Such delay may have an adverse effect on the Group's business, financial condition, trading performance and prospects.

2.11 ***Tidal turbines may have an adverse effect on marine mammals and their habitats***

The Scottish government has issued a notice for tender to engage a third party to evaluate potential interactions between offshore renewables and marine wildlife so that appropriate mitigation can be investigated and if necessary be applied. Concerns with respect to the potential impact of tidal turbines on marine mammals have been raised with a focus on the potential for mortality or injury through collision, the ability of marine mammals to take avoiding action, and possible displacement effects from key habitats. To evaluate these risks, the Scottish government believes there is a need to improve understanding about how animals perceive and respond to devices and how these responses affect their behaviour and distribution in the marine environment. MeyGen has already conducted analysis with respect to potential impacts on marine mammals as part of the Environmental Impact Assessment.

MeyGen has offered access to the MeyGen site to assist with this study and for MeyGen to be part of the project management of the study with a view to ensuring that the results of the study are useful to the MeyGen Project. The result of such a study may lead to the Scottish government imposing new regulations in connection with the deployment of tidal energy turbines which may result in additional costs being imposed upon the tidal turbine industry in Scotland, including in relation to the MeyGen Project. In addition, similar regulations may be imposed by other governments in other jurisdictions. Any such regulations could adversely affect the Group's business, operations and financial performance.

3. General Risks

3.1 *General risks related to investing in shares*

The share price of publicly traded companies can be volatile. An investment in shares in a publicly traded company, such as the Ordinary Shares, is only suitable for financially sophisticated investors who are capable of evaluating the merits and risks of such an investment or other investors who have been professionally advised with regard to the investment and who have sufficient resources to be able to bear any losses that may arise (which may be equal to the whole amount invested). Such an investment should be seen as being complementary to existing investments in a wide spread of other financial assets and should not form a major part of an investment portfolio. Investors should not consider investing in the Ordinary Shares unless they already have a diversified investment portfolio.

In addition, the price at which Ordinary Shares will be traded and the price at which investors may dispose of their investment in the Company may be influenced by a number of factors, some of which may pertain to the Company and others of which are extraneous. These factors could include but are not limited to the performance of the Company's investments, large purchases or sales of Ordinary Shares, liquidity (or absence of liquidity) in the Ordinary Shares, currency fluctuations, legislative or regulatory or taxation changes, general economic and political conditions and interest and inflation rate variations. The value of the Ordinary Shares may fluctuate and may not reflect their underlying asset value. Prospective investors should therefore be aware that the value of an investment in the Company may go down as well as up and investors may therefore not recover their original investment.

3.2 *General risks of investing in shares traded on AIM*

Application has been made for the Ordinary Shares to be admitted to AIM, a market designated primarily for emerging or smaller companies. The AIM Rules are less onerous than those of the UK's Official List and an investment in shares that are traded on AIM is likely to carry a higher risk than an investment in shares listed on the Official List. Further, neither the London Stock Exchange nor the FCA has examined or approved the contents of this document. It may be more difficult for investors to realise their investment on AIM than to realise an investment in a company whose shares are quoted on the Official List. The share price of publicly traded early stage companies can be highly volatile. The price at which the Ordinary Shares will be traded and the price at which investors may realise these investments will be influenced by a large number of factors, some not specific to the Group and its operations. A prospective investor should be aware of the risks of investing in such companies and should make the decision to invest only after careful consideration and, if appropriate, consultation with an independent financial adviser authorised under FSMA who specialises in advising on the acquisition of shares and other securities.

3.3 *The Company may not successfully manage the transition to a publicly quoted company*

The change to a publicly quoted company whose shares are admitted to trading on AIM will require some cultural changes, increased awareness of the requirements of being a publicly quoted company and a requirement to ensure that staff satisfy a number of new requirements, including the AIM Rules for Companies, disclosure and financial reporting requirements and enhanced corporate governance obligations and expectations. Whilst the Board will make every effort to manage the transition successfully, there can be no assurance that the Group will be able to do so and such failure to do so could have a material adverse effect on the Group's financial condition, results of operations or prospects.

3.4 ***There is no existing market for the Ordinary Shares and an active trading market for the Ordinary Shares may not develop or be sustained***

Prior to Admission there is no public market for the Ordinary Shares. As a consequence, there can be no assurance that an active or liquid market in the Ordinary Shares will develop upon Admission or, if developed, that an active trading market will be sustained. The Company cannot predict the extent to which investor interest in the Ordinary Shares will lead to the development of a trading market or how liquid such a market might become. Investors may experience greater price volatility and less efficient execution of buy and sell orders than expected. The Placing Price may not be indicative of the trading price of the Ordinary Shares after Admission and may vary from the trading price of the Ordinary Shares after Admission. The Company cannot guarantee that it will always retain a quotation on AIM. If the Company fails to do so certain investors may decide to sell their Ordinary Shares, which could have an adverse impact on the share price. Additionally, if in the future the Company decides to obtain a listing on another exchange in addition to AIM or as an alternative, this may affect the liquidity of the Ordinary Shares traded on AIM. As a result of these and other factors, investors may be unable to resell their Ordinary Shares at or above the Placing Price.

3.5 ***The trading price of the Ordinary Shares may be subject to market price volatility and the market price of the Ordinary Shares may decline in response to developments that are unrelated to the Group's operating performance***

In addition to the other risks described in this document, the trading price of the Ordinary Shares may be subject to significant fluctuations in response to a number of events and factors including, but not limited to, actual or anticipated variations in operating results or recommendations by securities analysts, the share price performance of other companies that investors may deem comparable to the Company and the performance of the industry generally, news reports relating to trends in the Group's markets and macro-economic conditions in such markets and market conditions in the industry and the industries of customers and the economy as a whole. Actual or expected changes in the Group's or its competitors' growth rates, changes in the market valuation of similar companies, large purchases or sales of Ordinary Shares, sales of Ordinary Shares by Directors or Shareholders, the liquidity (or the absence of liquidity) in the Ordinary Shares, currency fluctuations and the denominations in which the Group conducts business and holds cash reserves, policy, legislative or regulatory changes and general economic conditions may also be factors in trading price fluctuations. These, and other, events and factors may adversely affect the trading price of the Ordinary Shares, regardless of the Group's performance.

In addition, if the market for renewable energy stocks or the stock market in general experiences loss of investor confidence, the trading price of the Ordinary Shares could decline for reasons unrelated to the Group's business, financial condition or operating results. The trading price of the Ordinary Shares might also decline in reaction to events that affect other companies in the industry, even if these events do not directly affect the Group. Each of these factors, among others, could harm the value of an investor's investment in the Ordinary Shares. In the past, following periods of volatility in the market, securities litigation has often been instituted against companies. Such litigation, if instituted against the Group, could result in substantial costs and diversion of management's attention and resources, which could materially and adversely affect the business, operating results and financial condition of the Group.

3.6 ***Future issues of Ordinary Shares may result in immediate dilution of existing shareholders***

The Company may decide to issue additional Ordinary Shares in the future in subsequent public offerings or private placements to meet the future working capital and funding requirements of the Group. If additional funds are raised through the issuance of new Ordinary Shares or equity linked securities of the Company, other than on a pro-rata basis to existing Shareholders, or if existing Shareholders do not subscribe for additional Ordinary Shares or equity linked securities on a pro rata basis in accordance with their existing shareholdings, this will dilute their existing ownership interests in the Company. Shareholders may experience subsequent dilution and/or such securities may have preferred rights, options and pre-emption rights senior to the Ordinary Shares. Furthermore, the issue of additional Ordinary Shares or equity linked securities may be on more favourable terms than the Placing Shares. In addition, the issue of additional shares by the Company, or the possibility of such issue, may cause the trading price of the Ordinary Shares to decline and may make it more difficult for Shareholders to sell Ordinary Shares at a desirable time or price.

3.7 ***Shareholders in certain jurisdictions may not be able to subscribe for future issues of Ordinary Shares***

In order to undertake future equity fundraisings, the Company would be required to increase its issued share capital. In the case of certain increases in the Company's issued share capital, the Company's existing Shareholders would be entitled to pre-emption rights pursuant to the Articles unless such rights have been waived by a special resolution of the Shareholders at a general meeting pursuant to the Articles. Shareholders in certain jurisdictions may not be able to exercise their pre-emption rights over Ordinary Shares unless the Company decides to comply with applicable local laws and regulations.

In addition, US Shareholders may not be entitled to exercise their pre-emption rights unless the Ordinary Shares or any other equity securities issued by the Company are registered under the Securities Act or an exemption from the registration requirements of the Securities Act is available. The Company has no current intention of seeking such registration and would evaluate, at the time of any future equity offering, whether the offer would qualify for an exemption as well as the indirect benefits to the Company of enabling US Shareholders to exercise rights and any other factors that the Company considered appropriate at the time, prior to making a decision on whether to utilise an available exemption from the registration requirements of the Securities Act. Similar issues may arise in relation to other overseas jurisdictions.

3.8 ***Securities or industry analysts may not publish research or reports about the Group's business or may publish unfavourable or inaccurate research about the Group's business***

The market for the Ordinary Shares will depend in part on the research and reports that securities or industry analysts publish about the Group or its business. The Directors may be unable to sustain coverage by well-regarded securities and industry analysts. If either none or only a limited number of securities or industry analysts maintain coverage of the Company, or if these securities or industry analysts are not well-regarded within the general investment community, the trading price for the Ordinary Shares could be negatively impacted. In the event the Group obtains securities or industry analyst coverage, if one or more of the analysts who cover the Company downgrade the Ordinary Shares or publish inaccurate or unfavourable research about the Group's business the share price could decline. If one or more analysts ceases coverage of the Company or fails to publish reports regularly, demand for the Ordinary Shares could decrease and this may cause share prices and trading volumes to decline.

3.9 ***Morgan Stanley Renewables as a significant shareholder will continue to exert significant influence over the Group***

Immediately following Admission, Morgan Stanley Renewables will own approximately 42.4 per cent. of the issued ordinary share capital of the Company. While Morgan Stanley Renewables remains a significant shareholder of the Company, it will continue to have the ability, through the votes attaching to its Ordinary Shares, to significantly influence the Group's legal and capital structure, as well as to influence through its voting power the election of the Company's directors and management and to approve other changes to its operations. Furthermore, the interests of Morgan Stanley Renewables may differ from the interests of the Group or the Company's other shareholders. The Company has entered into a Relationship Agreement with Morgan Stanley Renewables which will regulate (in part) the degree of control Morgan Stanley Renewables may exercise over the management of the Group. In addition, under the terms of the Relationship Agreement, Morgan Stanley Renewables is entitled, whilst it continues to control 15 per cent. of the Ordinary Shares, to appoint a member to the Board. Further details of the Relationship Agreement are set out in paragraph 9.10 of Part VII of this document.

3.10 ***The Company may not make dividend payments in the future***

The ability of the Company to pay dividends in the future will depend on, among other things, the Group's future profit, financial position, regulatory capital requirements, distributable reserves, working capital requirements, general economic conditions and other factors that the Directors deem significant from time to time. The Company's ability to pay dividends is also subject to the requirements of the laws of Singapore, which permit the distribution of dividends only out of profits.

Additionally the payment of dividends by the Company may, in certain instances, be subject to statutory restrictions, and regulatory restraints or other political and economic factors. There can therefore be no assurance as to the level of future dividends (if any) that may be paid by the Company.

3.11 ***The market price of the Ordinary Shares could be negatively affected by sales of substantial amounts of Ordinary Shares in the public markets including following the expiry of the lock-up period, or the perception that these sales could occur***

If the Company's existing Shareholders were to sell, or the Company were to issue a substantial number of Ordinary Shares in the public market, the market price of the Ordinary Shares could be materially adversely affected.

Sales of a substantial number of Ordinary Shares in the public market after Admission, whether by Shareholders subject to lock-up periods or from Shareholders who have acquired new Ordinary Shares in the Placing or from other Shareholders, or the perception that such sales may occur, could materially adversely affect the market price of the Ordinary Shares.

There can be no assurance that the Shareholders subject to lock-up periods will not effect transactions upon the expiry of the lock-up period or any earlier waiver of the provisions of the lock-up periods.

3.12 ***Exchange rate fluctuations may impact the price of the Ordinary Shares or the value of any dividends paid***

The Ordinary Shares, and any dividends to be paid in respect of such Ordinary Shares, will be quoted in sterling. An investment in the Ordinary Shares by an investor in a jurisdiction whose principal currency is not sterling exposes the investor to foreign currency rate risk. Any depreciation of sterling in relation to such foreign currency will reduce the value of the investment in the Ordinary Shares in foreign currency terms and may adversely impact the value of any dividends.

3.13 ***Forward-looking statements***

Certain statements contained in this document may constitute forward-looking statements. Forward-looking statements include statements concerning the plans, objectives, goals, strategies and future operations and performance of the Group and the assumptions underlying these forward-looking statements. The Group uses the words "anticipates", "estimates", "expects", "believes", "intends", "plans", "may", "will", "could" or "should", and any similar expressions to identify forward-looking statements.

Any such forward-looking statement involves known and unknown risks, uncertainties and other factors that may cause the actual results, performance or achievements of the Group or industry results to be materially different from any future results, performance or achievements expressed or implied by any such forward looking statements. Such forward-looking statements are based on numerous assumptions regarding present and future business strategies and the environment in which the Group will operate in the future. These forward-looking statements speak only as of the date of this document. The Group expressly disclaims any obligation or undertakings to release publicly any updates or revisions to any forward looking statement contained herein, save as required to comply with any legal or regulatory obligations, to reflect any change in the Group's expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based. All subsequent written or oral forward-looking statements attributable to the Group, or persons acting on behalf of the Group, are expressly qualified in their entirety by the cautionary statements contained throughout this document. As a result of these risks, uncertainties and assumptions, a prospective investor should not place undue reliance on these forward looking statements.

PART III

TECHNICAL REPORT

RICARDO-AEA

Technical Report on the AR1000 and AR1500 Tidal Turbine Generators

Report for Atlantis Resources Limited

Ricardo-AEA/R/ED59060
Issue Number 3
Date 19 February 2014

Customer:

Atlantis Resources Limited

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19 February 2014

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Executive Summary

Introduction

Across the tidal energy sector, tidal turbine generators (TTGs) are moving from demonstrator through to full scale prototypes and the development of array projects. The industry is developing a consensus on the general structure of a tidal turbine, that of a 3 bladed horizontal axis turbine. However, there are still a significant number of variations within this structure: fixed pitch or variable pitch blades, gear and generator combinations, yawing or fixed orientation and different foundation designs.

Atlantis Resources Limited (ARL) has been developing and testing tidal current devices for over 10 years. Its senior engineering team has over 30 years' combined experience developing and testing prototype TTGs. The AR1000 and AR1500 TTGs developed by ARL have evolved over the last 6 years from a cowled tidal turbine, ARL's Solon, with enclosed blades, to 3 bladed horizontal axis tidal turbines.

ARL is following a well-established engineering design approach of Concept Design, leading to Front End Engineering Design, which will lead to Detailed Design. To us ARL appears to be operating in a systematic and rigorous manner that at its conclusion ought to lead to a design for which there is a high degree of confidence in how it will perform. There is also strong evidence of ARL applying the learning from its previous demonstrations to the development of improved designs, with greater redundancy, condition monitoring and fail-safe modes. ARL has a track record of working with strong industrial partners, and in some cases with leading contractors using state of the art design tools.

This report is an assessment of the development of the two TTGs, the AR1000 and the AR1500, because these are the models that ARL is in the process of developing, demonstrating and ultimately selling.

Scope of this Report

It is not possible to evaluate the capabilities of any power generation technology in isolation of the intended application.

Consequently, to provide a focus for the Due Diligence, we consider the AR1000 and AR1500 in the context of two specific applications: the proposed China Energy Conservation and Environmental Protection (CECEP) project, in which an AR1000 design is to be deployed in China; and the proposed MeyGen project, in which an AR1500 design is to be deployed in the Inner Sound of the Pentland Firth, in Scotland. For these two proposed projects, we will consider the requirements of each of the applications and, using information provided to us by ARL, form a judgment, as well as the data and information will allow, on the extent to which ARL can demonstrate that it has already met the requirements, and identify areas where it has yet to do so. For these latter areas we make an appraisal of ARL's prospects for meeting the requirements, and identify any areas where there remains a high risk of the application requirements not being met.

The key questions addressed in this assessment are:

- What is the current state of development of the two turbines in relation to their intended first deployments?
- What is the target performance of the turbines and what is the current performance gap?
- How rigorous and comprehensive is the testing conducted to date and what issues has it raised?
- What are the key remaining areas of technical risk?
- Do the current cost estimates look realistic, and are they supported by detailed estimates and quotations?

AR1000 at the CECEP Site

The AR1000 is a single rotor, three-bladed, fixed pitch, single stage gearbox driven permanent magnet generator (PMG) TTG. It is designed for 98% availability with a total turbine efficiency of 42.5% measured at the generator terminals. The design allows for the inclusion of a yawing mechanism to orientate the device to the predominant water flow direction, thereby generating power on the ebb and flood. A full scale prototype, without yawing capability, has been installed and tested at the European Marine Energy Centre (EMEC). This report includes an analysis of the performance achieved to date by the AR1000 TTG, as completed by an independent third party expert, and an assessment of the suitability of the turbine for the CECEP demonstration project.

The Basis of Design for the CECEP project describes a modified version of the AR1000 TTG, the AR1002 turbine, which is a proposed demonstration of the refurbished and modified AR1000 device that had previously been deployed at EMEC. The AR1002 for CECEP has been designed with power capping of the TTG using stalling control methods. The data we have seen for the testing of the AR1000 at EMEC does not clearly demonstrate that this was achieved; however, the control system required to deliver this was tested onshore at the National Renewable Energy Centre (NaREC), and there is no reason why this will not be delivered at CECEP. Maximum power of 1MW is required. Although this was not demonstrated at EMEC, the test results from the onshore testing of the gearbox and generator at NaREC indicated successful operation close to full load.

For the AR1002, the rotor cut in velocity and rated velocity are 0.8m/s and 2.65m/s respectively. The AR1000 TTG generated power at EMEC. Water velocities in the test data ranged from 0.76m/s to 1.45m/s, thus the rotor cut in as required. Black & Veatch analysis during this testing gave the following results:

	TTG efficiency
Maximum	42.9%
Minimum	38.5%
Median	40.7%
Average	40.8%

Table 1: Black and Veatch analysis of TTG efficiency (not following relevant IEC protocol)

Whilst this peak efficiency is above the basis of design target of 42.5%, there is considerable uncertainty around the results recorded at EMEC and, due to operational constraints, the IEC protocol for the "Performance Assessment of Electricity Producing Tidal Energy Converters" was not followed by ARL. At the time of testing, the protocol had only been issued in draft form for consultation. Subsequent onshore testing has provided greater insight to the gearbox and generator characteristics and there is low risk of the design target not being achieved for these components. System design life of 20 years and design availability are higher risk targets to achieve at CECEP, although the design availability targets are internal targets, rather than for pre-commercial deployment at CECEP or for commercial deployment.

Whilst at CECEP, the environmental conditions are anticipated to be more benign than at EMEC, but the evidence is not currently available to confirm this. Hence there is a risk that the AR1002 will not achieve this design life.

Our overall assessment of the development status of the AR1002, compared with the Basis of Design, is that there is a high probability that the ARL turbine will achieve its power performance targets; however, we would need to conduct a full review of the load calculations performed for the original AK/AR1000 to determine its ability to meet the design life requirements, and see greater evidence that the CECEP site is more benign than EMEC.

CECEP Project Costs

ARL provided Ricardo-AEA with the CECEP project cost control spreadsheet, as at Sept. 2013. This suggests that ARL is following a disciplined process for budgeting, including re-forecasting, contingencies and risk assessment, although we have not confirmed this approach is being followed. The current total project costs are forecast at £1,166,632.

The cost of every work package has been reviewed by Ricardo-AEA. Where costs were taken from quotations, the values were confirmed; however, it was beyond the scope of this due diligence to review the terms of each quotation, so there is the potential for variation from the final cost incurred. However, the accuracy of the calculations within the cost control spreadsheet were confirmed.

AR1500 at the MeyGen Site

The AR1500, which is to be the company's principal commercial offering, is a single rotor device with three variable pitch blades mechanically linked for collective pitching. The drivetrain comprises a main shaft that supports the rotor, turning a two-stage epicyclic gearbox. The shaft is supported by an independent bearing unit at the front, and by bearings in the gearbox at the back. ARL proposes that for the AR1500, a two-stage gearbox and a PMG give the best combination of reliability and efficiency for the turbine. It is being designed for 98% availability with a total turbine efficiency of greater than 44% when measured at the generator terminals. This report includes an analysis of design of the AR1500 TTG, the input to the design by third party experts and its suitability for the MeyGen demonstration project in the Inner Sound of the Pentland Firth.

The AR1500 is being designed specifically for the MeyGen site. The following is a summary of the development status of the AR1500 against some of the main design parameters:

- Capturing power from both ebb and flood and nacelle orientation into flow - this has not been demonstrated by ARL. Onshore testing has been completed by Lockheed Martin Missions Systems and Training (LM MST), although we have not seen the results of these tests to confirm whether they were successful. The appointment of LM MST, coupled with the prototype construction and testing outlined in the Design Intent Document (DID), should reduce the risk of failure, and increase the prospects for successful operation
- Load shedding through blade pitching – although a standard technique amongst wind turbine manufacturers and other TTG developers, this is not something that has been demonstrated by ARL to date. The appointment of a credible contractor, LM MST, and a design that incorporates various levels of redundancy and fail safe modes reduces risks, as is the fact that others have demonstrated this can be achieved with tidal stream devices
- Speed control method – this is to be managed by torque control by the power converter to maintain optimum Tip Speed Ratio (TSR) up to the rated water speed. Beyond rated water speed up to cut out speed, the blades pitch to shed load thereby allowing the TTG to generate beyond rated speed, up to a maximum cut out speed. The success of the power converter in controlling the torque and the power was partially demonstrated through onshore tests, but no evidence is available from offshore tests. This is also a newly designed pitch system. However, there is industry-wide evidence that this can be achieved and this, coupled with the rigorous engineering approach being followed by ARL, gives confidence that it should be able to provide an effective control solution

- The AR1500 is to utilise a new brake system, to prevent the TTG from rotating during yawing and in emergency situations. We understand that the brake system is to include a number of levels of redundancy and will utilise proven technology from the wind industry. The brake system will be tested and, if necessary, the design refined prior to deployment at MeyGen. These intentions give confidence that ARL should produce an effective and reliable solution
- Turbine efficiency > 44% at rated power – estimates were provided for the turbine efficiency at rated power of 1.4MW @ 2.87m/s and 1.5MW @ 2.94m/s as measured at the generator. ARL has called upon the expertise of GL Garrad Hassan for modelling of the blades and rotor using its Tidal Bladed tool. GL Garrad Hassan has, using Tidal Bladed, calculated a peak rotor Cp of 0.475 for the ARL design, with a relatively broad peak (as a function of TSR). Whilst there is no guarantee that ARL will achieve this in practice, it is using a credible contractor for this work, with a leading and at least partially validated design tool. The PMG and gearbox combination are well characterised and so, when combined with the rotor modelling, we see no reason that the target efficiencies won't be achieved.

Our evaluation of the AR1500 design programme is that if ARL continues the design and test programme outlined in the documents that we reviewed, following the same rigorous engineering processes, including the redundancy in the design, there is a high probability that the turbine will meet the design specifications required. The only caveat to this is the availability of 98%. The Basis of Design clearly identifies 98% as the design availability, and in fact this is an essential requirement of the low maintenance, high redundancy offshore, "retrieve and replace" philosophy ARL is following for the ultimate commercial product. 98% availability is really the ultimate target for a fully functioning commercial product, and it is unreasonable to expect any tidal stream technology to achieve this at this stage in the development of the technology and the industry. ARL has confirmed that for the first AR1500 deployment at the MeyGen project, the target availability for the period post commissioning after early stage problems are corrected is 85%. This is still a demanding target and a substantial increase from what ARL has achieved to date.

MeyGen Costs

Ricardo-AEA was provided with the MeyGen Summary Budget, outlining the project costs for the MeyGen project. This was developed with input from both ARL and MeyGen, prior to the buyout of the MeyGen project by ARL. Hence a different approach to managing the MeyGen project costs has been adopted to that of the CECEP costs. ARL has taken ownership of MeyGen and now controls the budget for the project.

The total cost of the project is £41,367,004 which covers all activities leading to the installation and commissioning of three Andritz Hydro Hammerfest TTGs and one AR1500. Costs derived from quotations accounted for 65% of the overall costs, with 35% of overall costs derived from ARL estimates, based on experience from previous operations at EMEC and current market prices of materials.

The value of each quotation used has been confirmed but it was beyond the scope of this due diligence exercise to review the terms of each quotation. It is expected that all costs are therefore subject to variation until detailed design has been completed and final quotes obtained.

Despite good planning, budgeting and contingency, our experience is that projects at this stage can cost a lot more than expected and frequently take a lot longer than anticipated, due to unforeseen challenges and difficulties. ARL will benefit significantly from experience gained at EMEC. A total contingency of just under 9% has been included. It may therefore be appropriate to allow for a larger contingency at this stage in the design and procurement process.

Not accounting for larger contingency, final costs that we have seen for similar multi-turbine, multi MW projects are comparable with the costs estimated for the MeyGen project.

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Glossary

AC	Alternating Current electricity
ADCP	Acoustic Doppler Current Profiler, which can calculate the velocity of water by using a system similar to sonar
AHH	Andritz Hydro Hammerfest
ARL	Atlantis Resource Limited
Bi-directional turbine	A turbine that can rotate to face the both the ebb and flood tide
CDR	Concept Design Report, an early stage report during the design phase where the major options for the design are considered and evaluated
CECEP	China Energy Conservation and Environmental Protection
CFD	Computational Fluid Dynamics, where simulations of the interaction between the water and the turbine are run through a computer to evaluate the design before the need for it to be constructed
CMS	Connection Management System, which manages the transfer of electricity from the turbine through to onshore electrical infrastructure
Cowled	Shrouded, or enclosed. A cowled turbine is enclosed with a structure upstream of the turbine blade to funnel the water into the turbine. This increases the speed of water through the turbine, which can increase the efficiency
Cp	Coefficient of Power – This is the ratio of the energy captured by the turbine vs. the total available energy in the flow of water passing through swept area of the TTG rotor
DC	Direct Current electricity
DID	Design Intent Document
Ebb / flood tide	The two tidal conditions, with the flood tide referring to the incoming tide (rising in height), and the ebb tide referring to the outgoing tide (falling height)
EMEC	European Marine Energy Centre
Epicyclic gearbox	A gear system which consists of a number of outer gears connected to a central gear. This can cater for high power density while also ensuring a small compact size
ETI	Energy Technologies Institute
FEED	Front End Engineering Design
Fixed pitch turbine	A fixed pitch turbine has blades that are unable to rotate, thus are unable to maximise the turbine efficiency by matching pitch to the tidal flow
GBS	Gravity Base Structure, a heavy structure that the turbine is attached to, ensuring the turbine remains in a stationary location
GRP	Glass Reinforced Plastic
HV	High Voltage electricity
IEC	International Electrotechnical Commission
LM MST	Lockheed Martin Missions Systems and Training
LV	Low Voltage electricity
M&E	Mechanical and Electrical
Mono-directional turbine	A turbine that is in a fixed direction, therefore unable to rotate to face the both the ebb and flood tide

MTBF	Mean Time Between Failure, the average time between the failure of a component, or a system of components
NaREC	National Renewable Energy Centre
Nautilus	NaREC test rig
O&M	Operation and Maintenance
PMG	Permanent Magnet Generator
R&D	Research & Development
RPM	Revolutions Per Minute
TEC	Tidal Energy Converter
Torque control	The ability for the PMG to vary the amount of torque that can be applied to the generator, therefore helping to control the rotational speed of the turbine to maximise the power extraction
TSB	Technology Strategy Board
TSS	Turbine Support Structure, a physical piece of infrastructure that connects the turbine hub unit to the sea bed, to ensure it remains in place
TSR	Tip Speed Ratio, which is the ratio of the speed of the tip of the turbine blade as it rotates, versus the speed of the fluid stream
TTG	Tidal Turbine Generator
Variable pitch / blade pitching	A variable pitch turbine has blades that are able to rotate, and can vary the angle of the blade to maximise the efficiency of the turbine for varying tidal flow speeds
Velocity shear	Friction caused between layers of water flow. In this case, friction caused by the seabed causes the water flow to be slower near the seabed than near the surface
Yaw / yawing	The ability for a turbine to rotate to align itself with the tidal flow direction

1 Introduction

This document presents Ricardo-AEA's independent Technical Due Diligence on the ARL Tidal Turbine Generator (TTG) technologies, specifically the AR1000 and the AR1500 TTG designs.

In Section 2, we briefly summarise the development history of the AR1000 and AR1500 TTG designs.

In Section 3 we give our assessment of the AR1000 TTG, in relation to the proposed demonstration of this design at the CECEP site in China, by considering the application requirements ARL has defined for the CECEP project. This uses the data and evidence ARL has provided to us to allow us to form a judgment on the extent to which ARL can demonstrate satisfaction of the application requirements, and any areas where technical risks remain. ARL refers to the design for this specific project as the AR1002 TTG.

In Section 4, we give our corresponding assessment of the AR1500 TTG, in relation to the proposed demonstration of this design at the MeyGen site in the Inner Sound of the Pentland Firth in Scotland.

In Section 5, we describe the ARL team, their credentials, and those of ARL's leading technological partners and sub-contractors.

Following initial preparation of this Due Diligence report, in October 2013 Ricardo-AEA was notified by ARL that ARL had purchased MeyGen Ltd., the project development company that owns a Crown Estate agreement for lease for the MeyGen project. ARL was previously a minority share-holder of MeyGen Ltd., but has now purchased all the shares in MeyGen Ltd. ARL has told us of its intention to operate an "arm's-length" policy between it and MeyGen Ltd., but nonetheless ARL will be its own customer for the MeyGen demonstration project. At the time we reviewed documents in relation to the MeyGen demonstration, MeyGen and ARL were independent, albeit with a strong and open co-operation, and ARL was a minority share-holder only.

1.1 Introduction to Ricardo-AEA

Ricardo-AEA

Ricardo-AEA is an internationally renowned consultancy with world-leading energy and environmental expertise, operating predominantly in the UK, in Europe, and on projects across the world. We have world leading energy and environmental consultancy experience that includes a long track record of successfully delivering services and policy advice to UK central and local government departments, the European Commission, multinational corporations and a wide range of major public and private sector organisations.

Marine Energy Experience

Ricardo-AEA has been working in the tidal and wave energy sectors for over two decades. Our initial work supported the development of government funded research and development programmes. These include the DTI New and Renewable Energy Programme, the Marine Renewables Deployment Fund and the recent Marine Energy Supporting Array Technologies Technology Strategy Board (TSB) funding calls. Through these programmes we have seen and assessed many proposals and projects from the majority of the leading UK wave and tidal device teams since 1999 when the wave power programme re-opened.

More recent projects include:

- Due diligence for a bank to support a loan offer to a tidal energy developer
- Due diligence on the investment by a community organisation into a tidal energy array
- Due diligence assessment of a wave energy developer's product to support a further round of investor support
- Eligibility check on ocean energy projects applying for support under the NER300 programme
- Technical due diligence on 8 proposals for development and demonstration of wave and tidal technology
- Monitoring the progress of the Technology Strategy Board's investments into R&D on 11 different technology developments for the tidal and wave sector

1.2 Scope of Technical Due Diligence

It is not possible to evaluate the capabilities of any power generation technology in isolation of the intended application.

Consequently, to provide a focus for the Due Diligence, we consider the AR1000 and AR1500 in the context of two specific applications: the proposed CECEP project, in which an AR1000 design is to be deployed in China; and the proposed MeyGen demonstration project, in which an AR1500 design is to be deployed at the MeyGen site in the Inner Sound of the Pentland Firth in Scotland. For these two proposed projects, we will consider the requirements of each of the applications and, using information provided to us by ARL, form a judgment, as well as the data and information will allow, on the extent to which ARL can demonstrate that it has already met the requirements, and identify areas where it has yet to do so. For these latter areas we make an appraisal of ARL's prospects for meeting the requirements, and identify any areas where there remains a high risk of the application requirements not being met.

The key questions addressed in this assessment are:

- What is the current state of development of the two turbines in relation to their intended first deployment?
- What is the target performance of the turbines and what is the current performance gap?
- How rigorous and comprehensive is the testing conducted to date and what issues has it raised?
- What are the key areas of technical risk to achieving this on time and in budget?
- Do the current cost estimates look realistic, and are they supported by detailed estimates and quotations?

In Appendix 1 we describe the principal sources of information we have used as source material for this Technical Due Diligence. All documents were written by ARL staff, unless noted otherwise.

As the designs of both the AR1000 and AR1500 have benefitted from the results of earlier work on earlier turbine designs, including the cowled Solon concept and the twin rotor AK1000 design, we have reviewed certain information on these designs. To a degree, this is in part because of the information that they contain, but importantly also because they reveal the process that ARL goes through to learn from its projects and apply lessons to the future designs of its devices.

The following documents were reviewed as part of this due diligence:

3021-ARC-SW-010-Turbine Repair and Optimisation Scope.Rev1

Doc 5 - Atlantis - Technical Response - Final Rev 4

3021-ARC-SW-013-Turbine Electrical Condition Report.Rev1

ARC EMEC July 2011_Rev2

Solon_Configuration_Model_Final Report_Rev3 by Black and Veatch

March 2009 Solon Tow Test Report_Rev1 by Black and Veatch

ARC-DFEM AR1000 Turbine Upgrade Agreement 18 Feb 2013

AR1000 Upgrade Scope of Work FINAL 18 Feb 2013

Atlantis - Lockheed TA Final 9 Sept 2013

3024-ARC-JT-100-DesignIntentDocument-G

001 AR1500 Concept Design Report 4 June 2012

Project Completion report_AtlantisResourcesCorporation.doc, dated 23rd August 2013

001 NaREC and EMEC AR1000 Test Report 13 Dec 2012.pdf, dated 9th May 2013

ARC EMEC July 2011_Rev2.pdf.

3025-ARC-JK Basis of Design AR1000 CECEP_R2-1.pdf, dated 8th September 2013

Full scale validation of a numerical tool for the prediction of the loading and hydrodynamic performance of an axial flow tidal turbine.

Atlantis Tidal Bladed Review, dated 5th July 2013

It is beyond the scope of this Technical Due Diligence to consider the likely anticipated financial returns from these two proposed projects. Also, we do not consider the anticipated energy that would be generated in the actual tidal flows at these proposed project sites, any revenues from the sale of any electricity, the on-going operating and maintenance costs that would arise, and decommissioning costs.

Ricardo-AEA did not complete any testing ourselves but reviewed and evaluated the results of testing by others. We did not conduct any competitive benchmarking.

During this due diligence exercise, when approached for supporting evidence of reports, information was provided swiftly, indicating a well-organised and managed approach to information management and systems engineering.

1.3 Atlantis Resources Corporation Engineering Design Process

Most engineering projects proceed through a series of process steps, from Concept Design (in which major options are evaluated at a low level of detail) and Front End Engineering Design (where the preferred overall approach is evaluated in more detail) to Detailed Design (where the approach is designed in sufficient detail to enable manufacture).

This process is one of progression from low confidence and high uncertainty, to high confidence in the final detailed design; engineering projects that complete this process should have a high probability of success when deployed in the real, commercial environment, with success defined as performing as predicted. The Basis of Design is an over-arching document that describes the design reasoning and the environmental conditions the device must perform in. A Basis of Design is available for both the AR1002 to be deployed at the CECEP site and for the AR1500 to be deployed at the MeyGen site.

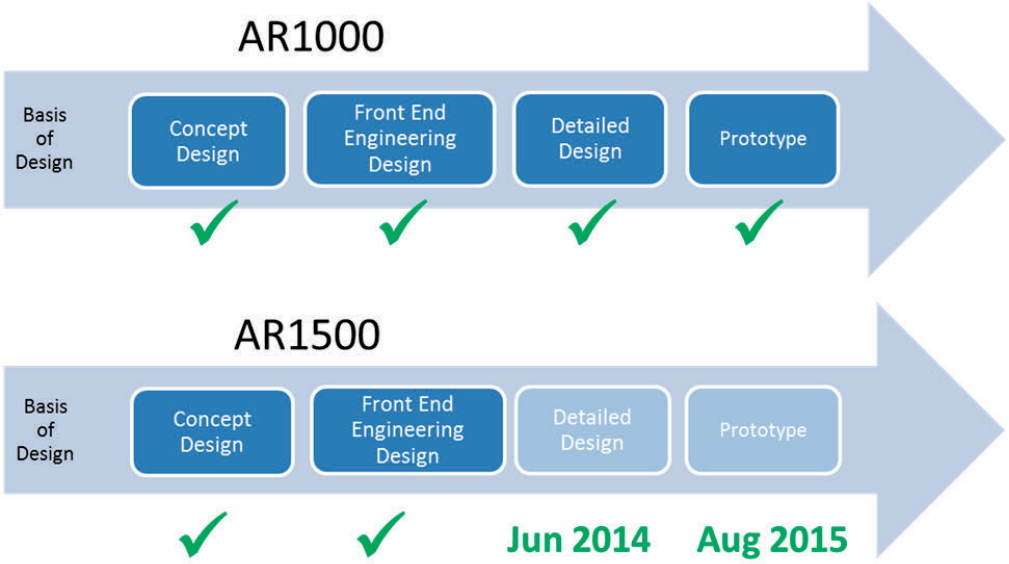

Figure 1: ARL prototype development milestones

The Basis of Design for the AR1002 at the CECEP demonstration site in China, gives an overview of the system and the main sub-systems, describes the design methodology, design requirements, and explains all assumptions that are made.

In relation to this Technical Due Diligence, the Basis of Design describes a high level set of *requirements* from the device after its refurbishment and modification is complete; it does not give evidence that the requirements are met or can be met.

The Basis of Design refers to similar documentation produced for the original AR1000 demonstration project at EMEC, during which the majority of the system components to be re-used in the CECEP demonstration were designed, fabricated, procured, assembled and subjected to Factory Acceptance Testing; we have not reviewed any documents that relate to the design of the original AR1000 deployed and tested at EMEC. However, we note that the AR1000 deployed at EMEC would have ***probably*** been through the complete design process in the same manner, culminating in Detailed Design, but potentially with less certainty and confidence given the overall level of knowledge and understanding of tidal stream technology there was at that time.

Figure 2 shows a diagram of the AR1500 TTG. This is the product that ARL will supply to MeyGen. The TTG is to be joined by means of a stab connection to a pylon that is part of the gravity base foundation located on the seabed. A connection management system allows power and communications to transfer to shore.

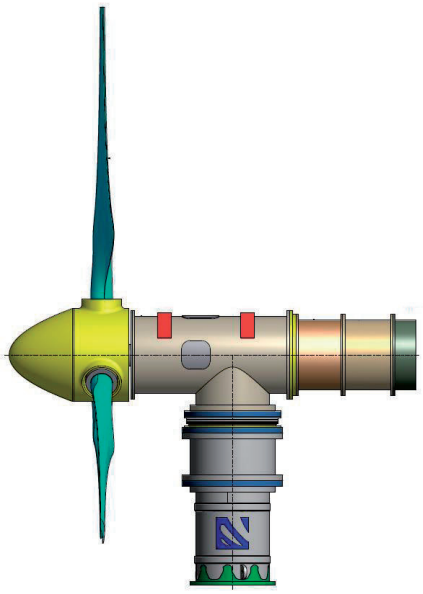

Figure 2: AR1500 turbine to be supplied by Atlantis Resource Limited

The proposed design of AR1500 has built on, and benefitted from, the experience gained by ARL in the evolution of the AR1000 design. In relation to the proposed demonstration of the AR1500 design at the Pentland Firth Inner Sound site for the MeyGen demonstration project, we also examined the Concept Design Report and the Design Intent Document for the AR1500 turbine designed to meet the specifications agreed with MeyGen. As we have earlier noted, ARL is now the 100% owner of MeyGen Ltd., and is therefore its own customer for this demonstration project. ARL has confirmed to us that the performance targets previously agreed with MeyGen for the demonstration phase of the MeyGen project will still apply after ARL takes control of MeyGen.

Again ARL adopts a rigorous approach in its design strategy. The outcomes from the FEED are clearly presented in detail and the next steps in the detailed design are provided. Further information is provided in section 3.10.

2 AR1000 and AR1500 Development History

The diagram below summarises the full development history of ARL device concepts through significant projects involving deployment and/or testing, leading to the AR1000 and AR1500 designs.

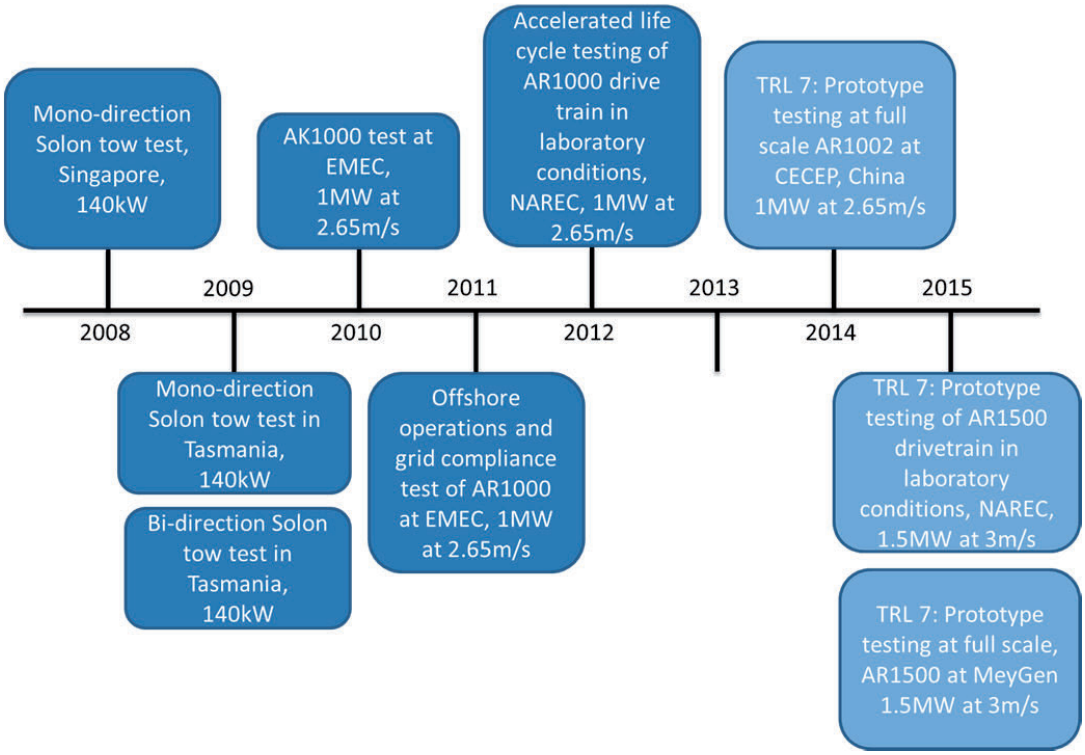

Figure 3: ARL prototypes testing milestones[1]

Technology Readiness Level (TRL) is a measure used to assess the maturity of evolving technologies. TRL 8 is defined as the actual system having been completed and qualified through test and demonstration. The light blue milestones indicate future milestones to be achieved during the deployment of the AR1002 and AR1500 TTGs. Upon successful completion of these deployments and operation of the TTGs, both will reach TRL 7.

Below we briefly discuss the projects. A more comprehensive discussion on the results from these projects is provided in Sections 3 and 0, where the results are available to us and where materially relevant to the designs of the AR1000 and AR1500.

[1] The definition of power in these projects is not always known to us. We assume that they are all the design peak power at a certain rated water flow; in some instances the rated flow is given, in others it is not. We cannot confirm if power was actually achieved in all of these deployment and test programmes.

ARL has been developing horizontal axis tidal turbine generators (TTGs) since ~2007-2008.

Its first concept, Solon, was not really a single concept as such, but more a family of design ideas that were being evaluated in a series of tow-tests in Singapore harbour and a tidal river estuary in Australia between 2008 and 2009. The design concepts being evaluated in these projects were the relative economic benefits of cowls versus no cowls, and mono-directional blade designs, which would require a yawing mechanism to be optimum, versus bi-directional blade designs, that would not require a yawing mechanism, but whose blade profile was symmetrical and therefore not optimum in either tidal flow direction.

Following these projects, ARL then developed the AK1000 concept, which was a single-axis, twin rotor (3 blades per rotor), contra-rotating design, to balance torque loads on the TTG. This was to avoid the need for a yawing mechanism and still allow blade designs to be optimised for the predominant direction of flow, operating bi-directionally without any re-orientation of the blades. The design had a fixed blade pitch, utilised a Permanent Magnet Generator (PMG) and was rated at 1MW at a flow of 2.65m/s.

A simpler version of the AK1000 design, which was not contra-rotating but included both sets of blades to allow loads on the blades to be determined, was manufactured and then deployed at EMEC in 2010.

In 2011, following design modifications to the actual AK1000 that had been deployed at EMEC the previous year, ARL deployed and tested the AR1000 prototype design at EMEC. Essentially, ARL removed one of the rotors and its 3 blades.

The AR1000 is a single rotor, three-bladed, fixed pitch, single stage gearbox driven PMG, TTG. The design is such as to allow for the inclusion of a yawing mechanism to orientate the device to the predominant water flow direction, thereby generating power on the ebb and flood, but the specific design of AR1000 prototype tested at EMEC did not include a yawing mechanism. Testing of the AR1000 took place at EMEC, using the same foundations that were installed for the AK1000.

After removal from EMEC, the AR1000 prototype was taken to the NaREC facility in Blyth, England, for testing of the powertrain (gearbox and PMG) in the Nautilus laboratory facility.

In parallel with the development and testing, and the evolution of the AR1000, 1MW rated-design, ARL has been developing a design variant, the AR1500, that is to be optimised for sites that have more energetic tidal flows, and where Levelised Cost of Energy (LCoE) analyses indicate a higher turbine rating would be optimum.

The initial focus of the development of the AR1500 design is the proposed MeyGen project in the Inner Sound of the Pentland Firth, between the island of Stroma and the North Easterly tip of the Scottish mainland. The site encompasses ~ 3.5km^2 and has one of the most energetic tidal streams in Europe. The proposed scope of the entire MeyGen project is very large, aiming to provide 390MW of operational tidal stream capacity by 2022. The MeyGen FEED was completed in June 2013.

The first AR1500 will be deployed as a demonstration project at the MeyGen site, along with three HS1500 devices that are to be supplied by Andritz Hydro Hammerfest. Installation of the AR1500 turbine is schedule for summer 2015.

3 AR1000 TTG Technology

In this section we describe the information we have reviewed, and our evaluation of this, to help us understand the development status of the AR1000 TTG technology.

It is worth noting that the AR1000 and AR1500 have shared a common development pathway until relatively recently, and have many common design approaches. As such, the majority of the information described in this section is directly relevant to the AR1500, too. We do not repeat information from this section in Section 4 if it is relevant to the AR1500.

3.1 Solon Tow Testing Results

In this report, Black & Veatch gave its assessment of the results to determine the rotor efficiencies of various configurations of the Solon concept, covering cowled, non-cowled, 3 and 6 blade configurations and mono- and bi-directional blade profiles, through tow-tests performed in Tasmania in March 2009.

The table below presents the calculated rotor efficiencies determined from the tests.

Solon configuration	**6 blades**	**3 blades**
Mono-directional blades, cowled	42.5%	39.3%
Bi-directional blades, cowled	32.2%	24.0%
Bi-directional blades, un-cowled	Not tested	22.7%

Table 2: Solon concept performance during tests in 2009

Black & Veatch make the following additional points:

- The choice of test site included natural river flows and tidal flows, and this would have introduced uncertainty into the results;
- The results were performed at relatively low velocities, in the region of 1-2m/s, which again increases uncertainty in the results as errors are proportionally larger at lower velocities and powers;
- The towed tests give rise to a bow wave from the vessel, which again increases uncertainty regarding the actual “water” velocity encountered by the turbine;
- Not all the results are necessarily directly comparable due to using different sources for measuring the power generation;
- Black & Veatch made assumptions about the gearbox, generator and AD-DC-AC power conversion;
- A rotor efficiency of 42.5% is consistent with a well-designed rotor;
- One would always expect a cowled device to have higher rotor efficiency than a non-cowled device, due to the acceleration of the flow caused by the cowl. However, the effect of removing the cowl (for the 3 blade tests) was quite a small reduction in rotor efficiency;
- Mono-directional blades outperform bi-directional blades, as expected, and this is a significant difference between the two concepts; and

- Future work should assess the costs and benefits of these various options in a cost/benefit analysis, using the results of this testing wherever possible, and the detailed economic assessment should take full account of the scale-up issues.

Our comments on this report are as follows:

- It reveals that ARL is following a process with a good degree of rigour to capture information that is intended to inform future design choices;
- The use of a well-regarded independent consultancy to inform ARL on the test programme and perform the analysis and interpretation of the results gives confidence in the results;
- The work would have benefitted from a comprehensive error analysis to quantify the overall level of uncertainty in the results, although the work of Black & Veatch was comprehensive in identifying the source of errors/uncertainties; and
- The report includes other findings by Black & Veatch. Those listed above have been included as they have specifically informed the design decisions in the subsequent AK/ AR1000 devices.

3.2 Solon Configuration Report

Building upon the work to tow test various configurations of the Solon concept, ARL again engaged Black & Veatch to support ARL with developing an optimum configuration of Solon for the proposed MeyGen site in the Pentland Firth. This is a comprehensive and systematic piece of work by Black & Veatch that generated a techno-economic model that produced as its primary outputs a Cost of Energy and a Net Present Value for many variations of the Solon configuration. It also generated many secondary outputs such as peak-loads on each design and gravity base structure (GBS) requirements. Variations addressed were: cowl/no-cowl; mono-/bi-directional blades; pitchable/non-pitchable blades; rotatable/non-rotatable blades; turbine with yaw/no yaw. It also considered the option of a PMG (without gearbox) compared with an induction generator (with gearbox). The analysis was performed using a generic, simple sinusoidal tidal flow data, generated from the peak flow for the MeyGen site in the Pentland Firth. Finally, through considering the UK and international patents and applications, it allowed the development activity to be considered in the context of whether any proposed approach might be impeded by the patent position.

The main points from this work are as follows:

- Cowled options are by far the most expensive due to the much larger peak loads on this configuration, requiring very expensive GBS and installation costs;
- Options with 2 blades are always cheaper than 3 blades, which are in turn cheaper than 6 bladed configurations. However, the difference between 2 and 3-blades is very marginal, so a 3-blade option may be preferred as mechanical balance would be better;
- Mono-directional blades are always cheaper than bi-directional blades - that is, the additional cost of a yaw system or a blade rotating system is offset by the value of the energy generated;
- The cost difference between pitchable and non-pitchable blade systems is very marginal;

- The cost difference between rotatable blade system and a yaw system is also very small. However, this point is caveated by noting that the analysis used an idealised, generic set of tidal flow data and that for real sites where there is frequently an offset between the ebb and flood tidal flow directions, a yaw system would be more advantageous; and
- In terms of PMG versus induction motor, there was not a preferred option on cost grounds. However, given the generally accepted reliability issues with gearboxes (and their increasing costs with rotor diameter) it may be that ARL should actively choose to develop and deploy a PMG solution.

The work also included an initial evaluation of three novel dual-rotor, co-axial turbine, co-rotating units concepts, approaches that potentially offer higher rotor efficiency and possibly remove the need for a yaw system. The key conclusions were that there are no known IP issues with the proposed co-rotating concept, but that co-rotating systems are unlikely to give a significant increase in rotor efficiency and may decrease rotor efficiency. However, there was much uncertainty and Black & Veatch concluded that the correct course of action was to commission tests to determine whether ARL's CFD estimate of Cp of 43.5% is accurate. Black & Veatch also identified that contra-rotating systems are more likely to result in an increase in Cp and would also provide a very significant torque balancing effect, but the value of this is limited unless devices are moored.

Our evaluation of this report is as follows:

- It again reveals that ARL is following a process with a good degree of rigour to systematically evaluate options; and
- The use of a well-regarded independent consultancy to perform the analysis and interpretation of the results gives increased confidence in the results and next steps taken.

3.3 Testing of AK1000

Prior to installation of the AK1000 at EMEC, consultants Fraser Nash completed a number of EMEC compliance studies to ensure the turbine and associated electrical systems complied with the Electrical System Considerations for Wave and Tidal Devices Connecting to the EMEC Test Facilities Rev.3.0, a requirement for installation at EMEC.

In addition, Lloyd's Register completed an appraisal of the turbine design to ensure compliance with both the relevant engineering design codes produced by DNV and to ensure compliance with:

- EMEC Guidelines for Marine Energy Converter Certification Schemes; and
- EMEC Guidelines for Design Basis of Marine Energy Conversion Systems.

The AK1000 design was the immediate precursor of the AR1000 tested at EMEC. The only information we have seen on this is in a Technical Response that forms part of a commercial bid from ARL to supply turbines to the MeyGen project. It is a twin, co-axial rotor design, with fixed blade pitch, and no yaw system. The document does not specify if it is a contra- or co-rotating concept. ARL states that the design used an experimental composite material for the blades.

- Whilst the GBS, cable termination and AK1000 were all successfully deployed, all six blades lost their composite material before the turbine was energised.
- ARL states this was due to a fault with the composite material.

- ARL had to abandon its development of dual, co-axial rotor design as, in the absence of a low cost manufacturing solution, a six bladed rotor was not commercially viable.

Our comments on this are as follows:

- Third party appraisal of the design process and codes is a prerequisite for installation and further confirms ARL's structured approach to engineering design, improving the likelihood of success; and
- We have not seen any information that led ARL to conclude that the experimental composite material might have been appropriate for this application, or any evaluation of the options available to it.

3.4 TSB Final Report

The final report from a TSB grant funded project to design build and test the 1MW rated AR1000 at EMEC, written by ARL, gives no data as such. It does include the following points:

- The AR1000 was deployed at the site at EMEC in August 2010. Deployment of the device took six days;
- Before spinning the turbine, a blade failure occurred, stated by ARL to be due to a "third party blade failure". Thus, no performance data was obtained during the first deployment;
- The turbine was removed from its site and new glass reinforced plastic blades were constructed;
- The AR1000 was redeployed in May 2011. During commissioning tests an inverter failure was detected, necessitating the removal of the turbine from the site for on-shore repairs. Again, it was not possible for any performance data to be captured, before the turbine was removed in July 2011;
- The inverter problem was repaired and the AR1000 was redeployed in late July 2011, with offshore operations taking fewer than 24 hours. During this deployment, power was generated and exported to the grid. Field testing was independently verified by the consultancy firm, Black & Veatch, as described later in this report;
- In October 2011, a medium-voltage component on the AR1000 failed, requiring removal of the turbine from the site. (It was never returned to the site, but instead taken to NaREC for testing in the laboratory); and
- During these deployment procedures, installation procedure time (vessel deck to sub-sea mechanical stab) was reduced from 90 minutes to 60 minutes.

It is worth giving our assessment on these points from the testing at EMEC, as at first inspection they can appear negative.

- ARL successfully deployed and removed the AR1000 three times. This gives high confidence that the mechanical stab connection is working as designed, as is the related Connection Management System (CMS), through which power is to be taken off the device and through which the device is monitored and controlled.

- During these deployments, ARL has made a significant reduction in the time required for offshore operations from 6 days to fewer than 24 hours. This is a major achievement and results in a reduction of installation cost (a big factor for all tidal stream generators) and reduces the impact of weather on installation.
- Apart from the blades, the on-board failures were to components, so far as we can tell, that would have been routinely available "off the shelf" and would be considered by many device developers as low technical risk. There was no redundancy in the overall design to mitigate the consequences of failures in these components.
- There were no reported failures to the gearbox, generator, stab and nacelle.
- The problems encountered by ARL at EMEC are largely in-line with the difficulties seen by all the leading wave and tidal stream technology developers during the initial deployments of their devices in a real sea environment.
- Over the course of ~13 months, the device was in the water collectively for eight months. No problems were reported with water ingress. No problems were reported with loading on the TTG, but we are not aware of the maximum water speed encountered by the TTG when it was in the water, and hence if the device experienced loads close to its design survival load.
- As a result of this experience the most active components were subsequently moved onshore in future designs.

3.5 Report on Testing the AR1000 (Gearbox and Generator) in NaREC's Nautilus Facility

- The measured drive train efficiency is given in the table below. (The units, (per unit, pu) are relative units. For load, 1 pu is 1MW output from the AR1000 generator, and for speed this is 12rpm at the input to the AR1000 gearbox.)

Load (pu)	Speed (pu)	Drive Train Efficiency[2]
0.9	0.9	0.87
0.9	0.95	0.86
0.9	1.0	0.85
1.0	0.9	0.90
1.0	0.95	0.89
1.0	1.0	0.88

Table 3: Drive train efficiency measured during onshore tests

- ARL's expectation was that the measured drive train efficiency would be in the range of 0.89-0.92.
- The NaREC test facility was unable to measure efficiency at anything other than close to full load for the AR1000, due to uncertainties in torque measurements. Consequently, there is no measured power curve for the drive train.

[2] This is report as Cp in the test report, however Cp is the ratio of electrical power output to kinetic power in the water passing through the turbine

- During tests the automated response of the in-built control algorithm and system response was monitored during a simulated tidal cycle. This included operation of the power converter functionality across the full operation envelope and speed regulation operation.

Our evaluation of this data is as follows:

- It is to be expected that the measured drive train efficiencies, in the range of 0.85-0.9, are broadly in line with ARL's expectations of 0.89-0.92. As this test was essentially of a gearbox rotating a generator at or close to maximum RPM and load, we would have expected the measured results to be very close to the design figures, which would have been provided by the suppliers of the gearbox and generator;
- No error bars are quoted for the measured results. This would have been a useful means of gauging the experimenter's confidence in the data;
- The fact that the measured data are a few % lower than expectations might be because of the experimental approach, which required assumptions about the test facility's gearbox and motor efficiencies at their part-loads;
- Gearbox and generator manufacturers will have data mapping the performance of their products over varying loads. The real determinant of system efficiency (water to wire) will be the energy captured by the rotor in a real sea, in very dynamic, turbulent conditions, with big transient loads on rotor from waves and turbulence; and
- Torque input from the NaREC test rig known as the Nautilus facility is designed to simulate the environmental (tidal flow) loads likely to be experienced by a tidal device by applying torque to the generator. It was set higher than the torque that would be anticipated from a minimum cut in velocity of 1m/s due to reported limitations in the NaREC test rig. The AR1000 PI controller was therefore not tuned for the low input torques corresponding to equivalent water velocities between 1-1.38m/s.

The report also makes reference to certain measurements taken during the commissioning of the AR1000 at EMEC in July 2011, and compares the NaREC measurements with them.

	TTG efficiency	Implied overall efficiency
Maximum	42.9%	84.1%
Minimum	38.5%	75.5%
Median	40.7%	79.9%
Average	40.8%	80%

Table 4: Measured TTG efficiency at EMEC

- The report states that these initial limited data were derived from Acoustic Doppler Current Profiler (ADCP) measurements of water flow 25m upstream of the rotor and power generated and measured onshore, captured during commissioning in late July 2011. (This applies to the first column of data, labelled *TTG efficiency*.)
- The *implied overall efficiency* is calculated from the *TTG efficiency* by multiplying by a rotor efficiency of 0.51.

Our evaluation of this data is as follows:

- Without seeing the actual data (water flows, duration of test data, means of averaging test data, power measured on-shore, assumed cable losses over the 2.5km to shore, assumed AC-DC-AC power conversion losses), the data cannot be verified, nor necessarily understood;
- The report does say that the EMEC tests “were not at or close to maximum RPM/load as in the NaREC tests” and that the "EMEC results were not achieved at full-load but rather partial load at relatively low pu....." Consequently, these data cannot be compared with the NaREC data in any meaningful way;
- The derivation of the efficiency for the AR1000 gearbox/generator combination from the measured power on-shore is made on the assumption that the rotor's Cp is 0.51 (i.e. an approximate description is that 51% of the energy in the tidal flow is captured by the rotor, for all the flow conditions encountered). The report does indicate that this is derived in some way from the “best case for the blade profile from which the torque curves were derived”, but we haven’t seen this data. We do question the validity of assuming a constant rotor Cp in a real tidal flow, where there is turbulence and waves, and which means in practice that the blade will not always operate at its optimum Tip Speed Ratio;
- The *implied overall efficiency*, which refers to the drive train only, is not as valuable as the data on the *TTG efficiency*, as this is really an important measure in the AR1000 Basis of Design, and ultimately commercially. (This is with the caveat given above not having seen the data, nor the assumptions/calculations for losses); and
- The speed controller was tested at NaREC confirming the control of the turbine using stepped, sinusoidal, and look-up-table torque inputs. Through the frequency converter, correct speed and torque was achieved. A mechanical brake forms part of the AR1000. Some brake functionality was not tested due to NaREC test rig constraints.

The report also covers research to measure temperature rises in the gearbox and generator under test conditions at NaREC, to help give confidence that gearbox and generator losses wouldn’t cause overheating. As the tests were performed in air, not in seawater flowing past the gearbox and generator casings at speeds in the region of 3-5m/s, and the air temperature was much higher than the sea water will be at the CECEP site, ARL should have a good level of confidence that no problems with overheating will occur in practice.

NaREC also undertook what it refers to as “accelerated lifetime tests” as a means of demonstrating the robustness and reliability of the AR1000. In these tests, the NaREC test rig applied a sinusoidal torque input profile tidal flow (simulating actual conditions at EMEC), amended to effectively remove slack water, and adjusted to allow periods of cooling, thereby obtaining 3.85 months’ worth of data in a test lasting 83.6 hours. The tests were at 0.92 pu (generator) and 0.9 pu (shaft speed) as an extra precaution to prevent overheating. The energy generated during these tests is stated as being equivalent to 0.577GWh of generated electricity over the ~4 month period. No performance or operation issues were reported.

3.6 Results of ARC AR1000 Testing at EMEC, July 2011, Revision2, Written by Black & Veatch for ARL, Dated 10th October 2011

- The report describes the data source as 396 data lines of water velocity and electrical power output, provided by ARL as the "best points" gathered in the brief test period.
- Water velocity was measured by an ADCP located 25m upstream of the TTG, and each data point was the average of 11 cells of data. Power was measured line-side of the on-shore power converter, and therefore includes mechanical losses in the turbine, electrical losses in the generator, losses in transmission to the shore (~2.5km) and losses during AC-DC-AC power conversion.
- Black & Veatch stated that it understands that each piece of data represents 1s of data, and is therefore considered instantaneous.
- Black & Veatch used the data as provided, and couldn't comment on the data collection methods and data processing that had been undertaken by ARL.
- Black & Veatch calculated the power in the flow of the water with the same power capture area as the turbine (252.47m^2), for a rotor of 17.29m diameter, at the velocities measured.
- Black & Veatch also noted that measuring velocity as an average of 1s (instantaneous) measurements from 11 ADC cells did not conform to the then IEC method "Power Performance Assessment of Electricity Producing Tidal Energy Convertors", IEC 16th December 2010. This IEC method requires area weighted averages to allow for the velocity shear profile through the height of the water column and time averaged measurements (over between 4 and 10s) to allow for short-term fluctuations in the water flow. Black & Veatch attempted to make allowance for velocity shear by assuming a 1/7th power law, which would be normal practice, for the variation in velocity from the seabed, allowing for the depth of the water and the height of the nacelle.
- Black & Veatch couldn't confirm if the data was contiguous. As such, Black & Veatch could not form a view on the scale of errors (uncertainty) in the data due to turbulence in the water flow and the inertia of the turbine itself. Black & Veatch acknowledge that these errors could be "significant".
- Black & Veatch noted that the error measurement on the power generated was not given and assumed an error of ±0.5%, based on standard equipment used for measuring such powers. They also assumed a measurement error of ±1% in the ADCP velocity measurements, giving an overall error in the results of ±3% (with the exception of errors due to turbulence and turbine inertia effects).
- Water velocities in the test data ranged from 0.76-1.45m/s.

- Black & Veatch's analyses gave the following results:

	TTG efficiency
Maximum	42.9%
Minimum	38.5%
Median	40.7%
Average	40.8%

Table 5: Measured TTG efficiencies

These are the same results as presented in the report on the testing of the AR1000 drive train at the NaREC Nautilus facility.

- Black & Veatch also presented the data in a manner that attempted to show the relationship between TTG efficiency and water velocity (which would be a power curve, or part thereof), but the results showed that efficiency was seemingly unrelated to velocity in these tests which is counter intuitive; the results were very weakly correlated, with a very low correlation coefficient. Black & Veatch commented on this result, by noting the tests were made very early in the commissioning process, probably before optimum TSR had been identified, didn't cover water velocities higher than 1.45m/s, thereby acknowledging that mechanical and electrical losses are likely to be less at higher flow velocities, leading to a higher average efficiency, and acknowledged that there were likely to have been losses during the "running-in" of the turbine very early in its life that would reduce once properly run-in.

Below we give our assessment of the Black & Veatch report and the results it contains.

- Black & Veatch did all that was possible with the data provided, and noted the problems the data presented to enable a reliable measure of overall TTG efficiency to be calculated.
- That said, we would suggest the overall level of measurement error in these results is somewhat greater than ±3%, which was the assumed measurement error of the instrumentation used. Neither we nor Black & Veatch can quantify the actual experimental uncertainty in the results, but our comment is because of the following points:
    - Despite making a very reasonable assumption for velocity shear, the actual velocity shear in any given site is site-dependent and large variations from the classically assumed $1/7^{th}$ power law have been seen at real sites in practice;
    - The data does not allow confidence that machine inertia and short-term water velocity fluctuations are properly addressed. This means that we can't know for certain if the power output measured is actually due to the water velocity reported "instantaneously"; and
    - The results were obtained very early in the commissioning process, meaning that the performance of the device might change over time as it is "run in", and as changes to control are made to allow optimum TSR to be maintained.
- The data covered only a very limited range of tidal flows, and certainly included no measurements at or close to the maximum water velocity the AR1000 is designed to operate in.

- The data represents approximately 6.5 minutes of operation in total, which could be continuous data or data from several runs.
- It would be wrong to assume that the results provided accurately describe the long-term performance of the AR1000 design over the full range of tidal flow conditions it might have encountered at EMEC, if it had been possible for an extended period of testing to have been undertaken, nor for the full design life of the TTG.
- One couldn't rely on these data to determine the internal rate of return of a proposed commercial project with a high degree of confidence.

3.7 Turbine Electrical Condition Report – AK1000 and Turbine Repair and Optimisation Scope – AR1000

These two closely related reports describe the results of visual inspection and electrical testing of the AK1000 and design modifications to be made to the machine, now referred to as the AR1000.

The main points made in these documents are as follows:

- ARL identified the cause of the electrical fault within the medium voltage circuit breaker;
- The I/O pod was damaged by the mooring lines of the dive operator's vessel causing water ingress to I/O pod, damaging all equipment within; and
- Future modification to the AR1000, focused on the I/O pod, must eliminate single point failures, with redundancy added to all critical components. Design improvements must add robustness to installation of electrical and mechanical systems. Systems will have additional condition monitoring and fail safe modes.

Our assessment of these reports is as follows:

- Whilst it is beyond the scope of our Due Diligence to identify whether ARL has corrected all the electrical and mechanical problems its previous deployments at EMEC revealed, it is evident that ARL is following a systematic, and to us thorough, process of learning from its deployments and integrating that learning into future designs.

3.8 Description and Basis of Design for CECEP Demonstration Project

The AR1000 design is a 1MW-rated, single rotor, horizontal axis TTG, to be sea-bed mounted, and designed for sites where the flow regime indicates this size of turbine would be optimum (less energetic flows).

The TTG system is divided into a number of sub-systems. Below we briefly describe the *principal* sub-systems.

The rotor comprises three blades connected to the hub, which is encased in a nose cone. The AR1000 is a "fixed pitch" device concept, which means that at water flow speeds above the cut in speed and up to the rated flow speed, the speed of rotation of the rotor is controlled to maintain an optimum blade TSR, thereby generating maximum efficiency of power extraction from the flow.

The hub is connected to a low speed shaft, which is supported on bearings that have to be sealed to prevent water ingress. The low speed shaft, bearings and seals are housed in a nacelle, which is the main TTG housing structure.

The force imparted on the blades by the flow of water rotates the rotor shaft at a relatively low speed. This low speed shaft is then coupled to a single stage gearbox, which increases the speed of rotation of the shaft. The gearbox output shaft is then coupled with the rotor of a PMG, where the rotational power is converted to 3-phase AC output electrical power.

The gearbox and generator are to be attached to the rear of the nacelle.

The TTG also includes certain aspects of the power conversion and conditioning on board, but final power conditioning and voltage transformation occur onshore.

The TTG is to be mounted on a Turbine Support Structure (TSS), which comprises a Gravity Base Structure (GBS), and a vertical pylon to position the TTG at the correct height in the water column. The TTG is connected to the TSS using a mechanical stab connector. The ARL scope of supply is to be limited to the TTG, which includes both upper and lower parts of the stab connector; the GBS/TSS is to be the responsibility of the project developer.

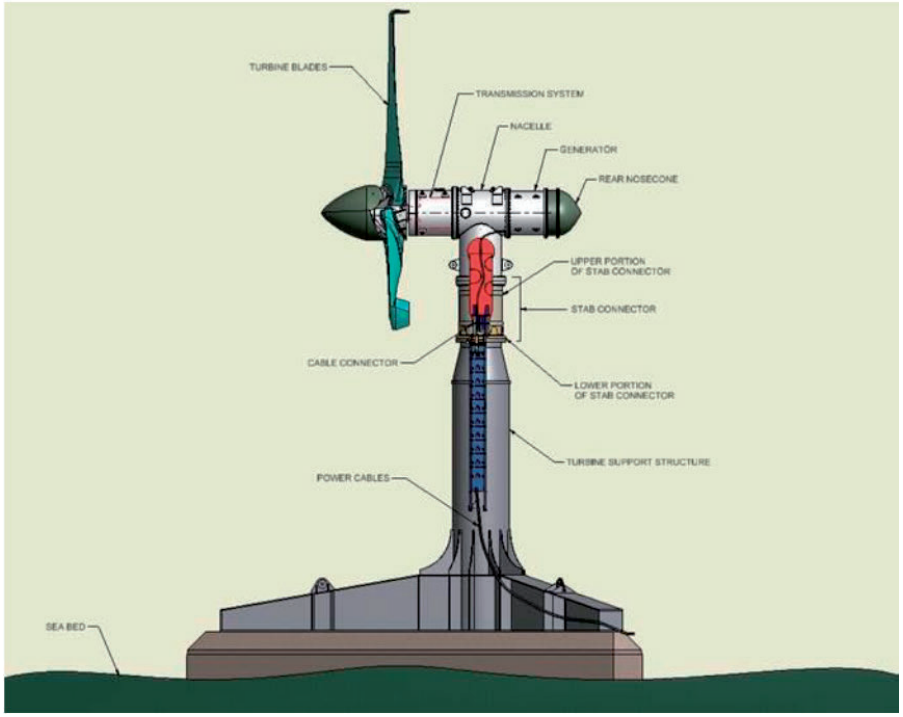

Figure 4: Representation of the AR1002 as it will be deployed at CECEP

ARL's stated design philosophy for the TTG is to provide a robust and reliable design that has minimal moving parts and that will require minimal maintenance. The design intent is to have only remote access during normal operation of the TTG. It is also the intention to have a design that can be rapidly deployed through the use of the two-part mechanical stab connector as the means of connecting the TTG to the TSS. The AR1000 platform is designed to enable the inclusion of a yaw system in the design in the future, which would rotate the TTG to face the direction of the flow for ebb and flood.

ARL also states that the maintenance approach is “replace and refurbish” and that the TTG should be designed to facilitate the rapid removal and replacement of the largest reasonably divisible components (such as the gearbox and generator). Moreover, for all components that have a life lower than the design life for the overall TTG, access for maintenance should be provided with minimal dismantling. In a further approach to high reliability, ARL states that all sub-sea systems and components are to be designed with 100% redundancy, or by showing that the Mean Time Between Failure (MTBF) is high enough to reduce the risk of a component failure forcing an unplanned shut-down.

The specific turbine that is proposed to be installed in the Guishan Channel, near Xiushan Island in China, is referred to as the AR1002. This is actually the same TTG that was installed at the EMEC in Orkney, with certain design changes to be made and fabricated once the decision to proceed with the project is given. The primary changes being made to the design are to the electrical I/O pod with associated electronics, and the Hydraulic Power Unit (HPU), which is to be replaced with a new HPU with dual pumps. Other minor changes include the provision of new bolts to fix the blades to the hub.

The AR1002 that is proposed for the CECEP demonstration has no yaw and pitch system, and with a single-stage gearbox and a PMG it is a relatively simple design in comparison to a device including, for example, variable pitching systems and a multi-stage gearbox.

The design of the GBS/TSS at CECEP is meant to allow for additional weight and forces that would arise from the subsequent inclusion of a yaw system on the AR1002, and from the possible replacement of the AR1002 with a larger AR1500 unit with yaw and variable pitch, should it subsequently be decided to upgrade the CECEP demonstration with an improved TTG design, and/or larger TTG.

In terms of survival, the device has to cope with the possibility of extreme wave loading at the same time as the highest tidal flow. The core of the structure (blades, hub, structural nacelle, mechanical stab) that is proposed to be deployed at CECEP was designed for a different site in Orkney. The design approach being followed is to endeavour to demonstrate that the conditions at CECEP are not as severe as at EMEC. The AR1000 deployed at EMEC is stated to have been designed to survive a combination of maximum tidal flow, 4.3 m/s, and a 1 in 100 year wave of 10.2m wave height, giving a combined maximum water speed of 8m/s. ARL provided the raw tidal flow data they have from ADCP measurements at the proposed CECEP demonstration site for a period covering 1 month. It was beyond the scope of this due diligence exercise to analyse the data; however, ARL reports that maximum tidal flows of 4.3m/s to have been seen. ARL has less data on the long-term wave climate at the CECEP site, but has contacted local oceanographers that have told ARL that the 1 in 100 year wave is not expected to exceed a 4m wave height. Adding a 10% margin of safety to the maximum tidal flow seen and a 20% margin of safety to the wave height, ARL has calculated that the maximum water speed to be survived is 4.8m/s, substantially lower than the design basis for the EMEC demonstration of the AR1000.

The table below, taken from the Basis of Design document, summarises the main functional requirements for the AR1002 CECEP demonstration.

Design Parameter	Description
Orientation of axis	Horizontal
Capturing power from both ebb and flood	No
Number of turbines per device	1
Power capping method	Stalling control methods
Number of blades	3
Maximum power	1MW
Speed control method	Torque control governed by power converter up to rated water velocity
Rotor cut in velocity	0.8m/s (maximum generation cut-in is 1m/s)
Rotor rated velocity	2.65m/s
Power capture Cp	42.5% (at generator)
System design life	20 years (structural only)
System design availability	0.98
Direction of rotation	Anticlockwise
Electrical power output specification	3 phase AC, 3.8kV output from generator terminals
System maintenance interval	5 years (array target)

Table 6: A1002 Basis of Design parameters

A comprehensive risk register, tracking over 100 risks, was provided for the CECEP project assigning risk responsibility to individuals and evaluating probability and consequence. Whilst it is beyond the scope of our due diligence to ascertain if all possible risks have been identified and mitigated, the risk assessment shows ARL is systematically identifying and evaluating risks and we saw evidence of mitigation steps being identified.

3.9 Development Status Compared with Basis of Design

In this section we give our appraisal of the extent to which the evidence and data that we have seen gives confidence on whether the AR1000/AR1002 meets the application requirements as described in the Basis of Design, which we also present as the Technology Readiness Level (TRL), and, if it does not yet, our judgment on its prospects for doing so and areas of key outstanding technical risk. We present this as a table to compare with the Basis of Design, but have removed certain lines where they are clearly not performance related (e.g. horizontal, 1 turbine, 3 blades etc.). The definition of TRLs is included in Appendix 2.

Risks are categorised as:

- Low – ARL has proved this parameter through previous tests, or ARL has not proven this previously, but the parameter is standard engineering in the sector
- Medium - not proven before by ARL, some degree of novelty within tidal turbine design, but not a substantial change from previous designs; combination of more than one low risk
- High - not proven before by ARL or industry, high degree of novelty; substantial change from what ARL has done before; combination of more than one medium risk

Design Parameter	Description	Appraisal	TRL	Risk	Evaluation
Power capping method	Stalling control methods	Not clearly met. EMEC test data did not include sufficiently high water velocities. However, this is a fixed pitch device, and there is evidence of good design of rotor. Depends on the control system.	4	Low risk	We see no reason in principle why ARL won't meet this requirement. There is well established science on the flow of fluids over blades and ARL is using the Tidal Bladed tool, developed for blade design in the wind industry and now often adopted by the industry for tidal blade design.
Maximum power	1MW, which may be reduced above rated water velocity, subject to commissioning results	ARL clearly has not demonstrated 1MW, as none of its previous deployments operated at rated velocity or higher. By anticipating a reduced power subject to commissioning results, but not stating what this is at the outset, ARL has a lot of leeway with this requirement.	4/5	Low risk	We see no reason in principle why ARL won't achieve this requirement. Gearbox and generator have been reasonably well tested in the laboratory at/close to full load, and there is evidence of good design of rotor.

Design Parameter	Description	Appraisal	TRL	Risk	Evaluation
Speed control method	Torque control governed by power converter up to rated water velocity	Not demonstrated offshore. Reports we have seen have made no reference to the success or otherwise of the power converter controlling torque. Results from onshore testing confirm the speed control method functions although this has not been demonstrated over full operating conditions. Some brake functionality has not been tested.	4/5	Low risk	We don't see any reason in principle why ARL can't achieve this. This is a standard technique for controlling generators and has been partially proven onshore.
Rotor cut in velocity	0.8m/s (maximum generation cut-in is 1m/s)	We have not seen the data to allow us to judge whether this has been demonstrated at EMEC deployments. It clearly started generating power at a ***certain*** water velocity, but we do not know what this is. The range of between 0.8 and 1 m/s does allow some leeway. This was not demonstrated at NaREC reportedly due to limitations of the NaREC test rig.	4/5	Low risk	How significant this would be to the overall prospects for the device at commercial site are unclear. It depends on the flow conditions at commercial sites, and the flows where the majority of energy is to be extracted.
Rotor rated velocity	2.65m/s	This is a design requirement, better thought of for our purposes as whether ARL has demonstrated the AR1000 will generate 1MW at 2.65m/s. Accelerated life cycle testing at NaREC confirmed onshore capability.	4	Low risk.	Black & Veatch found evidence of good rotor design, and the gearbox and generator have been well characterised and understood.
Power capture Cp	42.5% at generator	We have seen the results of Black & Veatch's analysis that showed a peak Cp of 42.9%, a mean of 40.8% and a minimum of 38.5%, so one could argue this has been demonstrated. That said, there was much uncertainty in the results due to not following IEC protocol, the limited data, and the data being captured early during the commissioning process.	5	Low risk	Previous research showed evidence of "good rotor design" and Cp of up to 42.9% has been seen in experimental results, admittedly with uncertainty in the measurements.

Design Parameter	Description	Appraisal	TRL	Risk	Evaluation
System design life	20 years (structural only)	Not demonstrated. ARL states that the site at CECEP is more benign than the AK/AR1000 was originally designed for at EMEC, but this is from limited tidal flow data, and limited wave climate data. We have not reviewed the load calculations on the turbines at the site that ARL has completed as they are outside the scope of our due diligence, but we have no reason to think that they would not have been done properly	3	High risk	As ARL is using appropriate design methods and is seeking certification, one might argue this is low medium. However, no tidal turbine has been successfully operated for anything close to this life-time.
Electrical power output specification	3 phase AC, 3.8kV output from generator terminals	AR1000 successfully connected to the grid at EMEC in Scotland, giving high confidence ARL can successfully condition the power to the code requirements.	7	No risk	Previously demonstrated that ARL has the capabilities. Standard electrical engineering.
System maintenance interval	5 years array target	Not relevant to single CECEP demonstration			N/A

3.10 CECEP Project Costs

Ricardo-AEA has evaluated project costs for many different tidal development projects over the last 20 years. What is consistent through many of these projects is the attention to detail that developers provide in the calculation of cost data, either through quotations provided by suppliers or estimation techniques from previous similar projects. Actual project costs can differ from estimated project costs, e.g. due to an unforeseen change in project scope or perhaps due to a component failure part way through the project. Precise cost estimates do not necessarily result in accurate cost estimates.

ARL provided Ricardo-AEA with the CECEP project cost control spreadsheet, 3025-CECEP-JS-002-CostControl-06, as at Sept. 2013. This suggests that ARL is following a disciplined process for budgeting, including re-forecasting, contingencies, risk assessment. This is a simple cash flow model for the project, but details all anticipated project costs that ARL has financial responsibility for. This includes all activities required to deliver the AR1002 turbine to CECEP and the completion of onshore commissioning and testing, prior to installation and offshore commissioning, which are not included in the project budget as these costs are met by CECEP.

Current total project costs are forecast at £1,166,632. A Eurostars grant of £240,000 is anticipated to partially fund the project, leaving net project costs of £926,632.

Ricardo-AEA has not been provided with a detailed scope of work to confirm whether the costs outlined cover all activities outlined in the commercial agreement between ARL and CECEP; however, we have been provided with supporting evidence used to determine the project costs.

The cost of every work package has been reviewed by Ricardo-AEA. Where costs were taken from quotations, the values were confirmed; however, it was beyond the scope of this due diligence to review the terms of each quotation, so there is the potential for variation from the final cost incurred. The accuracy of the calculations within the cost control spreadsheet were confirmed.

The risks of the costs increasing on the work package were evaluated. This followed an assessment of the probability of the cost increasing, determined from primary evidence used to estimate the costs, and the impact the increase would have on the overall cost. Those costs from a currently valid quote were given a low probability of increasing, whilst those costs based on ARL estimates were given a high probability of increasing. The impact on the overall price of the project was determined. The full impact of any procurement is determined by the item being delivered at the right price, at the right time and at the right quality. In this evaluation we only have access to price information. Those resulting in an overall 1% increase in overall cost were considered low impact. Those with greater than 10% impact were considered high impact.

Using this methodology, all costs were evaluated as low risk except the design and supply of a new I/O pod and the DFEM supply of materials and labour. Accounting for over 49% of the total budget, these items were considered to have a medium risk as both account for a relatively high proportion of the overall costs.

Work Package	CECEP Project Cost Work Package Description	Budget
1	**Logistics**	
1.2	Turbine shipment UK to China	£60,000
1.3	Blades/ hub/ other shipment UK to China	£30,000
2	**Design**	
2.1	GBS design	£70,000
2.2	CMS/ GBS integration tests	£5,000
2.3	Nacelle Installation Tool (NIT) check	£10,000
2.4	Manual and training	£5,000
3	**Procurement**	
3.1	Design and supply I/O pod to DFEM	£440,000
3.2	CMS	£191,632
3.4	Strain sensor system	£45,000
3.5	Blade repairs	£15,000
4	**DFEM Scope of Works**	
4.1-4.5	Supply of materials, oil, lubricant, equipment, labour	£115,000
4.6	Rental of test-bed facilities and equipment	£10,000
4.8	Steel fabrication works	£40,000
4.9	Port rental	£10,000
5 & 6	**CECEP Tasks - Preparation, Installation and Commissioning**	
5-6	Installation support for CECEP (contingency)	£70,000
	General contingency allowance	£50,000
	Total	
		£ 1,116,632

Figure 5: CECEP Project Costs

Our assessment from reviewing the cost control spreadsheet is that it would seem that a thorough approach has been adopted in managing the costs, although we have not confirmed this approach is being followed.

The level of contingency for the project is less than we have seen for other single tidal turbine projects; however, this turbine has already been installed previously, so the risks of turbine failure resulting in significant cost increases are reduced, and the costs reviewed here do not include installation costs, the highest risk elements of the project.

4 AR1500 TTG Technology

In this section we present our review of the information we have seen on the AR1500 TTG design. As the AR1500 shares a common development history with the AR1000, this section builds on that presented earlier in this report on the AR1000 TTG.

As the design is progressing through a standard engineering process, much of the information presented in two of the key documents (Concept Design Report and Design Intent Document) is similar, or the same, just with increasing confidence and certainty. We cover them together.

4.1 AR1500 Concept Design Report/AR1500 Design Intent Document

- The AR1500 is specifically designed for the MeyGen site. This is a very energetic tidal flow, with a very harsh wave climate.
- The AR1500 Concept Design Report (CDR) presents the results of a major piece of work, lasting approximately 1 year. The report is very substantial and refers to a large number of supporting technical reports, many of which were produced by leading engineering contractors under contract to ARL.
- The CDR is not a high level “concept report”. It is very detailed. It explains all the analyses ARL has undertaken to that point in the engineering process, identifies design decisions that have been taken and the reasons for these, identifies areas where future work is still required later in the design process, and remaining uncertainties. This report presents the results of the work performed by ARL to conclude the concept design freeze point, including the development of component specifications. The CDR work is the pre-cursor to the Front End Engineering Design (FEED).
- The results of the FEED are reported in the AR1500 Design Intent Document (DID). The DID itself is described as a living document that evolves as ARL proceeds through the design process. The version of the DID that we reviewed was “frozen” in June 2013. This means that ARL and MeyGen are satisfied at that point that the TTG design will meet the requirements of the MeyGen project, and this in turn gives ARL its internal sanction to proceed to the Detailed Design stage – this is the final stage of the design process before manufacturing.
- ARL has determined that to operate in higher flow regimes than the AR1000 is designed for, and hence account for the resulting increased loads on the TTG, the blades of the TTG must be variable pitch, a key difference from the AR1000 design. This would allow the turbine to generate in higher flow velocities, as above the rated water velocity the blades would be pitched to shed any additional load on them and hence on the TTG. The design is to be an active pitch system which would remove dynamic loading effects from waves and turbulence. This allows the rotor to operate at optimum TSR up to rated speed, and then for the blades to pitch to shed load, allowing the device to operate at flows higher than rated, up to a maximum cut out speed. The pitch system design control, manufacture and testing is being undertaken by Lockheed Martin MST. Detailed design was scheduled to commence in December 2013.

- Although the individual AR1002 TTG to be deployed at CECEP does not have yaw capability, the AR series of turbines has been designed with mono-directional blades (see below). Hence, to maximise the energy captured from the tidal flow, the AR series of turbines is designed to yaw to face the direction of flow. A prototype yaw drive for the AR1000 has been designed by LM MST[3]. A high level summary of the progress in the prototype development has been provided indicating that dry testing has been completed, although no evidence of this has been reviewed. The AR1500 yaw drive system is also to be designed, manufactured and tested by Lockheed Martin MST.
- The design intent is for the device to yaw during periods of slack tide, to minimise loads on the device. Although designed for the MeyGen site with approximately 143 degree variation between ebb and flow directions, it will be designed to be of capable of rotating the TTG to meet the requirements of other sites around the world. Once the TTG has rotated to face the forthcoming tidal flow it would remain at a fixed position until the next slack tide at which point it would rotate again.
- Building on the experience of installing the AR1000 at EMEC, the AR1500 is designed to utilise the same blade design, made of GRP, primarily as ARL asserts that these blades have been proven on the AR1000. ARL argues that these blades are cheaper than carbon fibre alternatives and allow for a more hydrodynamic design. The DID does not specify the final blade profile that has been chosen, although part of the NACA 6-series profiles (a standard blade shape) is cited for use as used successfully on other tidal turbines. A 6 month detailed design and test programme was scheduled to commence in November 2013.
- ARL proposes that a two-stage gearbox and a PMG give the best combination of reliability and efficiency for the turbine. Ricardo-AEA has not reviewed this analysis. A summary of the analysis completed by Smartmotor, LM MST and ARL was provided. This determined that a single stage gearbox significantly reduced the expected service interval when compared to a direct drive generator (from 9.3 years to 6.2 years). However the increase in capital costs of direct drive resulted in a 12% increase in the project LCoE, making a gearbox solution the better alternative. Further analysis by ARL determined a 2-stage gearbox provided a more cost effective solution again.
- Through the FEED, opportunities have been identified to integrate the seals, shaft, bearings, gearbox and generator more closely than in the AR1000 design.
- Gearbox and generator cases will both be cooled by the flow of sea water past the TTG.
- The assessment of bearing options is presented in the CDR, identifying a preferred solution proposed by a third party contractor. This concept was developed further with input from the gearbox supplier, Involution, to further simplify the bearing layout by integrating it within the gearbox. A load analysis has not been completed as part of this due diligence; however, the evaluation process is clearly outlined within the DID.
- The mechanical stab mechanism used on the AR1500 design is the same mechanism that has been tested during the deployment of the AR1000 at EMEC; hence it benefits from having been tried and tested. The electrical stab connection, through which HV, LV and communication lines pass, is to be made through the AR1500's CMS, which completes the wet mate connection. The CMS design has evolved from the EMEC system to include fewer components, which should reduce the complexity and risk in this vital component.

[3] Reference: AR1000 Integration Lesson's Learned 2013_RV_06252013.pdf

- The AR1500 has a design availability of 98%, derived from a maintenance strategy that results in the turbine needing to be retrieved 3 times over its 25 year life-time, dictating service intervals which are intended to be 6.25 years for fully commercial devices. To achieve this, ARL has included redundancy within sub-systems where possible, including hydraulic power packs within the pitch system, multiple lip seals on the main shaft, additional brake callipers, two on-board transformers for auxiliary power and 3 yaw drive units, although the TTG could yaw with only one. Where redundancy is not possible (blades, the pitch bearings, the main shaft and bearings, the gearbox, and the generator) condition monitoring is included. Whilst this approach does not guarantee that the design availability of 98% will be achieved in practice, it allows for a controlled maintenance strategy to be implemented. Throughout the DID, for each component, the service and maintenance strategy is provided.
- The documents provide the Basis of Design for the proposed AR1500 which was designed specifically for the MeyGen site in the Inner Sound of the Pentland Firth. This is summarised in the following table, giving a set of high level requirements that the AR1500 is being designed to meet.

Design Parameter	**Description**
Orientation of axis	Horizontal
Capturing power from both ebb and flood	TTG will be able to generate electricity in both the ebb and flow tides
Nacelle orientation into flow	Yes. Turbine orientation will be fixed during each tidal exchange
Number of turbines per device	1
Power capping method	Electrical load/blade pitch
Number of blades	3
Maximum power	1.5MW. The rated power may be limited at MeyGen initially to 1.4MW but the power will always stay at the rated value from rated current to cut-out
Speed control method	Torque control governed by power converter up to rated water velocity. Above rated, pitching of blades will shed load[4]. Emergency mechanical brake on High Speed Shaft (HSS)
Rotor cut in velocity	0.5m/s (maximum generation cut-in is 1m/s)
Rotor rated velocity	3m/s
Power capture Cp	>44%[5] at generator
System design life	20 years was included in the Basis of Design. This increased to 25 years through FEED. Structural only
System design availability	0.98
Direction of rotation	Clockwise
Electrical power output specification	3 phase AC, 4.1kV output from generator terminals

Figure 6: AR1500 Basis of Design parameters

[4] The Basis of Design functional requirements table in the Concept Design Report states that "Above rated, pitching of blades will be used to regulate speed". However, this is not strictly true. Discussions with ARL confirm that the torque converter will control the speed. The blades will pitch to reduce the power capture by the hub

[5] Cp is not actually a percentage, but a ratio of incoming power within the tidal flow to power generated, however interpreted within the MeyGen specification as a %

Below, we below we give our assessment of these reports and what we think they reveal about ARL and the AR1500.

- The reports provide a significant body of evidence that ARL is following processes that learns from previous projects and is applying this learning to the design of future projects.
- Across all components, the CDR and DID provide a significant level of detail in the fundamental analysis that has been completed. Where this has been completed by ARL (for example, blade design), details of the first principle calculations that have been completed are outlined, including the assumptions that have been made.
- Design decisions are clearly outlined and reasoned, balancing the advantages and disadvantages of each option taking into consideration performance specifications, survival, maintenance and impact on cost of energy. Design choices are evidence based.
- ARL is following a well-established engineering design approach of Concept Design, leading to FEED, which will lead to Detailed Design. To us ARL appears to be operating in a systematic and rigorous manner that at its conclusion ought to lead to a design for which there is a high degree of confidence in how it will perform.
- The documents reveal a design philosophy that endeavours to produce a robust, low maintenance design. Wherever possible, systems are being designed with redundancy, fail safe modes and condition monitoring.
- The programme for the design of AR1500 for MeyGen includes Factory Acceptance Testing of all components that are supplied to ARL. It also includes Systems Integrated Testing of the completely assembled TTG (excluding rotor) and further testing at the dockside prior to installation.
- ARL frequently engages leading engineering contractors to support it in its design work.
- Where third party contractors have been engaged the options proposed have been outlined and the justification of the selected option provided. Any supporting documentation is referenced accordingly.
- Ricardo-AEA has not seen the analysis completed by ARL of fixed pitch loads at high tidal flows to confirm the cost effectiveness of variable pitch systems that has resulted in their inclusion in the AR1500 design. However, Ricardo-AEA is aware of a number of competitor turbines that have also adopted variable pitch systems indicating a convergence in design to the most cost effective solution.
- There is some uncertainty regarding the impact of seawater on strength and fatigue of GRP used on the blades. ARL provided a number of academic papers which have been used in its impact modelling. ARL reports that the initial blades will be designed on the assumption that saturation and significant degradation may occur and, to mitigate against this, additional protective coatings layers would be applied.

- The analysis of the drive train options that resulted in the 2-stage gearbox, torque controlled PMG is not contained within the design documents made available. A separate study is referenced, part of the first phase of an ETI funded project to analyse the complete infrastructure of a tidal array. The ETI project is taking a whole system and through life approach to identifying, developing and proving the best route to a commercially viable cost of energy from tidal technologies when deployed at an array scale. The initial phase of the project was led by ARL. ARL engaged with a range of industry specialists. Those involved in the development of the power take off design include Rexroth, SmartMotor and IHC Lagersmit. The preferred drive train solution resulting from this study was a 2-stage gearbox with PMG.
- The only power curve provided for the AR1500 is the theoretical average, steady-state power curve for the electrical power at the generator output terminals. It shows the rated power of 1.5MW @ 3m/s.

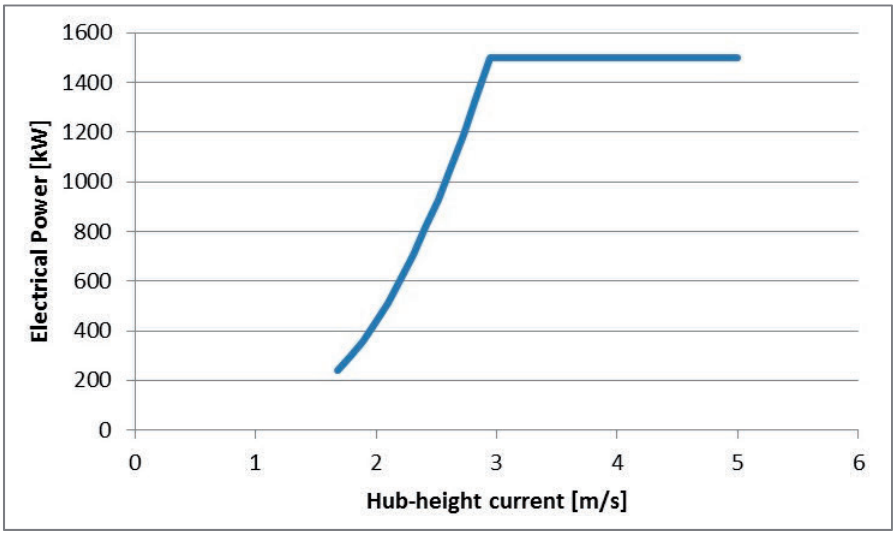

Figure 7: AR1500 theoretical power curve

As identified within the DID, this is not a commercially warranted power curve and so no estimates of performance can be made from it. The gearbox and generator efficiencies used to provide the curve are estimated provided by the suppliers, Involution and The Switch, as shown in the following graph.

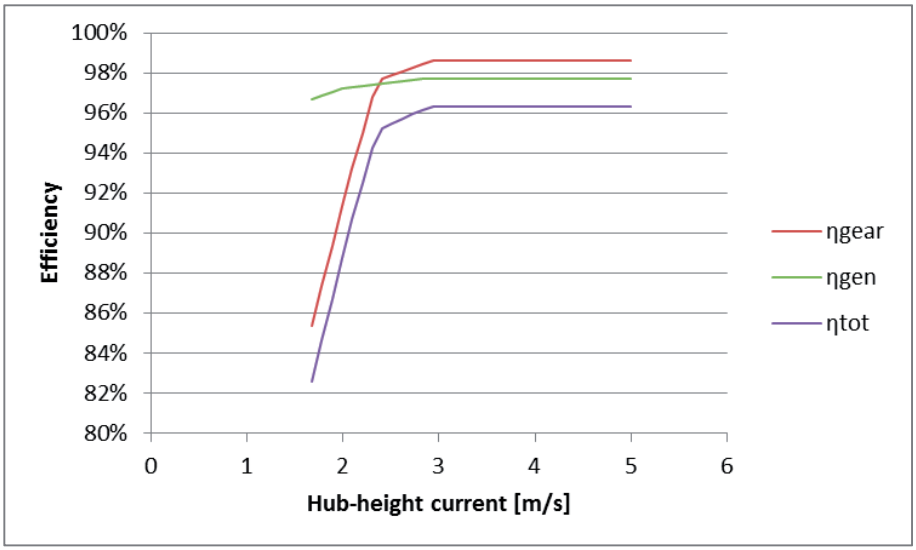

Figure 8: Turbine, generator and drive train theoretical efficiencies

From these estimated efficiencies, using a rotor Cp of 0.47, at rated power of 1.5MW @ 2.94m/s, the turbine efficiency (Cp x generator efficiency x gearbox efficiency) would be 0.452. Whilst this meets the stated design target it should be noted that:

- The generator and gearbox efficiencies are estimated, so provide no guarantee of actual performance in operation;
- No inverter, switch gear or cabling losses are included in the calculation so additional losses in electricity generation should be considered (noting that losses in the export cable are excluded from any performance targets); and
- There is no experimental confirmation of the Cp for the AR1500 will be, so the Cp of 0.47 used here provides no further insight into the potential of the turbine to deliver this calculated efficiency of 0.452. (Below we describe the analyses that ARL has done to determine that a rotor Cp of 0.47 is reasonable.)

We also make the following points:

- ARL proposes using a modified version of the GBS deployed at EMEC for the deployment at MeyGen. A detailed geotechnical survey is a requirement to ensure that the TTG maintains its position once installed, as movement in the GBS would cause variations to the design loads. Details of the geotechnical survey and GBS design have not been reviewed as part of this technical assessment; and

- Further research into the absorption of sea water by the GRP blades is essential. ARL is aware of this potential problem and is proposing a materials test programme to thoroughly evaluate the extent of sea-water absorption. The results from these tests will not be available until after completion of the Detailed Design for MeyGen, so ARL is proceeding with what it describes as a "conservative approach". In the absence of data, the degree of conservatism is unknown. If there are failures of blades at a demonstration project, this in itself is not critical. What would be more important is if such a failure would lead to a reversion to a more traditional blade construction, which would have implications to the designs of the hub, rotor and blade pitching mechanisms, and would change all the loads on the TTG, which might lead to changes being required to nacelle, tower and other turbine components. This would significantly impact costs.

4.2 Full Scale Validation of a Numerical Tool for the Prediction of the Loading and Hydrodynamic Performance of an Axial Flow Tidal Turbine

This well written research paper presents the results of GL Garrad Hassan's comparisons of Tidal Bladed predictions with measurements made on TGL's 500kW device at Orkney. It covers power, rotor speed, blade pitch angle and bending moments on the blade root.
It gives the following information:

- Tidal Bladed (TB) predictions of mean power (over 10 minutes) correlate very well with measured mean power. This is for the full range of normalised mean hub height flow speed from 0.6-1.3. The average ratio of predicted mean power to measured mean power over all data is 1.015 - very close. The ratio is better than average at and above rated flow, but somewhat poorer at lower flow velocities (between 0.7-1.3 at ~0.6 rated flow) as we have seen on other TTGs;
- The report also shows maximum and minimum measured and predicted load during each of the 10 minute average data samples. This is showing a much greater range in the TB predictions compared with measured results. GL Garrad Hassan attributes this to increased turbulence in the simulated results due to known problems with the measuring device, and possibly incorrect assumptions;
- For rotor speed, as in 2 above, TB is predicting the mean very well, but the maximum and minimum ranges less well. Same issue with turbulence;
- For pitch angle, there is very close agreement between TB predicted and measured data. There is some variation seen between 0.925-1.0 times the rated hub flow. (Data covers 0.6-1.2 times the normalised hub flow speed. We are not certain of the real significance of this variation between 0.925 and 1.0, which is occurring just at the point where the device reaches rated power at rated flow);
- For the blade root bending moment, there is a very good match between predicted and measured mean values, with TB over-predicting the moments. This is good, as if a designer designs with TB this will introduce conservatism into the structural design. Peak loads match very well, as does the flow at which peak loads are seen;

- The paper also covers a blade root bending fatigue load (an important design driver) comparison, by deriving a parameter called design equivalent loads from the predictions and the measured data. This shows that the TB predicted result is consistently higher than that which is measured, in some cases as much as 100% greater (at low flow speeds). Predictions are typically ~50% greater than measured at rated flow. Thus, using TB for fatigue load calculations ought to lead to a conservative design. Interestingly, TB and measured data match much more closely at higher flows and at 1.2 times the normalised flow; so they would lose their conservatism at higher flows; and
- The paper also disaggregates the damage equivalent loads into stochastic (waves and turbulence) and periodic (variations due to shear profile and tower shadowing). This work was not as conclusive, due to concerns over whether or not GL Garrad Hassan was correctly describing the turbulence and shear profile that the machine was actually experiencing, compared with what was measured 50m away and what was derived from this based on assumptions about turbulence length.

Below we give our thoughts on this paper:

- This is an strong research paper written by one of the leading consultancies that provides analysis and design support to wind turbine rotor and tidal stream rotor designs;
- The Tidal Bladed tool has been developed from a similar tool, Bladed, that has been used successfully over many years by the wind industry;
- The comparisons between Tidal Bladed and measured results are very good for power, pitch angle, rotor speed and bending moment, over 10 minute averages;
- Maximum and minimum values are not so well in agreement, for very plausible reasons identified;
- Tidal Bladed is state of the art for rotor design;
- All data are normalised to the TGL rated power and rated flow, so it is not possible to determine if this is representative for ARL sites, and power; and
- Reliable data on shear profile and turbulence are required for the environmental conditions that the machine will actually experience.

4.3 Atlantis Tidal Bladed Review

In this presentation given by GL Garrad Hassan in July 2013 to ARL, the following points are made:

- Using Tidal Bladed, GL Garrad Hassan is predicting a peak rotor Cp of 0.475;
- Cp will be ~6% lower if the hydrofoil is "rough", which we interpret to mean perhaps with marine growth;
- Cp varies with TSR and has a fairly broad peak;
- Cavitation is not expected to be an issue, but design tweaks maybe needed to certain of the blade profiles being considered to be more certain of this; and
- ARL is exploring detailed design of blade tips in an attempt to minimise tip vortex shedding, and thereby increase Cp to maximise energy capture.

Our thoughts on this are as follows:

- Using TB gives a high degree of confidence that ARL will achieve the rotor Cp required for the AR1500;
- Using TB for the load calculations is likely to lead to conservative (i.e. safer, more over-engineered) design structures; and
- Again, ARL is using leading contractors with the best available tools to support its design work.

4.4 Development Status Compared with Basis of Design – AR1500

In this section we give our appraisal of the extent to which the evidence and data that we have seen gives confidence on whether the AR1500 meets the application requirements, as described in the Basis of Design, which we also present as a Technology Readiness Level, and, if it does not yet, our judgment on its prospects for doing so and areas of key outstanding technical risk. We present this as a table to compare with the Basis of Design, but have removed certain lines where they are clearly not performance related (e.g. horizontal, 1 turbine, 3 blades etc.).

Furthermore, ARL has in place a Turbine Framework Agreement with MeyGen Ltd., and this includes a Turbine Performance Specification for the turbines supplied under the initial phase of the MeyGen project. This Turbine Performance Specification identifies that:

- The minimum turbine rated power shall be 1.3MW with a higher target of 1.5MW, measured at the generator terminals;
- The rated power is achieved at a target efficiency of 42-45%;
- The maximum turbine cut out water velocity is 5 m/s along the direction of the TTG axis orientated to the flow; and
- The TTG is to have the same power curve in the ebb and flood directions.

Irrespective of the purchase of MeyGen, ARL has advised Ricardo-AEA that it will be adopting these targets for the initial phase of the MeyGen project, as part of its described arm's-length relationship with MeyGen.

Furthermore, ARL has advised us that for the purposes of project modelling, ARL is assuming a post-commissioning availability target of 85%, which it expects to increase gradually as any early stage problems are corrected.

As the Basis of Design is essentially for a fully commercially available TTG, we also include in the table below those availability targets that are applicable to the initial phase of the MeyGen project, where they are different to the Basis of Design.

Design Parameter	Description	Appraisal	TRL	Risk	Justification
Capturing power from both ebb and flood	The AR1500 deployed at MeyGen will orientate to the direction of tidal flow	Not demonstrated. Apart from the increased scale above the AR1000, this is the major design change, requiring the development of a completely new yaw system.	4	Low risk	The appointment of a credible contractor, LM MST, coupled with prototype construction and testing, followed by design optimisation goes a long way to mitigating risks of failure. However, we have not seen the results of testing, and the design that has been tested was for the AR1000.
The TTG is to have the same power curve in ebb and flood directions (**For the initial phase)**	Although this is only listed in the targets for the initial phase, this is clearly desirable for commercial phases, too	Not demonstrated. ARL has not generated a power curve from its previous deployments or experimental work. It has modelled rotor, gearbox and generator and thus derived a theoretical power curve, which clearly is independent of flow direction for a yawing device.	3	Low risk	The physics of fluid flow and the interaction with the turbine is the same in both directions. It is not inconceivable that characteristics of the flow (turbulence, obstructions, wave direction etc.) might lead to variations in the power curve in different directions, but these are outside the control of any technology developer, provided it develops a successful yawing mechanism.
Nacelle orientation into flow	Turbine orientation will be fixed during each tidal exchange	Not demonstrated. See above.	4	Low risk	See above.
Power capping method	Electrical load/blade pitching will be utilised to control the power output from the turbine	Not demonstrated. We see no reasons in principle why the electrical load can't be used to control power capping. The same applies to the pitching method, but this is a new feature not previously deployed. Tests at NaREC could have demonstrated use of electrical load control, although we haven't seen this. Also, limited range of test data only at or close to full load.	4	Medium risk	Combination of two undemonstrated techniques. However, a credible contractor, LM MST, is doing the design work for the pitch system, and the system has various levels of redundancy and fail safe modes. Using electrical load to control generation is not in itself novel.

Maximum power	1.3MW - 1.5MW. May be reduced above rated water velocity, subject to commissioning results.	Not demonstrated. Previous devices were smaller, and in lower speed flows. Tests were only of very short duration. New gearbox and new generator designs are required for the AR1500. Cp for the rotor has been calculated by Garrad Hassan to be 0.475.	5	Medium risk	ARL is mitigating risks with a series of onshore dry tests of the drive train and full TTG.
Speed control method	Torque control governed by power converter up to rated water velocity. Above rated, pitching of blades will shed load[6]. Emergency mechanical brake on HSS	Not fully demonstrated. Appraisal as per AR1000. Not demonstrated offshore. Reports we have seen have made no reference to the success or otherwise of the power converter controlling torque. Results from onshore testing confirm the speed control method has operated, but not over full operating conditions. Some brake functionality has not been tested.	4	Medium risk	All new features that have not previously been demonstrated for AR1500. We see no reason in principle why power converter method won't work. ARL and its contractors also seem to us to be very rigorous and conservative, with multiple layers of redundancy and fail safe modes. Also, see comment on torque control in relation to the AR1000.
Rotor cut in velocity	Target 0.5m/s. Maximum generation cut-in is 1m/s	Not demonstrated for AR1500. This is to a degree a design choice and site specific. AR1500 is also for energetic sites, so energy captured expected to be at or above rated flow. Given TRL 5 as AR1000 device definitely cut in at a velocity.	5	Low risk	We don't see this as significant; most energy will be generated at rated velocity or above.
Rotor rated velocity	Target 3m/s	This is a design requirement, better thought of as whether ARC has demonstrated the AR1500 will generate 1.5MW at 3m/s. Not demonstrated. TRL 4/5 given on the basis of partial test of AR1000 prototype at EMEC, but those tests only experienced a maximum flow of 1.45 m/s.	4/5	Low risk	Gearbox and generator characteristics are theoretical. Rotor efficiency calculated using validated design tool Tidal Bladed.

[6] The Basis of Design functional requirements table in the Concept Design Report states that "Above rated, pitching of blades will be used to regulate speed". However, this is not strictly true. Discussions with ARL confirm that the torque converter will control the speed. The blades will pitch to reduce the power capture by the hub

Power capture Cp[7]	>44% as measured at the generator	Not demonstrated for AR1500. Previous deployment of AR1000 at EMEC did not demonstrate Cp as high as this. What was demonstrated had a significant level of uncertainty.	3	Low risk	Gearbox and generator characteristics are theoretical. Rotor efficiency was calculated using validated design tool. Flow of fluids and interaction with aerofoils/hydrofoils is well understood. Tidal Bladed has been used to predict Cp, which is state of the art and has a good track record, although is only partially validated for tidal streams.
Efficiency **(For the initial phase)**	Rated power is achieved at a target efficiency of 42-45%	Not demonstrated	3	Low risk	Modelling with Tidal Bladed and gearbox and generator characteristics has predicted that this will be achieved. The target range gives greater likelihood of achieving, compared with a single numerical target for a commercial project.
System design life	25 years. Structural only	Clearly not demonstrated for MeyGen, but rigorous design approach being followed for a very demanding site in terms of flow and wave climate.	3	High risk	As ARL is using appropriate design methods and is seeking certification by Germanischer Lloyd, this could be considered a medium rating. However, no tidal turbine has been successfully operated for anything close to this life-time.
Post commissioning availability **(For the initial phase)**	0.85	This is clearly not demonstrated and is a substantial increase from what has been achieved to date.	*3*	Medium risk	Too great an improvement on what has been achieved to date for it to be low risk. ARL has demonstrated integration of learning from previous projects into the design of the AR1500, with multiple layers of redundancy, fail safes, and detailed improvements to design.
Maximum turbine cut out velocity **(For the initial phase)**	5 m/s (along the direction of the TTG axis orientated to the flow)	Not demonstrated. Previous deployment did not operate anywhere close to maximum velocity	3	Medium risk	In principle, this ought to be relatively standard control engineering (“When flow exceeds 5 m/s, shut down”), but the real significance of this is that it is about ensuring that the turbine safely shuts down when flows exceed 5 m/s; requiring blades to feather, speed to be controlled and brake to be applied.

[7] The basis of design sets a Power Capture Cp of > 44%. Cp is not an efficiency, but the ratio of power produced by the tidal turbine

Electrical power output specification	3 phase AC, 4.1kV output from generator terminals	Not demonstrated. Previous deployment of AR1000 at EMEC demonstrated ARL can achieve grid compliant power quality.	7	No risk	Previously demonstrated ARL has the capabilities. Standard electrical engineering.

4.5 MeyGen

MeyGen Ltd was awarded an Agreement for Lease (AFL) for the Inner Sound tidal development site on 21st October 2010 by The Crown Estate during the first round of leasing for wave and tidal projects, as shown in Figure 9 below. The Inner Sound AFL is for the installation of up to 390MW tidal stream power.

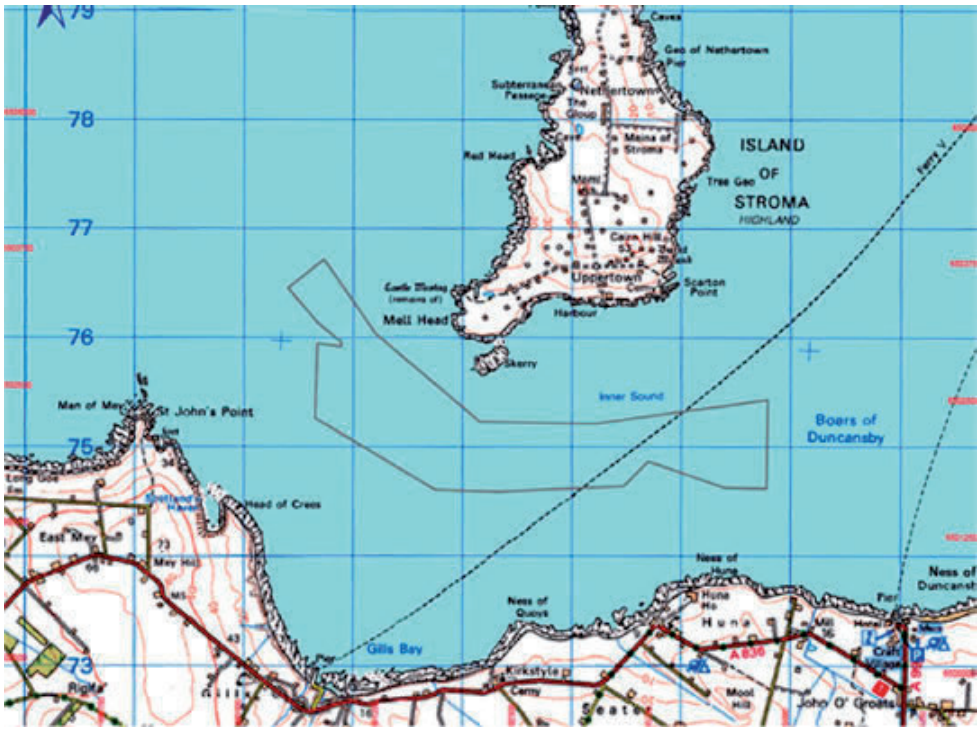

Figure 9: Inner Sound Agreement for Lease area.

The first stage of the MeyGen project, referred to as Phase 1A, will result in the installation of four TTGs, three from Andritz Hydro Hammerfest and one from ARL. Figure 10 outlines the installation schedule for these turbines provided by ARL.

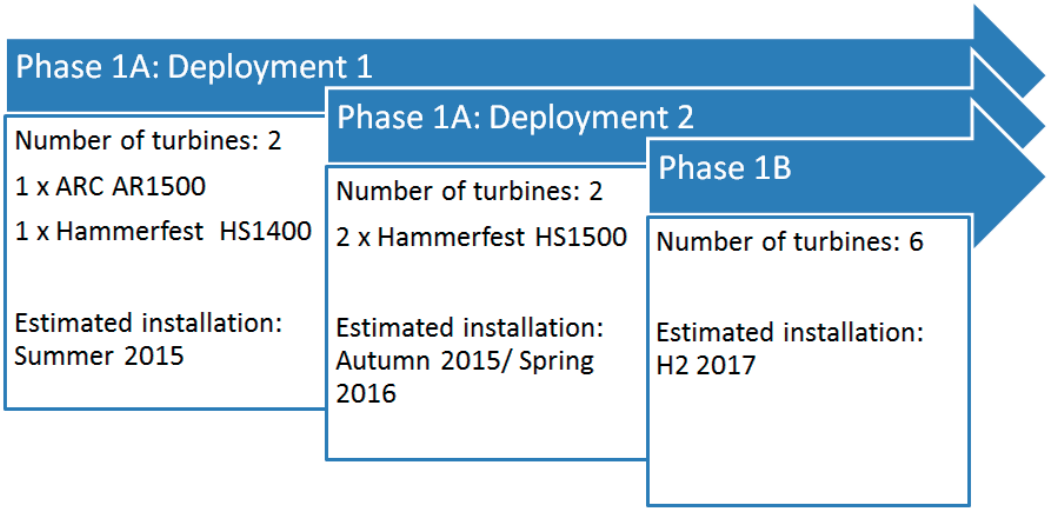

Figure 10: MeyGen TTG installation schedule for Phase 1A and Phase 1B

4.6 MeyGen Project Costs

Ricardo-AEA was provided with a spreadsheet 3+1 MeyGen Summary Budget v3, outlining the project costs for the MeyGen project. This was developed with input from both ARL and MeyGen, prior to the buyout of the MeyGen project by ARL. ARL has taken ownership of MeyGen and now controls the budget for the project. There is less detail within the project cost spreadsheet than the CECEP project, with no evidence of an internal risk assessment.

The total cost of the project is £41,367,004 which covers all activities leading to the installation and commissioning of three TTGs from AHH and one AR1500. The risks of the costs increasing on each work package were evaluated. This followed an assessment of the probability of the cost increasing and the impact the increase would have on the overall cost. The breakdown of these costs is shown in Table 7.

Work Package	Price	Risk
Four tidal turbines	£17,650,000	Low
Four GBS foundations	£4,440,000	Medium
Four onshore converters	£2,735,769	Low
Subsea cable	£2,786,159	Low
Turbine, GBS and cable installation	£5,126,805	Medium
Labour and overheads	£2,259,768	Medium
Grid connection	£1,838,503	Low
Crown Estate lease payment	£2,000,000	Low
Contingency	£1,580,000	
Total	**£41,367,004**	

Table 7: MeyGen project costs

The costs have been calculated either from fixed price quotations, indicating a competitive tendering process may have taken place, or from estimates, based on experience from previous operations at EMEC and the current market prices of materials. ARL has applied realistic learning rates to some of the cost assumptions to take account of this experience.

Costs derived from quotations accounted for 65% of the overall costs, with 35% of overall costs derived from ARL estimates. The value of each quotation used has been confirmed but it was beyond the scope of this due diligence exercise to review the terms of each quotation. All were obtained within the last 2 years; however, none of the quotations is a firm price and all costs are therefore subject to variation until detailed design has been completed and final quotes obtained.

The turbine costs account for 43% of the overall project costs. We have not seen the terms of the supply agreement between AHH and MeyGen. ARL reports that the turbines are being supplied at a fixed price by AHH and that ARL will be supplying MeyGen with the AR1500 at a matched price. This is in line with the relative costs of the turbines to total project costs that we have seen for other projects of a similar scale.

The GBS costs are based on estimates that were completed for the installation of the AR1500 at a different location. There is still work required to develop the design of the foundation and understand the coefficient of friction with the seabed. This uncertainty is reflected in the risk assessment.

Installation costs have been difficult for other turbine developers to correctly forecast and control. The vessel day rate assumed is in line with the average day rate cost incurred by ARL during previous operations at EMEC. ARL will benefit from the experience of having installed a gravity base for the AR1000 TTG at EMEC and the installation and retrieval of the AR1000 TTG 3 times previously. Offshore operations for the installation of foundations and turbine (operations controlled by ARL) account for 6% of the overall budget, within which ARL has allowed for 25% contingency in the number of days of offshore operations.

A total contingency of less than 9% has been included. Experience in offshore operations in the tidal sector is increasing and there are indications of best practice being shared amongst developers and subcontractors, such as those to be used on this project, that have completed dozens of tidal turbine operations. Despite good planning, budgeting and contingency, our experience is that projects at this stage can cost a lot more than expected and frequently take a lot longer than anticipated, due to unforeseen challenges and difficulties. Large scale onshore construction projects, which as a result of being onshore, may be considered lower risk, allow in the region of between 7-10% for contingency. It may therefore be appropriate to allow for a larger contingency at this stage in the design and procurement process.

Not accounting for a larger contingency, final costs that we have seen for similar multi-turbine, multi MW projects are comparable with the costs estimated for the MeyGen project.

5 ARL Engineering Team

The ARL senior engineers are a team of highly qualified engineers with over 30 years of cumulative experience working in the tidal generation sector and 16 years of cumulative experience developing the ARL series of tidal turbines.

5.1.1 Drew Blaxland: Chief Technology Officer

Drew has 6 years of experience on the development of ARL's tidal energy turbines. His role is executive leadership of tidal technology R&D, engineering, manufacturing, projects and testing.

His achievements at ARL include:

- Developed MW-class tidal turbine subsea infrastructure for AR1000
- Led deployment and grid connection of MW-class subsea tidal turbine installation for AR1000
- Part of the executive team to win the MeyGen bid in 2010 for 390MW tidal array in Scotland
- Secured and assured US$12 million of government funding for ARL R&D and tidal projects, including the UK's Energy Technologies Institute project for cost reduction in tidal energy
- Four patents accepted, and two patents pending for tidal technology
- Integration of technology development into overall corporate strategy

Prior to this Drew gained 18 years of experience on developing and delivering major infrastructure projects in the housing, health, hotel and leisure sectors.

Drew has an MBA with High Distinction (Valedictorian) from Bond University, Queensland and a Bachelor of Engineering (Hons) (Civil Engineering) from University of Technology, Sydney.

5.1.2 Jeremy Thake: Head of Technology Development

Jeremy has over 15 years of experience in tidal generation, working on the development of 6 different tidal turbines. He has been with ARL since 2012.

Prior to joining ARL Jeremy's achievements included:

- Coordination of an EC funded prototype developments to build a 1.2MW device for Pulse Tidal
- Management of design team at Tidal Generation Limited for the 500kW prototype and 1MW pre-commercial demonstrator, including detailed design of drivetrain
- Project management of assembly of the Tidal Generation Limited 500kW prototype at a Rolls Royce factory
- Management of foundation installation and turbine factory and field testing
- Concept development of the Seagen 1.2MW twin rotor prototype turbine, with specific responsibility for detailed design and construction management of the drivetrain
- Responsible for development of MCT's tidal flow and economic modelling techniques to evaluate financial viability of the technology
- Management of continued operation and testing of the Seaflow tidal turbine, including data analysis and production of public reports

Jeremy has an MSc (Agricultural Machinery Engineering) from Cranfield Institute of Technology and an MA (Hons) (Engineering Science) from Oxford University. He is a Chartered Engineer and Fellow of the Institution of Mechanical Engineers.

5.1.3 David Rigg: Head of Technology Delivery

David has 4 years of experience on the development of ARL's tidal energy turbines. His role is as project manager.

- Led a team of engineers and managed multiple contractors across a broad spectrum of disciplines to fabricate and install the world's first commercially viable tidal turbine
- Developed and led the implementation of the corporate project management systems
- Responsible for developing and managing the organisation's health and safety management systems
- Led the blade development team with responsibility for managing fabrication, testing and installation of new GRP turbine blades, including the development of the world's first tidal turbine blade test facility
- Designed and managed the turbine assembly and quality control procedures
- Developed the offshore installation procedures and led all offshore construction work

David has a history in engineering construction and process improvement spanning over 10 years working on energy construction projects and in the UK military.

David has an MBA from Southampton University and is a certified Prince 2 practitioner, who graduated from Oxford University with a Master of Engineering (Hons) (Engineering Science)

5.1.4 Luke Murray: Design Director

Luke has 5 years of experience working as the design director at ARL.

His activities at ARL include:

- Focus on all aspects of turbine design, including initial site evaluation, resource data collection and analysis, and design of complex electrical, mechanical and structural systems
- Management of diverse and numerous sub-contractors and partner organisations to deliver designs
- Working with industry certification bodies to convert design risk into appropriate safety factors and develop industry best practice design methodologies

Prior to joining ARL, Luke had acquired over 10 years of international experience in detailed engineering design, design management and power systems engineering, working across a variety of roles within the Australian power utility sector.

Luke has an MBA with High Distinction from Newcastle University, Australia and a Bachelor of Engineering (Hons) First Class (Electrical).

An additional 9 engineers make up the expanding engineering team at ARL in addition to the commercial and office support staff.

5.2 Key Partners

5.2.1 MeyGen

MeyGen has worked with ARL to develop the specifications for the AR1500 which has been designed specifically for the environmental conditions at the Inner Sound site, although it will be suitable for deployment and generation at many other sites.

On October 31st 2013, ARL increased its 10% shareholding in MeyGen to 100% to strengthen ARL's position as a combined project and technology developer. ARL has informed us of its intentions to operate an arm's-length policy between MeyGen and ARL.

5.2.2 Lockheed Martin Missions Systems and Training

Lockheed Martin has been working with ARL for nearly 4 years on turbine development and projects. Lockheed has breadth and depth of engineering capabilities in the marine sector. LM MST and ARL have an agreement in place for LM MST to lead on the pre-installation and turbine integration of the AR1500. This will see LM MST coordinate the design and engineering work packages leading to the manufacture and onshore testing of the AR1500.

The agreement will result in at least US$5 million of investment of LM MST resources in the first AR1500 to be deployed at MeyGen. This investment will include the design, manufacture and testing of the yaw and pitch system to be installed on the AR1500 outlined in Section 4.

Lockheed Martin has significant experience in the design of naval systems, some of which will be relevant. They have yet to develop a yaw and pitch system for a tidal turbine though.

5.3 Suppliers

As a technology developer, ARL has engaged many suppliers and sub-contractors to provide products and services where ARL does not have the resources to provide these internally. The experience of many tidal developers throughout the tidal sector, ARL included, has shown that expensive failures in the design and testing of prototypes have resulted from poorly defined and managed interfaces with suppliers. ARL has shown that it has learnt from the successes and failures of this experience in both the choice of its suppliers and the development of the design of its turbines.

All key technology suppliers developing components for the AR1500 on the MeyGen project have or are working towards internationally recognised quality management system certification. These include the suppliers of the generator, gearbox and control system. This applies to the key suppliers on the CECEP project as well.

This reduces the risk of a repeat of the component failures that ARL experienced at EMEC.

Appendix 1: Summary of key documents reviewed

Below we describe the principal sources of information we have used as source material for this Technical Due Diligence. All documents were written by ARL staff, unless noted otherwise.

As the designs of both the AR1000 and AR1500 have benefitted from the results from earlier work on the Solon™ concept and the AK1000 design, we have reviewed certain information on these designs. To a degree, this is in part because of the information that they contain, but importantly also because they reveal the process that ARL goes through to learn from its projects and apply lessons to the future designs of its devices.

We briefly reviewed two reports on the Solon™ device. These reports are relevant to both AR1000 and AR1500, although we present our review in Section 6, on the AR1000. These reports were:

- Black & Veatch's Assessment of March 2009 Solon™ Tow-testing and Performance, written by Black & Veatch for ARL, dated April 2009. (March 2009 Solon Tow Test Report_Rev1.pdf, 20th April 2009). In this report Black & Veatch reported its analyses of test results from the Solon tow test programme, in which various configuration of the Solon concept were tested, notably four variants of a cowled design, (6 blades, 3 blades, both with mono-directional and bi-directional blade designs) and an un-cowled, bi-directional 3 blade, blade design. The result focuses on the efficiency of the power capture of the various configurations studied.
- ARC Solon Configuration Model Final Report, written by Black & Veatch, dated October 2009. (Solon Configuration Model Final Report Revision 3.pdf, 13th April 2010). In this report, Black & Veatch presented the results of its analyses, building on the previous test results of a Solon Configuration Model, developed to help ARL produce a design with optimum LCoE for the MeyGen site in the Pentland Firth. As such, it reports a techno-economic analysis of the principal options facing ARL, such as cowled, or un-cowled, numbers of blades, mono- or bi-directional, generator type and other factors affecting the potential economic performance of the TTG.

We have not seen a report on the AK1000, as such, but we have seen reference to the deployment of the AK1000 at the European Marine Energy Centre (EMEC) in the following document:

- Supply of Turbines Request for Proposals – Technical Response, dated 20th June 2012. *(Doc 5 Atlantis Technical response Final Rev 4.pdf, 21st June 2012.)* This document forms part of a commercial bid from ARL to supply turbines to the MeyGen tidal stream project in the Pentland Firth, Scotland. The purpose of this document in the overall bid documentation was to give the bidder, ARL, the opportunity to provide MeyGen with an understanding of ARL's current turbine maturity and to understand how ARL would undertake any modifications to enable its turbines to fulfil MeyGen' s requirements.

Focusing on the AR1000 device concept, we have concentrated on the following documents. Again, much of this information is relevant to the AR1500 device concept.

- Project Completion Report for the Technology Strategy Board (TSB) R&D grant, for project No. 210021 *(Project Completion report_AtlantisResourcesCorporation.doc, dated 23rd August 2013.)* This is the final commercially confidential report from the UK Government R&D grant funded project that culminated in the deployment and testing at EMEC of the AR1000. The report fulfils an administrative requirement of the TSB and contains very little research data, information or evidence, and what it does cannot be independently verified by us.
- AR1000 Test Report. Testing of the AR1000 at NaREC including comparison to 2011 EMEC test data, dated 13 December 2012. *(001 NaREC and EMEC AR1000 Test Report 13 Dec 2012.pdf, dated 9th May 2013.)* This document describes the laboratory testing of the AR1000 gearbox and generator at the 3MW drivetrain facility at NaREC, Blyth, known as the Nautilus facility. Nautilus is designed to simulate the environmental (tidal flow) loads likely to be experienced by a tidal device, to enable various characteristics of the power train (gearbox and generator) to be measured, such as efficiency at various loads. This report contains data and evidence from the drivetrain efficiency measurements and tests to determine the thermal response of the gearbox and generator, and tests of the AR1000 control system. We cannot independently verify the actual data contained in the report.
- Results of ARL AR1000 testing at EMEC, July 2011, Revision2, written by Black & Veatch for ARL, dated 10th October 2011. *(ARC EMEC July 2011_Rev2.pdf.)* Black & Veatch was not itself involved in the testing of the AR1000, but this report gives certain analyses undertaken by Black & Veatch of overall TTG efficiency using data supplied by ARL. We cannot independently verify the data used by Black & Veatch, nor can we therefore duplicate their calculations. We have no reason to doubt the analyses performed by Black & Veatch; on the contrary, Black & Veatch is a credible organisation for undertaking work of this type.
- Turbine Electrical Condition Report – AK1000, dated 9th January 2012. *(3021-ARC-SW-103-Turbine Electrical Condition Report.Rev1.pdf.)* This report presents the results of a visual inspection and electrical testing of the AK1000 following its removal from EMEC.
- Turbine Repair and Optimisation Scope – AR1000, dated 14th December 2011. *(3012-ARC-SW-010-Turbine Repair and Optimisation Scope.Rev1.pdf.)* This report identifies modifications to be made to the AR1000 prior to any future deployment.
- Basis of Design, AR1002 CECEP, Revision 2, dated 31st July 2013. *(3025-ARC-JK Basis of Design AR1000 CECEP_R2-1.pdf, dated 8th September 2013.)* This document gives the basis of the design of the AR1002, a proposed demonstration of a refurbished and modified AR1000 device that had previously been deployed at EMEC in Orkney.
- The initial stages of development of the AR1500 are summarised in a Concept Design Report, *001 AR1500 Concept Design Report 4 June 2012,* produced by ARL in June 2012. The aims of the CDR were two fold. The CDR outlines the scope of work to be completed in detailed design and provides enough detail to the subsystem design to allow ARL to engage OEMs for the supply of key components. This incorporates the Basis of Design for the AR1500 at MeyGen.
- The CDR is the foundation for the FEED that is outlined in the AR1500 DID, *3024-ARC-JT-100-DesignIntentDocument-G*. The AR1500 DID builds on the results of the CDR and the resulting recommendations to provide additional detail in the TTG design and optimisation process. The DID contains the latest design parameters for the AR1500.

Appendix 2 – Definition of Technology Readiness Levels

TRL	Basic Definition	Description	Level of integration
9	System qualified through successful operations.	Technology proven in its final form and under operational conditions.	System fully integrated.
8	System development completed and qualified through test and demonstration.	Technology has been proven to production standards and under the full range of expected conditions at sea. **This TRL represents the end of Demonstration.** Test and evaluation of the system to demonstrate it meets the equipment specifications and requirements specifications.	Internal and external integration validated on final production design.
7	System prototype demonstrated in an operational environment.	Prototype of the operational system demonstrated in the operational environment. **Full scale prototype tested in representative conditions at sea.** Supporting evidence provided to show that full capability requirements can be met.	All systems integrated and interfaces (internal and external) qualified in an operational environment. **Full-scale system demonstration.**
6	System / sub-system model or prototype demonstrated in a relevant environment.	Representative model or prototype system tested in a relevant environment / relatively benign sea conditions. Prototype tested in a "high fidelity" laboratory environment or in simulated operational environment.	Interfaces demonstrated at system level in a relevant environment. **Sub-scale system or full-scale sub-system demonstration.**
5	Technology component or basic sub-system validated in relevant environment.	The basic technological components are integrated with realistic supporting elements and tested in a simulated environment. Integrated components tested in a "high fidelity" laboratory environment. Technology demonstrated in similar applications and analysis shows it is scalable to the specific application.	Interfaces demonstrated at subsystem level in a relevant environment. Impact on other systems is specified and quantified. **Sub-scale demonstration**.
4	Technology component or sub-system validated in laboratory environment.	Basic technology components are shown to work, but at relatively "low fidelity" compared to the eventual system. Hardware demonstrated in a laboratory / small scale tank-testing. Technology demonstrated in other applications (possibly at a different scale).	Interface constraints specified. The likely impact on interfaced systems is explored and can be traded.
3	Analytical or experimental critical function and characteristic proof of concept.	Technology has been shown to be viable for the application through validated analysis or experiment. Components that are not yet integrated are representative.	Analytical assessment conducted to establish interface constraints.

2	Technology concept and application formulated.	Practical applications for the technology are postulated, but there is no proof or detailed analysis to support the assumptions. Patent application possible.	
1	Basic principles observed and reported.	Research and paper studies identify basic properties of the technology.	

PART IV

FINANCIAL INFORMATION ON ATLANTIS AND ITS SUBSIDIARIES

SECTION A: ACCOUNTANT'S REPORT ON THE HISTORICAL FINANCIAL INFORMATION OF ATLANTIS AND ITS SUBSIDIARIES FOR THE THREE YEARS ENDED 31 DECEMBER 2012

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On behalf of Atlantis Resources Limited
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19 February 2014

Dear Sirs

Atlantis Resources Limited

We report on the financial information for the three years ended 31 December 2012 set out in Section B of Part IV of the AIM admission document dated 19 February 2014 of **Atlantis Resources Limited** (the "Company" and, together with its subsidiaries, the "Group") (the "Admission Document"). This financial information has been prepared for inclusion in the Admission Document on the basis of the accounting policies set out in note 2 to the financial information. This report is required by Annex I item 20.1 of Commission Regulation (EC) No 809/2004 (the "Prospectus Directive Regulation) as applied by Paragraph (a) of Schedule Two to the AIM Rules for Companies and is given for the purpose of complying with that requirement and for no other purpose.

Responsibilities

The Directors of the Company are responsible for preparing the financial information in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board.

It is our responsibility to form an opinion on the financial information and to report our opinion to you.

Save for any responsibility arising under paragraph (a) of Schedule Two to the AIM Rules for Companies to any person as and to the extent there provided, to the fullest extent permitted by law we do not assume any responsibility and will not accept any liability to any other person for any loss suffered by any such other person as a result of, arising out of, or in connection with this report or our statement, required by and given solely for the purposes of complying with Annex I item 23.1 of the Prospectus Directive Regulation as applied by Paragraph (a) of Schedule Two to the AIM Rules for Companies, consenting to its inclusion in the Admission Document.

Basis of opinion

We conducted our work in accordance with Standards for Investment Reporting issued by the Auditing Practices Board in the United Kingdom. Our work included an assessment of evidence relevant to the amounts and disclosures in the financial information. It also included an assessment of significant estimates

and judgments made by those responsible for the preparation of the financial information and whether the accounting policies are appropriate to the entity's circumstances, consistently applied and adequately disclosed.

We planned and performed our work so as to obtain all the information and explanations which we considered necessary in order to provide us with sufficient evidence to give reasonable assurance that the financial information is free from material misstatement whether caused by fraud or other irregularity or error.

Our work has not been carried out in accordance with auditing or other standards and practices generally accepted in jurisdictions outside the United Kingdom, including the United States of America, and accordingly should not be relied upon as if it had been carried out in accordance with those standards and practices.

Opinion on financial information

In our opinion, the financial information gives, for the purposes of the Admission Document, a true and fair view of the state of affairs of the Group as at the dates stated and of its profits, cash flows and changes in equity for the periods ended 31 December 2010, 2011 and 2012 in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board.

Declaration

For the purposes of Paragraph (a) of Schedule Two of the AIM Rules for Companies, we are responsible for this report as part of the Admission Document and declare that we have taken all reasonable care to ensure that the information contained in this report is, to the best of our knowledge, in accordance with the facts and contains no omission likely to affect its import. This declaration is included in the Admission Document in compliance with Schedule Two to the AIM Rules for Companies.

Yours faithfully

Deloitte LLP
Chartered Accountants

Deloitte LLP is a limited liability partnership registered in England and Wales with registered number OC303675 and its registered office at 2 New Street Square, London EC4A 3BZ, United Kingdom. Deloitte LLP is the United Kingdom member firm of Deloitte Touche Tohmatsu Limited ("DTTL"), a UK private company limited by guarantee, whose member firms are legally separate and independent entities. Please see www.deloitte.co.uk/about for a detailed description of the legal structure of DTTL and its member firms.

SECTION B: HISTORICAL FINANCIAL INFORMATION OF ATLANTIS AND ITS SUBSIDIARIES FOR THE THREE YEARS ENDED 31 DECEMBER 2012

Consolidated Statement of Comprehensive Income

		Year end 31 December		
		2010	*2011*	*2012*
	Notes	*S$*	*S$*	*S$*
Revenue	5	1,664,212	261,182	3,003,278
Depreciation expense	13	(282,734)	(235,453)	(211,081)
Amortisation expense	14	–	(3,171,912)	(3,202,248)
Employee benefits expense		(4,835,832)	(3,775,538)	(3,790,223)
Research and development costs		(1,277,353)	(872,231)	(1,032,671)
Other operating expenses		(8,184,016)	(3,298,918)	(6,400,184)
Finance costs	7	(3,462,595)	(503,325)	(2,395,267)
Impairment of investment	12	(283,300)	–	–
Write off of property, plant and equipment	9	(2,652,295)	–	(1,141,626)
Other income	6	130,194	364,416	129,577
Loss before tax		(19,183,719)	(11,231,779)	(15,040,445)
Income tax benefit	8	11,000	–	66,175
Loss for the year	9	(19,172,719)	(11,231,779)	(14,974,270)
Other comprehensive income/(loss) :				
Exchange differences on translation of foreign operations		745,689	(67,663)	813,147
Total comprehensive loss for the year		(18,427,030)	(11,299,442)	(14,161,123)
The information below details the basic and diluted loss per share for each reporting period:				
Basic and diluted loss per share	17			
– Ordinary "A" Share		(0.02)	(0.01)	(0.01)
– Preference "B" Share		(0.02)	(0.01)	(0.01)
– Preference "C" Share		(0.02)	(0.01)	(0.01)

No dividends were proposed or declared in respect of any of the periods presented above.

The accompanying notes form part of this historical financial information.

Consolidated Statements of Financial Position

	Notes	31 December 2010 S$	2011 S$	2012 S$
Assets				
Non-current assets				
Available-for-sale investments	12	216,637	872,604	1,349,560
Property, plant and equipment	13	6,934,182	5,582,969	4,448,251
Intangible assets	14	41,297,368	44,186,473	41,983,576
		48,448,187	50,642,046	47,781,387
Current assets				
Cash and cash equivalents	10	4,198,896	9,566,624	2,338,475
Trade and other receivables	11	4,065,634	480,293	479,834
		8,264,530	10,046,917	2,818,309
Total assets		56,712,717	60,688,963	50,599,696
Current liabilities				
Trade and other payables	15	6,754,368	2,431,369	3,483,484
Income tax payable		67,639	68,543	–
		6,822,007	2,499,912	3,483,484
Non-current liabilities				
Shareholders' loans	16	–	15,133,822	18,026,654
		–	15,133,822	18,026,654
Total liabilities		6,822,007	17,633,734	21,510,138
Net assets		49,890,710	43,055,229	29,089,558
Equity				
Share capital	18	97,740,662	111,281,977	111,281,977
Translation reserve		513,106	445,443	1,258,590
Option fee	19	9,929	9,929	9,929
Equity reserve		9,623,052	–	–
Share option reserve		2,693,847	3,239,545	3,434,997
Accumulated losses		(60,689,886)	(71,921,665)	(86,895,935)
Total equity		49,890,710	43,055,229	29,089,558

Statements of Changes In Equity

	Note	Share capital S$	Translation reserve S$	Option fee S$	Equity reserve S$	Share option reserve S$	Accumulated losses S$	Total S$
Balance at 1 January 2010		91,484,042	(232,583)	9,929	–	2,127,208	(41,517,167)	51,871,429
Total comprehensive loss for the year		–	745,689	–	–	–	(19,172,719)	(18,427,030)
Issue of share capital	18	6,178,863	–	–	–	–	–	6,178,863
Exercise of share options, net	18	100	–	–	–	–	–	100
Stock awards		77,657	–	–	–	–	–	77,657
Issue and conversion of convertible loan notes	18	–	–	–	9,623,052	–	–	9,623,052
Recognition of share based payments, net	18	–	–	–	–	566,639	–	566,639
Balance at 31 December 2010		97,740,662	513,106	9,929	9,623,052	2,693,847	(60,689,886)	49,890,710
Total comprehensive loss for the year		–	(67,663)	–	–	–	(11,231,779)	(11,299,442)
Issue of share capital	18	13,541,215	–	–	(9,623,052)	–	–	3,918,163
Exercise of share options, net	18	100	–	–	–	–	–	100
Recognition of share based payments, net	18	–	–	–	–	545,698	–	545,698
Balance at 31 December 2011 (restated)		111,281,977	445,443	9,929	–	3,239,545	(71,921,665)	43,055,229
Total comprehensive loss for the year		–	813,147	–	–	–	(14,974,270)	(14,161,123)
Recognition of share based payments, net	18	–	–	–	–	195,452	–	195,452
Balance at 31 December 2012		111,281,977	1,258,590	9,929	–	3,434,997	(86,895,935)	29,089,558

Consolidated Statement of Cash Flows

	Year end 31 December		
	2010	*2011*	*2012*
	S$	*S$*	*S$*
Operating activities			
Loss before income tax	(19,183,719)	(11,231,779)	(15,040,445)
Adjustments for:			
Depreciation of property, plant and equipment	282,734	235,453	211,081
Amortisation of intangible	–	3,171,912	3,202,248
Disposal/write off of property, plant and equipment	2,729,909	677	1,143,843
Net gain on disposal of investment in subsidiary	(5,670)	–	–
Interest income	(109,923)	(4,527)	(66,819)
Finance costs	3,462,595	503,325	2,395,265
Bad debt expense	111,699	20,386	–
Share-based payments and stock awards	644,296	545,698	195,452
Net foreign exchange	1,999,367	(260,127)	646,091
(Increase)/Decrease in trade and other receivables	(2,002,500)	3,316,103	67,299
Increase/(Decrease) in trade and other payables	3,053,784	(4,322,999)	1,052,115
Interest paid	(72,563)	–	(2,433)
Interest received	109,923	–	–
Income tax refund	(482)	(904)	(2,368)
Net cash used in operating activities	(8,980,550)	(8,026,782)	(6,198,671)
Investing activities			
Purchase of plant and equipment	(4,983,160)	(241,539)	(500,155)
Proceeds from disposal of plant and equipment	66,529	–	–
Expenditure on project development	(17,413,446)	(8,001,437)	(1,372,689)
Purchase of available-for-sale investments	(40)	(402,587)	(476,957)
Net cash used in investing activities	(22,330,117)	(8,645,563)	(2,349,801)
Financing activities			
Proceeds from grants received	4,777,407	3,380,871	811,085
Proceeds from issue of shares	6,178,963	3,918,263	–
Proceeds from issue of convertible bonds	6,233,020	–	–
Proceeds from borrowings	–	14,630,497	500,000
Net cash from financing activities	17,189,390	21,929,631	1,311,085
Net (decrease)/increase in cash and bank balances	(14,121,277)	5,257,286	(7,237,387)
Cash and cash equivalents at the beginning of the year	18,196,499	4,198,896	9,566,624
Effect of foreign exchange rate changes on the balance of cash held in foreign currencies	123,674	110,442	9,238
Cash and cash equivalents at the end of the year	4,198,896	9,566,624	2,338,475

Notes to the Financial Information

1 General

The company (Registration No. 200517551R) is incorporated in Singapore with its principal place of business and registered office is located at 65 Niven Road, Singapore 228414.

With effect from 2 October 2013, the company changed its name from Atlantis Resources Corporation Pte Ltd to Atlantis Resources Corporation Ltd., and subsequently with effect from 11 November 2013, the Company changed its name to Atlantis Resources Limited.

The principal activity of the company is that of pioneering the development of tidal current power as the most reliable, economic and secure form of renewable energy. The company is an inventor, developer, owner, marketer and licensor of technology, intellectual property, trademarks, products and services.

2 Summary of significant accounting policies

Basis of accounting

The financial information have been prepared under the historical cost convention and are drawn in accordance with the provisions of the International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board (IASB).

The financial information is presented in Singapore Dollars (S$), rounded to the nearest dollar.

Going concern

In assessing its going concern status, the group has taken account of its financial position, anticipated future trading performance, the total consideration of GBP385,715 (S$771,428) paid to a subsidiary of MSCGI and a subsidiary of GDF Suez to acquire the remaining 90 per cent of MeyGen Limited ("MeyGen") on 31 October 2013, its borrowings and other facilities, the net proceeds of £10.6 million (S$22.3 million) receivable by the group in the offer of new shares and its capital expenditure commitments and plans, together with other risks facing the group.

The directors have, at the time of approving the financial information, a reasonable expectation that the Group has adequate resources to continue in operational existence for the foreseeable future, and accordingly, continue to adopt the going concern basis in preparing the financial information.

Adoption of new and revised standards

The financial statements have been prepared in accordance with IFRS and the company has applied all applicable accounting standards and interpretations except for the following new standards, amendments and interpretations which have been issued but are not yet effective:

- IAS 32 (Revised): Offsetting Financial Assets and Financial Liabilities
- IAS 36 (Revised): Recoverable Amount Disclosures for Non-Financial Assets
- IAS 39 (Revised): Novation of Derivatives and Continuation of Hedge Accounting
- Amendments to IFRS 10, IFRS 12 and IAS 27: Investment Entities

Management anticipates that these new standards, interpretations and amendments will be adopted in the group's combined financial statements for the period beginning 1 January 2014 or as and when they are applicable.

Management anticipates that the adoption of the above Standards and Interpretations in future periods will not have a material impact on the financial statements of the company in the period of their initial adoption.

BASIS OF CONSOLIDATION – The consolidated financial statements are prepared in conjunction with IFRS 10, "Consolidated Financials Statements" and incorporate the financial statements of the company and entities controlled by the company (its subsidiaries). Control is achieved where the company has the power to govern the financial and operating policies of an entity so as to obtain benefits from its activities.

Where necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies into line with those used by other members of the group.

All intra-group transactions, balances, income and expenses are eliminated in full on consolidation.

Changes in the group's interest in a subsidiary that do not result in a loss of control are accounted for as equity transactions. The carrying amounts of the group's interests and the non-controlling interests are adjusted to reflect the changes in their relative interests in the subsidiary. Any difference between the amount by which the non-controlling interests are adjusted and the fair value of the consideration paid or received is recognised directly in equity and attributed to owners of the company.

When the group loses control of a subsidiary, the profit or loss on disposal is calculated as the difference between (i) the aggregate of the fair value of the consideration received and the fair value of any retained interest and (ii) the previous carrying amount of the assets (including goodwill), and liabilities of the subsidiary and any non-controlling interests. Amounts previously recognised in other comprehensive income in relation to the subsidiary are accounted for (i.e. reclassified to profit or loss or transferred directly to retained earnings) in the same manner as would be required if the relevant assets or liabilities were disposed of. The fair value of any investment retained in the former subsidiary at the date when control is lost is regarded as the fair value on initial recognition for subsequent accounting under IFRS 7 *Financial Instruments: Recognition and Measurement* or, when applicable, the cost on initial recognition of an investment in an associate or jointly controlled entity.

In the company's financial statements, investments in subsidiaries are carried at cost less any impairment in net recoverable value that has been recognised in profit or loss.

BUSINESS COMBINATIONS – The acquisition of subsidiaries and businesses are accounted for using the acquisition method. The consideration for each acquisition is measured at the aggregate of the acquisition date fair values of assets given, liabilities incurred by the group to the former owners of the acquiree, and equity interests issued by the group in exchange for control of the acquiree. Acquisition-related costs are recognised in profit or loss as incurred.

Where applicable, the consideration for the acquisition includes any asset or liability resulting from a contingent consideration arrangement, measured at its acquisition-date fair value. Subsequent changes in such fair values are adjusted against the cost of acquisition where they qualify as measurement period adjustments (see below). The subsequent accounting for changes in the fair value of the contingent consideration that do not qualify as measurement period adjustments depends on how the contingent consideration is classified. Contingent consideration that is classified as equity is not remeasured at subsequent reporting dates and its subsequent settlement is accounted for within equity. Contingent consideration that is classified as an asset or a liability is remeasured at subsequent reporting dates in accordance with IFRS 7 *Financial Instruments: Recognition and Measurement*, or IAS 37 *Provisions, Contingent Liabilities and Contingent Assets*, as appropriate, with the corresponding gain or loss being recognised in profit or loss.

Where a business combination is achieved in stages, the group's previously held interests in the acquired entity are remeasured to fair value at the acquisition date (i.e. the date the group attains control) and the resulting gain or loss, if any, is recognised in profit or loss. Amounts arising from interests in the acquiree prior to the acquisition date that have previously been recognised in other comprehensive income are reclassified to profit or loss, where such treatment would be appropriate if that interest were disposed of.

The acquiree's identifiable assets, liabilities and contingent liabilities that meet the conditions for recognition under the IFRS are recognised at their fair value at the acquisition date, except that:

- deferred tax assets or liabilities and liabilities or assets related to employee benefit arrangements are recognised and measured in accordance with IAS 12 *Income Taxes* and IAS 19 *Employee Benefits* respectively;
- liabilities or equity instruments related to the replacement by the group of an acquiree's share-based payment awards are measured in accordance with IFRS 2 *Share-based Payment*; and
- assets (or disposal groups) that are classified as held for sale in accordance with IFRS 5 *Non-current Assets Held for Sale and Discontinued Operations* are measured in accordance with that Standard.

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, the group reports provisional amounts for the items for which the accounting is incomplete. Those provisional amounts are adjusted during the measurement period (see below), or

additional assets or liabilities are recognised, to reflect new information obtained about facts and circumstances that existed as of the acquisition date that, if known, would have affected the amounts recognised as of that date.

The measurement period is the period from the date of acquisition to the date the group obtains complete information about facts and circumstances that existed as of the acquisition date and is subject to a maximum of one year from acquisition date.

FINANCIAL INSTRUMENTS – Financial assets and financial liabilities are recognised on the group's statement of financial position when the group becomes a party to the contractual provisions of the instrument.

Effective interest method

The effective interest method is a method of calculating the amortised cost of a financial instrument and of allocating interest income or expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash receipts or payments (including all fees on points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) through the expected life of the financial instrument, or where appropriate, a shorter period. Income and expense is recognised on an effective interest rate basis for debt instruments other than those financial instruments "at fair value through profit or loss".

Financial assets

All financial assets are recognised and de-recognised on a trade date where the purchase or sale of an investment is under a contract whose terms require delivery of the investment within the timeframe established by the market concerned, and are initially measured at fair value plus transaction costs except for those financial assets classified as at fair value through profit and loss which are initially measured at fair value.

Financial assets are classified into the following specified categories: "available-for-sale" financial assets and "trade and other receivables". The classification depends on the nature and purpose of financial assets and is determined at the time of initial recognition.

Available-for-sale financial assets

Certain shares and debt securities held by the group are classified as being available for sale and are stated at fair value. Investment in equity instruments that do not have a quoted market price in an active market and whose fair value cannot be reliably measured are stated at cost. Fair value is determined in accordance with IFRS 13 "Fair Value Measurement" and in the manner described in Note 4. Gains and losses arising from changes in fair value are recognised in other comprehensive income with the exception of impairment losses, interest calculated using the effective interest method and foreign exchange gains and losses on monetary assets which are recognised directly in profit or loss. Where the investment is disposed of or is determined to be impaired, the cumulative gain or loss previously recognised in other comprehensive income and accumulated in revaluation reserve is reclassified to profit or loss. Dividends on available-for-sale equity instruments are recognised in profit or loss when the group's right to receive payments is established. The fair value of available-for-sale monetary assets denominated in a foreign currency is determined in that foreign currency and translated at the spot rate at end of the reporting date. The change in fair value attributable to translation differences that result from a change in amortised cost of the asset is recognised in profit or loss, and other changes are recognised in other comprehensive income.

Loans and receivables

Trade and other receivables that have fixed or determinable payments that are not quoted in an active market are classified as "loans and receivables". Loans and receivables are measured at amortised cost using the effective interest method less impairment. Interest is recognised by applying the effective interest method, except for short-term receivables when the recognition of interest would be immaterial.

Impairment of financial assets

Financial assets, other than those at fair value through profit and loss, are assessed for indicators of impairment at the end of each reporting period. Financial assets are impaired where there is objective evidence that, as a result of one or more events that occurred after the initial recognition of the financial asset, the estimated future cash flows of the investment have been affected. For financial assets carried at amortised cost, the amount of the impairment is the difference between the asset's carrying amount and the present value of estimated future cash flows, discounted at the original effective interest rate.

For available-for-sale equity instruments, a significant or prolonged decline in the fair value of the investment below its cost is considered to be objective evidence of impairment.

For all other financial assets, objective evidence of impairment could include:

- significant financial difficulty of the issuer or counterparty; or
- default or delinquency in interest or principal payments; or
- it becoming probable that the borrower will enter bankruptcy or financial re-organisation.

The carrying amount of the financial asset is reduced by the impairment loss directly for all financial assets with the exception of trade and other receivables where the carrying amount is reduced through the use of an allowance account. When a receivable is uncollectible, it is written off against the allowance account. Subsequent recoveries of amounts previously written off are credited against the allowance account. Changes in the carrying amount of the allowance account are recognised in profit or loss.

When an available-for-sale financial asset is considered to be impaired, cumulative gains or losses previously recognised in other comprehensive income are reclassified to profit or loss. With the exception of available-for-sale equity instruments, if, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment loss was recognised, the previously recognised impairment loss is reversed through profit or loss to the extent the carrying amount of the investment at the date the impairment is reversed does not exceed what the amortised cost would have been had the impairment not been recognised.

In respect of available-for-sale equity instruments, impairment losses previously recognised in profit or loss are not reversed through profit or loss. Any subsequent increase in fair value after an impairment loss is recognised in other comprehensive income.

Derecognition of financial assets

The group derecognises a financial asset only when the contractual rights to the cash flows from the asset expire, or it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another entity. If the group neither transfers nor retains substantially all the risks and rewards of ownership and continues to control the transferred asset, the group recognises its retained interest in the asset and an associated liability for amounts it may have to pay. If the group retains substantially all the risks and rewards of ownership of a transferred financial asset, the group continues to recognise the financial asset and also recognises a collateralised borrowing for the proceeds received.

Financial liabilities and equity instruments

Classification as debt or equity

Financial liabilities and equity instruments issued by the group are classified according to the substance of the contractual arrangements entered into and the definitions of a financial liability and an equity instrument.

Equity instruments

An equity instrument is any contract that evidences a residual interest in the assets of the group after deducting all of its liabilities. Equity instruments are recorded at the proceeds received, net of direct issue costs.

Other financial liabilities

Trade and other payables are initially measured at fair value, net of transaction costs, and are subsequently measured at amortised cost, using the effective interest rate method, with interest expense recognised on an effective yield basis.

Interest-bearing loans and overdrafts are initially measured at fair value, and are subsequently measured at amortised cost, using the effective interest rate method. Any difference between the proceeds (net of transaction costs) and the settlement or redemption of borrowings is recognised over the term of the borrowings in accordance with the group's accounting policy for borrowing costs (see below).

Financial guarantee contract liabilities are measured initially at their fair values and, if not designated as at FVPTL, subsequently at the higher of the amount of obligation under the contract recognised as a provision in accordance with IAS 37 *Provisions, Contingent Liabilities and Contingent Assets* and the amount initially recognised less cumulative amortisation in accordance with FRS 18 Revenue.

Convertible loan notes

Convertible loans are regarded as compound instruments, consisting of a liability component and an equity component. The component parts of compound instruments are classified separately as financial liabilities and equity in accordance with the substance of the contractual arrangement. At the date of issue, the fair value of the liability component is estimated using the prevailing market interest rate for a similar non-convertible instrument. This amount is recorded as a liability on an amortised cost basis until extinguished upon conversion or at the instrument's maturity date. The equity component is determined by deducting the amount of the liability component from the fair value of the compound instrument as a whole. This is recognised and included in equity, net of income tax effects, and is not subsequently remeasured.

Derecognition of financial liabilities

The group derecognises financial liabilities when, and only when, the group's obligations are discharged, cancelled or they expire.

Leases

Leases are classified as finance leases whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases.

Rentals payable under operating leases are charged to profit or loss on a straight-line basis over the term of the relevant lease unless another systematic basis is more representative of the time pattern in which economic benefits from the leased asset are consumed. Contingent rentals arising under operating leases are recognised as an expense in the period in which they are incurred.

In the event that lease incentives are received to enter into operating leases, such incentives are recognised as a liability. The aggregate benefit of incentives is recognised as a reduction of rental expense on a straight-line basis, except where another systematic basis is more representative of the time pattern in which economic benefits from the leased asset are consumed.

Property, plant and equipment

Plant and equipment are stated at cost less accumulated depreciation and any accumulated impairment losses.

Plant and equipment in the course of construction ("construction-in-progress") for production, rental or administrative purposes, or for purpose not yet determined, are carried at cost, less any recognised impairment loss. Cost includes professional fees in accordance with the group's accounting policy. Depreciation of these assets, on the same basis as other assets, commences when the assets are ready for their intended use.

Depreciation is charged so as to write off the cost of assets, other than freehold land and construction-in-progress, over their estimated useful lives using the straight-line method, on the following bases:

Furniture, fixtures and equipment	–	25%
Computer equipment and software	–	25%

The estimated useful lives, residual values and depreciation method are reviewed at the end of each reporting period, with the effect of any changes in estimate accounted for on a prospective basis.

The gain or loss arising on disposal or retirement of an item of plant and equipment is determined as the difference between the sales proceeds and the carrying amounts of the asset and is recognised in profit or loss.

Fully depreciated assets still in use are retained in the financial statements.

Intangible assets

Internally-generated intangible assets - research and development expenditure

Expenditure on research activities is recognised as an expense in the period in which it is incurred.

Capitalisation of an internally generated asset is only permitted during the development phase.

Development activities must apply research findings for a business purpose, such as:

- the design, construction and testing of pre-production or pre-use prototypes and models;
- the design of tools, jigs, moulds and dies involving new technology;
- the design, construction and operation of a pilot plant that is not of a scale economically feasible for commercial production; and
- the design, construction and testing of a chosen alternative for new or improved materials, devices and products.

The cost of capitalised development activities should include all directly attributable costs necessary to create, produce and prepare an asset for a business purpose in the manner intended by management.

The amount initially recognised for internally-generated intangible assets is the sum of the expenditure incurred from the date when the intangible asset first meets the recognition criteria listed above. Where no internally-generated intangible asset can be recognised, development expenditure is charged to profit or loss in the period in which it is incurred.

Subsequent to initial recognition, internally-generated intangible assets are reported at cost less accumulated amortisation and accumulated impairment losses, on the same basis as intangible assets acquired separately. Amortisation begins when the group starts to deploy successfully a commercial grade turbine over the estimated useful life of 15 years.

Intellectual property

Intellectual property is measured initially at purchase cost and is subsequently measured at cost less any accumulated impairment losses. Intellectual property is tested for impairment annually, or more frequently when there is an indication that it may be impaired (see below for impairment testing).

Intangible assets acquired in a business combination

Intangible assets acquired in a business combination are identified and recognised separately from goodwill. The cost of such intangible assets is their fair value at the acquisition date.

Subsequent to initial recognition, intangible assets acquired in a business combination are reported at cost less accumulated amortisation and accumulated impairment losses, on the same basis as intangible assets acquired separately.

Impairment of tangible and intangible assets excluding goodwill

At the end of each reporting period, the group reviews the carrying amounts of its tangible and intangible assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss (if any). Where it is not possible to estimate the recoverable amount of an individual asset, the group estimates the recoverable amount of the cash generating unit to which the asset belongs. Where a reasonable and consistent basis of allocation can be identified, corporate assets are also allocated to individual cash-generating units, or otherwise they are allocated to the smallest group of cash-generating units for which a reasonable and consistent allocation basis can be identified.

Intangible assets with indefinite useful lives and intangible assets not yet available for use are tested for impairment annually, and whenever there is an indication that the asset may be impaired.

Recoverable amount is the higher of fair value less costs to sell and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted.

If the recoverable amount of an asset (or cash-generating unit) is estimated to be less than its carrying amount, the carrying amount of the asset (cash-generating unit) is reduced to its recoverable amount. An impairment loss is recognised immediately in profit or loss, unless the relevant asset is carried at a revalued amount, in which case the impairment loss is treated as a revaluation decrease.

Where an impairment loss subsequently reverses, the carrying amount of the asset (cash-generating unit) is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset (cash-generating unit) in prior years. A reversal of an impairment loss is recognised immediately in profit or loss, unless the relevant asset is carried at a revalued amount, in which case the reversal of the impairment loss is treated as a revaluation increase.

Provisions

Provisions are recognised when the group has a present obligation (legal or constructive) as a result of a past event, it is probable that the group will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation.

The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the end of reporting period, taking into account the risks and uncertainties surrounding the obligation. Where a provision is measured using the cash flows estimated to settle the present obligation, its carrying amount is the present value of those cash flows.

When some or all of the economic benefits required to settle a provision are expected to be recovered from a third party, the receivable is recognised as an asset if it is virtually certain that reimbursement will be received and the amount of the receivable can be measured reliably.

Share-based payments

The group issues equity-settled share-based payments to certain employees and directors.

Equity-settled share-based payments are measured at fair value of the equity instruments (excluding the effect of non market-based vesting conditions) at the date of grant. Details regarding the determination of the fair value of equity-settled share-based transactions are set out in Note 19. The fair value determined at the grant date of the equity-settled share-based payments is expensed on a straight-line basis over the vesting period, based on the group's estimate of the number of equity instruments that will eventually vest. At the end of each reporting period, the group revises its estimate of the number of equity instruments expected to vest. The impact of the revision of the original estimates, if any, is recognised in profit or loss such that the cumulative expense reflects the revised estimate, with a corresponding adjustment to the equity-settled employee benefits reserve.

Fair value is measured using the Black-Scholes pricing model. The expected life used in the model has been adjusted, based on management's best estimate, for the effects of non-transferability, exercise restrictions and behavioral considerations.

Government grants

Government grants are not recognised until there is reasonable assurance that the group will comply with the conditions attached to them and the grants will be received. Government grants whose primary condition is that the group should purchase, construct or otherwise acquire non-current assets are presented as a deduction from the carrying amount of the related assets and recognised as income over the useful lives of the assets by way of a reduced depreciation charge.

Other government grants are recognised as income over the periods necessary to match them with the costs for which they are intended to compensate, on a systematic basis. Government grants that are receivable as compensation for expenses or losses already incurred or for the purpose of giving immediate financial support to the group with no future related costs are recognised in profit or loss in the period in which they become receivable.

Revenue recognition

Revenue is measured at the fair value of the consideration received or receivable.

License and royalties

License and royalty revenue are recognised on an accrual basis in accordance with the substance of the relevant agreement. License and royalties determined on a time basis are recognised on a straight-line basis over the period of the agreement. License and royalty arrangements that are based on production, sales and other measures are recognised by reference to the underlying arrangement.

Service fee

Revenue is measured at the fair value of the consideration received or receivable and represents amounts receivable for services provided in the normal course of business, net of sales related taxes. Service fees are calculated based on the total expenses of the company and are recognised when the corresponding expenses are incurred.

RETIREMENT BENEFIT COSTS – Payments to defined contribution retirement benefit plans are charged as an expense when employees have rendered the services entitling them to the contributions. Payments made to state-managed retirement benefit schemes, such as the Singapore Central Provident Fund, are dealt with as payments to defined contribution plans where the group's obligations under the plans are equivalent to those arising in a defined contribution retirement benefit plan.

Income tax

Income tax expense represents the sum of the tax currently payable and deferred tax.

The tax currently payable is based on taxable profit for the year. Taxable profit differs from profit as reported in the consolidated statement of comprehensive income because it excludes items of income or expense that are taxable or deductible in other years and it further excludes items that are not taxable or tax deductible. The group's liability for current tax is calculated using tax rates (and tax laws) that have been enacted or substantively enacted in countries where the company and subsidiaries operate by the end of the reporting period.

Deferred tax is recognised on differences between the carrying amounts of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable profit, and are accounted for using the balance sheet liability method. Deferred tax liabilities are generally recognised for all taxable temporary differences and deferred tax assets are recognised to the extent that it is probable that taxable profits will be available against which deductible temporary differences can be utilised. Such assets and liabilities are not recognised if the temporary difference arises from goodwill or from the initial recognition (other than in a business combination) of other assets and liabilities in a transaction that affects neither the taxable profit nor the accounting profit.

Deferred tax liabilities are recognised on taxable temporary differences arising on investments in subsidiaries, except where the group is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax assets arising from deductible temporary differences associated with such investments and interests are only recognised to the extent that it is probable that there will be sufficient taxable profits against which to utilise the benefits of the temporary differences and they are expected to reverse in the foreseeable future.

The carrying amount of deferred tax assets is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Deferred tax is calculated at the tax rates that are expected to apply in the period when the liability is settled or the asset realised based on the tax rates (and tax laws) that have been enacted or substantively enacted by the end of reporting period. The measurement of deferred tax liabilities and assets reflects the tax consequences that would follow from the manner in which the group expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current tax liabilities and when they relate to income taxes levied by the same taxation authority and the group intends to settle its current tax assets and liabilities on a net basis.

Current and deferred tax are recognised as an expense or income in profit or loss, except when they relate to items credited or debited outside profit or loss (either in other comprehensive income or directly in equity), in which case the tax is also recognised outside profit or loss (either in other comprehensive income or directly in equity, respectively), or where they arise from the initial accounting for a business combination. In the case of a business combination, the tax effect is taken into account in calculating goodwill or determining the excess of the acquirer's interest in the net fair value of the acquiree's identifiable assets, liabilities and contingent liabilities over cost.

FOREIGN CURRENCY TRANSACTIONS AND TRANSLATION – The individual financial statements of each group entity are measured and presented in the currency of the primary economic environment in which the entity operates (its functional currency). The consolidated financial statements of the group and the statement of financial position and statement of equity of the company are presented in Singapore dollars, which is the functional currency of the company, and the presentation currency for the consolidated financial statements.

Transactions in currencies other than the entity's functional currency are recorded at the rates of exchange prevailing on the date of the transaction. At the end of each reporting period, monetary items denominated in foreign currencies are retranslated at the rates prevailing at the end of reporting period. All exchange differences are recognised in profit or loss.

For the purpose of presenting consolidated financial statements, the assets and liabilities of the group's foreign operations (including comparatives) are expressed in Singapore dollars using exchange rates prevailing at the end of the reporting period. Income and expense items (including comparatives) are translated at the average exchange rates for the period, unless exchange rates fluctuated significantly during that period, in which case the exchange rates at the dates of the transactions are used. Exchange differences arising, if any, are recognised in other comprehensive income and accumulated in a separate component of equity.

On the disposal of a foreign operation (i.e. a disposal of the group's entire interest in a foreign operation, or a disposal involving loss of control over a subsidiary that includes a foreign operation, loss of joint control over a jointly controlled entity that includes a foreign operation, or loss of significant influence over an associate that includes a foreign operation), all of the accumulated exchange differences in respect of that operation attributable to the Group are reclassified to profit or loss.

In the case of a partial disposal (i.e. no loss of control) of a subsidiary that includes a foreign operation, the proportionate share of accumulated exchange differences are re-attributed to non-controlling interests and are not recognised in profit or loss. For all other partial disposals (i.e. of associates or jointly controlled entities not involving a change of accounting basis), the proportionate share of the accumulated exchange differences is reclassified to profit or loss.

CASH AND CASH EQUIVALENTS IN THE CONSOLIDATED STATEMENT OF CASH FLOWS – Cash and cash equivalents in the consolidated statement of cash flows comprise cash at bank, fixed deposits, and cash on hand and are subject to an insignificant risk of changes in value.

3 Critical accounting judgements and key sources of estimation uncertainty

In the application of the group's accounting policies, which are described in Note 2, management is required to make judgements, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period or in the period of the revision and future periods if the revision affects both current and future periods.

Critical judgements in applying the Group's accounting policies and key sources of estimation uncertainty

In the process of applying the group's accounting policies, which are described in Note 2, the critical accounting judgements that will have a significant effect on the amounts recognised in the financial statements and the key sources of estimation uncertainty that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year, are discussed below.

Impairment to the renewable energy business

The group considers the renewable energy business as one cash-generating-unit (CGU) and therefore performs impairment assessment annually on the recoverable amount of this CGU, comprising intellectual property, development costs, license and other tangible assets, in accordance with the accounting policy stated above.

Determining whether the CGU has been impaired requires an assessment of the recoverable amount and during the year, in deriving the recoverable amount, management has estimated the fair value less cost to sell of the business, based on the discounted free cash flow financial model. The recoverable amount then determined, is in excess of the value of business recorded, and accordingly, management takes the view that no overall impairment loss on the group's assets is required.

At the end of every year, the management assessed the existing condition and performance of its assets. In 2012 they concluded the write off of Solon II of S$1,141,626. In 2010, Nereus II, one of the turbines in construction, and blades of AK-1000, amounting to S$1,889,980 and S$762,315 were also written off respectively.

Amortisation of intangible assets

During 2011, management determined that the group would start amortising the intangible assets given that the group had commenced its construction and successful deployment of a commercial grade turbine amortisation is calculated based on estimated useful life of 15 years. Judgement is required to determine the period over which the propriety technology (to which the intangibles relate) will continue to have economic value.

Share-based payments

Equity-settled share-based payments are measured at fair value at the date of grant. In addition, the group revises the estimated number of performance shares that participants are expected to receive based on the non-market vesting conditions at the end of reporting period. The assumptions of the valuation model used to determine fair values are disclosed in Note 19.

Impairment of available-for-sale investments

At each year end, management reconsidered the recoverability of the investments, which are included in its statement of financial position as at 31 December 2012. Management monitors the progress of the investments core activities and the recoverability of their carrying value. It is confident that the carrying

amount of this asset, which largely comprises the group's 10 per cent interest in MeyGen Limited as disclosed in Note 12, will be recovered in full.

4 Financial instruments, financial risks and capital risks management

(a) Categories of financial instruments

The following table sets out the financial instruments as at the end of reporting period:

	Year end 31 December		
	2010	*2011*	*2012*
	S$	*S$*	*S$*
Financial assets			
Cash and cash equivalents	4,198,896	9,566,624	2,338,475
Trade and other receivables	4,065,634	480,293	479,834
Available-for-sale financial assets (Note 12)	216,637	872,604	1,349,560
Financial liabilities			
Trade and other payables	6,754,368	2,431,369	3,483,484
Shareholders' loans	–	15,133,822	18,026,654

(b) Financial risk management policies and objectives

The group is exposed to various financial risks arising in the normal course of business. It has adopted financial risk management policies and utilised a variety of techniques to manage its exposure to these risks.

The group does not hold or issue derivative financial instruments for speculative purposes.

There has been no change to the group's exposure to these financial risks or the manner in which it manages and measures the risk. Market risk exposures are measured using sensitivity analysis indicated below.

(i) Foreign exchange risk management

The group transacts business in various foreign currencies, including the Australian dollar, United States dollar and British pound and therefore is exposed to foreign exchange risk.

At the end of the reporting period, the carrying amounts of monetary assets and monetary liabilities denominated in currencies other than the respective group entities' functional currencies are as follows:

Assets	*Year end 31 December*		
	2010	*2011*	*2012*
	$	*$*	*$*
Australian dollars	51,574	11,707	12,760
British pound	828,693	53,416	22,749
Euro	56,891	9,507	9,103
United States dollars	13,643	9,584	1,272,175

Liabilities	*Year end 31 December*		
	2010	*2011*	*2012*
	$	*$*	*$*
Australian dollars	168,381	51,518	79,117
British pound	116,331	489,746	489,746
Euro	490,942	–	–
United States dollars	–	24,458	456,602

Foreign currency sensitivity

The sensitivity rate used when reporting foreign currency risk to key management personnel is 10%, which is the sensitivity rate used when reporting foreign currency risk internally to key management personnel and represents management's assessment of the change in foreign exchange rates.

If the relevant foreign currencies were to strengthen by 10% against the functional currency of each group entity, profit and loss will increase/(decrease) by:

Profit or Loss	*Year ended 31 December*		
	2010	*2011*	*2012*
	$	*$*	*$*
Australian dollars	(11,681)	(3,981)	(6,636)
British pound	(43,405)	(43,633)	(46,700)
Euro	1,194	951	910
United States dollars	71,236	(1,487)	81,557

If the relevant foreign currency weakens by 10% against the functional currency of each group entity, the effects on profit and loss will be vice versa.

(ii) Interest rate risk management

Interest rate risk arises from the potential change in interest rates that may have an adverse effect on the group in the current reporting year or in future years.

The group's exposure to interest rate risk is limited to the effects of fluctuation in bank interest rate on cash and bank balances.

No sensitivity analysis is prepared as the group does not expect any material effect on the group's profit or loss arising from the effects of reasonably possible changes to interest rates on interest bearing financial instruments at the end of the reporting period.

(iii) Equity price risk management

The group is not exposed to equity price risks as it holds minimal equity investments. Equity price sensitivity has not been analysed as the impact on the group's profit or loss is not expected to be significant.

(iv) Credit risk management

Credit risk refers to the risk that a counterparty will default on its contractual obligations, resulting in financial loss to the group.

The maximum exposure to credit risk is represented by the carrying amount of each financial asset as at the end of the reporting period.

Cash at bank are held with creditworthy financial institutions.

(v) Liquidity risk management

The group actively manages its operating cash flows and the availability of funding through maintaining sufficient cash and cash equivalents to finance their activities.

All current financial liabilities in 2010, 2011 and 2012 are repayable on demand or due within one year from the end of the reporting period, and are non-interest bearing. The non-current liabilities comprise shareholders' loans which are interest bearing at 15% per annum.

Analysis of financial instruments by remaining contractual maturities.

The table below summarises the maturity profile of the group's and the company's financial assets and liabilities at the end of the reporting period based on the contractual undiscounted repayment obligations.

	At December 2012			
	One year or less S$	*One to five years* S$	*Over five years* S$	*Total* S$
Financial assets				
Cash and cash equivalents	2,338,475	–	–	2,338,475
Other receivables	121,308	–	–	121,308
Total undiscounted financial assets	2,459,783	–	–	2,459,783
Financial liabilities				
Trade payables	824,108	–	–	824,108
Other payables	97,885	–	–	97,885
Loans and borrowings	–	18,026,654	–	18,026,654
Total undiscounted financial liabilities	921,993	18,026,654	–	18,948,647

	At December 2011			
	One year or less S$	*One to five years* S$	*Over five years* S$	*Total* S$
Financial assets				
Cash and cash equivalents	9,566,624	–	–	9,566,624
Other receivables	58,202	–	–	58,202
Total undiscounted financial assets	9,624,826	–	–	9,624,826
Financial liabilities				
Trade payables	1,298,087	–	–	1,298,087
Other payables	34,029	–	–	34,029
Loans and borrowings	–	15,133,822	–	15,133,822
Total undiscounted financial liabilities	1,332,116	15,133,822	–	16,465,938

	At December 2010			
	One year or less S$	*One to five years* S$	*Over five years* S$	*Total* S$
Financial assets				
Cash and cash equivalents	4,198,896	–	–	4,198,896
Other receivables	2,815,984	–	–	2,815,984
Total undiscounted financial assets	7,014,880	–	–	7,014,880
Financial liabilities				
Trade payables	4,797,492	–	–	4,797,492
Other payables	459,548	–	–	459,548
Loans and borrowings	–	–	–	–
Total undiscounted financial liabilities	5,257,040	–	–	5,257,040

(vi) Fair value of financial assets and financial liabilities

The carrying values of cash and cash equivalents, trade and other receivables and trade and other payables approximate their respective fair values due to the relatively short term maturity of these financial instruments. The fair value of shareholders' loan as at the end of the reporting period is disclosed in Note 16.

(c) Capital risk management policies and objectives

The group manages its capital to ensure it will be able to continue as a going concern while maximising the return to stakeholders through the optimisation of the debt and equity balance.

The capital structure of the group consists of equity attributable to owners comprising issued capital and accumulated losses, as well as loans due to shareholders.

Atlantis Resources Ltd's capital is made up of share capital, share option reserve and retained earnings totally as at 31 December 2012: S$ 29,089,558; 2011: S$43,055,229; 2010: S$49,890,710.

The company's objectives when maintaining capital are:

(i) to safeguard the entity's ability to continue as a going concern, so that it can continue to provide returns for shareholders and benefits for other stakeholders; and

(ii) to provide an adequate return to shareholders by pricing products and services commensurately with the level of risk.

The capital structure of Atlantis Resources Ltd consists of shareholders' equity as set out in the consolidated statement of changes in equity. All working capital requirements are financed from shareholders' loans.

5 Revenue

This represents revenue from the provision of energy consulting services and provision of administrative and support services to a related party (See Note 16).

Interest income is accrued on a time basis, by reference to the principle outstanding and the effective interest rate applicable and is presented within Other Income (see note 6).

6 Other income

	Year ended 31 December		
	2010	*2011*	*2012*
	S$	*S$*	*S$*
Interest income	109,923	4,527	66,819
Net foreign exchange gains	–	260,127	–
Net gain on disposal of investment in subsidiary	5,670	–	–
Others	14,601	99,762	62,758
	130,194	364,416	129,577

Net foreign exchange losses of S$2,216,800 and S$646,091 are recorded in 2010 and 2012 respectively and included below in note 9.

The amount of S$260,127 recorded in year ended 31 December 2011 relates to unrealized exchange differences arising from intercompany balances.

7 Finance costs

	Year ended 31 December		
	2010	*2011*	*2012*
	S$	*S$*	*S$*
Interest expense	3,462,595	503,325	2,395,267

8 Income tax benefit

No tax charge/credit has been recognised in the current or prior period as the company had no income that is subjected to tax charge.

	Year ended 31 December		
	2010	*2011*	*2012*
	S$	*S$*	*S$*
Overprovision for prior year	11,000	–	66,175

Domestic income tax is calculated at 17% (2011: 17%; 2010: 17%) of the estimated assessable loss for the period. Taxation for other jurisdictions is calculated at the rates prevailing in the relevant jurisdictions.

The total benefit for the year can be reconciled to the accounting loss as follows:

	Year ended 31 December		
	2010	*2011*	*2012*
	S$	*S$*	*S$*
Loss before tax	(19,183,719)	(11,231,779)	(15,040,445)
Income tax credit calculated at 17% (2011: 17%; 2010:17%)	(3,261,232)	(1,909,402)	(2,556,876)
Non-allowable items	48,065	579,252	580,265
Tax effect of deferred tax asset not recognised	3,213,167	1,330,150	1,976,611
Over provision for prior year	(11,000)	–	(66,175)
Tax benefit for the year	(11,000)	–	(66,175)

At the end of the reporting period, the group has unutilised tax losses of S$70,248,428 (2011: S$67,680,934; 2010: S$59,863,904). No deferred tax asset has been recognised due to the unpredictability of future profit streams.

9 Loss for the year

Loss for the year has been arrived at after charging/(crediting):

	Year ended 31 December		
	2010	*2011*	*2012*
	S$	*S$*	*S$*
Depreciation and amortisation	282,734	3,407,365	3,413,329
Auditor's remuneration	102,795	112,000	99,500
Costs of defined contribution plans	141,558	140,245	117,966
Loss on disposal/write off of property, plant and equipment	2,729,909	677	1,143,826
Net foreign exchange loss/(gain)	1,999,367	(260,127)	646,091
Share-based payments (Note 19)	566,639	545,698	195,452

10 Cash and cash equivalents

	At 31 December		
	2010	*2011*	*2012*
	S$	*S$*	*S$*
Cash at bank	4,196,586	9,554,338	2,326,067
Fixed deposits	–	10,985	10,985
Cash on hand	2,310	1,301	1,423
	4,198,896	9,566,624	2,338,475

Bank balances and cash comprise of cash held by the group and short-term bank deposits with an original maturity of less than 3 months. The carrying amounts of these assets approximate their fair values.

The group's cash and bank balances that are not denominated in the functional currencies of the respective entities are as follows:

	At 31 December		
	2010	*2011*	*2012*
	$	*$*	*$*
Australian dollars	51,574	11,707	12,760
British pound	828,693	34,314	22,749
Euro	56,891	9,507	9,103
United States dollars	11,936	9,584	1,272,175

11 Trade and other receivables

	At 31 December		
	2010	*2011*	*2012*
	S$	*S$*	*S$*
Trade receivables due from third parties	9,431	–	–
Trade receivables due from a related party (Note 16)	230,504	–	–
Other receivables due from shareholders	2,391,240	50,000	50,000
Deposits	114,049	101,515	227,588
Prepayments	251,078	95,055	130,938
Value-added tax recoverable	884,523	225,521	–
Other receivables	184,809	8,202	71,308
	4,065,634	480,293	479,834

The average credit period on trade receivables due from third parties is 30 days (2011: 30 days; 2010: 30 days). No interest is charged on the outstanding balance.

In 2010, the other receivables due from shareholders pertain mainly to the outstanding payments for rights issue which was paid subsequent to the 2010 year end.

The prepayments relates to annual insurance premiums for the Turbine AK-1000 as well as other working capital advances.

Bad debt expense for the year ended 31 December 2011 and 2011 amounted to S$20,386 and S$111,699 respectively.

12 Available-for-sale investments

	At 31 December		
	2010	*2011*	*2012*
	S$	*S$*	*S$*
Unquoted equity shares, at cost	499,937	1,155,904	1,632,860
Less: Impairment allowance	(283,300)	(283,300)	(283,300)
	216,637	872,604	1,349,560

The group's S$1,632,860 investment in MeyGen Limited at 31 December 2012 comprised of a 10% equity investment (net of impairment allowance) of S$40 and a debt investment of S$1,349,520 (2011: S$40 and S$872,604; 2010: S$40 and S$216,597 respectively).

Details of the group's investments are as follows:

Name of investments	*Country of incorporation (or registration) and operation*	*Proportion of ownership interest and voting power held*		
		2010	*2011*	*2012*
		%	*%*	*%*
MeyGen Limited (previously known as York Place No. 503 Limited)	United Kingdom	10	10	10
Atlantis Brands Corporation Pte Limited	Singapore	4	4	4

Name of investments	*Cost of investment*			*Principal activity*
	2010	*2011*	*2012*	
	S$	*S$*	*S$*	
MeyGen Limited (previously known as York Place No. 503 Limited)	499,837	872,503	1,349,460	Development of tidal power generation project
Atlantis Brands Corporation Pte Limited	100	100	100	Dormant
	499,937	872,603	1,349,560	

The directors consider that as there are investments in unquoted equity, a fair value could not be reliably determined at the respective balance sheet dates and accordingly have continued to hold the investments at cost.

Movements on the impairment allowance are as follows:

	2010	*2011*	*2012*
	S$	*S$*	*S$*
At 1 January	–	283,300	283,300
Impairment allowance	283,300	–	–
At 31 December	283,300	283,300	283,300

13 Property, Plant and equipment

	Freehold land S$	*Furniture, fixture and equipment S$*	*Computer equipment and software S$*	*Construction-in-progress S$*	*Total S$*
Group					
Cost:					
At 1 January 2010	256,847	146,151	855,945	5,299,599	6,558,542
Additions	–	11,591	222,653	4,748,916	4,983,160
Reimbursed by grants	–	–	–	(1,903,540)	(1,903,540)
Exchange differences	–	–	(2)	30,537	30,535
Disposals/write-offs	(256,847)	(54,915)	(168,922)	(1,842,962)	(2,323,646)
At 31 December 2010	–	102,827	909,674	6,332,550	7,345,051
Additions	–	–	14,896	226,643	241,539
Reimbursed by grants	–	–	–	(1,369,759)	(1,369,759)
Exchange differences	–	–	(714)	13,027	12,313
Disposals/write-offs	–	–	(50,084)	–	(50,084)
At 31 December 2011	–	102,827	873,772	5,202,461	6,179,060
Additions	–	–	10,869	489,286	500,155
Reimbursed by grants	–	–	–	(287,512)	(287,512)
Exchange differences	–	9,502	829	(2,290)	8,041
Disposals/write-offs	–	–	(16,891)	(1,141,626)	(1,158,517)
At 31 December 2012	–	112,329	868,579	4,260,319	5,241,227
Accumulated depreciation:					
At 1 January 2010	–	34,816	169,925	–	204,741
Depreciation for the year	–	36,197	246,537	–	282,734
Exchange differences	–	–	3,088	–	3,088
Disposals/write-offs	–	(17,274)	(62,420)	–	(79,694)
At 31 December 2010	–	53,739	357,130	–	410,869
Depreciation for the year	–	24,350	211,103	–	235,453
Exchange differences	–	–	(842)	–	(842)
Disposals/write-offs	–	–	(49,389)	–	(49,389)
At 31 December 2011	–	78,089	518,002	–	596,091
Depreciation for the year	–	24,109	186,972	–	211,081
Exchange differences	–	–	478	–	478
Disposals/write-offs	–	–	(14,674)	–	(14,674)
At 31 December 2012	–	102,198	690,778	–	792,976
Carrying amount:					
At 31 December 2012	–	10,131	177,801	4,260,319	4,448,251
At 31 December 2011	–	24,738	355,770	5,202,461	5,582,969
At 31 December 2010	–	49,088	552,544	6,332,550	6,934,182

At the end of the reporting period, included in construction-in-progress are the turbines including the AR1000 which are still under development and will only be depreciated when the group starts to deliver the turbines to its customers. The carrying amount of the construction-in-progress at the end of the reporting period is S$4,260,319 (2011: S$5,202,461; 2010: S$6,332,550).

At the end of every year, the management assessed the existing condition and performance of its assets. In 2012 they concluded the write off of Solon II of S$1,141,626. In 2010, the total write-offs for property, plant and equipment and intangible assets amounted to S$2,652,295, of which S$1,889,980 related to Nereus II, one of the turbines in construction and S$762,315 related to the blades of AK1000.

14 Intangible assets

	Global technology licence S$	*Intellectual property S$*	*Development costs S$*	*Total S$*
Cost:				
At 1 January 2010	17,189,795	1,198,600	9,904,859	28,293,254
Additions for the year	–	–	17,413,446	17,413,446
Reimbursed by grants	–	–	(2,873,867)	(2,873,867)
Exchange differences	–	–	(726,132)	(726,132)
Write-offs (note 13)	–	–	(809,333)	(809,333)
At 31 December 2010	17,189,795	1,198,600	22,908,973	41,297,368
Additions for the year	–	–	8,001,437	8,001,437
Reimbursed by grants	–	–	(2,011,112)	(2,011,112)
Exchange differences	–	–	58,296	58,296
At 31 December 2011	17,189,795	1,198,600	28,957,594	47,345,989
Additions for the year	–	–	1,372,689	1,372,689
Reimbursed by grants	–	–	(523,573)	(523,573)
Exchange differences	–	–	(324,169)	(324,169)
At 31 December 2012	17,189,795	1,198,600	29,482,541	47,870,936
Accumulated amortisation:				
At 1 January 2010	–	–	–	–
Amortisation for the year	–	–	–	–
At 31 December 2010	–	–	–	–
Amortisation for the year	1,145,984	79,900	1,946,028	3,171,912
Exchange differences	–	–	(12,396)	(12,396)
At 31 December 2011	1,145,984	79,900	1,933,632	3,159,516
Amortisation for the year	1,145,984	79,900	1,976,364	3,202,248
Exchange differences	–	–	(474,404)	(474,404)
At 31 December 2012	2,291,968	159,800	3,435,592	5,887,360
Carrying amount:				
At 31 December 2012	14,897,827	1,038,800	26,046,949	41,983,576
At 31 December 2011	16,043,811	1,118,700	27,023,962	44,186,473
At 31 December 2010	17,189,795	1,198,600	22,908,973	41,297,368

During the year ended 31 December 2012, the group reclassified from plant and equipment S$21,961,427 of the development cost arising from tidal energy projects since 2008 into intangible assets.

The group estimated that the development costs have a useful life of approximately 15 years, and started amortising the development costs for the financial period beginning from 1 January 2011 since it has already been put to use for the successful deployment of the commercial grade turbines.

15 Trade and other payables

	At 31 December		
	2010	*2011*	*2012*
	S$	*S$*	*S$*
Trade payables	4,797,492	1,298,087	824,108
Goods and services payable	–	–	36,762
Other payables	459,548	34,029	97,885
Accruals	1,007,582	1,099,253	1,260,114
Advance receipts from customer	–	–	1,264,615
Other payables due to Shareholder	489,746	–	–
	6,754,368	2,431,369	3,483,484

The average credit period on purchases of goods and services is 30 days (2011: 30 days; 2010: 30 days). The outstanding balances as at the end of the reporting period are interest free.

The group's trade and other payables that are not denominated in the functional currencies of the respective entities are as follows:

	At 31 December		
	2010	*2011*	*2012*
	$	*$*	*$*
Australian dollars	168,381	51,518	79,117
British pound	490,942	489,746	489,746
Norwegian krone	–	–	12,983
United States dollars	116,331	24,458	456,602

16 Related party disclosures

(a) Shareholders' loans

The company raised from certain shareholders unsecured long term debt which is interest bearing at 15% per annum with interest accruing daily but compounded in arrears every 6 months on 30 June and 31 December. The loan facilities were drawn down on in August 2011, December 2011 and July 2012 with a repayment date in August 2014 (the "Repayment Date"). The shareholders' loans include interest accrued up to 31 December 2012 amounting to S$2,896,157 (2011: S$503,325; 2010: NIL).

	At 31 December		
	2010	*2011*	*2012*
	S$	*S$*	*S$*
Morgan Stanley Capital Group (Singapore) Pte Ltd*	–	8,916,529	10,304,158
Minnow Holdings Pty Ltd	–	1,547,884	1,788,770
Aloa Pty Ltd	–	773,318	893,663
ABSS Investments Pty Ltd	–	517,810	598,391
Armstrong Industries HK Ltd	–	1,553,039	1,794,728
EDB Investments Pte Ltd ("EDBI")	–	1,034,799	1,195,837
Austower Pty Ltd	–	103,479	119,557
GCL Holdings (BVI) Pte Ltd	–	–	537,191
Other shareholders	–	686,964	794,359
	–	15,133,822	18,026,654

* Loan novated to new lender, Morgan Stanley Renewables, on 31 October 2013.

All of these shareholder loans, other than those from EDBI and Austower Pty Ltd, are convertible to equity on an initial public offering of shares in the company, at a 10% discount to the IPO offer price.

With effect from 31 October 2013, the shareholders' loans owing to Morgan Stanley Capital Group (Singapore) Pte Ltd have been transferred to Morgan Stanley Renewables Development 1 (Cayman) Limited ("Morgan Stanley Renewables") by way of novation.

As at the end of the reporting period, the fair value of the shareholders' loan was approximately S$14,902,427 (2011: S$11,201,649; 2010: S$NIL).

(b) Other related party transactions

Some of the company's transactions and arrangements are with related parties and the effect of these on the basis determined between the parties is reflected in these financial statements. The balances are unsecured, interest-free and repayable on demand unless otherwise stated.

Transactions between the company and its subsidiaries, which are related companies of the company, have been eliminated on consolidation and are not disclosed in this note. Details of transactions between the group and other related companies are disclosed below. The intercompany balances are unsecured, interest-free and repayable on demand unless otherwise stated.

During the years to 31 December 2010, 2011 and 2012, group entities entered into the following significant transactions with related parties/companies, unless otherwise disclosed in the notes to the financial statements:

	Year ended 31 December		
	2010	*2011*	*2012*
	S$	*S$*	*S$*
Interest income from a related party – MeyGen Limited	–	4,490	66,819
Service fees income from related party – MeyGen Limited	1,037,126	261,182	30,248
Service fees income from a shareholder – Statkraft Development AS	327,686	–	–
Consultancy fees paid to shareholder – Morgan Stanley Capital Group (Singapore) Pte Ltd	–	21,085	–
Interest expense arising from shareholders' loans			
–Morgan Stanley Capital Group (Singapore) Pte Ltd	–	299,862	1,387,629
–Minnow Holdings Pty Ltd	–	47,884	240,886
–Armstrong Industries HK Ltd	–	53,039	241,689
–EDBI	–	34,799	161,038
–Aloa Pty Ltd	–	23,318	120,345
–ABSS Investments Pty Ltd	–	17,810	80,581
–GCL Holdings (BVI) Pte Ltd	–	–	37,191
–Austower Pty Ltd	–	3,478	16,099
–Other shareholders	–	23,133	106,900

The following amounts were trade receivables from related parties:

	Year ended 31 December		
	2010	*2011*	*2012*
	S$	*S$*	*S$*
Trade receivables from related party			
–Statkraft Development AS	230,504	–	–

	Year ended 31 December		
	2010	*2011*	*2012*
	S$	*S$*	*S$*
Long Term Loans from Shareholders			
–Morgan Stanley Capital Group (Singapore) Pte Ltd	–	8,616,667	–
–Minnow Holdings Pty Ltd	–	1,500,000	–
–Armstrong Industries HK Ltd	–	1,500,000	–
–EDBI	–	1,000,000	–
–Aloa Pty Ltd	–	750,000	–
–ABSS Investments Pty Ltd	–	500,000	–
–GCL Holdings (BVI) Pte Ltd	–	–	500,000
–Austower Pty Ltd	–	100,000	–
–Other shareholders	–	663,830	–

Compensation of directors and key management personnel:

The remuneration of directors and other members of key management during the year were as follows:

	Year ended 31 December		
	2010	*2011*	*2012*
	S$	*S$*	*S$*
Salaries and other short-term benefits	610,351	563,882	552,710

17 Loss per share

The calculation of loss per share is based on the loss after tax and on the weighted average number of ordinary shares in issue during each year.

Basic and diluted loss per share are calculated as follows:

	Loss after tax			*Weighted average number of shares*			*Loss per share*		
	2010	*2011*	*2012*	*2010*	*2011*	*2012*	*2010*	*2011*	*2012*
	S$	S$	S$				S$	S$	S$
Basic & diluted – Ordinary "A" Share	(17,079,773)	(10,410,674)	(13,252,032)	779,966,172	853,560,390	900,492,938	(0.02)	(0.01)	(0.01)
Basic & diluted – Preference "B" Share	(43,796)	(27,443)	(33,112)	2,000,000	2,250,000	2,250,000	(0.02)	(0.01)	(0.01)
Basic & diluted – Preference "C" Share	(1,303,461)	(725,999)	(8,759)	59,523,926	59,523,926	59,523,926	(0.02)	(0.01)	(0.01)

Unsecured loans that are convertible into shares (Note 16) have not been included in the calculation of diluted loss per share because they are anti-dilutive.

18 Share capital

	Group			
	Number of ordinary "A" shares	*Number of non-voting preference "B" shares*	*Number of non-voting preference "C" shares*	*Total S$*
Balance at 1 January 2010	753,304,501	1,750,000	59,523,926	91,484,042
Issued for cash	35,048,333	–	–	6,178,863
Exercise of contingent options	18,275,008	–	–	100
Stock awards	–	500,000	–	77,657
Balance at 31 December 2010	806,627,842	2,250,000	59,523,926	97,740,662
Issued for cash	22,745,710	–	–	3,918,163
Conversion of bonds to shares	53,461,394	–	–	9,623,052
Exercise of contingent options	17,657,992	–	–	100
Balance at 31 December 2011	900,492,938	2,250,000	59,523,926	111,281,977
Issued for cash	–	–	–	–
Conversion of bonds to shares	–	–	–	–
Exercise of contingent options	–	–	–	–
Balance at 31 December 2012	900,492,938	2,250,000	59,523,926	111,281,977

The company has one class of ordinary "A" shares which have no par value and carry no right to fixed income and two classes of preference shares.

A holder of class "B" and "C" non-voting preference shares is not entitled to any voting rights and is entitled to liquidation distributions not exceeding S$2 billion and dividend payments not exceeding S$100 million. Class "B" and "C" non-voting preference shares will convert to ordinary "A" shares upon initial public offering of ordinary shares, a trade sale or change in control of the company.

In 2010, the group issued convertible debt of S$9,623,052 (comprising of cash proceeds of S$6,233,020 on the principal and notional interest of S$3,390,032), which was converted into shares at the company's option or automatically on the issue of shares which also took place subsequently in 2010. Therefore at 31 December 2010 the group recognized an equity balance for the value of the shares to be issued with shares themselves legally issued during 2011.

19 Share options

Option fee reserve represents call option fee paid up-front by the call option holders.

During the year ended 31 December 2012, the company granted Nil (2011: 1,000,000; 2010: 4,800,000) non-voting preference "B" shares under option to key executives of group companies, via the Company Shares Option Plan (CSOP) established in 2009. Options over ordinary "A" shares were issued prior to 1 July 2010 with no further options of this type granted in the three years to 31 December 2012. The options may be exercised at any time within the exercisable period but no later than the expiry date. The options may be exercised in full or a portion thereof upon payment of the exercise price. Holders of the above share options have no right to participate in any share issues of Atlantis Resources Limited or any of its subsidiaries.

Share options granted under the CSOP carry no rights to dividends and no voting rights until the options become vested and are exercised.

	Ordinary "A" share options		*Preference "B" share options*	
	Number of share options	*Weighted average exercise price S$*	*Number of share options*	*Weighted average exercise price S$*
Balance at 1 January 2010	40,112,355	0.200	42,311,746	0.192
Granted during the year	–	–	6,800,000	0.200
Lapsed/Terminated during the year	(24,398,625)	–	(1,100,000)	0.192
Balance at 31 December 2010	15,713,730	0.200	48,011,746	0.193
Granted during the year	–	–	1,000,000	0.200
Lapsed/Terminated during the year	–	–	(4,945,746)	0.169
Balance at 31 December 2011	15,713,730	0.200	44,066,000	0.196
Lapsed/Terminated during the year	–	–	(4,800,000)	0.200
Balance at 31 December 2012	15,713,730	0.200	39,266,000	0.196

The fair value for the above share options granted during the year were calculated using The Black-Scholes pricing model. The inputs into the model were as follows:

	At 31 December		
	2010	*2011*	*2012*
Weighted average share price	S$0.16	S$0.18	–
Weighted average exercise price	S$0.19	S$0.20	–
Expected volatility	56.94%	55.18%	–
Expected life	3 years	3 years	–
Risk free rate	0.87%	1.14%	–
Expected dividend yield	0%	0%	–

Expected volatility was determined by calculating the historical volatility of comparable companies in the same industry. The expected life used in the model has been adjusted, based on management's best estimate, for the effects of non transferability, exercise restrictions and behavioral considerations.

The group recognised a total expense in the year ended 31 December 2012 of S$195,452 (2011: S$545,698; 2010: S$644,296) related to equity-settled share-based payment transactions and this is included as part of employee benefits expense.

Contingent options

Under the terms of the Deed of Undertaking between Atlantis Resources Limited and Morgan Stanley Renewables dated October 2008, the company irrevocably undertook to grant a call option upon the occurrence of a fund raising exercise in respect of such number of option shares as is required to restore Morgan Stanley Renewables' shareholding in the company to 49.9% of the issued share capital of the company up to a maximum issuance of 239,263,119 issued for a nominal amount of S$100 on each exercise. 17,657,992 new ordinary "A" shares were issued in 2011. At 31 December 2012, the group had 134,194,544 shares subject to this contingent option. The option fee reserve of S$9,929 represents the consideration paid for this right. Morgan Stanley Renewables shareholding has since been diluted to 45.7%, and the contingent options have all now been exercised.

20 Operating lease commitments

	At 31 December		
	2010	*2011*	*2012*
	S$	*S$*	*S$*
Minimum lease payments under operating leases	699,689	593,111	714,020

At the end of the reporting period, the group has outstanding commitments under non-cancellable operating leases, which fall due as follows:

	At 31 December		
	2010	*2011*	*2012*
	S$	*S$*	*S$*
Within one year	363,222	568,998	559,670
In the second to fifth year inclusive	336,467	24,113	154,350
	699,689	593,111	714,020

Operating lease payments represent rentals payable by the group for its office premises and berth lease. Leases are negotiated for an average term of two years and rentals are fixed for an average of two years.

21 Other commitments

	At 31 December		
	2010	*2011*	*2012*
	S$	*S$*	*S$*
Commitments for the acquisition of plant and equipment	903,194	320,984	257,305

22 Contingent liabilities

	At 31 December		
	2010	*2011*	*2012*
	S$	*S$*	*S$*
Guarantee given to bank in respect of bank facilities utilised by a related party	–	–	116,223

During 2012, the group has provided a bank guarantee of GBP58,600 in respect of the obligations of a related company which expired on 31 March 2013. Subsequent to 31 December 2012 the group has provided further bank guarantees amounting to an aggregate amount of GBP817,570 on behalf of the same related company. Refer to note 23 for further details.

23 Events after the reporting period

(a) On 18 July 2013, the company undertook a rights issue pursuant to which existing shareholders in the company were offered the opportunity to subscribe for up to 223,529,411 new ordinary "A" shares in the company at a price of S$0.017 per share, a target equity raising of S$3.8 million. Pursuant to this rights issue, the company received and accepted offers for the target amount of the equity raising, and at the date of authorization of the financial statements, had received the full S$3.8 million of funds. As a result of this rights issue, Morgan Stanley Renewables' shareholding in the company fell below 49.9%. Morgan Stanley Renewables was able to exercise all of its remaining 134,194,544 contingent options and was issued a corresponding number of new ordinary "A" shares in the company.

(b) On 31 October 2013, Atlantis Projects Pte. Ltd., a wholly owned subsidiary of the company, entered into agreements for and completed the acquisition of an aggregate 90% shareholding in MeyGen Limited, the company developing the MeyGen project in the Pentland Firth, Scotland. The company already owned a 10% shareholding in the project directly, and through this acquisition, became the 100% owner of MeyGen. An additional 45% equity was acquired from a subsidiary of Morgan Stanley Capital Group, Inc ("MSCGI") for GBP385,714 (S$771,233) and 45% from a subsidiary of GDF Suez for GBP1 (S$2). The existing shareholder loans from each of Morgan Stanley Renewables, GDF Suez and the company were retained by MeyGen, and restructured such that they were no longer repayable on demand but instead are repayable in February 2021 in the case of the MSCGI and GDF Suez loans, and February 2030 in the case of the company's loan, with all distributions from MeyGen to be applied to repaying these loans before any distributions to shareholders.

This acquisition will be accounted for as a business combination in accordance with IFRS 3, although the initial accounting for the business combination is incomplete at the present time as no analysis has yet been performed of the acquisition-date fair value of the total consideration, the acquisition-date fair values of the identifiable assets acquired or liabilities assumed.

(c) In October 2013, the company launched a convertible loan to its existing shareholder by way of a rights issuance. The company secured an aggregate of GBP1,958,214 (S$3,915,438) through this offering from nine existing shareholders and other lenders, with proceeds received in late October, early November and December 2013. The convertible loan has a 12 months term and a 10% p.a. interest rate, with interest payable quarterly in arrears. A penalty of 6 months' interest (i.e. 5%) would be payable upon any prepayment before the end of the term. Upon an IPO of the company, the loans would convert to shares in the company at a conversion price of 90% of the IPO offering price (subject in the case of Morgan Stanley Renewables' loan to a cap on conversion of its convertible loan to the extent any such conversion would result in Morgan Stanley Renewables' shareholding in the company exceeding 42.5%). The prepayment penalty would also be payable in the event of an IPO, also to be paid in shares in the company. An amount of GBP1.1 million of this convertible loan offering was underwritten by two shareholders of the Company for a 10% fee of GBP110,000 (S$221,000). This fee remained payable at the date of this report.

(d) In January 2014, Atlantis Operations (UK) Ltd., a wholly owned subsidiary of the Company, entered into a grant agreement with the Directorate-General for Energy of the European Commission for the award of an up to EUR7,294,905 grant towards the development of the MeyGen Project, to design, build, install and operate 4.5MW of AR1500 turbines at the MeyGen site. An initial drawdown of EUR2,320,895 was received in February 2014.

(e) In February 2014, ARC Ventures (UK) Ltd., a wholly owned subsidiary of the Company, entered into a loan agreement with Scottish Enterprise (as administrator of the Renewable Energy Investment Fund) and the Company as guarantor. The £2 million principal amount of the loan is scheduled to be drawn in three tranches of £0.5 million in February 2014, £1 million in March 2014, and £0.5 million in May 2014. The initial drawdown was received in February 2014. The loan is to be used to support the development of the Company's engineering hub in Scotland and in support of the development of the MeyGen Project. The interest rate on the loan is 12% per annum with interest capitalised each six months. The loan plus all accrued and capital interest is repayable on the fifth anniversary of the first drawdown.

(f) In February 2014, the Company borrowed an A$400,000 loan from an existing indirect investor in the Company, the James McKnoulty Family Trust. The interest rate on this loan is 20% per annum. This loan was secured over the assets in the Company by way of a floating charge. The loan is repayable after 12 months or, if earlier, within 30 business days of Admission, together with all interest which would have been payable up until the 12 months' repayment date.

24 First time presentation of IFRS

The financial statements have been prepared in accordance with the provisions of International Reporting Standards ("IFRS") as issued by the International Accounting Standards Board, the previous financial reporting periods having been prepared in accordance with Singapore GAAP. IFRS 1, "First time adoption of International Financial Reporting Standards, ("IFRS1"), sets forth guidance for the initial adoption of IFRS. The date of transition was 1 January 2010. No exemptions permitted under IFRS 1 were applied.

The key changes from Singapore GAAP to IFRS are set out below.

Reconciliation of capital and reserves as at 31 December 2010, 2011 and 2012

No changes were required to capital and reserves as a result of the adoption of International Financial Reporting Standards ("IFRS").

Reconciliation of comprehensive loss for the year ended 31 December 2010, 2011 and 2012

Other than changes in terminology to ensure that the format of the statement of comprehensive income complies with International Financial Reporting Standards ("IFRS"), there have been no changes to the statement of comprehensive income results for the year ended 31 December 2010, 31 December 2011 and 31 December 2012 as a result of adopting "IFRS".

Reconciliation of statement of financial position as at 31 December 2010, 2011 and 2012

Other than changes in terminology to ensure that the format of the statement of financial position complies with International Financial Reporting Standards ("IFRS"), there have been no changes to the statement of financial position for the year ended 31 December 2010, 31 December 2011 and 31 December 2012 as a result of adopting "IFRS".

Reconciliation of statement of cashflow as at 31 December 2010, 2011 and 2012

Other than changes in terminology to ensure that the format of the statement of cashflow complies with International Financial Reporting Standards ("IFRS"), there have been no changes to the statement of cashflow for the year ended 31 December 2010, 31 December 2011 and 31 December 2012 as a result of adopting "IFRS".

SECTION C: UNAUDITED INTERIM FINANCIAL INFORMATION OF ATLANTIS AND ITS SUBSIDIARIES FOR THE SIX MONTHS ENDED 30 JUNE 2013

Condensed Consolidated Statement of Comprehensive Income (Unaudited)

	Note	Six months ended 30 June 2013 S$	2012 S$
Revenue		2,093,055	30,596
Depreciation		(84,542)	(108,918)
Amortisation		(1,580,212)	(1,597,032)
Employee benefits expense		(1,712,002)	(1,957,485)
Research and development costs		(652,227)	(663,199)
Other operating expenses		(4,605,441)	(2,277,782)
Finance costs		(1,374,938)	(1,128,130)
Other income		–	63,886
Loss before tax		(7,916,307)	(7,638,064)
Income tax credit (expense)		5,000	(451)
Loss for the period		(7,911,307)	(7,638,515)
Other comprehensive income:			
Exchange differences on translation of foreign operation		813,092	255,372
Total comprehensive loss for the period		(7,098,215)	(7,383,143)
The information below details the basic and diluted loss per share for each reporting period:			
Basic and diluted loss per share	13		
– Ordinary "A"		(0.01)	(0.01)
– Preference "B"		(0.01)	(0.01)
– Preference "C"		(0.01)	(0.01)

No dividends were proposed or declared in respect of either of the periods presented above.

The accompanying notes form part of this interim financial information.

Condensed Consolidated Statement of Financial Position

	Note	*30 June 2013 (Unaudited) S$*	*31 December 2012 (Audited) S$*
ASSETS			
Non-current assets			
Available-for-sale investments	3	1,384,756	1,349,560
Plant and equipment	4	4,193,101	4,448,251
Intangible assets	5	39,487,601	41,983,576
		45,065,458	47,781,387
Current assets			
Cash and bank balances		1,588,116	2,338,475
Other receivables and prepayments		407,386	479,834
		1,995,502	2,818,309
Total assets		47,060,960	50,599,696
Current liability			
Trade and other payables	6	4,920,283	3,483,484
		4,920,283	3,483,484
Non-current liabilities			
Unsecured loans	8	743,420	–
Shareholders' loans	7	19,401,592	18,026,654
		20,145,012	18,026,654
Total liabilities		25,065,295	21,510,138
Net assets		21,995,665	29,089,558
Equity			
Share capital	9	111,277,740	111,281,977
Translation reserve		2,071,682	1,258,590
Option fee		9,929	9,929
Share option reserve	10	3,443,556	3,434,997
Accumulated losses		(94,807,242)	(86,895,935)
Total equity		21,995,665	29,089,558

Condensed Consolidated Statement of Changes in Equity

	Share capital S$	*Translation reserve S$*	*Option fee S$*	*Share option reserve S$*	*Accumulated losses S$*	*Total S$*
Balance at 1 January 2012 (audited)	111,281,977	445,443	9,929	3,239,545	(71,921,665)	43,055,229
Total comprehensive loss for the period	–	255,372	–	–	(7,638,515)	(7,383,143)
Recognition of share based payments, net	–	–	–	185,158	–	185,158
Balance at 30 June 2012 (unaudited)	111,281,977	700,815	9,929	3,424,703	(79,560,180)	35,857,244
Total comprehensive loss for the period	–	557,775	–	–	(7,335,755)	(6,777,980)
Recognition of share based payments, net	–	–	–	10,294	–	10,294
Balance at 31 December 2012 (audited)	111,281,977	1,258,590	9,929	3,434,997	(86,895,935)	29,089,558
Total comprehensive loss for the period	–	813,092	–	–	(7,911,307)	(7,098,215)
Recognition of share based payments, net	–	–	–	8,559	–	8,559
Costs related to fund raising activities	(4,237)	–	–	–	–	(4,237)
Balance at 30 June 2013 (unaudited)	111,277,740	2,071,682	9,929	3,443,556	(94,807,242)	21,995,665

Condensed Consolidated Statement of Cash Flows (Unaudited)

	Six months ended 30 June	
	2013	*2012*
	S$	*S$*
Operating activities		
Loss before income tax	(7,916,307)	(7,638,064)
Adjustments for:		
Depreciation of plant and equipment	84,542	108,918
Amortisation of intangible	1,580,212	1,597,032
Finance costs	1,374,938	1,128,130
Share-based payments	8,559	185,158
Net foreign exchange	1,651,127	684,100
Decrease in other receivables and prepayments	72,448	63,110
Increase/(decrease) in trade and other payables	1,436,799	(1,077,792)
Interest paid	–	(2,433)
Income tax received/(paid)	5,000	(1,418)
Net cash used in operating activities	(1,702,682)	(4,953,259)
Investing activities		
Purchase of plant and equipment	(11,009)	(8,259)
Expenditure on project development	–	(520,758)
Purchase of available-for-sale investments	(35,196)	(290,046)
Net cash used in investing activities	(46,205)	(819,063)
Financing activities		
Costs related to fund raising activities	(4,237)	–
Proceeds from borrowings	743,420	–
Net cash from financing activities	739,183	–
Net decrease in cash and bank balances	(1,009,704)	(5,772,322)
Cash and cash equivalents at the beginning of the year	2,338,475	9,566,624
Effect of foreign exchange rate changes on the balance of cash held in foreign currencies	259,345	(47,177)
Cash and cash equivalents at the end of the year	1,588,116	3,747,125

Notes to the Condensed Consolidated Financial Statements
For the Six Months ended June 30, 2013

1 General

The company (Registration No. 200517551R) is incorporated in Singapore with its principal place of business and registered office at 65 Niven Road, Singapore 228414. The financial statements are expressed in Singapore dollars.

The principal activity of the company is that of pioneering the development of tidal current power as the most reliable, economic and secured form of renewable energy. The company is an inventor, developer, owner, marketer and licensor of technology, intellectual property, trademarks, products and services.

The financial information for the six months ended 30 June 2013 and 2012 does not constitute statutory accounts. The interim financial information is to be read in conjunction with the latest audited financial report for the year ended 31 December 2012.

The Directors have a reasonable expectation that the company and the group have adequate resources to continue in operational existence for the foreseeable future. Thus they continue to adopt the going concern basis of accounting in preparing the condensed financial statements.

2 Accounting policies

Basis of preparation

The annual financial statements of Atlantis Resources Limited are prepared in accordance with Singapore Financial Reporting Standards. The condensed consolidated financial statements included in this report have been prepared in accordance with International Accounting Standard 34 'Interim Financial Reporting'.

The same accounting policies, presentation and methods of computation are followed in these condensed consolidated financial statements as applied in the group's financial statements for the year ended 31 December 2012, except for the impact of the adoption of the Standards and Interpretations described below.

Adoption of new and revised International Financial Reporting Standards

The following accounting amendments, standards and interpretations became effective in the current reporting period but have not had a material impact on the amounts recognized in the financial statements of the group.

- *IAS 1 Presentation of Items of Other Comprehensive Income – Amendments to IAS 1*. Items that may be reclassified (or recycled) to the income statement at a future time are separately presented to those that will not be reclassified.

- *IFRS 13 Fair Value Measurement*. An amendment to IAS 34 resulting from this single framework for measuring fair value has resulted in some IFRS 13 disclosures being included in these condensed financial statements.

3 Available-for Sale Investments

	2013 *S$*	*2012* *S$*
Unquoted equity shares, at cost	283,440	283,440
Loans granted to MeyGen Limited	1,384,616	1,349,420
Less: Impairment allowance	(283,300)	(283,300)
	1,384,756	1,349,560

Details of the group's investment are as follows:

Name of investment	*Country of incorporation (or registration) and operation*	*Proportion of ownership interest and voting power held*		*Cost of investment*		*Principal activity*
		2013 *%*	*2012* *%*	*2013* *S$*	*2012* *S$*	
Atlantis Brands Corporation Pte Limited	Singapore	4	4	100	100	Dormant
MeyGen Limited (previously known as York Place No. 503 Limited)	United Kingdom	10	10	1,384,656	1,349,460	Development of tidal power generation Project
				1,384,756	1,349,560	

On 21 October 2010, the company entered into a shareholder agreement with International Power Marine Developments Limited and Morgan Stanley Capital Group Inc. to establish a company known as MeyGen Limited (previously known as York Place (No. 503) Limited) with the mandate of developing the tidal power generation project located in the Inner Sound, Pentland Firth, Scotland. As part of this agreement, the company contributed capital in-kind in the form of its subsidiary York Place (No. 503) Limited, including the assets held by York Place (No. 503) Limited, and received equity ownership amounting to 10% of outstanding capital and a 10% carried interest, plus exclusivity as the preferred supplier of turbines on 150MW of the first 160MW for the project.

The equity investments were measured at cost on initial recognition and as there are no quoted market prices in an active market, equity investments continue to be measured at cost given that fair values cannot be measured reliably.

Included in the cost of investment in MeyGen Limited are shareholder loans which were due for repayment upon demand by the Company. The loans are interest bearing at rate 12-month LIBOR plus 5% per annum.

4 Plant and equipment

	Furniture fixture and equipment S$	*Computer equipment & software S$*	*Construction-in-progress S$*	*Total S$*
Cost:				
At 1 January 2013	112,329	868,579	4,260,319	5,241,227
Additions	–	11,009	–	11,009
Exchange differences	–	(3,004)	(179,390)	(182,394)
At 30 June 2013	112,329	876,584	4,080,929	5,069,842
Accumulated depreciation:				
At 1 January 2013	102,198	690,778	–	792,976
Depreciation for the period	3,599	80,943	–	84,542
Exchange differences	–	(777)	–	(777)
At 30 June 2013	105,797	770,944	–	876,741
Carrying amount:				
At 30 June 2013	6,532	105,640	4,080,929	4,193,101
At 31 December 2012	10,131	177,801	4,260,319	4,448,251

5 Intangible assets

	Global technology licence S$	*Intellectual property S$*	*Development costs S$*	*Total S$*
Cost:				
At 1 January 2013	17,189,795	1,198,600	29,482,541	47,870,936
Exchange differences	–	–	(554,329)	(554,329)
At 30 June 2013	17,189,795	1,198,600	28,928,212	47,316,607
Accumulated amortisation:				
At 1 January 2013	2,291,968	159,800	3,435,592	5,887,360
Amortisation for the period	572,992	39,950	967,270	1,580,212
Exchange differences	–	–	361,434	361,434
At 30 June 2013	2,864,960	199,750	4,764,296	7,829,006
Carrying amount:				
At 30 June 2013	14,324,835	998,850	24,163,916	39,487,601
At 31 December 2012	14,897,827	1,038,800	26,046,949	41,983,576

Global technology licence

On 29 June 2007, the group and Morgan Stanley Renewables Development 1 (Cayman) Limited ("Morgan Stanley Renewables") entered into a subscription agreement under which Morgan Stanley Renewables agreed to subscribe for up to 30% of the total issued share capital for the company on a fully diluted basis (the Subscription Agreement No. 1).

In connection with the Subscription Agreement No. 1, the company, as the owner and developer of the intellectual property rights associated with the group proprietary technology in respect of turbines and related infrastructure used in tidal energy generation including the Aquanator technology (the "Technology"), granted an exclusive perpetual world-wide license of the rights to the use and deployment and manufacture of the Technology (the "Licence") to Morgan Stanley Renewables on 26 July 2007.

Under the terms of the Licence, the company was entitled to royalties based on the generation of power from the deployment of the Technology. At the same time, under the terms of the Subscription Agreement No. 1, Morgan Stanley Renewables provided the group with funding for the continued development of the Technology. As such, Morgan Stanley Renewables progressively increased its investment in the company through a series of acquisitions of additional new shares from July 2007 to August 2008.

During 2008, Morgan Stanley Renewables transferred its tidal energy deployment business, which was conducted through a UK subsidiary, Atlantis Operations (UK) Limited (formerly known as Current Resources Limited) ("CRL"), to a wholly owned subsidiary, Current Resources (Cayman) Limited ("CRCL"), incorporated in the Cayman Islands. Morgan Stanley Renewables also transferred the Licence it acquired from the group, which included the rights to manufacture, use and deploy the group technology on a global basis, to CRCL.

On 22 October 2008, the group purchased CRCL from Morgan Stanley Renewables, thus transferring CRL to the group making it a wholly owned subsidiary of the group. Morgan Stanley Renewables received in return, 158,000,000 of ordinary "A" shares, 24,398,625 options to subscribe for ordinary "A" shares and 29,761,963 options to subscribe for non-voting preference "C" shares totaling to S$16,221,346 in the company bringing Morgan Stanley Renewables' holding to 49.9% of the voting shares of the company, on an undiluted basis. The existing non-Morgan Stanley Renewables shareholders (the "Heritage Shareholders") held the balances of the shares in the group as of completion of the transaction. The group and CRCL terminated the licensing agreement following the transfer of the technology to the group.

There is also a Deed of Undertaking that provides Morgan Stanley Renewables an option to purchase ordinary 'A' shares subject to not holding more than 49.9% of the issued share capital of the company. The 132,962,036 warrants and 28,233,217 options held by Morgan Stanley Renewables as part of the Subscription Agreement No. 1 were cancelled and replaced by the Deed of Undertaking. The Deed of Undertaking provided Morgan Stanley Renewables with a call option of such number of shares to restore its shareholding to 49.9%, up to a maximum of 239,263,199 shares and at an option fee of S$100 per exercise, upon the occurrence of a fundraising by the company. No further options are outstanding under the Deed of Undertaking.

The group estimated that the technology has a useful life of approximately 15 years and will be amortised throughout this period beginning from 1 January 2011 since it has already been put to use for the successful deployment of the commercial grade turbines.

Intellectual property

During the financial period from 19 December 2005 (date of incorporation) to 31 December 2006, Atlantis Energy Limited ("AEL") transferred two pending international patent applications and three registered trademarks to the company. Under due valuation from an external independent valuator, the market value of the intellectual property was assessed to be S$1,198,600 at the time of initial recognition.

The group estimated that the intellectual property costs have a useful life of approximately 15 years and the group started amortising the intellectual property costs for the financial period beginning from 1 January 2011.

The group tests intangible assets annually for impairment, or more frequently if there are indications that asset might be impaired. During the financial year, based on detailed review performed, management is of the view that no impairment on intangible assets is required.

Development cost

During the financial period from 19 December 2005 (date of incorporation) to 31 December 2006, the company entered into a development agreement with a related party, AEL, to arrange and co-ordinate the development of the company's intellectual property towards commercialisation. The agreement provides for the payment of a development fee by the company to AEL only upon successful profitable exploitation of the intellectual property owned by the company.

During the year ended 31 December 2007, the development agreement was varied by a Deed of Settlement and Release where upon the company and AEL agreed to a payment of S$6,996,168 in full towards final satisfaction of all amounts owed to AEL under the current development agreement.

The group has accumulated significant know-how in the tidal energy generation technology via different demonstration and testing projects through various models of turbines. Later on more advanced model was constructed on the basis of design of previously tested models.

The group estimated that the development costs have a useful life of approximately 15 years, and the group started amortising the development costs for the financial period beginning from 1 January 2011.

6 Trade and other payables

	2013 S$	*2012* S$
Trade payables	1,225,928	824,108
Other payables	362,716	134,647
Accruals	1,567,036	1,260,114
Advance receipts	1,764,603	1,264,615
	4,920,283	3,483,484

7 Shareholders' loans

During the financial period ended 30 June 2013, the company raised from certain shareholders unsecured long term debt amounting to S$Nil (31 December 2012 : $500,000), which was interest bearing at 15% per annum with interest accruing daily but compounded in arrears every 6 months on 30 June and 31 December.

With effect from 31 October 2013, the shareholders' loans owing to Morgan Stanley Group (Singapore) Pte Ltd have been transferred to Morgan Stanley Renewables Development 1 (Cayman) Limited by way of novation.

The terms of the shareholders' loan are as follows:

(a) The company shall repay the outstanding loan amount and all compounded and accrued interest on the Repayment Date.

(b) The company may prepay the outstanding loan amount at any time in full (but not in part) together with all interest that would have compounded and accrued on the outstanding loan amount until the Repayment Date.

(c) If there is:

  (i) a change of control; or

  (ii) the company transfers, or enters into an agreement to transfer, all or substantially all of its assets, whether in a single transaction or a series of transactions,

  then in each case, the company shall, within 30 business days thereof, repay the loan in full together with all interest that would have compounded and accrued on the outstanding loan amount up until the Repayment Date.

8 Unsecured loan

In March and April 2013, the company entered into and drew down two unsecured term loan facilitates with principal amounts of S$620,000 and US$100,000 respectively. The loans are repayable three years from drawdown date. The interest rate on the loans is 5.0% per annum for the first 12 months, increasing at a rate of 0.75% per annum each six months thereafter until the repayment date.

In the event of:

(i) a change of control; or

(ii) the company transfers, or enters into an agreement to transfer, all or substantially all of its assets, whether in a single transaction or a series of transactions,

then in each case, the company shall, within 20 business days thereof, repay the loans plus any accrued but unpaid interest, together with a prepayment premium of 10% of the loan.

In the event of an Initial Public Offering (IPO), at the option of the lender, the company shall either:

(i) repay the loan and any accrued but unpaid interest; or

(ii) issue the lender shares in the company, with the number of shares to be calculated based on the offer price at IPO discounted by 10%.

9 Share capital

	Group and Company			
	Number of ordinary "A" shares	*Number of non-voting preference "B" shares*	*Number of non-voting preference "C" shares*	*Total S$*
June 2013				
At the end of the period	900,492,938	2,250,000	59,523,926	111,277,740
June 2012				
At the end of the period	900,492,938	2,250,000	59,523,926	111,281,977

The company has one class of ordinary "A" shares which have no par value and carry no right to fixed income and two classes of preference shares. Class "B" and "C" non-voting preference shares will convert to ordinary "A" shares upon initial public offering of ordinary shares, a trade sale or change in control of the company.

10 Share options

There were no share options granted in the period.

11 Fair value measurements

Except as detailed in the following table, the directors consider that the carrying amounts of the financial assets and financial liabilities recognized in the consolidated financial statements approximate their fair values.

	2013		*2012*	
	Carrying amount S$	*Fair value S$*	*Carrying amount S$*	*Fair value S$*
Financial liabilities				
Financial liabilities held at amortised cost				
Unsecured loans	743,420	555,368	–	–
Shareholders' loans	19,401,592	16,959,576	18,026,654	14,902,427

	Fair value hierarchy as at 30 June 2013			
	Level 1 S$	*Level 2 S$*	*Level 3 S$*	*Total S$*
Financial liabilities				
Financial liabilities held at amortised cost				
Unsecured loans	–	–	555,368	–
Shareholders' loans	–	–	16,959,576	–

The fair values of the financial liabilities included in level 3 category above have been determined in accordance with generally accepted pricing models based on discounted cash flow analysis.

There were no transfers between Level 2 and 3 during the period.

12 Related party disclosures

(a) Shareholders' loans

The company raised from certain shareholders an unsecured long term debt which is interest bearing at 15% per annum with interest accruing daily but compounded in arrears every 6 months on 30 June and 31 December. The loans were drawn down in August 2011, December 2011 and July 2012 with a repayment date in August 2014 (the "Repayment Date").

(b) Related company and party transactions

Some of the company's transactions and arrangements are with related parties and the effect of these on the basis determined between the parties is reflected in these financial statements. The balances are unsecured, interest-free and repayable on demand unless otherwise stated.

Transactions between the group entities have been eliminated on consolidation and are not disclosed in this note.

13 Loss per share

The calculation of loss per share is based on the loss after tax and on the weighted average number of ordinary shares in issue during each period ended 30 June.

Basic and diluted loss per share are calculated as follows:

	Loss after tax		*Weighted average number of shares*		*Loss per share*	
	2013	*2012*	*2013*	*2012*	*2013*	*2012*
	S$	*S$*			*S$*	*S$*
Basic & diluted – Ordinary "A" Share	(7,403,431)	(7,148,151)	900,492,938	900,492,938	(0.01)	(0.01)
Basic & diluted – Preference "B" Share	(18,498)	(17,861)	2,250,000	2,250,000	(0.01)	(0.01)
Basic & diluted – Preference "C" Share	(489,378)	(472,503)	59,523,926	59,523,926	(0.01)	(0.01)

Unsecured loans that are convertible into shares (Note 8) have not been included in the calculation of diluted loss per share because they are anti-dilutive.

14 Events after the reporting period

(a) On 18 July 2013, the company undertook a rights issue pursuant to which existing shareholders in the company were offered the opportunity to subscribe for up to 223,529,411 new ordinary "A" shares in the company at a price of S$0.017 per share, a target equity raising of S$3.8 million. Pursuant to this rights issue, the company received and accepted offers for the target amount of the equity raising, and at the date of authorization of the financial statements, had received the full $3.8 million of funds. As a result of this rights issue Morgan Stanley's Renewables' shareholdings in the company fell below 49.9%, Morgan Stanley Renewables exercised all of its remaining 134,194,544 contingent options and was issued a corresponding number of new ordinary "A" shares in the company.

(b) With effect from 11 November 2013, the company changed its name from Atlantis Resources Corporation Pte Limited to Atlantis Resources Limited.

(c) In October 2013, the company launched a convertible loan to its existing shareholder by way of a rights issuance. The company secured an aggregate of GBP1,485,714 (S$2,970,677) through this offering from five existing shareholders, with proceeds received in late October, and early November 2013. The convertible loan has a 12 month term and a 10% p.a. interest rate, with interest payable quarterly in arrears. A penalty of 6 months' interest (i.e. 5%) would be payable upon any prepayment before the end of the term. Upon an IPO of the company, the loans would convert to shares in the company at a conversion price of 90% of the IPO offering price. The prepayment penalty would also be payable in the event of an IPO, also to be paid in shares in the company. In December 2013, the

Company entered into four further convertible loans of an aggregate amount of GBP472,500 (S$945,000). An amount of GBP1.1 million of this convertible loan offering was underwritten by two shareholders of the Company for a 10% fee of GBP110,000 (S$221,000). This fee remained payable at the date of this report.

(d) One of its subsidiaries, Atlantis Hydrogen Pte. Limited. changed its name to Atlantis Projects Pte. Ltd. with effect from 28 October 2013.

(e) On 31 October 2013, Atlantis Projects Pte. Ltd., a wholly owned subsidiary of the company, entered into agreements for and completed the acquisition of an aggregate 90% shareholding in MeyGen Limited, the company developing the MeyGen project in the Pentland Firth, Scotland. The company already owned a 10% shareholding in the project directly, and through this acquisition, became the 100% owner of MeyGen. An additional 45% of equity interest was acquired from Morgan Stanley Capital Group Inc ("MSCGI") for GBP385,714 (S$771,233) and another equity interest of 45% was acquired from a subsidiary of GDF Suez for GBP1 (S$2). The existing shareholder loans from each of MSCGI, GDF Suez and the company were retained by MeyGen, and restructured such that they were no longer at call, and repayable in February 2021 in the case of MSCGI and GDF Suez, and in February 2030 in the case of the company, with all distributions from MeyGen to be applied to repaying these loans before any distributions to shareholders. The GBP385,714 price was not paid to MSCGI in cash, but agreed to be left outstanding as a convertible loan due from the Company. The loan is convertible into ordinary shares upon an IPO of the Company, at a price equal to the initial public offering price discounted by 10%, provided that conversion shall not result in Morgan Stanley Renewables' and its affiliates' shareholding in the Company exceeding 42.5%.

This acquisition will be accounted for as a business combination in accordance with IFRS 3, although the initial accounting for the business combination is incomplete at the present time as no analysis has yet been performed of the acquisition-date fair value of the total consideration, the acquisition-date fair values of the identifiable assets acquired or liabilities assumed.

(f) The company agreed to include additional terms for ten of its twelve shareholder loans (Note 7) such that the loans could be converted to ordinary shares upon an IPO of the company, at a price equal to the initial public offering price discounted by 10%.

(g) The company agreed to amend the terms of the unsecured loans (Note 8) such that the loans would be mandatorily converted to ordinary shares upon an IPO of the company, at a price equal to the initial public offering price discounted by 10%.

PART V

FINANCIAL INFORMATION ON MEYGEN LIMITED

SECTION A: ACCOUNTANT'S REPORT ON THE HISTORICAL FINANCIAL INFORMATION OF MEYGEN LIMITED FOR THE THREE YEARS ENDED 31 DECEMBER 2012

Deloitte.

Deloitte LLP
2 New Street Square
London
EC4A 3BZ

The Board of Directors
On behalf of Atlantis Resources Limited
65 Niven Road
Republic of Singapore
228414

N+1 Singer Advisory LLP
One Bartholomew Lane
London
EC2N 2AX

19 February 2014

Dear Sirs

MeyGen Limited

We report on the financial information for the three years ended 31 December 2012 set out in Section B of Part V of the AIM admission document dated 19 February 2014 of MeyGen Limited (the "Company") (the "Admission Document"). This financial information has been prepared for inclusion in the Admission Document on the basis of the accounting policies set out in note 2 to the financial information. This report is required by Annex I item 20.1 of Commission Regulation (EC) No 809/2004 (the "Prospectus Directive Regulation) as applied by Paragraph (a) of Schedule Two to the AIM Rules for Companies and is given for the purpose of complying with that requirement and for no other purpose.

Responsibilities

The Directors of the company are responsible for preparing the financial information in accordance with International Financial Reporting Standards as adopted by the International Accounting Standards Board.

It is our responsibility to form an opinion on the financial information and to report our opinion to you.

Save for any responsibility arising under paragraph (a) of Schedule Two to the AIM Rules for Companies to any person as and to the extent there provided, to the fullest extent permitted by law we do not assume any responsibility and will not accept any liability to any other person for any loss suffered by any such other person as a result of, arising out of, or in connection with this report or our statement, required by and given solely for the purposes of complying with Annex I item 23.1 of the Prospectus Directive Regulation as applied by Paragraph (a) of Schedule Two to the AIM Rules for Companies, consenting to its inclusion in the Admission Document.

Basis of opinion

We conducted our work in accordance with Standards for Investment Reporting issued by the Auditing Practices Board in the United Kingdom. Our work included an assessment of evidence relevant to the

amounts and disclosures in the financial information. It also included an assessment of significant estimates and judgments made by those responsible for the preparation of the financial information and whether the accounting policies are appropriate to the entity's circumstances, consistently applied and adequately disclosed.

We planned and performed our work so as to obtain all the information and explanations which we considered necessary in order to provide us with sufficient evidence to give reasonable assurance that the financial information is free from material misstatement whether caused by fraud or other irregularity or error.

Our work has not been carried out in accordance with auditing or other standards and practices generally accepted in jurisdictions outside the United Kingdom, including the United States of America, and accordingly should not be relied upon as if it had been carried out in accordance with those standards and practices.

Opinion on financial information

In our opinion, the financial information gives, for the purposes of the Admission Document, a true and fair view of the state of affairs of the company as at the dates stated and of its profits, cash flows and changes in equity for the periods ended 31 December 2010, 2011 and 2012 in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board.

Declaration

For the purposes of Paragraph (a) of Schedule Two of the AIM Rules for Companies, we are responsible for this report as part of the Admission Document and declare that we have taken all reasonable care to ensure that the information contained in this report is, to the best of our knowledge, in accordance with the facts and contains no omission likely to affect its import. This declaration is included in the Admission Document in compliance with Schedule Two to the AIM Rules for Companies.

Yours faithfully

Deloitte LLP
Chartered Accountants

Deloitte LLP is a limited liability partnership registered in England and Wales with registered number OC303675 and its registered office at 2 New Street Square, London EC4A 3BZ, United Kingdom. Deloitte LLP is the United Kingdom member firm of Deloitte Touche Tohmatsu Limited ("DTTL"), a UK private company limited by guarantee, whose member firms are legally separate and independent entities. Please see www.deloitte.co.uk/about for a detailed description of the legal structure of DTTL and its member firms.

SECTION B: HISTORICAL FINANCIAL INFORMATION OF MEYGEN LIMITED FOR THE THREE YEARS ENDED 31 DECEMBER 2012

Statement of Comprehensive Income

		Year ended 31 December		
		2010	*2011*	*2012*
	Notes	£	£	£
Revenue		–	–	–
Depreciation expense		–	(1,410)	(4,202)
Research and development costs		(870,149)	(2,483,350)	(1,216,387)
Other operating expenses		(362,783)	(829,782)	(974,749)
Finance costs	5	–	(81,938)	(333,326)
Loss before tax		(1,232,932)	(3,396,480)	(2,528,664)
Income tax	6	–	–	–
Loss for the year	7	(1,232,932)	(3,396,480)	(2,528,664)
Total comprehensive loss for the year		(1,232,932)	(3,396,480)	(2,528,664)

The information below details the basic and diluted loss per share for each reporting period:

Basic and diluted loss per share	14			
– Ordinary "A" Share		(11,208)	(30,877)	(146)
– Preference "B" Share		(11,208)	(30,877)	(146)
– Preference "C" Share		–	–	(146)

All results are derived from continuing operations.

No dividends were proposed or declared in respect of any of the years presented above.

No items of other comprehensive income or expense were recognised in any of the periods presented above.

The accompanying notes form part of this historical financial information.

Statement of Financial Position

	Notes	31 December 2010 £	2011 £	2012 £
Assets				
Non-current assets				
Property, plant and equipment	10	107,159	113,833	123,285
Other receivables	9	520,000	947,717	920,000
		627,159	1,061,550	1,043,285
Current assets				
Cash and cash equivalents	8	–	523,175	307,427
Trade and other receivables	9	914,977	335,326	253,847
		914,977	858,501	561,274
Total assets		1,542,136	1,920,051	1,604,559
Current liabilities				
Trade and other payables	11	293,708	1,025,641	492,929
Shareholders' loans		381,516	3,423,978	6,163,851
		675,224	4,449,619	6,656,780
Net assets/(liabilities)		866,912	(2,529,568)	(5,052,221)
Equity				
Share capital	13	110	110	123
Share premium account		2,102,210	2,102,210	2,108,208
Accumulated losses		(1,235,408)	(4,631,888)	(7,160,552)
Total equity		866,912	(2,529,568)	(5,052,221)

Statement of Changes in Equity

	Note	*Share capital* £	*Share premium* £	*Accumulated losses* £	*Total* £
Balance at 1 January 2010		1	–	(2,476)	(2,475)
Total comprehensive loss for the year		–	–	(1,232,932)	(1,232,932)
Issue of share capital	13	109	2,102,210	–	2,102,319
Balance at 31 December 2010		110	2,102,210	(1,235,408)	866,912
Total comprehensive loss for the year		–	–	(3,396,480)	(3,396,480)
Balance at 31 December 2011		110	2,102,210	(4,631,888)	(2,529,568)
Total comprehensive loss for the year		–	–	(2,528,664)	(2,528,664)
Issue of share capital		13	5,998	–	6,011
Balance at 31 December 2012		123	2,108,208	(7,160,552)	(5,052,221)

Statement of Cash Flows

	Year ended 31 December 2010 £	*Year ended 31 December 2011* £	*Year ended 31 December 2012* £
Operating activities			
Loss before income tax	(1,232,932)	(3,396,480)	(2,528,664)
Adjustments for:			
Depreciation of property, plant and equipment	–	1,410	4,202
Finance costs	–	81,938	333,326
Decrease in trade and other receivables	667,343	151,934	109,196
Increase/(decrease) in trade and other payables	184,073	731,933	(532,712)
Net cash used in operating activities	(381,156)	(2,429,265)	(2,614,652)
Investing activities			
Purchase of property, plant and equipment	–	(8,084)	(13,654)
Net cash used in investing activities	–	(8,084)	(13,654)
Financing activities			
Proceeds from issue of shares	–	–	6,011
Proceeds from borrowings	381,516	2,960,524	2,406,547
Net cash from financing activities	381,516	2,960,524	2,412,558
Net (decrease)/increase in cash and bank balances	–	523,175	(215,748)
Cash and cash equivalents at the beginning of the year	–	–	523,175
Cash and cash equivalents at the end of the year	–	523,175	307,427

Meygen Limited – Notes to the Financial Statements

1. General

MeyGen Limited (Registration No. SC347501) is incorporated in the United Kingdom with its registered address at 27 Lauriston Street, Edinburgh, Scotland, EH3 9DQ. These financial statements are presented in Pounds Sterling as it is the currency of the primary economic environment in which the company operates.

As of 31 October 2013, Atlantis Resources Limited, a company registered in Singapore, has bought out all shares from both Morgan Stanley Capital Group Inc. and International Power Marine Development Ltd through a wholly owned subsidiary, Atlantis Projects Pte Ltd, also registered in Singapore. Thus, Atlantis Resources Limited is the ultimate controlling party.

The principal activity of the company is the development, engineering, design and preparation for the assembly, maintenance and ownership of tidal generation facilities in the Pentland Firth, Caithness, Scotland.

2. Summary of significant accounting policies

Basis of accounting

The financial statements have been prepared under the historical cost convention and are drawn up in accordance with the provisions of International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board.

Going concern

The company has completed the Front End Engineering Development phase of the Pentland Firth tidal project. The company has received consents from Marine Scotland to proceed with the project and to move to development of the initial demonstration array of 6 turbines. The Department of Energy and Climate Change has awarded a £10m grant through the Marine Energy Accelerator Developer scheme.

MeyGen is currently loss-making and has net liabilities funded through shareholder loan facilities which have funded the planned expenditure for the project to date. In order for the project to proceed further, the company is dependent on additional funding from its shareholder; the availability of this funding is subject to receipt of funds by Atlantis Resources Limited.

The company's parent has provided a written pledge of support in the company's favour, and the directors therefore have a reasonable expectation that the company has adequate resources to continue in operational existence for the foreseeable future. For these reasons, the company continues to adopt the going concern basis of accounting in preparing the annual financial statements.

Adoption of new and revised standards

The financial statements have been prepared in accordance with IFRS and the company has applied all applicable accounting standards and interpretations except for the following new standards, amendments and interpretations which have been issued but are not yet effective:

- IAS 32 (Revised): Offsetting Financial Assets and Financial Liabilities
- IAS 36 (Revised): Recoverable Amount Disclosures for Non-Financial Assets
- IAS 39 (Revised): Novation of Derivatives and Continuation of Hedge Accounting
- Amendments to IFRS 10, IFRS 12 and IAS 27: Investment Entities

Management anticipates that these new standards, interpretations and amendments will be adopted in the company's financial statements for the period beginning 1 January 2014 or as and when they are applicable.

Management anticipates that the adoption of the above Standards and Interpretations in future periods will not have a material impact on the financial statements of the company in the period of their initial adoption.

FINANCIAL INSTRUMENTS – Financial assets and financial liabilities are recognised on the company's statement of financial position when the company becomes a party to the contractual provisions of the instrument.

Financial assets

Financial assets are classified into the following specified categories: "available-for-sale" financial assets and "loans and receivables". The classification depends on the nature and purpose of financial assets and is determined at the time of initial recognition.

All financial assets are recognised and de-recognised on a trade date where the purchase or sale of an investment is under a contract whose terms require delivery of the investment within the timeframe established by the market concerned, and are initially measured at fair value plus transaction costs except for those financial assets classified as at fair value through profit and loss which are initially measured at fair value.

Available-for-sale financial assets

Certain shares and debt securities held by the company are classified as being available for sale and are stated at fair value. Investment in equity instruments that do not have a quoted market price in an active market and whose fair value cannot be reliably measured are stated at cost. Gains and losses arising from changes in fair value are recognised in other comprehensive income with the exception of impairment losses, interest calculated using the effective interest method and foreign exchange gains and losses on monetary assets which are recognised directly in profit or loss. Where the investment is disposed of or is determined to be impaired, the cumulative gain or loss previously recognised in other comprehensive income and accumulated in revaluation reserve is reclassified to profit or loss. Dividends on available-for-sale equity instruments are recognised in profit or loss when the group's right to receive payments is established. The fair value of available-for-sale monetary assets denominated in a foreign currency is determined in that foreign currency and translated at the spot rate at end of the reporting date. The change in fair value attributable to translation differences that result from a change in amortised cost of the asset is recognised in profit or loss, and other changes are recognised in other comprehensive income.

Loans and receivables

Trade and other receivables that have fixed or determinable payments that are not quoted in an active market are classified as "loans and receivables". Loans and receivables are measured at amortised cost using the effective interest method less impairment. Interest is recognised by applying the effective interest method, except for short-term receivables when the recognition of interest would be immaterial.

Effective interest method

The effective interest method is a method of calculating the amortised cost of a financial instrument and of allocating interest income or expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash receipts or payments (including all fees on points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) through the expected life of the financial instrument, or where appropriate, a shorter period. Income and expense is recognised on an effective interest rate basis for debt instruments other than those financial instruments "at fair value through profit or loss".

Derecognition of financial assets

The company derecognises a financial asset only when the contractual rights to the cash flows from the asset expire, or it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another entity. If the company neither transfers nor retains substantially all the risks and rewards of ownership and continues to control the transferred asset, the company recognises its retained interest in the asset and an associated liability for amounts it may have to pay. If the company retains substantially all the risks and rewards of ownership of a transferred financial asset, the company continues to recognise the financial asset and also recognises a collateralised borrowing for the proceeds received.

Financial liabilities and equity instruments

Classification as debt or equity

Financial liabilities and equity instruments issued by the company are classified according to the substance of the contractual arrangements entered into and the definitions of a financial liability and an equity instrument.

Equity instruments

An equity instrument is any contract that evidences a residual interest in the assets of the company after deducting all of its liabilities. Equity instruments are recorded at the proceeds received, net of direct issue costs.

Other financial liabilities

Trade and other payables are initially measured at fair value, net of transaction costs, and are subsequently measured at amortised cost, using the effective interest rate method, with interest expense recognised on an effective yield basis.

Interest-bearing loans and overdrafts are initially measured at fair value, and are subsequently measured at amortised cost, using the effective interest rate method. Any difference between the proceeds (net of transaction costs) and the settlement or redemption of borrowings is recognised over the term of the borrowings in accordance with the company's accounting policy for borrowing costs (see below).

Derecognition of financial liabilities

The company derecognises financial liabilities when, and only when, the company's obligations are discharged, cancelled or they expire.

LEASES – Leases are classified as finance leases whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases.

Rentals payable under operating leases are charged to profit or loss on a straight-line basis over the term of the relevant lease unless another systematic basis is more representative of the time pattern in which economic benefits from the leased asset are consumed. Contingent rentals arising under operating leases are recognised as an expense in the period in which they are incurred.

In the event that lease incentives are received to enter into operating leases, such incentives are recognised as a liability. The aggregate benefit of incentives is recognised as a reduction of rental expense on a straight-line basis, except where another systematic basis is more representative of the time pattern in which economic benefits from the leased asset are consumed.

PROPERTY, PLANT AND EQUIPMENT – Plant and equipment are stated at cost less accumulated depreciation and any accumulated impairment losses.

Plant and equipment in the course of construction ("construction-in-progress") for production, rental or administrative purposes, or for purpose not yet determined, are carried at cost, less any recognised impairment loss. Cost includes professional fees in accordance with the company's accounting policy.

Depreciation of these assets, on the same basis as other assets, commences when the assets are ready for their intended use.

Depreciation is charged so as to write off the cost of assets, other than freehold land and construction-in-progress, over their estimated useful lives using the straight-line method, on the following bases:

Furniture, fixture and equipment	–	25%
Computer equipment and software	–	25%
Freehold land		Not depreciated

The estimated useful lives, residual values and depreciation method are reviewed at the end of each reporting period, with the effect of any changes in estimate accounted for on a prospective basis.

The gain or loss arising on disposal or retirement of an item of plant and equipment is determined as the difference between the sales proceeds and the carrying amounts of the asset and is recognised in profit or loss.

Fully depreciated assets still in use are retained in the financial statements.

Intangible assets

Internally-generated intangible assets – research and development expenditure

Expenditure on research activities is recognised as an expense in the period in which it is incurred.

Capitalisation of an internally generated asset is only permitted during the development phase.

An internally-generated intangible asset arising from the company's development projects is recognised only if all of the following conditions are met:

- an asset is created that can be identified (such as software and new processes);
- it is probable that the asset created will generate future economic benefits; and
- the development cost of the asset can be measured reliably.

Development activities must apply research findings for a business purpose, such as:

- the design, construction and testing of pre-production or pre-use prototypes and models;
- the design of tools, jigs, moulds and dies involving new technology;
- the design, construction and operation of a pilot plant that is not of a scale economically feasible for commercial production; and
- the design, construction and testing of a chosen alternative for new or improved materials, devices, products.

The cost of capitalised development activities should include all directly attributable costs necessary to create, produce and prepare an asset for a business purpose in the manner intended by management.

The amount initially recognised for internally-generated intangible assets is the sum of the expenditure incurred from the date when the intangible asset first meets the recognition criteria listed above. Where no internally-generated intangible asset can be recognised, development expenditure is charged to profit or loss in the period in which it is incurred.

Subsequent to initial recognition, internally-generated intangible assets are reported at cost less accumulated amortisation and accumulated impairment losses, on the same basis as intangible assets acquired separately. Amortisation begins when the company starts to deploy successfully a commercial grade turbine.

Intellectual property

Intellectual property is measured initially at purchase cost and is subsequently measured at cost less any accumulated impairment losses.

Provisions

Provisions are recognised when the company has a present obligation (legal or constructive) as a result of a past event, it is probable that the company will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation.

The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the end of reporting period, taking into account the risks and uncertainties surrounding the obligation. Where a provision is measured using the cash flows estimated to settle the present obligation, its carrying amount is the present value of those cash flows.

When some or all of the economic benefits required to settle a provision are expected to be recovered from a third party, the receivable is recognised as an asset if it is virtually certain that reimbursement will be received and the amount of the receivable can be measured reliably.

Income tax

Income tax expense represents the sum of the tax currently payable and deferred tax.

The tax currently payable is based on taxable profit for the year. Taxable profit differs from profit as reported in the statement of comprehensive income because it excludes items of income or expense that are taxable or deductible in other years and it further excludes items that are not taxable or tax deductible. The company's liability for current tax is calculated using tax rates (and tax laws) that have been enacted or substantively enacted in countries where the company and subsidiaries operate by the end of the reporting period.

Deferred tax is recognised on differences between the carrying amounts of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable profit, and are accounted for using the balance sheet liability method. Deferred tax liabilities are generally recognised for all taxable temporary differences and deferred tax assets are recognised to the extent that it is probable that taxable profits will be available against which deductible temporary differences can be utilised. Such assets and liabilities are not recognised if the temporary difference arises from goodwill or from the initial recognition (other than in a business combination) of other assets and liabilities in a transaction that affects neither the taxable profit nor the accounting profit.

Deferred tax liabilities are recognised on taxable temporary differences arising on investments in subsidiaries, except where the company is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax assets arising from deductible temporary differences associated with such investments and interests are only recognised to the extent that it is probable that there will be sufficient taxable profits against which to utilise the benefits of the temporary differences and they are expected to reverse in the foreseeable future.

The carrying amount of deferred tax assets is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Deferred tax is calculated at the tax rates that are expected to apply in the period when the liability is settled or the asset realised based on the tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period. The measurement of deferred tax liabilities and assets reflects the tax consequences that would follow from the manner in which the company expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current tax liabilities and when they relate to income taxes levied by the same taxation authority and the company intends to settle its current tax assets and liabilities on a net basis.

Current and deferred tax are recognised as an expense or income in profit or loss, except when they relate to items credited or debited outside profit or loss (either in other comprehensive income or directly in equity), in which case the tax is also recognised outside profit or loss (either in other comprehensive income or directly in equity, respectively), or where they arise from the initial accounting for a business combination. In the case of a business combination, the tax effect is taken into account in calculating goodwill or determining the excess of the acquirer's interest in the net fair value of the acquiree's identifiable assets, liabilities and contingent liabilities over cost.

Foreign currency transactions and translation

The financial statements of the company are presented in Pounds Sterling, which is the functional currency of the company.

Transactions in currencies other than the entity's functional currency are recorded at the rates of exchange prevailing on the date of the transaction. At the end of each reporting period, monetary items denominated in foreign currencies are retranslated at the rates prevailing at the end of reporting period. All exchange differences are recognised in profit or loss.

Cash and cash equivalents in the statement of cash flows

Cash and cash equivalents in the statement of cash flows comprise cash at bank, fixed deposits, and cash on hand and are subject to an insignificant risk of changes in value.

Being a project development operation, the company does not receive any cash through its activities and its expenditure is entirely financed by way of shareholders' loans.

Compliance with applicable laws and transition to international financial reporting standards

The historical financial information has been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB"). IFRS includes the standards and interpretations approved by the IASB including International Accounting Standards ("IAS") and interpretations issued by the International Financial Reporting Interpretations Committee ("IFRIC"). The company adopted IFRS with effect from 1 January 2010 and IFRS 1 *First Time Adoption of International Financial Reporting Standards* has been applied. Note 17 describes how the transition to IFRS has affected the reported financial position, financial performance and cash flows of the company and outlines the adjustments from the amounts previously reported under United Kingdom Generally Accepted Accounting Practice (UK GAAP).

The accounting policies have been applied consistently in all years presented in this historical financial information.

3. Critical accounting judgements and key sources of estimation uncertainty

In the application of the company's accounting policies, which are described in Note 2, management is required to make judgements, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period or in the period of the revision and future periods if the revision affects both current and future periods.

In the process of applying the company's accounting policies, which are described in Note 2, management makes certain judgements that may have a significant effect on the amounts recognised in the financial statements.

The main critical accounting judgement arises in relation to whether development costs meet the criteria for capitalisation under the company's accounting policies. Management evaluates the nature of the costs incurred in any given period in order to determine whether these meet the necessary criteria for capitalisation.

Key sources of estimation uncertainty

The key assumption concerning the future at the balance sheet date, that has a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year, relates to the adoption of the going concern basis. The material uncertainty in relation to the going concern assumption is described in note 2.

4. Financial instruments, financial risks and capital risk management

(a) Categories of financial instruments

The following table sets out the financial instruments as at the end of reporting period:

	At 31 December		
	2010	*2011*	*2012*
	£	£	£
Financial assets			
Cash and cash equivalents	–	523,175	307,427
VAT recoverable	72,657	285,949	127,715
Other receivables due from Shareholders	470,019	29,000	–
Other receivables	372,301	20,377	68,360
	914,977	858,501	503,502
Financial liabilities			
Trade payables	11,309	722,540	159,745
Accruals	710	303,101	289,249
Other payables	7,021	–	43,935
Amounts owed to Shareholder Group Companies	274,668	–	–
Shareholders' loans	381,516	3,423,978	6,613,851
	675,224	4,449,619	7,106,780

The maturity dates for loans from shareholders are described in note 12. Other financial liabilities are short-term, with typical credit terms being 30 days.

Subsequent to the 31 December 2012 year-end, all loan facilities provided by the respective shareholders have been amalgamated in a single instrument per shareholder on terms equivalent to those contractually agreed per the previous credit facilities i.e. 12-month GBP LIBOR + 5% commercial margin, also repayable by the expiry date of 1 February 2016 or prior to the expiry date by mutual agreement or on demand. Refer to note 15 for events after the balance sheet date.

(b) Financial risk management policies and objectives

The company is exposed to various financial risks arising in the normal course of business. It has adopted financial risk management policies and utilised a variety of techniques to manage its exposure to these risks.

The company does not hold or issue derivative financial instruments for speculative purposes.

There has been no change to the company's exposure to these financial risks or the manner in which it manages and measures the risk. Market risk exposures are measured using sensitivity analysis indicated below.

(i) Foreign exchange risk management

The company transacts almost all of its business in Pounds Sterling and therefore has limited exposure to foreign exchange risk.

(ii) Interest rate risk management

Interest rate risk arises from the potential change in interest rates that may have an adverse effect on the company in the current reporting year or in future years.

The company is exposed to interest rate risk as its loans from shareholders are subject to a floating rate of interest at 12 month LIBOR + 5%. Interest rate risk is managed by the company being in regular communication with its shareholders.

If interest rates had been 100 basis points higher and all other variables were held constant, the company's loss would increase as follows:

	Year ended 31 December		
	2010	*2011*	*2012*
	£	£	£
Impact on loss	–	152,995	591,462

(iii) Equity price risk management

The Company is not exposed to equity price risks as it holds no equity investments.

(iv) Credit risk management

Credit risk refers to the risk that counterparty will default on its contractual obligations, resulting in financial loss to the company.

The maximum exposure to credit risk is represented by the carrying amount of each financial asset as at the end of the reporting period.

Cash at bank is held with creditworthy financial institutions.

(v) Liquidity risk management

The company actively manages its operating cash flows and the availability of funding through maintaining sufficient cash and cash equivalents to finance their activities.

All shareholders' loans in 2010, 2011 and 2012 as renegotiated post the year-end 2012 are repayable on demand or in February 2016.

(vi) Fair value of financial assets and financial liabilities

The company held no financial instruments at fair value at 31 December 2010, 2011 and 2013. The fair value of loans due to shareholders might be materially lower than the carrying value depending on a third party's assessment of the company's credit risk.

The fair value of other financial assets and liabilities approximates the carrying value due to the short term maturities of these instruments.

(c) Capital risk management policies and objectives

The company manages its capital to ensure that it will be able to continue as a going concern while maximising the return to stakeholders through the optimisation of the debt and equity balance.

The capital structure of the company consists of equity attributable to owners comprising issued capital and accumulated losses, as well as loans due to shareholders.

5. Finance costs

	Year ended 31 December		
	2010	*2011*	*2012*
	£	£	£
Finance costs relating to shareholder loans	–	81,938	333,326

6. Income tax

No tax charge/credit has been recognised in the current or prior period as the company has not yet commenced trading and had no taxable income in the period.

The total benefit for the year can be reconciled to the accounting loss as follows:

	Year ended 31 December		
	2010	*2011*	*2012*
	£	£	£
Loss before tax	1,232,932	3,396,480	2,529,664
Income tax credit calculated at 24.5% (2011: 26.5%, 2010: 28%)	(345,221)	(900,067)	(619,768)
Tax effect of deferred tax asset not recognised	345,221	900,067	619,768
Tax benefit for the year	–	–	–

At the end of the reporting period, the company has unutilised tax losses of £5,957,411 (2011: £ 3,428,747; 2010: £ 27,004). No deferred tax asset has been recognised in respect of these, due to the unpredictability of future profit streams.

7. Loss for the year

Loss for the year has been arrived at after charging (crediting):

	Year ended 31 December		
	2010	*2011*	*2012*
	£	£	£
Staff Costs:			
Wages and salaries	11,583	189,292	273,698
Social security costs	1,361	22,073	35,006
Depreciation and amortisation	–	1,410	4,202
Lease payments	–	75,750	100,954
Research & development costs expensed	870,149	2,483,350	1,216,387
Auditor's Remuneration:			
Audit of the company's annual accounts	–	11,000	13,750
Tax advisory services	–	35,000	–

The average number of people employed by the company in 2012 was 4 (2011, 2010: 3).

8. Cash and cash equivalents

	At 31 December		
	2010	*2011*	*2012*
	£	£	£
Cash at bank	–	523,175	307,427

9. Trade and other receivables

	At 31 December		
	2010	*2011*	*2012*
	£	£	£
Due after more than one year			
Prepayments	520,000	947,717	920,000
Due in less than one year			
Other receivables due from shareholders (note 12)	470,019	29,000	–
Deposits	–	18,250	68,360
Value-added tax recoverable	72,657	285,949	127,715
Other receivables	372,301	2,127	57,772
	914,977	335,326	253,847

Prepayments principally relate to an amount paid to The Crown Estate Commissioners for an option to a 25-year seabed lease at Pentland Firth, Scotland. The fee for the option awarded on 21 October 2010 was paid in two halves, with the first instalment settled on 21 October 2010 and the balance on the first anniversary date. The option is callable for five years from the date of its award.

In 2010, other receivables relate to working capital balances held by an outsourced finance function on the company's behalf.

No receivables are past due, but not impaired. There is no bad debt provision.

10. Property, plant and equipment

	Freehold land £	*Computer equipment and software* £	*Total* £
Cost:			
At 1 January and 31 December 2010	107,159	–	107,159
Additions	–	8,084	8,084
At 31 December 2011	107,159	8,084	115,243
Additions		13,654	13,654
At 31 December 2012	107,159	21,738	128,897
Accumulated depreciation:			
At 1 January 2010 and at 31 December 2010	–	–	–
Depreciation for the year	–	1,410	1,410
At 31 December 2011	–	1,410	1,410
Depreciation for the year	–	4,202	4,202
At 31 December 2012	–	5,612	5,612
Carrying amount:			
At 31 December 2010	107,159	–	107,159
At 31 December 2011	107,159	6,674	113,833
At 31 December 2012	107,159	16,126	123,285

11. Trade and other payables

	31 December		
	2010	*2011*	*2012*
	£	£	£
Trade payables	11,309	722,540	159,745
Other payables	7,021	–	43,935
Amounts owed to shareholder group companies	274,668	–	–
Accruals	710	303,101	289,249
	293,708	1,025,641	492,929

The average credit period on purchases of goods is 75 days (2011: 79 days, 2010: 84 days). The outstanding balances as at the end of the reporting period are interest free.

12. Related party disclosures

(a) Shareholders' loans

Atlantis Resources Limited, Morgan Stanley Capital Group Inc and International Power Marine Developments Limited provide loan financing to the company in the form of credit facilities.

	31 December		
	2010	*2011*	*2012*
	£	£	£
Loans from shareholders – Atlantis Resources Limited		434,038	713,948
Loans from shareholders – International Power	190,758	1,506,658	2,726,844
Loans from shareholders – Morgan Stanley	190,758	1,483,282	2,723,059
	381,516	3,423,978	6,163,851

Atlantis Resources Limited, Morgan Stanley Capital Group Inc and International Power Marine Developments Limited provide loan financing to the company in the form of credit facilities. The interest payable on all the loans is 12 month LIBOR + 5%. The loans were repayable upon demand, or between March 2015 and February 2016. Interest payable to shareholders is disclosed in note 5.

(b) Other Related company and party transactions

During 2010, costs were incurred by an affiliate of Atlantis Resources Limited of £165,919 on behalf of the company, and a further £124,520 in 2011, which were recharged to the company. In 2011, the outstanding balance of £166,911 was assigned to Atlantis Resources Limited as a drawing of the loan disclosed in note 12 (a).

During 2011, an affiliate of International Power Marine Developments Limited provided staff on secondment to the company at a recharged cost of £27,064.

During 2012, an amount of £15,339 was paid to Atlantis Resources Limited in relation to secondment of staff.

(c) Compensation of directors and key management personnel:

The remuneration of key management personnel during the year were as follows:

	31 December		
	2010	*2011*	*2012*
	£	£	£
Short-term benefits	–	115,551	136,285

The directors of the company do not receive any remuneration.

In 2012, certain directors and key management personnel were issued C shares for a total subscription price of £6,011 which was considered by a third party to be an arm's length valuation.

13. Share capital

	Number of ordinary "A" shares	*Number of ordinary "B" shares*	*Number of ordinary "C" shares*	*Total* £
Balance at 1 January 2010	–	–	–	–
Issued and fully paid	91	–	–	91
Issued and unpaid	9	10	–	19
Balance at 31 December 2010	100	10	–	110
Issued and paid	91	–	–	91
Issued and unpaid	9	10	–	19
Balance at 31 December 2011	100	10	–	110
Par value of shares	£1	£1		
Issued and paid	18,200	–	1,276	104
Issued and unpaid	1,800	2,000	–	19
Balance at 31 December 2012	20,000	2,000	1,276	123
Par value of shares	£0.005	£0.005	£0.01	

Class A shares and Class C shares are voting shares and carry a right to capital distributions. Class B shares do not carry voting rights or rights to capital distributions. All dividends shall be declared and paid *pro rata* on the Class A shares until the holders, Morgan Stanley Capital Group Inc., International Power Marine Developments Limited, and Atlantis Resources Limited have received a minimum return of twice their cash payments in respect of any share subscription and outstanding loans to the Company. Subsequent dividends are divided with 90% payable to the holders of Class A and Class C shares and 10% to the holders of Class B shares.

Some directors and key management personnel were issued 1,276 Class C ordinary shares during 2012 for £6,011 with the excess over the nominal value of the shares recorded in the share premium account.

14. Loss per share

The calculation of loss per share is based on the loss after tax and on the weighted average number of ordinary shares in issue during each year.

Basic and diluted loss per share are calculated as follows:

	Loss after tax			*Weighted average number of shares*			*Loss per share*		
	2010 £	*2011* £	*2012* £	*2010*	*2011*	*2012*	*2010* £	*2011* £	*2012* £
Basic & diluted – Ordinary "A" Share	(1,120,847)	(3,087,709)	(2,055,824)	100	100	15,025	(11,208)	(30,877)	(146)
Basic & diluted – Preference "B" Share	(112,085)	(308,771)	(205,582)	10	10	1,503	(11,208)	(30,877)	(146)
Basic & diluted – Preference "C" Share	–	–	(267,257)	-	-	718	–	–	(146)

15. Other commitments

	31 December		
	2010	*2011*	*2012*
	£	£	£
Local Distribution Network, SHEPD – Construction Agreement	1,262,000	1,262,000	1,262,000

The company's other commitments relate to its dealing with grid transmission. In respect of the local distribution network works for a 14.9MW connection by 2015, the company has been novated two contracts originally negotiated by International Power Marine Development Ltd with Scottish and Southern Energy Power Distribution (SHEPD), for which the commitment stands at £1,262K (+VAT).

16. Events after the reporting period

Since 31 December 2012, both Morgan Stanley Capital Group Inc. and International Power Marine Development Ltd, now a wholly owned subsidiary of the French Group GDF-Suez have tabled their intent not to fund the company beyond their respective credit facilities in place.

As of 31 October 2013, Atlantis Resources Limited has bought out both Morgan Stanley Capital Group Inc. and International Power Marine Development Ltd through a wholly owned subsidiary, Atlantis Project Pte Ltd of Singapore thus allowing the company to proceed with its development activities.

The shareholder loans were restructured such that they are no longer repayable on demand, but rather repayable in February 2021 in the case of the MSCGI and IPMDL loans, and in February 2030 in the case of the loan payable to Atlantis Resources Limited.

17. First time presentation of IFRS

The financial statements have been prepared in accordance with the provisions of International Reporting Standards ("IFRS") as issued by the International Accounting Standards Board, the previous financial reporting periods having been prepared in accordance with United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

The key changes from UK GAAP to IFRS are set out below.

Reconciliation of capital and reserves as at 31 December 2010, 2011 and 2012

No change was required to capital and reserves as a result of the adoption of International Financial Reporting Standards ("IFRS").

Reconciliation of comprehensive loss for the year ended 31 December 2010, 2011 and 2012

Other than changes in terminology to ensure that the format of the statement of comprehensive income complies with International Financial Reporting Standards ("IFRS"), there has been no change to the statement of comprehensive income results for the year ended 31 December 2010, 31 December 2011 and 31 December 2012 as a result of adopting "IFRS".

Reconciliation of statement of financial position as at 31 December 2010, 2011 and 2012

Other than changes in terminology to ensure that the format of the statement of financial position complies with International Financial Reporting Standards ("IFRS"), there has been no change to the statement of financial position for the year ended 31 December 2010, 31 December 2011 and 31 December 2012 as a result of adopting "IFRS".

SECTION C: UNAUDITED INTERIM FINANCIAL INFORMATION OF MEYGEN LIMITED FOR THE SIX MONTHS ENDED 30 JUNE 2013

Condensed Statement of Comprehensive Income (Unaudited)

	Note	Six months ended 30 June 2013 £	2012 £
Revenue		–	–
Depreciation expense		3,715	1,486
Employee benefits expense		153,208	128,932
Research and development costs		825,235	185,793
Other operating expenses		406,572	573,311
Finance costs		200,776	132,284
Loss before tax		1,589,506	1,021,806
Income tax	3	–	–
Loss for the period		1,589,506	1,021,806
Total comprehensive expense for the period		1,589,506	1,021,806
The information below details the basic and diluted loss per share for each reporting period:			
Basic and diluted loss per share	8		
– Ordinary "A" share		(69)	(176)
– Preference "B" share		(69)	(176)
– Preference "C" share		(60)	(1,392)

No dividends were proposed or declared in respect of either of the periods presented above.

The accompanying notes form part of this interim financial information.

Condensed Statement of Financial Position

	Note	*30 June 2013 (Unaudited)* £	*31 December 2012 (Audited)* £
Assets			
Non-current assets			
Property, plant and equipment	4	120,459	123,285
Other receivables		920,000	920,000
		1,040,459	1,043,285
Current assets			
Cash and cash equivalents		505,201	307,427
Other receivables		261,856	253,847
		767,057	561,274
Total assets		1,807,516	1,604,559
Current liabilities			
Trade and other payables	5	532,468	492,929
Shareholders' loans	6	7,916,776	6,163,851
		8,449,244	6,656,780
Total liabilities		8,449,244	6,656,780
Net liabilities		(6,641,728)	(5,052,221)
Equity			
Share capital		123	123
Share premium account		2,108,208	2,108,208
Accumulated losses		(8,750,059)	(7,160,552)
Total equity		(6,641,728)	(5,052,221)

Condensed Statements of Changes in Equity

	Share capital £	*Share premium account* £	*Accumulated losses* £	*Total* £
Balance at 1 January 2012 (audited)	110	2,102,210	(4,631,888)	(2,529,568)
Total comprehensive loss for the period	–	–	(1,021,806)	(1,021,806)
Issue of shares	13	5,998	–	6,011
Balance at 30 June 2012 (unaudited)	123	2,108,208	(5,653,694)	(3,545,353)
Total comprehensive loss for the period	–	–	(1,506,858)	(1,506,858)
Balance at 31 December 2012 (audited)	123	2,108,208	(7,160,552)	(5,052,221)
Total comprehensive loss for the period	–	–	(1,589,506)	(1,589,506)
Balance at 30 June 2013 (unaudited)	123	2,108,208	(8,750,058)	(6,641,727)

Condensed Statement of Cash Flows (Unaudited)

	Six months ended 30 June	
	2013	*2012*
	£	£
Operating activities		
Loss before income tax	(1,589,506)	(1,021,806)
Adjustments for:		
Depreciation of plant and equipment	3,715	1,485
Interest expense	200,776	132,284
Net Foreign Exchange Loss	–	735
Trade and other receivables	(8,010)	193,236
Other payables and accruals	39,539	(589,679)
Net cash used in operating activities	(1,353,486)	(1,283,745)
Investing activities		
Purchase of plant and equipment	(889)	(2,694)
Net cash used in investing activities	(889)	(2,694)
Financing activities		
Proceeds from issue of shares	–	6,011
Proceeds from borrowings	1,552,149	1,463,407
Net cash used in financing activities	1,552,149	1,469,418
Net increase (decrease) in cash and bank balances	197,774	182,979
Cash and cash equivalents at the beginning of the year	307,427	523,175
Effect of foreign exchange rate changes on the balance of cash held in foreign currencies		
Cash and cash equivalents at the end of the period	505,201	706,154

Notes to the Financial Information

1 General

The information for the period ended 30 June 2013 does not constitute statutory accounts as defined in section 434 of the Companies Act 2006. A copy of the statutory accounts for the year ended 31 December 2012 has been delivered to the Registrar of Companies. The auditors reported on those accounts: their report was unqualified, but by way of emphasis it drew attention to a material uncertainty which may cast significant doubt about the company's ability to continue as a going concern. The auditor's report did not contain a statement under section 498(2) or (3) of the Companies Act 2006.

The company's statutory accounts are prepared in accordance with UK law and the Financial Reporting Standard for Smaller Entities (effective April 2008).

The company (Registration No. SC347501) is incorporated in the United Kingdom with its registered address at 27 Lauriston Street, Edinburgh, Scotland EH3 9DQ. The financial statements are expressed in Pounds Sterling.

Going concern

The company has completed the Front End Engineering Development phase of the Pentland Firth tidal project. The company has received consents from Marine Scotland to proceed with the project and to move to development of the initial demonstration array of 6 turbines. The Department of Energy and Climate Change should award a £10m grant through the Marine Energy Accelerator Developer scheme.

MeyGen is currently loss-making and has net liabilities funded through shareholder loan facilities which have funded the planned expenditure for the project to date. In order for the project to proceed further, the company is dependent on additional funding from its shareholder; the availability of this funding is subject to receipt of funds by Atlantis Resources Limited.

The company's parent has provided a written pledge of support in the company's favour, and the directors therefore have a reasonable expectation that the company has adequate resources to continue in operational existence for the foreseeable future. For these reasons, the company continues to adopt the going concern basis of accounting in preparing the annual financial statements.

2 Accounting policies

BASIS OF ACCOUNTING – The condensed financial statements have been prepared under the historical cost convention, and are drawn up in accordance with the provisions of International Financial Reporting Standards ("IFRS"). The condensed consolidated financial statements included in this report have been prepared in accordance with International Accounting Standard 34 'Interim Financial Reporting'.

The following accounting amendments, standards and interpretations became effective in the current reporting period but have not had a material impact on the amounts recognised in the financial statements of the Group.

- *IAS 1 Presentation of Items of Other Comprehensive Income – Amendments to IAS 1*. Items that may be reclassified (or recycled) to the income statement at a future time are separately presented to those that will not be reclassified.

- *IFRS 13 Fair Value Measurement.* An amendment to IAS 34 resulting from this single framework for measuring fair value has resulted in some IFRS 13 disclosures being included in these condensed financial statements.

Management anticipates that these new standards, interpretations and amendments will be adopted in the company's financial statements for the period beginning 1 January 2014 or as and when they are applicable.

Management anticipates that the adoption of the above Standards and Interpretations in future periods will not have a material impact on the financial statements of the company in the period of their initial adoption.

3 Income tax

No tax charge/credit has been recognised in the current or prior period as the company has not yet commenced trading and had no taxable income in the period.

Losses carried forward for which no deferred tax asset is recognised in the balance sheet at 30 June 2013 totalled £7,546,917 (31 December 2012: £5,957,411).

4 Property, plant and equipment

	Freehold land £	*Computer equipment & software* £	*Total* £
Cost:			
At 1 January 2013	107,159	21,738	128,897
Additions	–	889	889
Disposals	–	–	–
At 30 June 2013	107,159	22,627	129,786
Accumulated depreciation:			
At 1 January 2013	–	5,612	5,612
Depreciation for the period	–	3,715	3,715
At 30 June 2013	–	9,327	9,327
Carrying amount:			
At 30 June 2013	107,159	13,300	120,459
At 31 December 2012	107,159	16,126	123,285

5 Trade and other payables

	30 June 2013 £	*31 December 2012* £
Trade payables	222,773	159,745
Other payables	11,397	43,935
Accruals	298,298	289,249
	532,468	492,929

6 Shareholders' loans

	30 June 2013 £	*31 December 2012* £
Loans from shareholders – Atlantis Resources Limited	745,632	713,948
Loans from shareholders – International Power	3,585,572	2,726,844
Loans from shareholders – Morgan Stanley	3,585,572	2,723,059
	7,916,776	6,163,851

Atlantis Resources Limited, Morgan Stanley Capital Group Inc and International Power Marine Developments Limited provide loan financing to the company in the form of credit facilities. The interest payable on all the loans is 12 month LIBOR + 5%. The loans were repayable upon demand, or between March 2015 and February 2016 (see note 11).

The fair value of the loans due to shareholders might be materially lower than the carrying value depending on a third party's assessment of the company's credit risk.

The directors consider that the fair value of other financial assets and liabilities approximates their carrying value.

7 Share capital

	30 June 2013 £	*31 December 2012* £
Allotted, called up and fully paid:		
18,200 Class A ordinary shares of £.005 each (2011: 91 of £1 each)	91	91
1,276 Class C ordinary shares of £0.01 each (2011: Nil)	13	13
Allotted, called up and unpaid:		
1,800 Class A ordinary shares of £.005 each (2011: 9 of £1 each)	9	9
2,000 Class B ordinary shares of £.005 each (2011: 10 of £1 each)	10	10
	123	123

The unpaid share capital was settled in cash post 30 June 2013.

8 Loss per share

The calculation of loss per share is based on the loss after tax and on the weighted average number of ordinary shares in issue during each year.

Basic and diluted loss per share are calculated as follows:

	Loss after tax		*Weighted average number of shares*		*Loss per share*	
	2013 £	*2012* £	*2013* £	*2012* £	*2013* £	*2012* £
Basic & diluted – Ordinary "A" Share	(1,292,281)	(830,737)	20,000	5,075	(69)	(176)
Basic – Preference "B" Share	(129,228)	(83,074)	2,000	503	(69)	(176)
Basic – Preference "C" Share	(167,997)	(107,996)	1,276	35	(60)	(1,392)

9 Related party transactions

(a) Shareholders' loans

Shareholder loans are disclosed in Note 6.

(b) Other Related company and party transactions

During 2012, an amount of £15,339 was paid to Atlantis Resources Limited in relation to secondment of staff. The secondment arrangements were terminated in May 2012.

During the 6 month period to 30 June 2013, an amount of £7,000 was charged to Atlantis Resources Limited in relation to the provision of an engineering study.

10 Commitments

	30 June 2013 £	*31 December 2012* £
Local Distribution Network, SHEPD – Construction Agreement	1,262,000	1,262,000

The company's commitments relate to its dealing with grid transmission. In respect of the local distribution network works for a 14.9MW connection by 2015, the company has been novated two contracts originally negotiated by International Power Marine Development Ltd with Scottish and Southern Energy Power Distribution (SHEPD), for which the commitment stands at £ 1,262K (+VAT).

11 Events after the balance sheet date

As of 31 October 2013, Atlantis Projects Pte Ltd, a wholly owned subsidiary of Atlantis Resources Limited, acquired all shares from both International Power Marine Development Ltd and Morgan Stanley Capital Group Inc. As a result, the company is now a wholly owned subsidiary of Atlantis Resources Limited of The Republic of Singapore.

The shareholder loans were restructured such that they are no longer repayable upon demand, but rather repayable in February 2021 in the case of the MSCGI and IPMDL loans, and in February 2030 in the case of the loan payable to Atlantis Resources Limited.

PART VI

UNAUDITED PRO FORMA FINANCIAL INFORMATION

The unaudited pro forma net assets statement set out below has been prepared for illustrative purposes only and on the basis of the notes set out below. The unaudited pro forma balance sheet has been prepared to illustrate the effect on the balance sheet of the Group had Admission and the acquisition of the remaining 90% of MeyGen taken place on 30 June 2013.

As a result of its nature, the unaudited pro forma net assets statement addresses a hypothetical situation and, therefore, does not represent the Group's actual financial position.

The unaudited pro forma net asset statement is compiled from the balance sheet of the Group as at 30 June 2013, as set out in Part VI of this document. No account has been taken of any trading activity or other profits or losses in any entity since 30 June 2013.

The pro forma net asset statement of the Group does not constitute financial statements within the meaning of section 434 of the Companies Act 2006.

Unaudited Pro Forma Statement of Net Assets

The unaudited pro forma statement of net assets has been prepared in a manner consistent with the accounting policies adopted by Atlantis in the Historical Financial Information included in Part IV.

	Atlantis (Pre MeyGen acquisition) Unaudited & unreviewed 30 June 2013 (1) Singapore $	*MeyGen Unaudited & unreviewed 30 June 2013 (2)* GBP	*MeyGen Unaudited & unreviewed 30 June 2013 (3)* Singapore $	*Adjustment to reflect acquisition of MeyGen (4)* Singapore $	*Transfer MeyGen loans to non-current liabilities (5)* Singapore $	*Elimination of intercompany balances (6)* Singapore $	*Subtotal before Admission* Singapore $	*Net proceeds from Placing (7)* Singapore $	*Conversion of Atlantis shareholder loans to equity on Admission (8)* Singapore $	*Total (9)* Singapore $
ASSETS										
Non-current assets										
Available-for-sale Investments	1,384,756	–	–	(40)	–	(1,384,616)	*100*	–	–	100
Property, Plant and Equipment	4,193,101	120,459	232,088	–	–	–	*4,425,189*	–	–	4,425,189
Intangible assets	39,487,601	–	–	–	–	–	*39,487,601*	–	–	39,487,601
Other receivables	–	920,000	1,772,564	–	–	–	*1,772,564*	–	–	1,772,564
Total non-current assets	45,065,458	1,040,455	2,004,652	(40)	–	(1,384,616)	*45,685,454*	–	–	45,685,454
Current assets										
Cash and cash equivalents	1,588,116	505,201	973,371	(771,233)	–	–	*1,790,254*	25,312,800	–	27,103,054
Other receivables	407,386	261,855	504,518	–	–	(107,877)	*804,027*	–	–	804,027
Total current assets	1,995,502	767,057	1,477,889	(771,233)	–	(107,877)	*2,594,281*	25,312,800	–	27,907,081
Total assets	47,060 960	1,807,516	3,482,541	(771,273)	–	(1,492,493)	*48,279,735*	25,312,800	–	73,592,535
LIABILITIES AND EQUITY										
Current liabilities										
Trade and other payables	(4,920,283)	(532,468)	(1,025,906)	–	–	–	*(5,946,189)*	(2,971,094)	–	(8,917,283)
Shareholders' loans	–	(7,916,776)	(15,253,252)	–	15,253,252	–	–	–	–	–
Total current liabilities	(4,920,283)	(8,449,244)	(16,279,158)	–	15,253,252	–	*(5,946,189)*	(2,971,094)	–	(8,917,283)
Non-current liabilities										
Unsecured loan	(743,420)	–	–	–	(15,253,252)	1,492,493	*(14,504,179)*	–	–	(14,504,179)
Shareholders' loans	(19,401,592)	–	–	–	–	–	*(19,401,592)*	–	17,981,730	(1,419,862)
Total non-current liabilities	(20,145,012)	–	–	–	(15,253,252)	1,492,493	*(33,905,771)*	–	17,981,730	(15,924,041)
Total liabilities	(25,065,295)	(8,449,244)	(16,279,158)	–	–	1,492,493	*(39,851,960)*	(2,971,094)	17,981,730	(24,841,325)
Net assets/ (liabilities)	21,995,665	(6,641,728)	(12,796,617)	(771,273)	–	–	*8,427,775*	22,341,706	17,981,730	48,751,211

1. The financial information for the Group (pre-MeyGen acquisition) has been extracted without adjustment from the balance sheet of Atlantis as at 30 June 2013 as included in Part VI of this document. These are neither audited nor reviewed.

2. The financial information for MeyGen as presented in Pounds Sterling has been extracted without adjustment from the balance sheet of MeyGen as at 30 June 2013 as included in Part V of this document. These are neither audited nor reviewed.

3. The foreign exchange rate used to convert Pounds Sterling to Singapore Dollars at 30 June 2013 is 1.9267. This rate has been applied to the MeyGen 30 June 2013 balance sheet presented in Pounds Sterling as noted in (2) above, in order to derive a balance sheet for MeyGen in Singapore Dollars.

4. Adjustment to reflect the acquisition of MeyGen on 31 October 2013 which includes the elimination of Atlantis's pre-existing 10% interest in the issued share capital of MeyGen, which had a carrying value at 30 June 2013 of S$40 (net of provision for impairment) and the cash purchase of the remaining 90% of issued share capital from MSCGI and IPMDL for a total consideration of £385,714. Note that, for the purposes of preparing this pro forma financial information, no fair value exercise has been performed in order to identify the values of assets acquired and liabilities assumed upon acquisition of MeyGen.

5. Upon acquisition of MeyGen by Atlantis on 31 October 2013, the terms of the loans owed by MeyGen to its pre-acquisition shareholders were amended and the loans are now unsecured and due after more than one year.

6. The Group held a debt investment of S$1,384,616 in MeyGen at 30 June 2013, which on becoming a subsidiary will eliminate against the corresponding liability in MeyGen. The remaining shareholder loans relate to loans payable by MeyGen to its pre-acquisition shareholders at 30 June 2013, IPMDL and MSCGI. These amounts continue to be payable post-Admission.

7. The net proceeds from the Placing receivable by the Company are calculated on the basis that the gross proceeds of the subscription of 12,765,957 new Ordinary Shares issued by the Company are £12.0 million (Singapore $25.3 million) and that the commission and other fees and expenses of the Placing and Admission are £1.4 million (Singapore $3.0 million) as described in paragraph 21.1 of Part VII of this document. The foreign exchange rate used to convert the proceeds from Pounds Sterling to Singapore Dollars at 14 February 2014 is 2.1094.

8. Upon Admission, the majority of the shareholder loans owed by the Group will be converted to equity.

9. Represents the pro forma net assets of the Group following Admission, which includes:
   - the Company and its subsidiary undertakings,
   - the effects of the MeyGen acquisition as if it occurred on 30 June 2013; and
   - the effects of the Placing and Admission, net of accrued expenses relating to the transaction, as if it occurred on 30 June 2013.

Save for the adjustments described in notes (4) – (6) above, no adjustment has been made to reflect any trading or other transactions undertaken by the Company, MeyGen or the Group since 30 June 2013.

PART VII

ADDITIONAL INFORMATION

1. Responsibility

1.1 The Company and its Directors (whose names and functions appear in paragraph 10 of Part I of this document) accept responsibility for the information contained in this document. To the best of the knowledge of the Company and the Directors (who have taken all reasonable care to ensure that such is the case), the information contained in this document is in accordance with the facts and contains no omission likely to affect its import.

1.2 Ricardo-AEA, whose registered address is 18 Blythswood Square, Glasgow G2 4AD, has consented to the inclusion of its Technical Report as set out in Part III of this document in the form and context in which it is included and has not withdrawn that consent. Ricardo-AEA accepts responsibility for the information contained in the Technical Report set out in Part III of this document, and confirms (having taken all reasonable care to ensure that such is the case) to the best of the knowledge of Ricardo-AEA that the information contained therein is in accordance with the facts and contains no omission likely to affect its import. In preparing the Technical Report, Ricardo-AEA has relied upon certain information and facts provided to Ricardo-AEA by the Company and other third parties.

2. The Company

2.1 The Company was incorporated and registered in Singapore on 19 December 2005 under the Singapore Companies Act (Chapter 50) (the "Singapore Act") as a private limited company with the name Atlantis Resources Corporation Pte. Limited and with the registered number 200517551R.

2.2 The principal legislation under which the Company operates is the Singapore Act and the subordinate legislation made under it. The liability of the members is limited.

2.3 On 2 October 2013, pursuant to special resolutions passed at an annual general meeting of the Company on 28 August 2013, the Company was converted to a public limited company and changed its name to Atlantis Resources Corporation Limited.

2.4 On 11 November 2013, pursuant to a special resolution passed at an extraordinary general meeting of the Company on 29 October 2013, the Company changed its name to Atlantis Resources Limited.

2.5 The Company is domiciled in Singapore.

2.6 The Company's registered office is at 65 Niven Road, Singapore 228414.

2.7 The website address of the Company for the purposes of AIM Rule 26 is http://www.atlantisresourcesltd.com.

3. Share Capital

3.1 The Company was incorporated with 10 ordinary shares, which were allotted on 19 December 2005. In the last 3 years there have been the following changes in the share capital and the issued and fully paid share capital of the Company:

(a) in December 2010 7,298,333 A Shares were allotted to GCL Holdings (BVI) Limited for cash at S$0.18 per share.

(b) in January 2011:

(i) 10,377,034 A Shares were allotted to Tideline Limited for cash at S$0.18 per share;

(ii) 5,146,272 A Shares were allotted to Armstrong Industries HK Ltd for cash at S$0.18 per share;

(iii) 8,577,155 A Shares were allotted to Minnow Holdings Pty Limited for cash at S$0.18 per share; and

(iv) 39,737,967 A Shares were allotted to 12 Shareholders in repayment of bonds issued by the Company in August 2010.

(c) in March 2011:

(i) 23,452,008 A Shares were allotted to 13 Shareholders for cash at S$0.18 per share; and

(ii) 18,275,008 A Shares were allotted to Morgan Stanley Renewables pursuant to its anti-dilution rights.

(d) in June 2011:

(i) 16,666,666 A Shares were allotted to EDB Investments Pte. Limited for cash at S$0.18 per share; and

(ii) 17,657,992 A Shares were allotted to Morgan Stanley Renewables pursuant to its anti-dilution rights.

(e) in September 2013:

(i) 223,529,380 A Shares were allotted to 24 Shareholders for cash at S$0.017 per share; and

(ii) 134,194,544 A Shares were allotted to Morgan Stanley Renewables pursuant to its anti-dilution rights

(iii) in relation to the allotment of these A shares, the underwriters (Basil Mcilhagga and Armstrong Industries HK Limited) were paid a commission of S$160,000.

(f) in December 2013, 25,000,000 B Shares were allotted to Duncan Black upon exercise of options under the CSOP.

3.2 As at the date of this document the share capital of the Company comprises three classes of shares: the A Shares, the B Shares and the C Shares. Under the terms of the PLC Articles each B Share and each C Share shall, on an initial public offering of A Shares, automatically convert into one A Share.

3.3 Pursuant to a number of resolutions passed at an extraordinary general meeting of the Company held on 29 October 2013 the holders of A Shares, being those shareholders of the Company entitled to vote, agreed:

(a) to consolidate (conditional upon Admission and immediately following the Conversion) the A Shares into Existing Ordinary Shares having the rights and obligations set out in the Articles on the basis of one Existing Ordinary Share for every 30 A Shares held on the date of Admission;

(b) that the Directors be given authority and power pursuant to section 161 of the Singapore Act to allot and issue up to 30 A Shares in the capital of the Company, to such persons and on such terms as they may think fit immediately following the Conversion and immediately prior to the Consolidation and that the pre-emption rights pursuant to Article 49 of the PLC Articles shall not apply to the issue of such A Shares provided that such authorisation and power shall continue until the earlier of the conclusion of the next annual general meeting of the Company or the expiration of the period within which the next annual general meeting of the Company is required by law to be held, save that the Company may before such expiry make any offer or agreement that would or might require shares in the capital of the Company to be allotted after such expiry and the Directors may allot shares in the capital of the Company in pursuance of any such offer or agreement as if the power conferred hereby had not expired;

(c) that the Company shall round down any fractional entitlements to Existing Ordinary Shares arising as a result of the Consolidation. All such fractional entitlements shall be aggregated into Existing Ordinary Shares and the whole number arising shall be sold to whomsoever as the Directors shall determine at the Placing Price with the proceeds of such sale to be distributed to those members entitled thereto;

(d) that the Directors be given authority and power pursuant to Section 161 of the Singapore Act to:

(i) allot and issue, conditional on Admission, the Placing Shares and that the pre-emption rights pursuant to Article 49 of the PLC Articles and Article 6 of the Articles shall not apply to the issue of the Placing Shares;

(ii) to allot and issue, conditional on Admission, Ordinary Shares following Admission up to a maximum amount of Ordinary Shares representing in number one-third of the Company's issued share capital as at the date of Admission either:

(A) on a pre-emptive basis for cash, up to a maximum amount of Ordinary Shares representing in number one-third of the Company's issued share capital as at the date of Admission, in accordance with Article 6.1 of the Articles (subject to such exclusions or other arrangements as the Directors may consider necessary or appropriate to deal with fractional entitlements, record dates or legal regulatory or practical difficulties which may arise under the laws of or the requirements of any regulatory body or stock exchange in any territory or any other matter whatsoever) (such amount to be reduced by the amount of any Ordinary Shares allotted under (d)(ii)(B) or (d)(ii)(C) below); or

(B) on a non-pre-emptive basis, up to a maximum amount of Ordinary Shares representing in number one-third of the Company's issued share capital as at the date of Admission, to such persons as they may in their absolute discretion deem fit for consideration other than for cash (such amount to be reduced by the amount of any Ordinary Shares allotted under (d)(ii)(A) or (d)(ii)(C)); or

(C) on a non-pre-emptive basis for cash, to such persons as they may in their absolute discretion deem fit, in which case the Directors may allot up to a maximum amount of Ordinary Shares representing in number 10 per cent. of the Company's issued share capital as at the date of Admission,

subject to the terms of the relevant provisions of Singapore law, the rules of AIM and the Articles. Following Admission the Directors will not use any authority and power granted to them at the date of this document under section 161 of the Singapore Act save as specified at this paragraph;

(iii) allot and issue, conditional on Admission, Existing Ordinary Shares in connection with the conversion of loans owing to certain Shareholders into Existing Ordinary Shares such that each relevant loan, together with all interest that would be payable thereunder to the respective repayment date of each relevant loan, shall be converted into the appropriate number of Existing Ordinary Shares in the capital of the Company at the Placing Price or such price or otherwise on such terms as the Directors shall deem fit (using if necessary such exchange rates as are quoted by HSBC Bank plc in London at the close of business (UK time) on the Business Day prior to the date upon which the Placing Price is determined) so that the number of shares so allotted in relation to each loan is equal to, and in satisfaction of, the aggregate principal amount of that relevant loan together with all accrued interest to the respective repayment date and that the pre-emption rights pursuant to Article 49 of the PLC Articles and Article 6 of the Articles shall not apply to the issue of such shares;

(iv) to allot and issue, conditional on Admission, Existing Ordinary Shares in connection with the conversion of the loan in the principal amount of S$620,000 owing to Mr George Philips (the "Philips Loan") and loan in the principal amount of US$100,000 owing to Mr Shenfield (the "Shenfield Loan") such that the Philips Loan and Shenfield Loan, together with (if agreed with the respective lenders) all interest that would be payable thereunder shall be converted into the appropriate number of Existing Ordinary Shares at the Placing Price less a discount of ten per cent. (using such exchange rates as are quoted by HSBC Bank plc in London at the close of business (UK time) on the Business Day prior to the date upon which the Placing Price is determined) so that the number of Existing Ordinary Shares so allotted is equal to, and in satisfaction of, the aggregate value of the principal amount of the Philips Loan and Shenfield Loan together with all interest payable thereon (subject to such arrangements as the Directors may consider necessary or appropriate to deal with fractional entitlements which may arise) and that the pre-emption rights pursuant to Article 49 of the PLC Articles and Article 6 of the Articles shall not apply to the issue of such Existing Ordinary Shares,

such authorisations (unless revoked or varied by the Company in a general meeting of the Shareholders) to expire at the conclusion of the next annual general meeting of the Company or, if earlier, the expiration of the period within which the next annual general meeting of the Company is required by law to be held save that the Company may before such time make any offer or agreement that would or might require shares in the capital of the Company to be allotted after such time and the Directors may allot shares in the capital of the Company in pursuance of any such offer or agreement as if the power conferred hereby had not expired.

3.4 On 4 October 2013 the Company undertook a rights issue in the form of debt convertible into shares by way of convertible unsecured loans. Convertible loans in an aggregate principal amount of £1,961,469 were provided to the Company during October, November, December 2013 and January 2014, with an interest rate of 10 per cent. per annum. Interest is payable quarterly in arrears. Conditional upon Admission these loans, together with a prepayment premium of six months interest plus all accrued and unpaid interest up until the date of Admission, shall be converted into the appropriate number of Existing Ordinary Shares at the Placing Price less a discount of ten per cent. so that the number of Existing Ordinary Shares so allotted is equal to, and in satisfaction of, the aggregate value of the aggregate principal amount of these convertible loans together with all interest payable. In relation to the issue of these convertible loans, a commission of £110,000 is payable to the underwriters Armstrong Industries HK Limited and Basil Mcilhagga.

3.5 On Admission, 22 A Shares will be issued pursuant to paragraph 3.3(b) above.

3.6 On Admission, 44,833,027 Ordinary Shares will be issued pursuant to the Consolidation.

3.7 On Admission 16,174,316 Ordinary Shares will be issued pursuant to the conversion of loans referred to at paragraph 3.3(d)(iii).

3.8 On Admission 437,015 Ordinary Shares will be issued pursuant to the conversion of the loans referred to at paragraph 3.3(d)(iv).

3.9 On Admission 2,493,885 Ordinary Shares will be issued pursuant to the conversion of the loans referred to at paragraph 3.4.

3.10 On Admission, 12,765,957 Ordinary Shares will be issued pursuant to the Placing at a price of 94p per Placing Share, which price is payable in full on application.

3.11 Save for the Options and the Awards set out at paragraph 8 of this Part VII the Company has no securities in issue not representing share capital.

3.12 The following tables show the issued share capital of the Company as it is at the date of this document and as it is expected to be immediately following Admission (assuming that the Placing is fully subscribed):

Issued and fully paid share capital at the date of this document

A Shares	*B Shares*	*C Shares*
1,258,216,862	27,250,000	59,523,926

Issued and fully paid share capital following Admission

Ordinary Shares
76,704,200

3.13 Save as disclosed in this document:

(a) there has been no change in the amount of the issued share or loan capital of the Company in the three years preceding the date of this document;

(b) no commissions, discounts, brokerages or other special terms have been granted by the Company in connection with the issue or sale of any share or loan capital of the Company in the three years preceding the date of this document;

(c) no share or loan capital of the Company is currently under option or agreed, conditionally or unconditionally, to be put under option;

(d) no person has any preferential subscription rights for any share capital of the Company and the Company has given no undertakings to any third party to increase the capital of the Company; and

(e) there are no shares of the Company held by or on behalf of itself or by any member of the Group.

4. Summary Articles of Association

4.1 The Articles are available for inspection at the business address specified in paragraph 2.6 of this Part VII.

4.2 The Articles were adopted by the Company by special resolution passed on 29 October 2013, effective conditional upon Admission. The Articles contain provisions, *inter alia*, to the following effect:

(a) *Voting rights in respect of Ordinary Shares*

Shareholders shall have the right to receive notice of, to attend and to vote at all general meetings of the Company. Save as otherwise provided in the Articles, on a show of hands each holder of shares present in person and entitled to vote shall have one vote and upon a poll each such holder who is present in person or by proxy and entitled to vote shall have one vote in respect of every share held by him.

(b) *Restrictions on Ordinary Shares*

Subject to Singapore law, if a member or any person appearing to the Directors to be interested in shares in the capital of the Company held by such member has been duly served with an information notice and is in default in supplying to the Company information thereby required within 14 days from the date of service of such notice the Company may serve on such member or on any such person a notice (a "disenfranchisement notice") in respect of the shares in relation to which the default occurred (the "default shares") directing that the member shall not be entitled to be present or to vote at any general meeting or class meeting of the Company or to be reckoned in any quorum. Where the restricted shares represent at least 0.25 per cent. of the issued shares of the Company of the same class the disenfranchisement notice may in addition direct, *inter alia*, that any dividend or other monies which would otherwise be payable on or in respect of the default shares shall be withheld by the Company without liability to pay interest. Where the Company has offered the right to elect to receive shares instead of cash in respect of any dividends any election by such member of such default shares will not be effective and no transfer of any of the shares held by the member shall be registered unless the member is not himself in default in supplying the information requested and the transfer is part only of the member's holding and is accompanied by a certificate given by the member in a form satisfactory to the Directors to the effect that after due and careful enquiry, the member is satisfied that none of the shares which is the subject of the transfer is a default share.

(c) *Disclosure of Interests in Shares*

A person must notify the Company if the percentage of voting rights he holds in respect of his shareholding in the Company or through his direct or indirect holding in qualifying financial instruments (or a combination of such holdings) has reached or exceeded three per cent. and each one per cent. threshold thereafter up to one hundred per cent. either at the date on which the Articles come into force or any time thereafter.

(d) *Variation of Class Rights*

If at any time the share capital is divided into different classes of shares, the rights attached to any class or any of such rights may, subject to the provisions of the Singapore Act or any statutory modification and every other statute for the time being in force concerning companies and affecting the Company (the "Statutes") whether or not the Company is being wound up, be abrogated or varied with the consent in writing of the holders of at least three-quarters of

the issued shares of that class (excluding any shares of that class held as treasury shares), or with the sanction of a special resolution passed at a separate general meeting of the holders of the shares of that class. To every such separate general meeting all the provisions of the Articles relating to general meetings shall, *mutatis mutandis*, so far as applicable apply subject to the following provisions: (i) the necessary quorum at any such meeting, other than an adjourned meeting, shall be two persons present holding at least one-third of the issued shares of the class in question (excluding any shares of that class held as treasury shares) and at an adjourned meeting one person present holding shares of the class in question; and (ii) any holder of shares of the class in question present in person or by proxy may demand a poll. For the purposes of (i) above, where a person is present by proxy or proxies, he is treated as holding only the shares in respect of which those proxies are authorised to exercise voting rights. The rights attached to any class of shares shall, unless otherwise expressly provided by the terms of issue of the shares of that class or by the terms upon which such shares are for the time being held, be deemed not to be abrogated or varied by the creation or issue of further shares ranking *pari passu* therewith.

(e) *Alteration of capital*

(i) The Company may by ordinary resolution consolidate all or any of its share capital and sub-divide all or any of its shares.

(ii) Subject to the provisions of the Statutes, the Company may by special resolution reduce its share capital and any other undistributable reserve in any way.

(iii) Subject to the provisions of the Statutes, any shares may be issued on terms that they are to be redeemed or liable to be redeemed at the option of the Company or the shareholders. The terms and conditions and manner of redemption may be determined by the Directors provided that this is done before the shares are allotted.

(iv) Subject to the provisions of the Statutes, the Company may purchase any of its own shares (including any redeemable shares).

(f) *Transfer of Shares*

(i) Subject to paragraph (ii) below, the instrument of transfer of a certificated share shall be signed by or on behalf of the transferor (and, in the case of a share which is not fully paid, by or on behalf of the transferee) and the transferor shall be deemed to remain the holder of the share until the name of the transferee is entered in the register in respect thereof. All transfers of the legal title in shares may be effected by the registered holders thereof by transfer in writing in the form for the time being approved by any stock exchange upon which shares in the Company may be listed or in any other form acceptable to the Directors. The Directors may, in their absolute discretion, refuse to register the transfer of a share which is not fully paid (whether certificated or uncertificated) provided that where such shares are admitted to the Official List or admitted to AIM, such discretion may not be exercised in a way which the Financial Conduct Authority or the London Stock Exchange regards as preventing dealings in the shares of the relevant class or classes from taking place on an open and proper basis. In relation to certificated shares, the Directors may decline to recognise any instrument of transfer unless (a) the amount of stamp duty chargeable on such instrument under any law is paid and the instrument is duly stamped as evidenced by a certificate of payment of stamp duty or it is shown to the satisfaction of the Board to be exempt from any such duty, (b) it is left at the registered office of the Company or such other place as the Directors may determine, accompanied by the relevant certificate and such other evidence as the Directors may reasonably require to show the right of the transferor to make the transfer (and, if the instrument of transfer is executed by some other person on his behalf, the authority of that person so to do), and (c) the instrument is in respect of only one class of share.

(ii) Subject to the Statutes, the Directors may permit any class or classes of shares (or interests in shares) in the Company to be held in uncertificated form and title to shares may be transferred by means of a relevant system.

(g) *General Meetings*

(i) Save as provided by the Statutes, any general meeting at which it is proposed to pass a special resolution shall be called by not less than 21 clear days' notice in writing and an annual general meeting and any other general meeting shall be called by not less than 14 clear days' notice in writing. The notice shall state the place, the date and the time of meeting and the general nature of that business and it shall be given in the manner hereinafter mentioned or in such other manner, if any, as may be prescribed by the Statutes or by the Company in general meeting to such persons as are entitled to receive such notices from the Company and shall comply with the provisions of the Statutes as to informing members of their right to appoint proxies. A notice calling an annual general meeting shall state that the meeting is an annual general meeting and a notice convening a meeting to pass a special resolution shall specify the intention to propose the resolution as such and shall include the text of the resolution.

(ii) A meeting of the Company shall, notwithstanding that it is called by shorter notice than that specified in the paragraph above, be deemed to have been duly called if it is so agreed in the case of a meeting called as the annual general meeting, by all the members entitled to attend and vote thereat and in the case of any other meeting, by a majority in number of the members having a right to attend and vote at the meeting, being a majority together holding not less than 95 per cent. of the total voting rights of all the members having a right to vote at the meeting.

(iii) The accidental failure to give notice of a meeting to or the non-receipt of notice of a meeting by any person entitled thereto shall not invalidate the proceedings at any general meeting.

(h) *Directors*

(i) The number of Directors shall not be less than two. A Director shall not be required to hold any shares in the capital of the Company. A Director who is not a member of the Company shall nevertheless be entitled to receive notice of and attend and speak at any meeting of the members of the Company convened in accordance with the Articles and the Singapore Act.

(ii) Provided that a Director discloses the nature and extent of his interest to the Board in advance in accordance with section 156 of the Singapore Act, such Director may be party to, or in any way interested in, any other office or place of profit with the Company or any other company in which the Company is in any way interested, except that of Auditor, whether by himself or through any firm of which he is a member, or any other contract, transaction or arrangement with the Company or in which the Company has a (direct or indirect) interest.

(iii) The ordinary fees of the Directors shall be determined from time to time by an ordinary resolution of the Company in accordance with the statutes and shall not exceed in aggregate S$750,000 per annum (or such higher amount as may be determined by an ordinary resolution of the Company) and such remuneration shall be divided between the Directors as they shall agree or, failing agreement, equally. Such remuneration shall be deemed to accrue from day to day. The Directors may also be paid all reasonable expenses properly incurred by them in attending and returning from meetings of the Directors or any committee of the Directors or general meetings of the Company or of the holders of any class of shares or debentures of the Company or otherwise in connection with the business of the Company. Any Director who is appointed to any executive office or who serves on any committee of the Directors or who otherwise performs services which, in the opinion of the Directors, are outside the scope of the ordinary duties of a Director may be paid such extra remuneration by way of salary, commission or otherwise as the Directors may determine.

(iv) Each Director shall have the power at any time to appoint any person (other than another Director) to be his alternate Director provided that such appointment is approved by the Directors. The appointment of an alternate Director shall automatically determine on the

happening of any event which, if he were a Director, would cause him to vacate such office if the Director concerned ceases to be a Director.

(v) At every annual general meeting, there shall retire from office by rotation (i) any Director who shall have been a Director at each of the preceding two annual general meetings and who was not appointed or re-appointed by the Company in general meeting at, or since, either such meeting and (ii) one-third of the other Directors for the time being who are not to retire under (i) of this paragraph. A retiring Director shall be eligible for re-appointment except in cases as set out in the Articles.

The Directors may exercise all the powers of the Company to give or award pensions or other retirement, superannuation, death or disability benefits to any persons who are Directors of the Company for the time being holding any executive office.

(i) *Borrowing Powers*

Save as the Articles otherwise provide and subject to the provisions of the Statutes, the Directors may exercise all the powers of the Company to borrow money and to mortgage or charge its undertaking, property and assets (present and future) and uncalled capital and issue debentures and other securities, whether outright or as security for any debt, liability or obligation of the Company or of any third party.

(j) *Dividends and Distributions on Liquidation to Shareholders*

(i) The Company may by ordinary resolution declare dividends, but no dividend shall exceed the amount recommended by the Directors. Subject to the Statutes and the rights or restrictions attached to any shares or class of shares, all dividends shall be declared and paid according to the amounts paid up on the shares and shall be apportioned and paid proportionately to the amounts paid up on the shares during any portion of the period in respect of which the dividend is paid.

(ii) Subject to the provisions of the Statutes, the Directors may from time to time pay such interim dividends as they think fit and may pay the fixed dividends payable on any shares of the Company half yearly or otherwise on fixed dates.

(iii) On a liquidation, the liquidator may, subject to the Statutes and with the sanction of a special resolution of the Company and any other sanction required by the Statutes, divide amongst the members in specie or in kind the whole or any part of the assets of the Company and may, for such purpose, set such value as he deems fair upon any property to be divided and may determine how such division shall be carried out.

(k) *Non-United Kingdom Shareholders*

There are no limitations in the Articles on the rights of non-United Kingdom shareholders to hold, or to exercise voting rights attached to the Ordinary Shares.

(l) *Unlimited objects*

The Articles contain no restriction on the objects of the Company.

(m) *Depositary interests*

Subject to the Statutes, the Directors may permit any class or classes of shares to be held and transferred in uncertificated form by means of a relevant depository system. The Directors may utilise such a system to carry out its functions and in certain circumstances may require the holder to convert a share into certificated form.

(n) *Pre-emption rights*

(i) Subject to paragraph (ii) below, all new Equity Securities (as defined in section 560(1) of the United Kingdom Companies Act 2006 (as amended)) issued for cash by the Company (other than any issuance of bonus shares) shall be offered to existing members

in proportion, so far as the circumstances permit, to those existing Equity Securities to which they are presently entitled. Any such offer shall be made for a limited time, upon the expiration of which it will be deemed declined and the Directors shall be permitted to dispose of the Equity Securities in the manner they deem to be most beneficial to the Company.

(ii) Pre-emption rights shall not apply (i) in relation to shares issued pursuant to an option exercised under an employee share scheme; or (ii) as determined by the Directors in relation to Equity Securities issued during the period the ordinary resolution giving the Directors a general authority to make such issuance was in force.

5. Substantial Shareholders

5.1 Save as disclosed in this paragraph 5 or paragraph 6 of this Part VII, as at date of this document none of the Directors are aware of any interest which represents three per cent. or more of the issued share capital of the Company as at the date of this document or on Admission or of any persons who, directly or indirectly, jointly or severally, exercise or could exercise control over the Company.

5.2 As at the date of this document, the following persons had an interest in three per cent. or more in the issued share capital of the Company:

	As at the date of this document		*Immediately following Admission*	
Name	*Number and Class of Shares*	*Approximate percentage of existing issued share capital (voting and non-voting) at the date of this document*	*Number of Ordinary Shares*	*Approximate percentage of Ordinary Shares*
Morgan Stanley Renewables	584,326,417 A Shares and 29,761,963 C Shares	45.7%	32,489,990	42.4%
Tideline Limited	82,270,387 A Shares	6.1%	2,742,346	3.6%
Minnow Holdings Pty Limited	79,276,539 A Shares	5.9%	4,348,221	5.7%
Statkraft AS	69,163,937 A Shares	5.1%	2,683,873	3.5%
Yamba Energy Limited	64,400,445 A Shares	4.8%	2,146,681	2.8%
Basil Mcilhagga	59,499,937 A Shares	4.4%	3,084,375	4.0%
Aloa Pty Limited	51,957,995 A Shares	3.9%	2,377,447	3.1%
Armstrong Industries HK Limited	42,337,782 A Shares	3.1%	4,997,182	6.5%
Henderson Global Investors	–	–	2,659,574	3.5%

5.3 None of the major shareholders of the Company set out in the table above will have different voting rights from any other holder of Ordinary Shares in respect of any Ordinary Share held by them on Admission.

6. Directors' and Other Interests

6.1 The interests of the Directors and of persons connected with them (within the meaning of sections 252 to 256 of the Act), all of which are beneficial unless otherwise stated, in the issued share capital of the Company, where the existence of which is known to them or could, with reasonable diligence, be ascertained by the Directors, as at the date of this document and as expected to be immediately following the Placing and Admission are as follows:

	As at the date of this document		*Immediately following Admission*	
Name	*Number and Class of Shares*	*Approximate percentage of existing issued share capital (voting and non-voting)*	*Number of Ordinary Shares*	*Approximate Percentage of Ordinary Shares*
Tim Cornelius (1)	29,761,963 C Shares	2.3%	1,076,106	1.4%
Duncan Black	25,000,000 B Shares	1.9%	917,419	1.2%
John Neill	–	–	252,501	0.3%
John Woodley	–	–	–	–
Rune Nilsen	–	–	–	–
Michael Lloyd	–	–	63,287	0.1%
Ian MacDonald	–	–	125,020	0.2%

(1) Tim Cornelius is sole shareholder of Languedoc Pte Limited which holds 29,761,963 C Shares in the Company. These C Shares are the subject of a Singapore law share charge in favour of Bank Morgan Stanley AG as security for a S$1,500,000 loan to Tim Cornelius dated 12 November 2008.

6.2 John Neill, Michael Lloyd and Ian Macdonald hold convertible loans in the Company in the amounts of £200,000, £50,000 and £100,000 respectively. These convertible loans are held on the terms referred to at paragraph 3.4 of this Part VII, and will on Admission convert into Ordinary Shares which are reflected in the table above at paragraph 6.1.

6.3 Conditional upon Admission, Duncan Black will acquire 44 Ordinary Shares at the Placing Price arising from fractional entitlements on the Consolidation. These Ordinary Shares are reflected in the table above at paragraph 6.1.

6.4 Conditional upon Admission, Tim Cornelius and Duncan Black will each subscribe for 84,041 Ordinary Shares at the Placing Price. These Ordinary Shares are reflected in the table at paragraph 6.1 above and will not be subject to the lock-in or orderly market provisions.

6.5 Save as disclosed in this paragraph 6, none of the Directors has any interest, beneficial or non-beneficial, in the share or loan capital of the Company or any of its subsidiaries.

6.6 Details of the Options and Awards granted to the Directors are set out in paragraph 8.2 of this Part VII.

6.7 Details of the titles and dates of appointment of the Directors are set out below:

Name	*Title/function*	*Date of appointment*
Tim Cornelius	Chief Executive Officer	11 December 2013
Duncan Black	Chief Financial Officer	11 December 2013
John Neill	Non-Executive Chairman	11 December 2013
Rune Nilsen	Non-Executive Director	22 September 2011
John Woodley	Non-Executive Director	22 September 2008
Michael Lloyd	Non-Executive Director	11 December 2013
Ian MacDonald	Non-Executive Director	11 December 2013

6.8 The Directors hold, and have during the five years preceding the date of this document held, the following directorships or partnerships (other than the Company):

Name	*Current directorships/partnerships*	*Previous directorships/partnerships*
Tim Cornelius	Languedoc Pte Ltd BlueGen Pte Ltd Atlantis Resources (Gujarat Tidal) Pte Limited C3 Enterprises Pty Ltd Delve Technologies (Australia) Pty Ltd Atlantis Operations (Canada) Ltd Atlantis Licensing Pte Limited ARC Ventures (UK) Limited Atlantis Asset Management Pte Ltd Atlantis Projects Pte Ltd Atlantis Energy Pte Ltd Atlantis Operations (Singapore) Pte Ltd Atlantis Resources International Pte Ltd Current Resources (Cayman) Ltd MeyGen Limited Atlantis Operations (UK) Ltd	Entropy Pte Ltd Atlantis Energy (UK) Limited Atlantis Energy Limited
Duncan Black	Lyon Group (Singapore) Pte Ltd Atlantis Operations (Canada) Ltd Atlantis Resources International Pte Ltd Atlantis Projects Pte Ltd Atlantis Energy Pte Ltd Atlantis Asset Management Pte Ltd ARC Operations (Singapore) Pte Ltd Current Resources (Cayman) Limited MeyGen Limited Atlantis Licensing Pte Ltd Atlantis Operations (UK) Ltd ARC Ventures (UK) Limited	AIF Toll Road Holdings 1 Pte Ltd Asia Infrastructure Fund Management Private Limited Asia Infrastructure Fund Private Limited Babcock & Brown Asia Infrastructure Fund (Singapore) Don Muang Tollway Public Company Limited
John Neill	HCSU10 Limited HCSU29 Limited Kautex Unipart Limited UGC Retirement Benefits Trustees Limited Unipart Group Limited Unipart Group of Companies Limited Unipart International Holdings Limited Unipart Leisure and Marine Limited Unipart Logistics Limited Unipart Rail Holdings Limited Unipart Rail Limited Business in the Community Limited Rolls-Royce Holdings PLC Rolls-Royce plc	Charter International plc

Name	*Current directorships/partnerships*	*Previous directorships/partnerships*
John Neill *(continued)*	The Society of Motor Manufacturers and Traders Limited Vestcave Limited Scion Films (Creation) Production Limited Partnership Invicta Film Partnership No 29 GP	
Rune Nilsen	None	None
John Woodley	Woodley AG Morgan Stanley Renewables Development I (Cayman) Limited	MGM International LLC Morgan Stanley Capital Group (Espana), S.L.U. Morgan Stanley Capital Group Energy Europe Limited Transworld Agricola Limited Van Twiller B.V. Cogeneracion Prat S.A. Minnewit B.V. Atlantis Operations (UK) Limited MeyGen Limited
Michael Lloyd	Mike Lloyd Associates Ltd Michael Robert Lloyd Associates Limited RIMOR Ltd Magnomatics Limited Ceres Power Holdings Ltd Aerospace Tooling Corporation Ltd	Composite Technology and Applications Limited Turbine Surface Technologies Limited The Office of Rail Regulation
Ian MacDonald	Votraint No 893 Pty Limited	None

6.9 John Neill was a director of GP2002 Limited at the time it was liquidated in May 2008.

6.10 John Woodley was a director of Transworld Agricola Limited in the year preceeding its liquidation in January 2013.

6.11 Save as disclosed at paragraph 6 of this Part VII of this document none of the Directors has:

(a) any unspent convictions relating to indictable offences (including fraudulent offences);

(b) any bankruptcies or entered into any individual voluntary arrangements with his creditors;

(c) been a director of any company at the time of, or within the 12 months preceding, any receivership or liquidation (including compulsory liquidation, creditors' voluntary liquidation), administration, company voluntary arrangement or any composition or arrangement with creditors generally or any class of creditors of such company;

(d) been a partner of any partnership at the time of, or within the 12 months preceding, any compulsory liquidation, administration or partnership voluntary arrangement of such partnership;

(e) had any of their assets made the subject of any receivership or have been a partner of a partnership at the time of or within the 12 months preceding any assets thereof being the subject of a receivership; or

(f) received any official public incrimination and/or sanction by any statutory or regulatory authorities (including recognised professional bodies) or have been disqualified by a court from acting as a director of a company or from acting in the management or conduct of the affairs of a company.

6.12 None of the Directors or any person connected with them (within the meaning of section 252 of the Act) is interested in any related financial product referenced to the Ordinary Shares (being a financial

product whose value is, in whole or in part, determined directly or indirectly by reference to the price of the Ordinary Shares including a contract for difference or a fixed odds bet).

6.13 Save as disclosed at paragraphs 3 and 17 of this Part VII of this document, excluding professional advisers otherwise named in this document and trade suppliers, no person has at any time within the 12 months preceding the date of this document received, directly or indirectly, from the Company or entered into any contractual arrangement to receive, directly or indirectly, from the Company on or after Admission any fees totalling £10,000 or more or securities in the Company with a value of £10,000 or more calculated by reference to the issue price or any other benefit with a value of £10,000 or more at the date of Admission.

7. Directors' Service Agreements and Letters of Appointment

Executive Directors

Name	*Date of Service Agreement*	*Date of Appointment to the Board*	*Position*	*Salary*
Timothy Cornelius	11 December 2013	11 December 2013	Chief Executive Officer	£240,000
Duncan Black	11 December 2013	11 December 2013	Chief Financial Officer	S$420,000

7.1 The annual salaries of the Executive Directors are set out in the table above. The salaries are subject to annual review by the remuneration committee although there is no obligation to award an increase. The Executive Directors are eligible for a discretionary annual bonus, a pension contribution (equal to ten per cent. of salary per annum), life assurance and private medical insurance.

7.2 The Executive Directors are also entitled to 25 days' annual leave (plus public holidays) and, in the event of sickness absence, payment of full salary for up to 30 or, if hospitalisation is necessary, 60 days each year.

7.3 Tim Cornelius is employed by Atlantis Operations (UK) Limited and Duncan Black is employed by the Company.

7.4 Both Tim Cornelius' service agreement and Duncan Black's service agreement are terminable on six months' notice given by either party. The Executive Directors may be put on garden leave during their notice period. Both service agreements contain provisions entitling the relevant employing company to pay the Executive Directors in lieu of their notice period on termination to the value of their basic salary at the time of termination. Such payments may be made in instalments at the employing Company's election.

7.5 The employment of each Executive Director can be terminated with immediate effect and without notice in certain circumstances, including gross misconduct, fraud or financial dishonesty, bankruptcy or material breach of obligations under their service agreements.

7.6 The Executive Directors' service agreements also contain post-termination restrictions including: (i) a six month post-termination restriction not to compete with the relevant employing company or a relevant group company; (ii) a six month post-termination restriction not to deal with clients or suppliers of the relevant employing company or a relevant group company; and (iii) a twelve month post-termination restriction on soliciting clients, prospective clients, suppliers and key employees.

7.7 It is anticipated that Tim Cornelius and Duncan Black will receive a bonus of £100,000 each following Admission which represents achievement against key performance indicators under the pre-existing bonus arrangements for 2013.

Non-Executive Directors

Name	*Position*	*Annual Fee*
John Neill	Non-Executive Chairman	£75,000
Rune Nilsen	Non-Executive Director	Nil
John Woodley	Non-Executive Director	S$72,000 plus a daily rate of S$2,000 for each day worked in excess of 2 days per month on average
Michael Lloyd	Non-Executive Director	£36,000 (plus a supplemental daily rate to be agreed for each day worked in excess of 2 days in any month)
Ian MacDonald	Non-Executive Director	S$72,000

7.8 The Chairman and the Non-Executive Directors have entered into new appointment letters with the Company which took effect on 11 December 2013. Under the terms of these letters, the Chairman and the Non-Executive Directors are entitled to an annual fee as set out in the table above. The appointments are terminable by either party on three months' notice and the Company is entitled to make a payment in lieu of their notice period on termination. The appointments are also terminable with immediate effect and without compensation or payment in lieu of notice if the Chairman or any Non-Executive Director is not re-elected to their position as a director of the Company.

8. Options and LTIP Awards

8.1 ***Summary of the principal terms of the Atlantis Resources 2009 Company Share Option Plan***

General

(i) The CSOP is a discretionary share option plan under which participants may be granted Options over B Shares, normally subject to continued employment and the satisfaction of agreed performance conditions. The rules of the CSOP are governed by the laws of Singapore.

(ii) As at the date of this document, Options over a total of 39,266,000 B Shares exercisable at prices between S$0.1553 and S$0.20 per share (the "Outstanding Options") have been granted by the Company under the CSOP and are outstanding.

(iii) At a board meeting held on 11 December 2013, the Board approved the adjustment of the Outstanding Options, conditional upon Admission, as a consequence of the Conversion and the Consolidation. Effective from Admission, the Outstanding Options will be adjusted so as to be outstanding over a total of 1,308,866 Ordinary Shares exercisable at prices between S$4.659 and S$6.00 per share.

(iv) The Outstanding Options are not subject to any performance conditions.

(v) No further Options will be granted under the CSOP and the CSOP will be terminated on Admission without prejudice to the rights conferred by the Outstanding Options.

Exercise of Options

(i) The Outstanding Options are fully vested and exercisable.

(ii) The Outstanding Options will lapse on the earliest to occur of (i) 4 June 2014 (9 June 2015 for one participant) or five years from the date of grant; (ii) the expiry of the one month exercise period mentioned below in relation to leavers; (iii) the date on which a participant is adjudicated

bankrupt in any jurisdiction; (iv) any breach or purported breach of the assignability of Options provision; and (v) the date of the participant's death.

Leaving employment

(i) If a participant ceases to hold office or employment with any member of the Group for any reason other than by reason of his dishonesty, fraud, misconduct or any other circumstances justifying summary dismissal, the Option may be exercised within one month after the cessation of employment otherwise it will lapse. The Board waived this condition for three former employees and extended the exercise period of their Outstanding Options until 4 June 2014.

Corporate transactions

(i) In the event of a change of control or an initial public offering of any of the shares of the Company on a recognised stock exchange, outstanding Options shall immediately vest and remain exercisable for one year.

(ii) B Shares resulting from the exercise of an Option will be subject to such restrictions (if any) on transfer as may be set out in the Articles and/or as may be set out in the applicable Option certificate. Following the Option Adjustment, the shares resulting from the exercise of the Outstanding Options will be Ordinary Shares (B Shares will not exist post-Admission) and such Ordinary Shares shall be free from restrictions.

(iii) In the event of a raising of at least S$10,000,000 in new equity by the Company (a "Private Placement"), the Company will offer to buy from each participant who remains in employment each B Share which that individual may exercise an Option in respect of, at a price at which the equivalent B Share was offered for sale pursuant to the Private Placement, but only to the extent necessary to provide the relevant participant with sufficient funds to exercise the Option in full. To the extent that this provision is triggered by the Placing, the relevant holders of Options have waived their rights under this clause.

Capital reorganisation

In the event of any variation in the share capital of the Company, adjustments to the exercise price of an Option and the number, nominal value and description of B Shares subject to an Option may be made by the Board in such manner and with effect from such date as the Board may reasonably determine to be appropriate but in a manner consistently applied to all participants and other holders of Options in the share capital of the Company. As noted above, an adjustment will be made in respect of the Conversion and the Consolidation.

Voting, dividend and other rights

(i) Until Options are exercised, participants have no voting or other rights in respect of the B Shares subject to their Options.

(ii) B Shares issued or transferred pursuant to the CSOP will rank *pari passu* in all respects with the B Shares then already in issue except that they will not rank for any dividend or other distribution of the Company paid or made by reference to a record date falling prior to the date of exercise of the relevant Option. Following the adjustment of the Outstanding Options in light of the Conversion and Consolidation, the same rights will attach to the Ordinary Shares resulting from the exercise of the Outstanding Options.

(iii) Options are not pensionable, assignable or transferable.

Administration and amendment

The CSOP shall be administered under the direction of the Board who may at any time and from time to time by resolution and without further formality delete, amend or add to the rules of the CSOP in any respect provided that no deletion, amendment or addition shall operate to affect adversely in any way rights already acquired by a participant under the CSOP without the prior approval of the majority of the affected participants.

Overseas schemes

The Board may at any time by resolution and without further formality establish further plans or sub-plans to apply in any jurisdiction governed by rules similar to the rules of the CSOP but modified to take account of local tax, exchange controls or securities laws, regulations or practice.

Termination

The CSOP has been terminated, conditionally on Admission, by a resolution of the Board dated 11 December 2013. Termination will not affect the subsisting rights of participants.

8.2 ***Summary of the principal terms of the Atlantis Resources 2013 Long-Term Incentive Plan***

General

(i) Following Admission, the Company intends to operate the LTIP for selected employees and directors of the Group. The rules of the LTIP shall be governed by the laws of Singapore.

(ii) As at the date of this document, the following Awards (the "IPO Awards") have been granted, conditionally on Admission, by the Company under the LTIP and are outstanding:

Name	*Number of Ordinary Shares*	*Form of Award (conditional Award, Restricted Share Award, Option)*	*Exercise Price (S$) of Options per Ordinary Share*	*Vesting period or date*
Timothy Cornelius	1,063,830	Option	Placing Price[1]	1/3 on each of first, second and third anniversary of grant date
Duncan Black	851,064	Option	Placing Price[2]	1/3 on each of first, second and third anniversary of grant date
John Neill	1,063,830	Option	Placing Price[3]	1/3 on each of first, second and third anniversary of grant date
Michael Lloyd	106,383	Option	Placing Price[4]	1/3 on each of first, second and third anniversary of grant date
Ian MacDonald	265,958	Option	Placing Price[5]	1/3 on each of first, second and third anniversary of grant date

Notes:

1. The aggregate exercise price of these options is £1,000,000.
2. The aggregate exercise price of these options is £800,000.
3. The aggregate exercise price of these options is £1,000,000.
4. The aggregate exercise price of these options is £100,000.
5. The aggregate exercise price of these options is £250,000.

(iii) The IPO Awards are not subject to any performance conditions.

Eligibility

Employees and directors of the Company or any member of the Group may be granted Awards under the LTIP. The Board may grant Awards to such eligible employees and directors as it shall in its absolute discretion select.

Grant of Awards

(i) Awards may be granted within 42 days following approval of the LTIP by the Board. Thereafter, Awards will normally be granted within 42 days commencing on the announcement of the results for any period. Subject to dealing restrictions, they may be granted at other times, for example, if there is a change to legislation or regulations which, in the Board's reasonable opinion, may affect Awards granted under the LTIP or in exceptional circumstances, as resolved by the Board. Awards may also be granted at any time prior to the date of Admission, conditional on Admission. No grants under the LTIP can be made more than ten years after the LTIP's approval by the Board.

(ii) The extent of any grant of Awards shall be determined by the Board in its absolute discretion, subject to the individual and plan limits.

(iii) Awards will be structured as conditional Awards, restricted share Awards or Options.

(iv) No payment is required for the grant of an Award.

Exercise price

The exercise price of an Option shall be determined by the Board and will be such an amount as the Board may in its absolute discretion decide.

Performance conditions

(i) The Board may grant an Option subject to such performance condition(s) as it in its discretion thinks fit which must (save as otherwise provided in the rules of the LTIP or the performance condition itself) be fulfilled before the Award may vest.

(ii) If an event occurs which causes the Board to determine that the performance condition(s) have ceased to be appropriate, it may in its discretion vary or waive such condition(s) provided that any new conditions imposed or any variation are in its opinion fair, reasonable and no more difficult to satisfy than the previous conditions.

Individual limits

The aggregate market value of shares subject to Awards granted to a participant (who is an employee of a participating company) under the LTIP in any financial year may not normally exceed a sum equal to (i) twice his base salary (excluding variable remuneration and other benefits) for the period of 12 months ending on the date of grant or during the previous accounting period of the Company; or (ii) his annual rate of base salary (excluding variable remuneration and other benefits), as determined at the Board's discretion ("Earnings"). Where an Award is made on Admission or the Board determines that special circumstances exist in relation to a participant, the limit will be five times his Earnings.

The aggregate market value of shares subject to Awards granted to a non-executive director of the Company may not normally exceed a sum equal to the maximum possible award that could be made if he were a participant who is also an employee of a participating company with Earnings equal to those of the highest paid director of the Company.

Plan limits

No Award will be granted on any date if, as a result, the aggregate number of Ordinary Shares issued or committed to be issued pursuant to awards made under the LTIP and during the previous 10 years under all other employees' share plans operated by the Company would exceed 10 per cent. of the issued ordinary share capital of the Company on that date. This limit does not include shares which have been the subject of Awards under the LTIP or granted under any other employees' share plan which have lapsed or been released.

Vesting and exercise

(i) Subject to dealing restrictions and satisfaction of the relevant performance condition(s), an Award will normally vest on the later of the third anniversary of the date of grant and the date

on which the Board makes its determination in relation to the satisfaction or waiver of the Performance Condition(s) or any other conditions which apply to the Award. Awards made on or before Admission may vest on and from the first anniversary of their date of grant.

(ii) Vested Options are exercisable up until the tenth anniversary of the date of grant.

(iii) Where a conditional Award has vested or an Option has been exercised, shares will be issued or transferred to the participant within 30 days (unless the Board determines to satisfy the Award in cash).

Clawback

The Board may reduce (or extinguish) awards or reclaim cash and/or shares relating to an Award that has already vested or an Option that has been exercised if it is determines in its absolute discretion that exceptional circumstances justify such action (including there being a material misstatement of the Company's accounts or misconduct of the participant between grant and vesting). In addition, the Board may, acting reasonably and in good faith, delay the vesting of an Award if, at the date of vesting, there is a continuing investigation or other procedure to determine whether exceptional circumstances exist and the Board decides that further investigation is warranted.

Leaving employment or office

(i) Awards will normally lapse when a participant ceases to hold employment before vesting. However, if employment ends because of death, injury, ill-health, disability, redundancy, retirement with agreement of his employing company, his employing company ceasing to be a member of the Group, the transfer of his employing company or business outside the Group or any other reason (apart from dishonesty, fraud, misconduct or any other circumstances justifying summary dismissal) as the Board may in its absolute discretion permit, then subject to dealing restrictions, the performance period in respect of the Award will be treated as ending on the date of cessation of employment (or such other date as the Board determines).

In the case of a participant who is not an employee, Awards will normally lapse when the participant's appointment terminates before vesting. Where the appointment is terminated by reason of death, injury, ill-health, disability or any other reason (apart from dishonesty, fraud, misconduct, or any other circumstances justifying summary termination) permitted by the Board in its absolute discretion, then subject to dealing restrictions, any performance period in respect of the Award will be treated as ending on the date of termination of the appointment (or such other date as the Board determines). The provisions as to lapse or early exercise of an Award may also be adapted by the Board to reflect the terms of any letter of appointment.

(ii) Awards will vest and Options will become exercisable (to the extent any applicable Performance Condition(s) have been achieved or waived) on the date on which the Board makes its final determination as to the number of shares which vest under the Award and, in the case of Options, will be capable of exercise for a period of six months from the date of cessation of employment or termination of appointment (or, in the case of death, the earlier of the first anniversary of his death and the expiry of six months commencing on the date on which the participant's personal representatives notify the Company that they have obtained a grant of representation).

(iii) Unless the Board decides otherwise, the number of shares which vest under the Award will be reduced pro rata to reflect the period of the performance period during which the participant was not employed or appointed. Where the Board, acting fairly and reasonably, determines that the number of shares is inappropriate in a particular case, it may decide that the Award should vest in respect of a higher or lower number of Shares, provided that the number does not exceed the total number of shares subject to an Award.

Corporate transactions

(i) In the event of a takeover, merger, scheme of arrangement of the Company, voluntary winding up of the Company or other corporate reorganisation, the performance period in respect of the Award will be treated as ending on the date of the corporate event (or such other date as

the Board determines). Awards will vest and Options will become exercisable (to the extent any applicable Performance Condition(s) have been achieved or waived) on the date of the corporate event or on such earlier date as the Board may in its absolute discretion determine. Options will remain exercisable until the expiry of six months commencing on the date of the corporate event or, if earlier, the expiry of six weeks commencing on the date on which a notice to acquire shares under section 215 of the Act is first served.

(ii) Where the Board, acting fairly and reasonably, determines that the number of shares which vest under the Award is inappropriate in a particular case, it may decide that the award should vest in respect of a higher or lower number of shares, provided that the number does not exceed the total number of shares subject to an Award.

(iii) In certain circumstances (such as where there is a change of control of the Company or the Company has become bound or entitled to acquire shares as a result of a corporate transaction), then to the extent that an offer to surrender an Award in consideration of the grant of a new Award has been made to and accepted by a participant, his Award will not vest but will lapse.

Capital reorganisation

The Board may make adjustments to the exercise price of an Option and to the number, value and description of shares subject to an Award following any variation in the share capital of the Company. Where an Option has been exercised or an award has vested but, as at the date of variation of capital, shares have not yet been allotted or transferred to the participant, the Board may adjust the number of shares which may be so allotted or transferred and the price at which they may be acquired.

Voting, dividend and other rights

(i) Until Awards vest or Options are exercised, participants have no voting or other rights in respect of the shares subject to their Award.

(ii) Shares issued or transferred pursuant to the LTIP will rank *pari passu* in all respects with the shares then already in issue except that they will not rank for any dividend or other distribution of the Company paid or made by reference to a record date falling prior to the vesting date or, in the case of an Option, the date of exercise.

(iii) Awards are not pensionable, assignable or transferable.

Administration and amendment

(i) The LTIP shall be administered under the direction of the Board who may at any time and from time to time by resolution and without further formality delete, amend or add to the rules of the LTIP in any respect provided that no deletion, amendment or addition shall operate to affect adversely in any way rights already acquired by a participant under the LTIP without the prior approval of the majority of the affected participants.

(ii) Shareholder approval will be required to amend certain provisions to the advantage of participants. These provisions relate to eligibility, individual and plan limits and the treatment of Awards on the variation of the Company's share capital. The Board can make certain minor amendments, without shareholder approval, that may be to the advantage of participants, such as amendments to benefit the administration of the LTIP, to obtain or maintain approval of the LTIP by HM Revenue & Customs or other taxation authority, to obtain or maintain favourable tax treatment for participants or any member of the Group or to take account of any existing or proposed legislation.

Overseas schemes

The Board may at any time by resolution and without further formality establish further plans or sub-plans to apply in overseas territories governed by rules similar to the rules of the LTIP but modified to take account of local tax, exchange controls or securities laws, regulations or practice.

Termination

The Board or the Company in general meeting may resolve to terminate the LTIP and in any event no Awards may be granted on or after the tenth anniversary of the date on which the LTIP is approved by the Board. Termination will not affect the subsisting rights of participants.

9. Material Contracts

9.1 *Lockheed Martin*

Teaming Agreement

On 12 September 2013 the Company and Lockheed Martin (acting through its Mission Systems and Training New Ventures business unit) entered into the Teaming Agreement. An amendment letter was entered into on 9 December 2013. Pursuant to the Teaming Agreement, the Company and Lockheed Martin have agreed to collaborate on an exclusive worldwide basis (as further described below) to jointly develop projects throughout the world related to the production of electric energy from free stream tidal currents and also to design tidal turbine systems. The Company shall be the prime contractor and Lockheed Martin a sub-contractor for bids for the development of such tidal energy projects. Lockheed Martin has agreed to provide services and assets to a value of US$10,000,000 to the Company. This investment is structured as follows:

(i) US$3,000,000 through the provision of engineering services for the AR1000 related yaw system development;

(ii) US$5,000,000 through the provision of engineering services and manufacturing for the AR1500 turbine system and nacelle, including the yaw drive, variable pitch system and other components for deployment and testing of the first AR1500;

(iii) US$1,000,000 through the provision of engineering services for systems integration for the AR1500; and

(iv) US$1,000,000 for business services to support the development of tidal energy projects generally.

As a condition to Lockheed Martin being obliged to commence the manufacturing work described in (ii) above, an ocean energy demonstration project such as that for the installation of one AR1500 at the MeyGen Project, must have achieved financial close. Other sites could also be utilised for such installation, commissioning and testing of an AR1500 as the parties may agree.

The Teaming Agreement states that the Company and Lockheed Martin shall work exclusively on a worldwide basis except where:

(i) a third party employer refuses to work with Lockheed Martin;

(ii) Lockheed Martin is unable to work with the third party employer due to specified compliance requirements; or

(iii) the Company declines to bid for a particular project.

The Company and Lockheed Martin shall negotiate a licence for the use of any applicable Lockheed Martin intellectual property required for any such project in which Lockheed Martin is not a sub-contractor.

The Company and Lockheed Martin are independent contractors in the performance of the Teaming Agreement and the Teaming Agreement is not intended to be a partnership or profit sharing agreement.

Lockheed Martin may terminate the exclusivity arrangements if:

(i) the Placing fails to raise the lesser of:

  (i) the required full funding for the AR1500 Design Contract and the demonstration project; or

  (ii) US$15,000,000;

(ii) the Company does not fully fund:

  (i) the AR1500 Design Contract by 28 February 2014; or

  (ii) an ocean demonstration project for the AR1500 by 1 June 2014;

(iii) less than US$70,000,000 of total orders are received by Lockheed Martin from the Company by 12 September 2017;

(iv) the Company does not maintain a preferred turbine supplier position for at least 100 MW of power in active tidal energy projects; or

(v) the tidal energy project pipeline is less than 650 MW of turbine supply opportunities.

Pursuant to the Teaming Agreement, if Lockheed Martin terminates the exclusivity arrangements it shall provide the Company with key equipment on terms no less favourable than it provides such equipment to third parties or, if Lockheed Martin ceases to produce such key equipment, it shall grant a perpetual licence to the Company to use the applicable intellectual property.

Either party can terminate the exclusivity arrangements if a successful ocean demonstration project for the AR1500 is not achieved by the end of 2015.

The Teaming Agreement shall terminate:

(i) with the agreement of both parties;

(ii) on 12 September 2018;

(iii) if the parties fail to agree on the terms for Lockheed Martin's sub-contracting work for three or more consecutive projects;

(iv) on the occurrence of insolvency events;

(v) on the occurrence of unremedied material breaches;

(vi) in the event of certain misrepresentations;

(vii) if Lockheed Martin breaches its obligations to provide services and assets described above;

(viii) if the parties agree that a successful ocean demonstration project for the AR1500 will not be achieved by the end of 2015; or

(ix) in the event of a change of control and a termination decision by the Company.

In addition Lockheed Martin may terminate the Teaming Agreement if:

(x) the Placing fails to raise the lesser of:

  (i) the required full funding for the AR1500 Design Contract and the demonstration project; or

  (ii) US$15,000,000;

(xi) the Company does not fully fund:

  (i) the AR1500 Design Contract by 28 February 2014; or

  (ii) an ocean demonstration project for the AR1500 by 1 June 2014.

Under the Teaming Agreement, each of the parties shall retain their pre-existing intellectual property and any improvements thereto. Newly created intellectual property shall be owned by the party which funded its creation or, if jointly funded, apportioned accordingly. The parties licence each other to use their respective pre-existing intellectual property for projects the parties are pursuing together. The parties also grant each other necessary licences to use newly created intellectual property for tidal energy projects which the parties are pursuing together. If Lockheed Martin does not partake in a tidal energy project because a third party employer refuses to work with Lockheed Martin or Lockheed Martin is unable to work with the third party employer due to specified compliance requirements the parties shall negotiate a licence fee, each acting reasonably and in good faith, for the use of any necessary Lockheed Martin intellectual property, because Lockheed Martin will not be a sub-contractor in such project. Lockheed Martin is entitled to a royalty free licence for newly created

intellectual property used for purposes not related to tidal energy projects. If the Company is the sole owner of any newly created intellectual property, Lockheed Martin is entitled to a licence to use that intellectual property, for a fee to be reasonably agreed, in relation to tidal energy products that the parties are not pursuing together.

The liability of the parties under the Teaming Agreement is limited to direct losses and the Company's recourse to Lockheed Martin is limited to Lockheed Martin's Mission Systems and Training New Ventures business unit, except for the exclusivity provisions which apply to the whole of Lockheed Martin.

Under the Teaming Agreement, the Company has agreed to provide Lockheed Martin with observation rights at meetings of the Board subject to an agreement between the Company and Lockheed Martin dated 5 December 2013 described below. The Teaming Agreement is governed by the laws of the State of New York.

Lockheed Martin Board Observer Agreement

On 5 December 2013, the Company, Lockheed Martin (acting though its Mission Systems and Training division), Daniel Heller and Timothy Fuhr (Mr Heller and Mr Fuhr together the "Lockheed Board Observer") entered into a Board Observation Rights Agreement (the "ORA").

Pursuant to the Teaming Agreement between the Company and Lockheed dated 12 September 2013 described above, the Company entered into the ORA to allow Mr Heller or, if Mr Heller is unable to attend, Mr Fuhr in substitution for Mr Heller, to attend board meetings of the Company solely in an observer capacity.

The ORA acknowledges that, pursuant to these observation rights the Lockheed Board Observer and, indirectly, Lockheed Martin (Lockheed Martin and the Lockheed Board Observer together the "Lockheed Parties") will receive confidential information relating to the Company.

Pursuant to the ORA, the Lockheed Parties jointly and severally provide certain undertakings in relation to the preservation and maintenance of the confidentiality of the Company's confidential information, subject to market standard exclusions. The Lockheed Parties also undertake not to use the Company's confidential information for any purpose other than as contemplated or permitted by the Teaming Agreement.

Pursuant to the ORA, all confidential information of the Company shall remain the property of the Company and the Lockheed Parties must promptly return or destroy any confidential information provided to them upon request to do so from the Company.

The ORA contains certain non-solicitation provisions preventing the Lockheed Parties from soliciting a director or senior employee of the Company or any person employed by the Company discussed in any board meeting and also preventing the approach by the Lockheed Parties of any person whom the Lockheed Parties know has a business relationship of any kind with the Company subject to market standard exclusions. The non-solicitation provisions in the ORA apply from the date of execution of the ORA and expire on the date that is one year after the date of termination of the ORA.

Under the ORA, the Lockheed Parties agree that the right of the Board to discuss privately matters relating to Lockheed Martin is preserved and that, where such matters are tabled for discussion at a board meeting of the Company, the Lockheed Board Observer shall have no rights to attend such board meeting or to see minutes or any other records relating to such board meeting.

The ORA shall terminate automatically without notice one year after the date that the Teaming Agreement expires.

Pursuant to the ORA, the parties agree that the Lockheed Board Observer shall not exercise any powers of a director or officer of the Company and shall not be entitled to speak or vote at any board meeting of the Company.

The ORA is governed by, and shall be construed in accordance with, the laws of England. Any group company of the Company may enforce and rely on the ORA to the same extent as if it were a party.

AR1500 Design Contract

On 12 September 2013, the Company and Lockheed Martin entered into the AR1500 Design Contract. Pursuant to the AR1500 Design Contract Lockheed Martin will design an integrated AR1500 nacelle and integrate this with the yaw drive system, variable pitch system and related components. Lockheed Martin will also act as the systems integrator with the Company's other contractors to ensure all hardware products of the AR1500 are congruent.

Under the AR1500 Design Contract, the Company is to pay Lockheed Martin US$3,583,500 for its services, which are in addition to the design work to be undertaken by Lockheed Martin pursuant to the Teaming Agreement. Pursuant to an amendment letter dated 9 December 2013, the Company paid Lockheed Martin US$100,000 on 23 December 2013 towards the advance payment. The remainder of the advance payment of US$975,050 is to be made when the Company is in receipt of the funds from the Placing. There are three further milestone achievement triggered payments of US$716,700, US$1,254,225 and US$537,525. The milestones are the delivery by Lockheed Martin to the Company of a system design disclosure, interim design disclosure and final design disclosure. The achievement of these milestones is to be certified by each of Lockheed Martin and the Company. The milestones are targeted for completion by reference to and conditional on the receipt of the above advance payment, being two weeks, three months and five months thereafter respectively.

Pursuant to the AR1500 Design Contract, Lockheed Martin has represented and warranted that it has the knowledge and experience and the professional systems engineering and design expertise and the resources necessary to deliver the contract deliverables. Lockheed Martin has further warranted and guaranteed, amongst other things, that the contract deliverables will be in accordance with the AR1500 Design Contract and fit for the purposes set out in the AR1500 Design Contract. It is anticipated that Lockheed Martin will have completed its work under the AR1500 Design Contract by the middle of 2014.

Either party may terminate the AR1500 Design Contract for an uncured material breach.

The liability of each of the parties under the AR1500 Design Contract is limited to direct losses and, except for a limited indemnity, to 100 per cent. of the price allocated to the relevant contract deliverable. The aggregate total liability of each of the parties shall not exceed 100 per cent. of the total contract price. The limited indemnity applies to each of the parties being mutually responsible for its own personnel on the premises of the other, unless the indemnified party has been negligent.

Certain events of force majeure in the AR1500 Design Contract excuse delays and default in performance and the AR1500 Design Contract can be terminated if an event of force majeure continues for 90 days.

The rights and obligations of the parties in respect of intellectual property agreed in the Teaming Agreement and set out above, apply to any intellectual property required or created under the AR1500 Design Contract.

The performance of Lockheed Martin under the AR1500 Design Contract is conditional upon the timely and accurate delivery by the Company of certain information and equipment.

The AR1500 Design Contract is governed by the laws of the State of New York.

9.2 ***MeyGen***

Shareholdings

MeyGen is a wholly owned indirect subsidiary of the Company. In 2009 a concession was awarded by The Crown Estate to develop a tidal energy power project, of up to 600MW, in the Pentland Firth, Scotland, United Kingdom. MeyGen is the project company which is developing the concession. The MeyGen Project is expected to develop 390MW of tidal energy electricity generation. The concession was initially awarded to Statkraft for a joint bid from the Company with Statkraft and Statkraft later

became an equity investor in the Company. In 2010, prior to signing the relevant documentation to progress the project, Statkraft withdrew the bid although it remained an equity investor in the Company. The Company, in partnership with MSCGI and International Power Marine Developments Limited, submitted a new bid to TCE and the concession was awarded to them. In 2010 MSCGI and IPMDL invested in MeyGen to develop the project, each acquiring 45 per cent. of the issued share capital in MeyGen from the Company, which retained 10 per cent. The Company was appointed the preferred supplier of turbines for 150MW of the first 160MW of installed power generation capacity for the project. On 31 October 2013 MSCGI and International Power Marine Developments Limited sold to the Company's wholly owned subsidiary, Atlantis Projects Pte Limited, their respective full legal and beneficial interests in all the issued share capital in MeyGen, free from encumbrances and with full title guarantee. Each of the sellers provided certain warranties in relation to encumbrances, authority to sell, contractual enforceability and insolvency. Atlantis Projects Pte. Limited holds 100 per cent. of the issued A class ordinary share capital in MeyGen. Atlantis Projects Pte. Limited also holds 100 per cent. of the issued B class ordinary shares. Two individuals previously held C class shares which converted to deferred shares on 31 October 2013. The shareholders' agreement in respect of MeyGen, MSCGI and International Power Marine Developments Limited terminated on the completion of the transfer of the shares. Five directors resigned, without compensation being payable, as part of the share sale and purchase and one director was appointed to MeyGen.

Atlantis Projects Pte. Ltd. paid MSCGI £385,714.29 for its 45 per cent. shareholding in MeyGen and paid IPMDL £1.00 for its 45 per cent. shareholding in MeyGen. In addition, the Company procured the deposit of £367,907 in a bank account of MSCGI and £367,907 into a bank account of IPMDL to cash collaterise liabilities of each of MSCGI and IPMDL to counter-indemnify ING Belgium S.A. for letters of credit it issued to the grid connection counterparties for the MeyGen Project, in each case pending the release of those counter-indemnities and the Company itself providing a counter-indemnity for ING Belgium S.A. The deposits referred to above have since been returned to the Company and replaced by bank guarantees provided by HSBC Bank PLC as described at paragraph 12.3 of this Part VII of this document.

Pursuant to MeyGen's articles of association ("MeyGen's Articles") the C class shares converted to deferred shares on 12 February 2014 because an exit event occurred. The deferred shares are held by Dan Pearson and James Forbes. Under the MeyGen Articles, the holders of the deferred shares are deemed to have immediately given the board of directors of MeyGen the power to direct MeyGen to purchase the shares subject to the Companies Act procedures. Under MeyGen's Articles, the deferred shares cannot form part of the distribution of capital. Holders of deferred shares cannot attend, speak or vote at general meetings nor vote on written resolutions. Holders of deferred shares are not entitled to dividends, distributions, other income or rights to share in profits. The rights of deferred shares are not varied or abrogated by any new shares being issued in priority by ranking order.

Agreement for lease

On 21 October 2010 MeyGen entered into an agreement for a lease ("MeyGen AfL") with TCE, which was amended on 27 February 2012. This agreement relates to the seabed at the Inner Sound of the Pentland Firth for the MeyGen Project. MeyGen has obtained the consents for the development of phase 1 (described below) of the MeyGen Project. MeyGen provided security for the MeyGen AfL by a payment to TCE in cash of £50,000. This security payment is a variation to the terms of the MeyGen AfL which stated a bank guarantee, for the same amount, was required from the Royal Bank of Scotland plc (or an alternative guarantor with a prescribed minimum net worth).

The MeyGen AfL sets out the development of the MeyGen Project in six phases:

(i) phase 1 being the development of up to 15 MW of electricity generation;

(ii) phase 2 being the development of 16 MW to 84MW of electricity generation;

(iii) phase 3 being the development of 85MW to 154MW of electricity generation;

(iv) phase 4 being the development of 155MW to 240MW of electricity generation;

(v) phase 5 being the development of 241MW to 311MW of electricity generation; and

(vi) phase 6 being the development of 312MW to 390MW of electricity generation.

Pursuant to the MeyGen AfL and for the payment of a fee of £800,000 (plus VAT) which the Company has paid, TCE shall grant to MeyGen a lease for the site of the MeyGen Project upon MeyGen serving an option notice. On exercising the option MeyGen is to procure a security guarantee of £2,000,000 for TCE but the form and amount of this is subject to further negotiation with TCE by MeyGen. Before MeyGen can serve the option notice, it must have achieved the key milestones for phase 1, being:

(i) completion of funding for phase 1 by December 2013;

(ii) agreements for third party funding in place by December 2013;

(iii) completion of key offshore construction for phase 1 by March 2015;

(iv) completion of offshore installation for phase 1 by June 2015; and

(v) power offtake to the grid for phase 1 by September 2015.

The other key milestones for the MeyGen Project include:

(i) selection and approval of turbines and submission of technology proposals for phases 4 to 6 by September 2015;

(ii) completion of key offshore construction for phase 2 by November 2015;

(iii) submission of a tender application to the relevant United Kingdom's offshore transmission system operator for phases 4 to 6 by December 2015;

(iv) completion of offshore installation for phase 2 by June 2016;

(v) power offtake to the grid for phase 2 by August 2016;

(vi) completion of key offshore construction for phase 3 by October 2016;

(vii) completion of offshore installation for phase 3 by June 2017;

(viii) power offtake to the grid for phase 3 by July 2017;

(ix) completion of key offshore construction for phase 4 by November 2017;

(x) completion of offshore testing for phases 4 to 6 by January 2018;

(xi) completion of offshore installation for phase 4 and power offtake to the grid for phase 4 by July 2018;

(xii) completion of key offshore construction for phase 5 by November 2018;

(xiii) satisfactory independent device certification for phases 4 to 6 by January 2019;

(xiv) completion of offshore installation for phase 5 and power offtake to the grid for phase 5 by July 2019;

(xv) completion of key offshore construction for phase 6 by October 2019;

(xvi) completion of offshore installation for phase 6 by June 2020;

(xvii) power offtake to the grid for phase 6 by July 2020; and

(xviii) funding to be in place for:

  (i) phase 3 by January 2016;

  (ii) phase 4 by January 2017;

  (iii) phase 5 by October 2017; and

  (iv) phase 6 by October 2018.

The MeyGen AfL includes a reporting process for MeyGen to report on its achievement of the key milestones and prescribes a process for variation to the key milestone timetable in limited circumstances. Achievement of the key milestones is a material condition of the MeyGen AfL. MeyGen will not achieve these milestones by the dates required. The Crown Estate is however aware of the progress MeyGen is making in relation to the MeyGen Project and the milestones and has confirmed that it is prepared to discuss an extension to the milestone deadlines and has no intention of terminating the AfL prior to these discussions which are expected to be completed by no later than February 2014. As part of these discussions, TCE wishes to see the introduction of a new milestone

into the AfL setting a longstop date by which MeyGen must have raised sufficient capital to construct phase 1, and a requirement for MeyGen to present to TCE its plan to complete development and construct capacity beyond phase 1 by a date to be agreed, such date to be within the 2014 calendar year.

TCE can terminate the agreement for lease:

(i) where certain MeyGen consents are refused and such refusal is not challenged;

(ii) in the event of an unremedied failure to perform certain material obligations by MeyGen under either of the MeyGen AfL or the Operator's Agreement described below;

(iii) where MeyGen fails to exercise the option by 31 October 2015;

(iv) on the occurrence of certain insolvency events in respect of MeyGen;

(v) in the event of failure by MeyGen to achieve the key milestones;

(vi) where the security provided for the agreement for lease ceases to be in place and is not replaced;

(vii) in the event of certain misrepresentations by MeyGen; and

(viii) prior to an option notice being served, on the direction of the United Kingdom government if the site (or part thereof) is required for oil and gas development.

In addition, the MeyGen AfL requires MeyGen to indemnify TCE for actions from third parties and any losses TCE suffers in respect of the MeyGen Project, except where TCE is in default or negligent or suffers indirect losses and subject to TCE mitigating the loss. MeyGen's maximum liability under the MeyGen AfL is limited to £50,000 (except as otherwise required by law). MeyGen is required to provide reports to TCE about the MeyGen Project which are subject to a duty of confidentiality, and which are limited to disclosures required by law. MeyGen has limited rights to assign its rights under the MeyGen AfL and TCE has acknowledged that MeyGen may wish to grant security over its rights. The MeyGen AfL is governed by the laws of Scotland.

Lease

The lease to be granted pursuant to the MeyGen AfL is consistent with the MeyGen AfL and forms a schedule thereto. The lease is for 25 years at a rent determined by reference to market electricity prices. MeyGen's maximum liability is increased to £2,000,000 (except as otherwise required by law). MeyGen is expected to be required to provide security for the lease of £2,000,000.

Loans

MeyGen has three loans in force:

(i) with MSCGI (originally a shareholder loan) in the principal amount of £3,753,486.75 which is repayable on 1 February 2021. MeyGen has given certain undertakings to MSCGI, effective until its loan is repaid, including: to update MSCGI on the development of the MeyGen Project, to provide its accounts to MSCGI, to only enter into contracts on arm's length terms with related parties, not to make any prepayments under the loans referred to in this section at (i), (ii) and (iii) unless prepayments are made to all the lenders pro-rata, not to pay any distributions and not to transfer or encumber its rights under the MeyGen AfL, lease and grid connection agreements for the MeyGen Project unless for the purpose project finance arrangements. The Company has entered into a deed of undertaking with MSCGI to procure that MeyGen complies with certain of these undertakings;

(ii) with International Power Marine Developments Limited (originally a shareholder loan) in the principal amount of £3,753,486.75 which is repayable on 1 February 2021. MeyGen has given certain undertakings to International Power Marine Developments Limited, effective until its loan is repaid, including: to update International Power Marine Developments Limited on the development of the MeyGen Project, to provide its accounts to International Power Marine Developments Limited, to only enter into contracts on arm's length terms with related parties, not to make any prepayments under the loans referred to in this section (i), (ii) and (iii) unless prepayments are made to all the lenders pro-rata, not to pay any distributions and not to transfer or encumber its rights under the MeyGen AfL, lease and grid connection agreements

for the project unless for project finance arrangements. The Company has entered into a deed of undertaking with International Power Marine Developments Limited to procure that MeyGen complies with certain of these undertakings; and

(iii) with the Company in the principal amount of £849,505.56 which is repayable on 1 February 2030.

Interest on the loans referred to in this section at (i), (ii) and (iii) is capitalised and repayable on the respective final repayment date. Each of the loan agreements referred to in this section at (i), (ii) and (iii) contains limited events of default including in relation to unremedied breaches, insolvency events and material executions or distress being levied against MeyGen.

Operator's Agreement

On 21 October 2010 MeyGen became a party to an operator's agreement with TCE. The Operator's Agreement is a framework agreement of general application to any party wishing to develop commercial scale wave and tidal electricity generation projects in Pentland Firth and Orkney Waters. The Operator's Agreement requires that MeyGen has all necessary consents and operates only within the limits of the allocated sites and power generation capacity, detailed in the MeyGen AfL.

Pursuant to the Operator's Agreement:

(a) MeyGen is required to cooperate with any other operators in the area and give notice of certain activities to any such operators, including obtaining third party consultant reports in respect of activities which may affect other operators. Where consents are required from other operators such consents are not to be unreasonably withheld.

(b) MeyGen provides an indemnity to any other operators in the area and TCE for any breach of the Operator's Agreement. The liability of MeyGen under this indemnity is limited to the greater of £5 million or £0.1 million for each MW of installed capacity but subject always to a maximum liability of £25 million.

Any disputes between operators are subject to arbitration in Scotland.

The Operator's Agreement is subject to the laws of Scotland.

Grid connection agreements

MeyGen has three grid connection agreements.

(i) The first grid connection agreement was entered into on 1 December 2009 with National Grid Electricity Transmission plc for connection to a transmission system at Gills Bay, Scotland at the site of the MeyGen Project. The connection entry capacity is for 237MW and will allow MeyGen to access and use the United Kingdom's national electricity transmission system in the capacity of a power station. The grid connection agreement continues until all of MeyGen's equipment is removed from the relevant site.

(ii) The second grid connection agreement is with Scottish Hydro Electric Power Distribution plc, dated 16 February 2012 and subsequently amended on 20 February 2012 and 4 May 2012 which relates to the 14.9MW connection described in (iii) below. Scottish Hydro Electric Power Distribution plc is the distribution network operator for the National Grid Electricity Transmission plc grid connection agreement. Pursuant to this grid connection agreement:

  (i) MeyGen is to pay £2,390,881 for the provision of the connection. £1,128,751 is acknowledged by Scottish Hydro Electric Power Distribution plc as paid, £536,000 is payable when the operator orders certain key materials, £650,000 is payable prior to commencing key installation works and £76,130 after completion. This amount is subject to variation in certain circumstances including in the event of:

    (aa) certain third party costs in the connection work having to be re-evaluated;

    (bb) further unforeseen engineering work being required;

    (cc) material movements to the price of relevant materials; and

    (dd) delays beyond the control of the operator.

(ii) If the connection is terminated or reduced within five years MeyGen is liable to reimburse the operator £873,841 being a contribution made by the operator for providing the connection.

(iii) Use of the connection after installation is subject to levies and charges by the operator, including metering charges, as in force from time to time.

(iv) The operator has confirmed it can provide the connection by 31 March 2015.

(v) The performance of the operator is subject to the operator obtaining any consents it requires for the connection works.

(vi) The operator has liabilities to compensate MeyGen for certain connection failures.

(vii) MeyGen is required to become a party to certain codes and other arrangements generally applicable to generators as in force from time to time after completion of the connection.

(viii) The Company has confirmed that the technical specifications of this grid connection agreement are as is required for the MeyGen Project and it can comply with such.

(ix) Except in respect of certain indemnities, the liability of MeyGen to the operator and vice versa is limited to £1,000,000. Neither party is liable to the other for indirect or consequential losses. Each of the parties has agreed to indemnify the other for losses arising from its negligent or wilful acts or omissions or breach of the grid connection agreement, subject to conduct of claim provisions.

(x) Certain events of force majeure excuse each party's performance.

(xi) The grid connection agreement shall continue until the connection is energised or for unremedied breaches.

(iii) The most recent grid connection agreement is with National Grid Electricity Transmission plc, dated 16 July 2013. Pursuant to this grid connection agreement MeyGen is entitled to a connection to the Ness of Quoys 33kV substation, being a 14.9MW power station, operated by Scottish Hydro Electric Power Distribution plc. This grid connection agreement continues until all of MeyGen's equipment is removed from the relevant site.

(iv) In respect of these grid connection rights which MeyGen holds, letters of credit in an aggregate total amount of £817,570 have been issued by ING (Belgium) S.A. to Scottish Hydro Electric Power Distribution plc and National Grid Electricity Transmission plc as security for the performance of the obligations of MeyGen under the grid connection agreements. These letters of credit are guaranteed on behalf of the Company with bank guarantees provided by HSBC Bank PLC which are cash collateralised by the Company.

Option for land lease at Ness of Quoys

On 7 November 2013 MeyGen executed an option agreement relating to land at Ness of Quoys, Caithness, Scotland with the landowners Clifford and Gillian Shepherd. This land will be the site for the onshore control centre for the offtake facilities for the MeyGen Project.

The option agreement is for an initial period of three years at a cost of £6,000, extendable for a further two years on payment by MeyGen of a further £2,000. Pursuant to the option agreement, the land owners cannot grant any other options over the land or otherwise take any action which might adversely affect the interests granted to MeyGen and shall enter into any planning agreements and direct agreements with third parties which relate to the development of the land by MeyGen as is required.

On exercising the option MeyGen can elect to enter into a lease of either 35 or 99 years. The lease, which is exclusive, shall be granted with vacant possession. The rent is index-linked and starts at £37,000 per annum, increasing to £48,000 per annum upon the giving of notice by MeyGen to develop an electricity substation on the land.

MeyGen may assign the option to an entity of greater financial standing, to the holder of a relevant transmission licence or to any funders of the MeyGen Project.

Pursuant to the option agreement MeyGen had provided an indemnity to the land owners for any loss or damage to crops. MeyGen is also required to maintain public liability insurance for £5 million, increasing to £10 million on the lease being granted. MeyGen's maximum liability to the land owners is capped at £5 million except in respect of death or personal injury. MeyGen's maximum liability will increase to £10 million in the event of the lease being granted.

MeyGen may terminate the option by three months' notice. The land owner may terminate the option in the event of material unremedied breach by MeyGen.

The option is subject to Scots law and the exclusive jurisdiction of the Scottish courts.

9.3 ***EMEC***

On 2 October 2009, Atlantis Operations (UK) Limited entered into a lease agreement with EMEC relating to the provision of a marine energy test berth at EMEC's facilities ("EMEC Lease"). The EMEC Lease gives Atlantis Operations (UK) Limited exclusive rights to a berth, together with power offtake facilities and related services. Pursuant to the EMEC Lease, EMEC is obliged to provide the power offtake facilities and related services.

The berth fee is £210,000 (plus VAT) per annum, payable in quarterly instalments, increasing by 5 per cent. each 12 months from 1 July 2010.

The EMEC Lease shall continue, and the berth fee is payable, until all Atlantis Operations (UK) Limited's equipment has been decommissioned from the berth to the satisfaction of EMEC. This decommissioning programme requires the preparation of a decommissioning plan.

Pursuant to the EMEC Lease Atlantis Operations (UK) Limited is required to maintain third party liability insurance for not less than £25 million, and employer's liability insurance of not less than £5 million per offshore claim and £10 million per other claim. Atlantis Operations (UK) Limited must also maintain such other insurance as is required in accordance with good industry practice.

Pursuant to the EMEC Lease Atlantis Operations (UK) Limited provided an indemnity to EMEC for any death or personal injury of EMEC employees without limit, for loss or damage to property of EMEC up to £5 million per occurrence, for death or injury to third parties or damage to third party property up to £25 million per occurrence and for pollution up to £5 million, in each case where such event is caused by Atlantis Operations (UK) Limited's act or omission. Except for the indemnities described in this paragraph, the liability of Atlantis Operations (UK) Limited is limited to £5 million, liability for indirect or consequential losses is excluded.

Each of the parties can terminate the EMEC Lease forthwith by written notice:

(i) for unremedied material breaches by the other;

(ii) in the event of certain insolvency events concerning the other; and

(iii) where the other party ceases to carry on business.

Atlantis Operations (UK) Limited can terminate the EMEC Lease by providing 12 months' written notice, subject to the aforementioned decommissioning obligation.

Delays or defaults in the performance of certain obligations under the EMEC Lease are subject to exceptions in the event of the occurrence of an event of force majeure.

The EMEC Lease is subject to Scottish law and the exclusive jurisdiction of the Scottish courts. In the event of a dispute, the parties have agreed to initiate an internal dispute resolution process prior to commencing any legal proceedings.

9.4 ***CECEP***

China Demonstration Project

Since 2011 the Company has been exploring the market in China for the deployment of the AR1000 turbine and the AR1500 turbine being developed with Lockheed (the "Turbines"). The Company has made contact with the China Energy Conservation and Environmental Protection Group ("CECEP Group"), a Chinese state owned enterprise focussed on environmental protection and the development of renewable energy. CECEP Group reported that it has obtained preferential development rights for renewable energy projects granted by the governments of Zhejiang, Shandong and Guangdong, pursuant to which a 1MW tidal energy grid power system demonstration project in Zhejiang province had been approved by the Chinese State Ocean Administration, with support from state funding. The Company has entered into negotiations with CECEP Group and entered into the agreements described below.

Tidal Turbine Supply Agreement

On 12 November 2012 Atlantis Resources International Pte Ltd ("ARI") and CECEP Ocean Energy entered into a tidal turbine supply agreement ("Tidal Turbine Supply Agreement"). CECEP Ocean Energy is CECEP Group's project company for the China Demonstration Project and ARI is a wholly owned subsidiary of the Company and the Company's project company for the China Demonstration Project. Under the Tidal Turbine Supply Agreement, ARI is to supply an AR1000 turbine, technical support and an on-shore electrical system, stab and a subsea termination system to CECEP Ocean Energy for deployment by CECEP Ocean Energy at the China Demonstration Project. The contract value to be paid or deemed to be paid by CECEP Ocean Energy to ARI is US$5,870,512. At the date of this document, approximately US$2,072,475 has been paid in cash to ARI under the Tidal Turbine Supply Agreement, representing the full value of the equipment delivered and services provided to date. Either the agreed value of the AR1000 and the technical support to be provided will be deemed to be ARI's minority investment in a new joint venture company as described below or if the joint venture company is not formed, CECEP Ocean Energy can make a further cash payment to ARI of US$3,598,037 to purchase the AR1000 or ARI will retain ownership of the AR1000.

Under the Tidal Turbine Supply Agreement the obligations of the parties are anticipated as being performed during 2013. Due to CECEP Ocean Energy not having made certain registrations with the Chinese customs authorities, the first deliveries of certain parts related to the operation and installation of the AR1000 turbine have been delayed at the port of delivery in China. Pursuant to the Tidal Turbine Supply Agreement it was the express obligation of CECEP Ocean Energy to deal with such issues and CECEP Ocean Energy is working to complete these registrations to secure the release of the equipment and allow the China Demonstration Project to resume.

CECEP Ocean Energy has at the date of this document made payments to ARI of US$2,072,475, representing the full value of the equipment delivered and services provided to date by ARI, including a payment of US$536,000 on 28 October 2013. The remaining cash payments, which are deemed attributable to the AR1000 turbine, are conditional on CECEP Ocean Energy issuing an acceptance certificate for the delivery and installation of the AR1000 turbine and on the parties not forming a joint venture company as described below.

Pursuant to the Tidal Turbine Supply Agreement, ARI has warranted the AR1000 turbine will be free and clear of design and manufacturing defects for a period of 12 months after installation. Certain costs for the recovery, extraction and redeployment of the AR1000 turbine pursuant to the warranty are shared between the parties. The AR1000 turbine will remain the property of ARI until acceptance and the establishment of a joint venture as described below.

After CECEP Ocean Energy has accepted the AR1000 turbine by the issuance of an acceptance certificate, the parties intend to form a joint venture to develop tidal energy projects in China, including the transfer to the joint venture vehicle of the AR1000 turbine. This is subject to a longstop date, for agreement of the joint venture terms between the parties, of 18 months from the date of the initial installation at the China Demonstration Project. If the completion tests, which primarily relate to a rated output of at least 1MW achieving (i) 2,000 MWh of electricity generation over a 12 month period from commissioning and (ii) 5,000 operating hours over the same period, are not satisfied by the longstop date, the Tidal Turbine Supply Agreement will terminate.

ARI retains all intellectual property in respect of the AR1000 turbine and grants a limited licence to CECEP Ocean Energy to use such intellectual property for the duration, and for the purposes, of the Tidal Turbine Supply Agreement.

Under the Tidal Turbine Supply Agreement, neither party is liable to the other for indirect losses and the liability of each is limited to US$5,000,000. Events of force majeure provisions excuse delays and default in performance and the Tidal Turbine Supply Agreement can be terminated by either party if an event of force majeure continues for three months.

CECEP Ocean Energy has expressly waived any right it may have to claim any state immunity.

Cooperation Agreement

On 9 December 2011 the Company and CECEP entered into a cooperation agreement (the "Cooperation Agreement"). Pursuant to the Cooperation Agreement, the Tidal Turbine Supply Agreement (above) was entered into.

Pursuant to the Cooperation Agreement the China Demonstration Project is to be established. CECEP is responsible for obtaining all necessary licences, governmental support and grid connection affairs and the Company is responsible for the provision of an AR1000 turbine and associated technical support.

If the China Demonstration Project does not succeed due to technical reasons the Cooperation Agreement may terminate, with each side bearing its respective losses. Under the Cooperation Agreement the liability of each party is limited to direct losses and further limited to US$5,000,000.

Events of force majeure provisions excuse delays and default in performance.

CECEP has expressly waived any right it may have to claim any state immunity.

9.5 ***Dongfang Electric Machinery Company Limited***

Engineering Service

Dongfang Electric Machinery Company Limited ("DFEM"), a company incorporated in the People's Republic of China, is a subsidiary of Dongfang Electric Corporation Limited, a leading engineering company based in China with experience in the manufacture of hydraulic power equipment, thermal generators and wind turbines, including associated research and development. It was identified by the Company as likely to have the engineering capabilities and experience to manufacture the Turbines and provide access to the Chinese market for the Turbines. The Company entered into negotiations with DFEM resulting in the agreements described below, which are intended to create a general non-exclusive Turbine manufacturing capability for the Company.

Strategic Agreement

On 17 January 2013 the Company and DFEM entered into a strategic agreement ("Strategic Agreement"). This Strategic Agreement followed on from: (i) a tidal current energy equipment joint development agreement and (ii) an intellectual property protection agreement each dated 21 March 2012 and described below, pursuant to which the parties agreed to collaborate to develop the tidal current energy generation equipment market. The Strategic Agreement operates outside the scope of the exclusivity agreements with Lockheed Martin for the development of tidal energy projects and the design of the AR1500 turbine by Lockheed Martin.

Pursuant to the Strategic Agreement, DFEM will perform the upgrade works for the AR1000 turbine. This AR1000 turbine is to be provided to the China Demonstration Project.

DFEM has informed the Company that it is the preferred vendor to supply tidal turbines to a tidal power project at Zhejiang Province, China which is being developed by CTGC in conjunction with the State Oceanic Administration of China. Phase 1 of this project is for 30 MW of electricity generation and is scheduled for commissioning in late 2014. DFEM and the Company have agreed to work together and use their best endeavours to secure tidal turbine supply agreements for any Turbines

which DFEM manufactures for this project. Further and detailed terms and conditions of this arrangement are still to be agreed.

Under the Strategic Agreement, DFEM agreed to enter into a contract with the Company to manufacture three AR1500 turbines for supply to the MeyGen Project. The terms for such were agreed in detail in draft documentation, but remain subject to final settlement at the time of confirmation of the order by the Company. The manufacture of these AR1500 turbines is expected to be based on the design to be produced by Lockheed Martin under the AR1500 Design Contract and is dependent on that.

Under the Strategic Agreement, DFEM agreed to enter into a warranty and service agreement with MeyGen pursuant to which DFEM will provide a five year craftsmanship warranty as well as turbine servicing support from the date of acceptance of each AR1500 turbine to the MeyGen Project. The Company and DFEM will enter into further mutual warranties in respect of the technical performance and manufacturing quality of each AR1500. This is dependent on the design to be produced by Lockheed Martin under the AR1500 Design Contract.

Pursuant to the Strategic Agreement, the Company and DFEM agreed to work together to develop the China Demonstration Project, using the AR1000 turbine.

Tidal Current Energy Equipment Joint Development Agreement

On 21 March 2012, the Company and DFEM entered into a tidal current energy equipment joint development agreement. Pursuant to this agreement the parties agreed to engage in marketing and market development for tidal current energy equipment in China. Subject to the agreement of pricing and other terms between the parties, this work is to be exclusive in China and subsist until 21 March 2017.

Intellectual Property Protection Agreement

On 21 March 2012 the Company and DFEM entered into an Intellectual Property Protection Agreement ("IPPA"). Pursuant to the IPPA the parties agreed that neither party shall acquire, as a result of working together, any right, title or interest in the other party's intellectual property, including any improvements thereto, except as expressly agreed. The parties agreed to keep the details of each other's intellectual property confidential and not to infringe upon such intellectual property.

The IPPA survives the termination of any other agreement between the parties.

9.6 ***France***

AREVA Renouvelables

On June 2013 the Company and AREVA Renouvelables SAS executed a memorandum of understanding. Pursuant to this memorandum of understanding the parties agreed to investigate opportunities to develop and pursue, subject to specific further agreement, pilot farms at tidal stream sites expected to be offered for tender by the French government in Le Raz Blanchard, Le Passage du Fromveur, Le Raz Barfleur and Paimpol-Brehat.

The parties are to enter into a more detailed framework agreement setting out their rights and obligations.

The Company shall, amongst other things:

(i) be the exclusive supplier of Turbines to such projects;

(ii) lead the tender submissions;

(iii) undertake project assessment and engineering;

(iv) secure offshore installation, construction and maintenance contracts; and

(v) pay AREVA Renouvelables SAS for Turbines which it manufactures to the Company's order.

AREVA Renouvelables SAS shall, amongst other things:

(i) assist with tender submissions;

(ii) provide manufacturing and testing facilities within France for tidal turbines; and

(iii) provide project support.

The parties are to work exclusively together until:

(i) the results of the tenders are announced;

(ii) either party decides not to pursue a bid for these projects;

(iii) the projects are determined as not being commercially viable; or

(iv) the parties, despite acting reasonably and in good faith, cannot agree the terms of a framework agreement.

The memorandum of understanding will only terminate:

(i) with the consent of the parties;

(ii) on executing the framework agreement; or

(iii) non-compliance with any applicable anti-corruption law.

Each party shall retain its own intellectual property but will licence to the other that intellectual property. Any arising intellectual property shall be jointly owned by the parties.

Each of the parties shall bear their own costs and expenses in the performance of their respective obligations under the memorandum of understanding.

9.7 ***Gujarat, India***

On 10 December 2009 the Company entered into a memorandum of understanding with Gujarat Power Corporation Limited to collaborate to investigate the establishment of tidal powered electricity generation projects in the state of Gujarat, India. Pursuant to this memorandum, the Company undertook a technical and economic feasibility study in respect of the feasibility of generating electricity from tidal flows in the Gulf of Kutch and the Gulf of Khambhat, India, in 2010 and 2011 in conjunction with Atlantis Resources (Gujarat Tidal) Pte. Limited.

Atlantis Resources (Gujarat Tidal) Pte. Limited is a joint venture company, owned 50 per cent. by the Company, 40 per cent. by Gujarat Power Corporation Limited and 10 per cent. by Perfect Mining and Energy Solutions Pte. Limited and the parties entered into a shareholders' agreement on 11 May 2011. The feasibility study described was transferred to Atlantis Resources (Gujarat Tidal) Pte. Limited as consideration for Atlantis' subscription obligations.

The feasibility study described above showed that there was significant and exploitable tidal resources in the area surveyed which should be developed by an initial 1MW reference Turbine, followed by a 50MW, then 200MW project development of an array of Turbines. Gujarat Power Corporation Limited paid the Company US$200,000 for access to the survey through Atlantis Resources (Gujarat Tidal) Pte. Limited and as its investment in the project and as consideration for its shares in Atlantis Resources (Gujarat Tidal) Pte. Limited.

If the parties agree to pursue the project, pursuant to the memorandum of understanding and the shareholders' agreement:

Atlantis shall:

(i) use its reasonable endeavours to procure investment in the project of between 20 per cent. and 30 per cent. of the estimated required capital;

(ii) be the sole supplier of Turbines and provider of management services to the project;

Gujarat Power Corporation Limited shall to:

(i) procure necessary leases, access rights, port facilities and grid connections;

(ii) procure a power purchase agreement with a tariff to achieve either an internal rate of return of at least 14.5 per cent. or such as is necessary to obtain sufficient third party funding; and

(iii) use reasonable endeavours to procure investment in the project of between 70 per cent. and 80 per cent. of the estimated required capital.

The obligation of Gujarat Power Corporation Limited to procure necessary leases, permits and consents required for the project within three months has been waived.

The exclusivity period in the memorandum of understanding has expired however the Company and Gujarat Power Corporation Limited are continuing to work together to progress the project and the terms of the memorandum of understanding. There has been no express extension of the exclusivity provisions.

The shareholders' agreement:

(i) reiterates the parties' rights and obligations under the memorandum of understanding set out above;

(ii) states that there is no obligation to provide any further funding;

(iii) allows for seven directors to be appointed to the joint venture company; three appointed by the Company, three appointed by Gujarat Power Corporation Limited and one appointed by Perfect Mining and Energy Solutions Pte. Limited;

(iv) contains "drag along" and "tag along" rights and obligations for any share transfers;

(v) allows for shares in the joint venture company to be subject to security; and

(vi) requires all the shareholders in the joint venture company to agree to the joint venture company entering into any meaningful business activity other than holding the study.

In February 2013 Gujarat Power Corporation Limited received a sponsored marine environmental impact assessment in the Gulf of Kutch at Mandvi undertaken by the National Institute of Oceanography, Mumbai, India. The Company continues to work with Gujarat Power Corporation Limited to obtain seabed leases, cable corridors, cable landing rights, access to port facilities and vessels, grid connections and such other permits and consents as may be required to develop the project. As at the date of this document these have not been provided to the Company nor can the Company confirm if and when these will be provided. To the extent such are legal, valid, binding and enforceable, the Company does not at the date of this document have any rights in them or to the interests granted pursuant to them. The Company and Gujarat Power Corporation Limited have not formally agreed as at the date of this document to develop the project.

9.8 ***Energy Technologies Institute ("ETI")***

On 30 May 2012, the Company's wholly owned subsidiary, Atlantis Operations (UK) Limited, entered into a tidal energy converter demonstrator project contract with ETI ("ETI Contract"). ETI is a public-private partnership between global energy and engineering companies and the government of the United Kingdom, whose role is to bring together engineering projects to accelerate the development of affordable, secure and sustainable technologies to address the United Kingdom's long term emissions reductions targets.

ETI has provided funding to Atlantis Operations (UK) Limited as further described below.

Pursuant to the ETI Contract, the Company is undertaking a four phase development of tidal electricity generation. Phase 1A was the assessment of various system configurations and potential technology choices to identify the best options to achieve cost effective energy reduction targets between June 2012 and February 2013. Phase 1B involved the development of innovations and architecture for a demonstration project between March 2013 and September 2013. Phase 2 and phase 3 are the detailed design and development of such systems and deployment in realistic offshore environments for demonstration.

Atlantis Operations (UK) Limited reported the developments, in pre-agreed milestones, to ETI, pursuant to which the funding was provided. Under the ETI Contract Atlantis Operations (UK) Limited

has given certain indemnities to ETI which are, to the extent reasonably possible, capped at £5,000,000 and contain carve outs for breaches, wilful default or negligent acts by ETI. There is no liability under the ETI Contract for indirect losses. Under the ETI Contract, the limit on the liability of Atlantis Operations (UK) Limited to ETI (and vice versa) other than for indemnification is limited to the amounts payable under the ETI Contract. There is a conduct of claim provision for any indemnity claim.

The ETI Contract can be terminated for work stoppages without the consent of ETI, unremedied material breaches, continuing events of force majeure, certain insolvency events and a change of control of Atlantis Operations (UK) Limited or the Company.

The Company has granted ETI limited licences to use its Intellectual Property for the project under the ETI Contract. The relevant parties retain ownership of their respective pre-existing intellectual property. To the extent that intellectual property arises or is created during the performance of the ETI Contract, such intellectual property would be variously assigned to the Company, ETI or the relevant sub-contractors. Licensing of such arising intellectual property is subject to a royalty-bearing regime to be agreed on terms which are fair and reasonable. The Company is to grant necessary licences to the ETI and its associated parties, to the extent they are entitled to intellectual property from the ETI Contract, such licences to be on appropriate commercial terms which are fair and reasonable. The parties entitled to arising intellectual property are obliged to take steps to protect and perfect such intellectual property.

Pursuant to the ETI Contract, described in clause 9.8, the Company received consulting fees of £3,388,000 for phases 1A and 1B, including £800,000 (plus VAT) at the end of October 2013. The final payment of £12,000 is expected to be received in early 2014.

For phases 2 and 3 Atlantis expects to receive further amounts of about £10,000,000 for design works and for capital investment into the proposed demonstration project.

9.9 ***Atlantis Brands***

On 5 October 2007 the Company entered into a branding rights agreement with Atlantis Brands Corporation Pte Limited. Atlantis Brands Corporation Pte Limited is 4 per cent. owned by the Company and 96 per cent. owned by Strateq Consulting Pte. Limited. Kim Manley, a former director of the Company, is a director of Strateq Consulting Pte Limited and holds indirectly approximately 40 per cent. of its issued share capital.

Pursuant to the branding rights agreement, the Company has granted to Atlantis Brands Corporation Pte Limited, in consideration for the payment of S$200,000 by Atlantis Brands Corporation Pte Limited, a world-wide, perpetual, non-transferable and exclusive right and licence to use the names "Atlantis", "Aquanator" and "Solon" (and other names no longer relevant): (i) other than as trade marks in class 7, class 37 and class 40 (being the classes under which the Company has registered these names as trademarks) and (ii) other than in relation to any other power generation class of trade mark. Atlantis Brands Corporation Pte Limited is also expressly excluded from using these names in respect of terms being used which are similar to the Company's technology manufacture, use or deployment of its technology or other energy generation.

Pursuant to the branding rights agreement, to the extent that Atlantis Brands Corporation Pte Limited uses the aforementioned names it must use its best endeavours to use such names consistently with the image and values or the Company and not in a way that might devalue or denigrate the Company.

Atlantis Brands Corporation Pte Limited must pay the Company a royalty fee of not less than US$5,000 per annum or, if greater, 5 per cent. of its net profit before tax per annum for its rights under the branding rights agreement.

Pursuant to the branding rights agreement, the agreement may be terminated by either party:

(i) for unremedied material breaches;

(ii) in the event of certain insolvency events; or

(iii) where the other party being prevented from performing a material obligation under the agreement by a relevant law.

Upon termination, Atlantis Brands Corporation Pte. Limited must cease using the names.

Each of the parties has agreed to indemnify the other for direct losses from its negligence or wilful misconduct in using the names up to a maximum aggregate amount of S$100,000.

The agreement is governed by Singapore law and subject to the non-exclusive jurisdiction of the Singapore courts.

9.10 ***Morgan Stanley Renewables***

Relationship Agreement dated 19 February 2014 (the "Relationship Agreement")

(a) *Lock-In Period*

On 19 February 2014 the Company, N+1 Singer and Morgan Stanley Renewables entered into the Relationship Agreement pursuant to which Morgan Stanley Renewables undertakes in respect of an aggregate of 30,787,863 Ordinary Shares representing 40.1 per cent. of the Enlarged Share Capital (subject to certain limited exceptions) not to effect, and to procure that certain other connected persons shall not effect, any of the following (each a "Disposal"):

(i) the disposal of any Ordinary Shares following Admission (or any options, warrants or other rights to subscribe for or purchase Ordinary Shares and any securities which carry rights of conversion into, rights of exchange or subscription for or rights to purchase or acquire Ordinary Shares) (each a "Relevant Security"); or

(ii) the pledging, charging, mortgaging or otherwise creating or permitting to subsist any security interest over a Relevant Security or over any interest in a Relevant Security; or

(iii) agreeing, offering or publicly announcing an intention to do anything detailed in (i) and (ii) above,

prior to the first anniversary of the date of Admission becoming effective ("Lock-In Period"), subject to certain limited exceptions, which includes the disposal by Morgan Stanley Renewables or its affiliates of any rights under any convertible loan agreements which are in place at Admission or any security interest in any Relevant Security which is held by Morgan Stanley Renewables or its affiliates at Admission or any disposal of any Relevant Security acquired by enforcement of such security interest. Ordinary Shares issued to Morgan Stanley Renewables in respect of the Placing will not be subject to the lock-in arrangements.

(b) *Orderly Market Period*

Under the Relationship Agreement, in the period commencing on the expiry of the Lock-in Period and ending on the second anniversary of the date of Admission becoming effective, Morgan Stanley Renewables undertakes not to effect any Disposal (subject to certain limited exceptions, including those which are set out above) unless:

(i) N+1 Singer and the Company are notified in writing in advance of the proposed Disposal, within a prescribed period; and

(ii) at N+1 Singer's discretion, the Disposal is effected through the Company's brokers and in such manner they may reasonably require with a view to the maintenance of an orderly market in the Ordinary Shares provided that, if the Company's brokers are unable to arrange for the Disposal at a price which is acceptable to Morgan Stanley Renewables within a prescribed period, the Disposal may instead be effected through a third party broker but only if it complies with certain criteria.

Ordinary Shares issued to Morgan Stanley Renewables in respect of the Placing will be subject to the orderly market provisions.

The Relationship Agreement stipulates that the Company will not take any corporate action including, without limitation, any reduction of capital or purchase or redemption of its own share

capital which would have the effect of increasing the aggregate holding of voting rights in the Company of Morgan Stanley Renewables and its affiliates beyond 42.5 per cent. of the voting rights, or give rise to any obligation of Morgan Stanley Renewables or its affiliates to make any offer for shares in the Company, without the prior written consent of Morgan Stanley Renewables.

(c) *Other Dealing Restrictions*

The Relationship Agreement confirms that its provisions are to be without prejudice to restrictions on dealings in securities under any applicable law or regulation.

(d) *Independence Undertaking*

Pursuant to the Relationship Agreement, whenever Morgan Stanley Renewables or its connected persons hold in aggregate at least 15 per cent. of the Ordinary Shares, Morgan Stanley Renewables shall not, and it shall procure that none of its connected persons shall:

(i) propose or vote on any resolution to amend the Articles which would be contrary to the principle of independence of the Company;

(ii) vote on any resolution of the Company in a manner contrary to the Relationship Agreement;

(iii) prevent any member of the Group from carrying on its business independently of Morgan Stanley Renewables or any of its connected persons; and

(iv) prejudice the Company's status as an AIM quoted Company or its compliance with the AIM Rules and any other law or regulation.

The Relationship Agreement states that Morgan Stanley Renewables shall, and it shall procure that its connected persons shall, insofar as they are able, exercise voting rights in the Company to procure that:

(i) the provisions of the Articles and the Relationship Agreement are complied with;

(ii) the Company is managed in accordance with the principles of good governance set out in the Corporate Governance Code, published by the Quoted Companies Alliance in May 2013 and any internal corporate governance framework adopted by the Company from time to time, in each case save as previously agreed in writing by a majority of the Independent Directors; and

(iii) any transaction, agreement or arrangement between a member of the Group and any Controlling Shareholder will be made on, in the Company's opinion, normal commercial terms.

(e) *Board Composition*

The Relationship Agreement states that whenever Morgan Stanley Renewables or its connected persons hold, in aggregate, at least 15 per cent. of the Ordinary Shares, Morgan Stanley Renewables shall be entitled to appoint one non-executive director to the Board by written notice (the "MS Director"). The MS Director may be removed from the Board by written notice from Morgan Stanley Renewables, such notice constituting the MS Director's offer to resign either immediately or on the date specified on the notice, without compensation for loss of office.

Morgan Stanley Renewables agrees that a MS Director shall not be involved in or engaged with any undertaking whose principal business involves the development of tidal power technologies or projects anywhere in the world (a "Competing Business"), which is deemed by a majority of directors to be a Competing Business.

The Relationship Agreement states that, if at any time after Admission Morgan Stanley Renewables or its connected persons cease to hold, in aggregate, 15 per cent. or more of the Ordinary Shares in the Company, the Company may serve upon Morgan Stanley Renewables a notice in respect of the MS Director requiring Morgan Stanley Renewables to procure the resignation of such MS Director ("Resignation Notice").

The Relationship Agreement states that on receipt of a Resignation Notice, Morgan Stanley Renewables must ensure, to the extent legally possible, that the relevant MS Director resigns immediately without compensation or seeking any claim against the Company. If the MS Director refuses to the resign, the parties shall use reasonable endeavours to ensure the removal of the MS Director via a special notice and ordinary resolution pursuant to section 152 of the Act.

The Relationship Agreement states that the terms of appointment of any MS Director must provide that information he receives (i) in his capacity as director of the Company regarding a business opportunity that may of interest to the Group shall be kept confidential; and (ii) in a capacity other than as a director for the Company which imposes on him a duty of confidentiality shall not impose on him a duty to disclose such information to the Company or to the Board.

(f) *Transactions*

The Relationship Agreement states that transactions between members of the Company's group and Morgan Stanley Renewables or its connected persons shall be on normal commercial terms, and in particular:

(i) there shall be no new agreements between any such parties unless as permitted by a majority of the directors of the Company;

(ii) all terms of any agreement between an member of the Company's group and Morgan Stanley Renewables or its connected persons shall be enforced unless a majority of the directors of the Company determine otherwise; and

(iii) if a matter arises which in the opinion of a majority of directors of the Company gives rise to a conflict of interest between a member of the Company's group and Morgan Stanley Renewables or its connected persons, only the directors of the Company may vote in relation to the Directors taking further in relation to that matter.

(g) *Termination*

Subject to certain on-going provisions relating to information and confidentiality, the Relationship Agreement shall terminate upon the earlier of (i) Morgan Stanley Renewables or its connected persons ceasing to own 15 per cent. or more of the voting rights attaching to the Ordinary Shares; and (ii) the Ordinary Shares ceasing to be admitted to trading on AIM.

(h) *Governing Law*

The Relationship Agreement shall be governed by and construed in accordance with English law.

9.11 ***Placing Agreement***

On 19 February 2014 the Company entered into the Placing Agreement with the certain of the Directors ("Warrantor Directors") and N+1 Singer pursuant to which N+1 Singer has agreed, subject to certain conditions, to act as agent for the Company and to use its reasonable endeavours to procure placees to subscribe for the Placing Shares at the Placing Price.

The Placing Agreement is conditional upon, *inter alia*, Admission occurring on or before 8.00 a.m. on 20 February 2014 (or such later date as the Company and N+1 Singer may agree, being not later than 8.00 a.m. on 7 March 2014). The Placing Agreement contains warranties from the Company, and the Warrantor Directors in favour of N+1 Singer in relation to, *inter alia*, the accuracy of the information in this document and other matters relating to the Group and its business. In addition, the Company has agreed to indemnify N+1 Singer in respect of certain liabilities it may incur in respect of the Placing. N+1 Singer have the right to terminate the Placing Agreement in certain circumstances prior to Admission, in particular, in the event of a breach of the warranties.

Under the Placing Agreement, and subject to it becoming unconditional and not being terminated in accordance with its terms, the Company has agreed to pay N+1 Singer: (i) a corporate finance fee and (ii) a commission of 5 per cent. on the aggregate value at the Placing Price of the Placing Shares.

Additionally, the Company has agreed to pay all of N+1 Singer's costs and expenses (including any applicable VAT) of the Placing.

9.12 ***Lock-in and Orderly Market Deed***

On 19 February 2014 the Company, N+1 Singer and certain shareholders of the Company (the "Covenantors") entered into a Lock-in and Orderly Market Deed (the "Lock-in Deed").

The Lock-in Deed is conditional upon, and the provisions of the Lock-in Deed shall take effect from, Admission.

Other than as set out in the exceptions to the lock-in, each Covenantor severally covenants that it shall not, and will procure that its connected persons shall not, dispose of its Ordinary Shares in the 12 month period from Admission (the "First Restricted Period").

The Covenantors will not and shall procure that their connected persons shall use their best endeavours to ensure that no connected person in the year following the end of the First Restricted Period, will dispose of the Ordinary Shares through any broker other than N+1 Singer without the prior written consent of N+1 Singer (unless the Company's broker is no longer N+1 Singer, in which case the disposal shall be through this new broker).

The Lock-in Deed provides for certain exceptions to the restrictions set out above.

9,337,512 Ordinary Shares are the subject of the Lock-in Deed representing 12.2 per cent. of the Enlarged Share Capital.

9.13 ***Nominated Advisor and Broker Agreement***

On 15 August 2013 the Company and N+1 Singer entered into a nominated adviser and broker agreement pursuant to which N+1 Singer was appointed as the Company's nominated adviser and broker in connection with the Admission for the purposes of the AIM Rules for Companies. The Company has agreed to pay N+1 Singer those fees and commissions set out in paragraph 9.11 of this Part VII. After Admission, in relation to its ongoing role as nominated adviser and broker N+1 Singer shall receive a fee of £60,000 per annum.

The agreement contains undertakings from the Company to N+1 Singer regarding, *inter alia*, compliance with the AIM Rules for Companies. The agreement may be terminated by either party by giving three months written notice to the other side and through other specified events.

9.14 ***Goldman Sachs***

In May 2011 the Company engaged Goldman Sachs International as its exclusive financial adviser in connection with a possible sale of all or a part of the Company. The Company agreed to pay Goldman Sachs International a transaction fee if there was a sale of the Company or a sale by the Company of a substantial part of its subsidiaries or assets.

The fees payable would be 2.5 per cent. of the aggregate consideration paid, but not less than US$3,000,000, plus 1 per cent. of any consideration exceeding US$175 million, 2 per cent. of any consideration exceeding US$200 million, 3 per cent. of any consideration exceeding US$250 million. If less than 50 per cent. of the shares or assets of the Company were sold, the fee was to be mutually agreed.

The agreement is terminable by notice in writing at any time by either party. Goldman Sachs International remains entitled to a fee for any sale entered into at any time prior to the expiration of 12 months after termination of the agreement if the purchaser was on a list of prospective purchasers provided by Goldman Sachs International to the Company during the engagement.

9.15 ***Shareholders' Agreement***

The shareholders of the Company entered into the Shareholders' Agreement to govern the relationship between them and to regulate various other matters in relation to the Group. The parties to the Shareholders' Agreement have agreed that it will terminate and cease to be of effect on Admission.

10. Intellectual Property

10.1 The Company has 12 patents (or patents pending) which it considers to be material to its business relating to the design of the turbines and key components thereof. These have been submitted for filing as the Company and its advisers considered to be commercially appropriate from time to time. Of these 12 patents:

(a) one was filed and granted in 2004 in six jurisdictions;

(b) one in 2008 in nine jurisdictions with two granted, six pending and one lapsed;

(c) one in 2009 in eight jurisdictions with one granted and seven pending;

(d) one in 2009 in eight jurisdictions with three granted and six pending;

(e) four in 2010 in nine jurisdictions which are pending;

(f) two in 2010 in nine jurisdictions with one granted and eight pending;

(g) one in 2011 in nine jurisdictions with one granted and eight pending; and

(h) one in 2012 in nine jurisdictions with one granted and eight pending.

10.2 The jurisdictions of the filings since 2010 have been Australia, Canada, Chile, China, Europe, India, Japan, South Korea and USA.

10.3 The Company has filed applications to register the trade marks including "Atlantis", "Atlantis Device", "Aquanator", "Aquanator & Device" and/or "Nereus" as it considered appropriate across a total of 47 jurisdictions according to the requirements of those jurisdictions.

10.4 The classes of trade marks against which those names were registered included, as such varies from jurisdiction to jurisdiction:

(a) class 7 (Generators including underwater electricity generators and components thereof; installations for generating power from natural sources, mobile electrical power generators, turbines for power generation, turbine blades for power generation, alternators; dynamos; electric motors; pumps; underwater machines and components thereof; machine tools);

(b) class 37 (Advisory and consultancy services relating to the installation of generators; installation of electricity generators; maintenance and repair of generating installations); and

(c) class 40 (Rental of electricity generators; generating of electricity; treatment of waste material from generating operations).

10.5 The Company and its key employees possess significant know-how which is important for its business.

10.6 All employees, consultants and contractors of the Group who may be involved in work where intellectual property may be created or existing intellectual property improved are required to execute an intellectual property assignment agreement with the employer company. This agreement acknowledges that the employer company will own all right, title and interest in any intellectual property and assigns all such intellectual property to the employer company, including a further assurance obligation. The only employer company other than the Company is Atlantis Operations (UK) Limited which has entered into a deed of assignment with the Company to assign all its intellectual property to the Company.

11. Material Licences and Regulatory Issues

11.1 ***MeyGen***

(a) The Company has the following material licences, consents and permissions to commence Phase 1 of the development of the MeyGen Project, which are:

(i) consent under section 36 of the Electricity Act 1989 for Phase 1;

(ii) planning permission under section 28 of The Town and Country Planning (Scotland) Act 1997; and

(iii) an assessment under the Council Directive 92/43/EEC(c) on the Conservation of Natural Habitats and of Wild Fauna and Flora.

(b) MeyGen will need the following material offshore licences, consents and permissions relating to the commencement of Phase 1 of the MeyGen Project or a waiver thereof from TCE:

(i) Marine licence for construction works under section 25 of the Marine (Scotland) Act 2010, a draft of which MeyGen has provided to the relevant Scottish government authority for approval with the consent under section 36 of the Electricity Act 1989;

(ii) a Decommissioning Programme approved under the Energy Act 2004; and

(iii) consent under section 33 of the Environmental Protection Act 1990.

(c) MeyGen will need the following material onshore licences, consents and permissions relating to the commencement of Phase 1 of the MeyGen Project:

(i) a road bond in respect of the planning permission under section 28 of the Town and Country Planning (Scotland) Act 1997;

(ii) a European protected species licence under the Conservation (Natural Habitats, &c.) Regulations 1994; and

(iii) a licence under the Water Environment (Controlled Activities) Scotland Regulations 2011.

(d) MeyGen is exploring opportunities to alter and extend existing licences, consents and permissions to include an option to bring export cables onshore via a beach landing rather than the currently licensed method of using horizontally directionally drilled bores.

(e) Further licences, consents and permissions will be required as the MeyGen Project develops.

Gujarat Project

Gujarat Power Corporation Limited is responsible under the memorandum of understanding and the shareholders' agreement with the Company for obtaining all necessary licences, consents and permissions for the Gujarat Project. As at the date of this document these licences, consents and permissions have not been provided to the Company nor can the Company confirm if and when they will be obtained.

China Demonstration Project

CECEP is responsible under the cooperation agreement with the Company for obtaining all necessary licences, consents and permissions for the China Demonstration Project. As at the date of this document these have not been obtained.

FORCE Project

As at the date of this document the Company has not obtained the licences, consents and permissions needed for the FORCE Project. The following are entities from whom the likely material licences, consents and permissions which the Company will require in order to undertake the FORCE Project, which must be obtained under various Canadian statutory provisions:

(a) the Canadian Environmental Assessment Agency;

(b) the Department of Fisheries and Oceans;

(c) Transport Canada;

(d) Environment Canada;

(e) Nova Scotia Registry of Joint Stock Companies;

(f) Nova Scotia Environment;

(g) Department of Natural Resources;

(h) FORCE;

(i) Minister of Energy; and

(j) Nova Scotia Power Inc.

The Company proposes to work with FORCE to obtain these licences, consents and permissions.

12. Financing

12.1 *Shareholder Loans*

The Company has 11 loans dated between August 2011 and June 2012 from 11 Shareholders in the aggregate principal amount of S$15,130,477. Conditional upon Admission, nine of these loans together with all interest that would be payable under each loan until the respective repayment date thereof will be converted into Ordinary Shares at the Placing Price, less a discount of 10 per cent., on the date of Admission in full repayment thereof.

The Company has a loan from one Shareholder of £270,791.20. Conditional upon Admission, this loan together with all interest that would be payable until the repayment date thereof, will be converted into Ordinary Shares at the Placing Price, less a discount of 10 per cent., on the date of Admission in full repayment thereof.

The Company has two loans, the first of S$620,000 and the second of US$100,000 from two individuals. Conditional upon Admission, these loans together with all interest due thereunder will be converted into Ordinary Shares at the Placing Price less a discount of ten per cent. on the date of Admission in full repayment thereof.

The two loans referred to above which will not convert on Admission are:

(i) a loan of S$1,000,000 from EDB Investments Pte Ltd, with an interest rate of 15 per cent., with the interest capitalised annually until the repayment date of August 2014; and

(ii) a loan of S$100,000 from Austower Pty Ltd, with an interest rate of 15 per cent., with the interest capitalised annually until the repayment date of August 2014.

12.2 *Convertible Loans*

The Company has a further nine convertible loans, made during October, November and December 2013 and January 2014 in an aggregate principal amount of £1,961,469. Conditional upon Admission, the obligations of the Company to repay these loans shall be discharged in full by issuing to the lenders such number of Ordinary Shares, at a price which is discounted by 10 per cent. to the Placing Price, as can be acquired by each loan and all interest due thereunder together with a prepayment premium of six months' interest.

12.3 *MeyGen Financial Support*

MeyGen is a wholly owned subsidiary of the Company, 10 per cent. directly and 90 per cent. indirectly through its wholly owned subsidiary Atlantis Projects Pte Limited. In respect of the MeyGen Project, the Company's bank, HSBC Bank PLC, has provided bank guarantees to support letters of credit issued by ING Belgium SA to preserve and secure three grid connection agreements and to support the obligations of MeyGen under these connection agreements. These letters of credit have been issued to Scottish Hydro Electric Power Distribution plc for £219,440 and National Grid Electricity Transmission plc for £598,130. The bank guarantees have been cash collateralised by the Company, through an Atlantis Operations (UK) Limited account with HSBC Bank PLC. Therefore the Group has a total of £817,570 in cash counter-indemnifying the bank's guarantee obligations.

12.4 ***Sustainable Development Technology Canada Grant***

The Canada Foundation for Sustainable Development Technology ("SDTC") is a not for profit foundation constituted for the purpose of fostering the development and adoption of technologies that contribute to mitigating, substituting or sequestering greenhouse gas emissions and reducing air pollution pursuant to Canadian legislation. In 2012 the Company, in conjunction with Lockheed Martin and Irving Shipbuilding Inc., applied to the SDTC for funding support for the in-stream tidal energy demonstration project at the tidal berth of FORCE in Nova Scotia.

On 21 June 2012 the SDTC offered to the Company's wholly owned subsidiary, Atlantis Operations (Canada) Limited, a grant of up to C$5,000,000 (the "SDTC Grant"). The SDTC Grant can only be applied towards "eligible project costs" and for "eligible projects". "Eligible projects" includes renewable energy projects which are primarily carried on in Canada.

The award of the SDTC Grant is conditional upon a number of things. This includes further due diligence by the SDTC on the Group and in particular Atlantis Operations (Canada) Limited and the SDTC entering into a contribution agreement pursuant to which the Company agrees to contribute not less than 25 per cent. of the "eligible project costs". The Company will not enter into the contribution agreement until the conclusion of a successful initial public offering. The payment of these funds is dependent on the Company achieving milestones to be agreed with the SDTC. The funding is repayable upon certain events including material default by Atlantis Operations (Canada) Limited, commercial use of the assets or breach of the funding limits summarised above.

The Company must make detailed disclosures and reports to the SDTC in relation to the project for a prescribed period, which is expected to be up to about three years. The SDTC is entitled to fund competing projects. The SDTC shall have no rights to any intellectual property used, created or enhanced in the FORCE project, except that the SDTC may publish the results of the project and, if Atlantis Operations (Canada) Limited is in material default of the contribution agreement, it must transfer to the SDTC any intellectual property created in connection with the FORCE project and grant any required licence to the SDTC to use the Company's own intellectual property.

The award of the SDTC Grant is conditional upon Atlantis Operations (Canada) Limited providing indemnities to the SDTC, which except for certain indemnities against claims for intellectual property breaches, are limited to the amount of the funding. The SDTC is entitled to terminate the funding upon the occurrence of certain events including misrepresentations and unremedied material breaches.

On 5 November 2013 and again on 24 January 2014 the SDTC confirmed in letters to the Company that it remained supportive of the FORCE project and that the period within which the funding offer could be accepted was extended to beyond 21 February 2014, subject to the Company, by this date, having an advanced draft consortium agreement with Lockheed Martin and if confirming it will enter into the contribution agreement.

12.5 ***Department of Energy & Climate Change Grant***

On 9 January 2013, MeyGen received a conditional award of a grant from the MEAD fund administered by the Department of Energy & Climate Change (the "DECC Grant"). The DECC Grant is up to £10,000,000. The DECC Grant is for the siting of three Andritz Hammerfest Hydro turbines at the MeyGen project. The award of this grant is still subject to the negotiation and settlement of commercial terms, including the agreement of milestones and state aid approval from the European Commission.

12.6 ***Renewable Energy Investment Fund***

The Company entered into a loan agreement on 12 February 2014 amongst itself (as guarantor), ARC Ventures (UK) Limited (as borrower) and Scottish Enterprise as administrator for the Renewable Energy Investment Fund (as lender) for a loan of £2,000,000 to establish and develop a global engineering hub in Edinburgh for the development of tidal energy generation. £500,000 was drawn down on 13 February 2014. The loan is a five year term loan with an interest rate of 12 per cent. per annum with the interest capitalised and repayable with the principal at the end of the term. Admission will trigger a 10 per cent. repayment premium and certain other events will increase this by a further 2

per cent. or 5 per cent. The loan is secured by a bond and floating charge over all assets of ARC Ventures (UK) Limited. The loan agreement and the security is governed by the laws of Scotland.

Under the Loan Agreement with Scottish Enterprise, the Company has agreed to provide Scottish Enterprise with observation rights at meetings of the Board subject to, after Admission, Scottish Enterprise and its observers entering into an observation rights agreement. Pursuant to this, Scottish Enterprise and its nominated observers, will be entitled to attend Board meetings solely in an observer capacity.

Scottish Enterprise and the observers acknowledge that they will receive confidential information. They provide undertakings in relation to the preservation and maintenance of the confidential information and undertake not to use the information other than as contemplated or permitted by the loan agreement.

All confidential information will remain the property of the Company and Scottish Enterprise and the observers must destroy any confidential information after repayment of the loan on the request of the Company.

Scottish Enterprise and the observers agree that the right of the Board to discuss privately matters relating to the loan agreement is preserved and that, where such matters are tabled for discussion at a board meeting of the Company, neither Scottish Enterprise nor the observers shall have rights to attend such part of a Board meeting or see parts of the minutes relating to such.

The observation rights agreement will be governed by Scots law and subject to the non-exclusive jurisdiction of the Scottish courts.

12.7 ***Clearwater Grant***

The Directorate-General for Energy of the European Commission (Directorate C – Renewables, Research and Innovation, Energy Efficiency) wrote to Atlantis Operations (UK) Limited 29 December 2013 confirming the award of a European Union grant, known as Clearwater, to Atlantis Operations (UK) Limited. This grant is for up to €7,294,905, of estimated total project costs of €22,083,336, towards the development of the MeyGen Project, to design, build, install and operate an open water 4.5MW tidal energy farm in the Inner Sound in the Pentland Firth, Scotland, further developing the AR1500.

Payments under this grant are subject to general conditions applicable to grants made by the European Union. These include reporting obligations, costs being eligible costs, audit rights and termination rights for circumstances including non-performance, breach of law, breach of grant agreement and insolvency.

The initial tranche of this funding, €2,320,895, was received in February 2014 and deposited with the Company's bank, HSBC Bank Plc, who will issue a guarantee to the European Commission, secured by this funding. This funding will be released on performance by Atlantis Operations (UK) Limited of its obligations under the grant.

12.8 ***Secured Loan***

On 5 February 2014 the Company borrowed an A$400,000 loan from an existing indirect investor in the Company, the James McKnoulty Family Trust. The interest rate on this loan is 20 per cent. per annum. This loan was secured over the assets of the Company by way of a floating charge. The loan is repayable after 12 months or, if earlier, within 30 business days of Admission, together with all interest which would have been payable up until the 12 months' repayment date.

13. Employees

The Group employs 25 full-time employees. 9 are employed in Singapore and 16 are employed in the UK. In addition, 9 people are engaged as contractors to the Group.

14. Working Capital

The Directors are of the opinion, having made due and careful enquiry that, after taking account of its loan facilities and the estimated net proceeds of the Placing receivable by the Company, the Group will have sufficient working capital for its present requirements, that is for at least 12 months from Admission.

15. Significant Change

Save as disclosed in this document there has been no significant change in the financial or trading position of the Company or of MeyGen since 30 June 2013, being the date to which the last financial information of the Company and of MeyGen, contained in Part IV and Part V, respectively of this document was prepared.

16. Subsidiaries

16.1 The Company acts as the holding company of the Group. As at the date of this document the Company has the following subsidiaries set out in the table below:

Company Name	*Principal Activity*	*Country of Incorporation*	*Percentage ownership*	*Proportion of voting power*
ARC Operations Pty Limited	Provision of operational services to the group	Australia	100	100
Atlantis Asset Management Pte Limited	Dormant	Singapore	100	100
Atlantis Energy Pte Limited	Dormant	Singapore	100	100
Atlantis Projects Pte Limited	Holding company of MeyGen Limited	Singapore	100	100
Atlantis Resources International Pte Limited	Counterparty to Tidal Turbine Supply Agreement with CECEP	Singapore	100	100
Atlantis Licensing Pte Limited	Dormant	Singapore	100	100
ARC Operations (Singapore) Pte Limited	Provision of operational services to the group	Singapore	100	100
ARC Ventures (UK) Limited	Development of an engineering hub in Edinburgh	Scotland	100	100
Atlantis Resources (Gujarat Tidal) Pte Limited	Holds tidal survey asset for the Gujarat Project	Singapore	50	50
Atlantis Brands Corporation Pte. Limited	Holds certain branding rights	Singapore	4	4
Atlantis Operations (Canada) Limited	Development of Canada Project	Canada	100	100
Current Resources (Cayman) Limited	Provision of operational and administrative services to the group	Cayman Islands	100	100
MeyGen Limited	Development of MeyGen project	Scotland	100 (held indirectly through Atlantis Projects Pte Limited)	100

16.2 Current Resources (Cayman) Limited has the following subsidiary, the details of which are set out in the table below:

Company Name	*Principal Activity*	*Country of Incorporation*	*Percentage ownership*	*Proportion of voting power*
Atlantis Operations (UK) Limited	Provision of operational services to the group	England	100	100

16.3 Except for Atlantis Brands Corporation Pte. Limited and Atlantis Resources (Gujarat Tidal) Pte. Limited, all the entities in the Group are 100 per cent. owned, directly or indirectly, by the Company. The Company owns 4 per cent. of the issued share capital in Atlantis Brands Corporation Pte. Limited and 50 per cent. of the issued share capital in Atlantis Resources (Gujarat Tidal) Pte. Limited.

16.4 The remaining 96 per cent. of the issued share capital in Atlantis Brands Corporation Pte. Limited is held by Strateq Consulting Pte. Limited. Kim Manley, a former director of Atlantis, is a director of Strateq Consulting Pte Limited and holds indirectly approximately 40 per cent. of its issued share capital.

16.5 The remaining 50 per cent. of the issued share capital in Atlantis Resources (Gujarat Tidal) Pte. Limited is held by Gujarat Power Corporation Limited (40 per cent.) and Perfect Mining and Energy Solutions Pte. Limited (10 per cent.).

17. Related Party Transactions

17.1 The Group has entered into the following transactions with related parties during the period covered by the financial information set out in Parts IV and V of this document and up to the date of this document:

(i) The Company has entered into a related party arrangement with Kim Manley, a former director of the Company, by virtue of his control (as sole shareholder) of Superfish Holdings Pty Limited which is the Company's landlord under the tenancy arrangements for the lease of its Sydney office at 214/6 Cowper Wharf Road, Woolloomooloo, NSW 2011, Australia. Under the arrangement, the Company pays Superfish Holdings Pty Limited AUD4,704 per month, which covers rent and utilities.

(ii) The Company entered into a related party arrangement with Duncan Black by virtue of his control (as sole shareholder) of Lyon Group (Singapore) Pte. Limited which is the Company's landlord under the lease arrangement entered into in December 2012 for the lease of its Singapore office at 65 Niven Road, Republic of Singapore, 228414. The lease expired on 20 December 2013, and the Company entered into a direct agreement with the property owner for the same premises. The aggregate rental paid over the 12 month period ending 20 December 2013 was S$101,250.

(iii) Atlantis Brands Corporation Pte. Limited ("Atlantis Brands") owns certain non-turbine brand rights used by the Group. The Company owns 4 per cent. of Atlantis Brands and the remaining 96 per cent. is owned by Strateq Consulting Pte. Limited. Kim Manley, a former director of Atlantis, is a director of Strateq Consulting Pte Limited and holds indirectly approximately 40 per cent. of its issued share capital. Atlantis Brands paid S$200,000 for the rights under this agreement and was to pay a royalty fee as described at paragraph 9.9 of Part VII of this document. However, no royalty fees have been paid by Atlantis Brands under this agreement in the past three years.

(iv) The Company has received convertible loans of £200,000 from John Neill, £100,000 from Ian MacDonald and £50,000 from Michael Lloyd, each being a non-executive director of the Company and as further described in paragraph 12.2 of this Part VII.

(v) Further details of transactions with related parties are set out on pages 154 and 171 of Part IV, pages 189 and 198 of Part V of this document, and pages 211 and 237 of Part VII of this document.

17.2 Save as disclosed herein, and, as far as the Directors are aware, there have been and are currently no agreements or other arrangements between members of the Group and individuals or entities that may be deemed to be related parties under the AIM Rules.

18. Litigation

18.1 Neither the Company nor any other member of the Group is or has been involved in any governmental, legal or arbitration proceedings (including any such proceedings which are threatened or pending of which the Company is aware) which may have, or have had during the twelve months prior to the date of this document a significant effect on the Company and/or the financial position or profitability of the Group.

19. Taxation

19.1 ***UK Taxation***

The following comments are intended only as a general guide to the position under current UK tax law and what is understood to be the current practice of HM Revenue & Customs (which may change in the future, including with retrospective effect) and may not apply to certain classes of investors, such as dealers in securities, those who acquire (or are treated as acquiring) their Ordinary Shares by reason of an office or employment, insurance companies, collective investment schemes and trusts. These comments only apply to Shareholders who beneficially hold their Ordinary Shares as an investment (unless expressly stated otherwise) and do not consider the position of individual shareholders who are resident in the UK but domiciled elsewhere. **Those in doubt as to their tax position are strongly recommended to consult their own professional tax adviser**.

For the purposes of the sections on the taxation of dividends, the taxation of capital gains and inheritance tax below, references to Ordinary Shares shall include Depositary Interests and references to Shareholders shall include holders of Depositary Interests.

Taxation of Dividends

(i) *The Company*

The Company should not be required to withhold UK tax at source on any dividends it pays to its Shareholders in respect of the Ordinary Shares.

(ii) *UK resident Shareholders*

Individuals resident in the UK should be taxed on any dividends paid in respect of their Ordinary Shares on the following basis:

(a) UK resident individuals are generally liable to UK income tax on the aggregate amount of any dividend received and a non-repayable tax credit equal to one-ninth of the dividend received (the "gross dividend"). For example, on a dividend received of £90, the tax credit would be £10, and an individual would be liable to income tax on £100. The gross dividend will be part of the individual's total income for UK income tax purposes and will be regarded as the top slice of that income. However, in calculating the individual's liability to income tax in respect of the gross dividend, the tax credit (which equates to 10 per cent. of the gross dividend) is set off against the tax chargeable on the gross dividend.

(b) UK resident individuals who are subject to tax at the basic rate only (currently 20 per cent.) will be charged to tax on the gross dividend at the dividend ordinary rate of 10 per cent. The tax credit will satisfy their liability in respect of the gross dividend in full such that no further liability arises.

(c) UK resident individuals who are subject to tax at the higher rate (currently 40 per cent.) are subject to tax on dividends at the dividend upper rate (currently 32.5 per cent.) but are entitled to offset the 10 per cent. tax credit against such liability, resulting in an effective tax rate of 25 per cent. of the net dividend received. For example, on a dividend

received of £90 such a taxpayer would have to pay additional tax of £22.50 (representing 32.5 per cent. of the gross dividend less the 10 per cent. tax credit).

(d) UK resident individuals who are subject to tax at the additional rate (currently 45 per cent.) are subject to tax on dividends at the dividend additional rate (currently 37.5 per cent.) but are entitled to offset the 10 per cent. tax credit against such liability, resulting in an effective tax rate of 30.55 per cent. of the net dividend received. For example, on a dividend received of £90 such a taxpayer would have to pay additional tax of £27.50 (representing 37.5 per cent. of the gross dividend less the 10 per cent. tax credit).

(e) No repayment of the 10 per cent. tax credit in respect of dividends paid by the Company (including where the Shareholder holds the Ordinary Shares in a tax free wrapper, such as an individual savings account) can be claimed by a UK resident Shareholder (including pension funds and charities).

(f) Subject to certain exceptions for traders in securities and insurance companies, dividends paid by the Company and received by a corporate Shareholder resident in the UK for tax purposes will generally fall into an exempt class and will not be subject to corporation tax or income tax.

(iii) *Non-UK resident Shareholders*

Non-UK resident Shareholders should not generally be subject to UK tax in respect of any dividends paid in respect of their Ordinary Shares unless they hold them in connection with a trade, profession or vocation carried on in the UK through a branch or agency (or, in the case of a non-UK resident corporate Shareholder, a permanent establishment) to which the Ordinary Shares are attributable. Non-UK resident shareholders are not generally entitled to claim any part of the 10 per cent. tax credit and any ability to do so will depend on the terms of any applicable double tax treaty between the UK and the country in which the Shareholder is resident. Non-UK resident Shareholders may also be subject to tax on dividend income under any law to which they are subject outside the UK. Such Shareholders should consult their own professional tax adviser concerning their tax liabilities.

Taxation of Capital Gains

(i) *UK resident Shareholders*

A disposal of Ordinary Shares by an individual who is resident in the UK for tax purposes may give rise to a chargeable gain or an allowable loss for the purposes of UK taxation of chargeable gains, depending on the Shareholder's circumstances and subject to any available exemption or relief (including indexation allowance for corporation tax payers and the annual exempt amount for capital gains tax payers).

(ii) *Non-UK resident Shareholders*

Non-UK resident Shareholders should not generally be subject to UK tax in respect of any gain made on the sale of Ordinary Shares. However, non-UK resident Shareholders who carry on a trade, profession or vocation in the UK through a branch or agency (or, in the case of a non-UK resident corporate Shareholder, a permanent establishment) to which the Ordinary Shares are attributable will be subject to the same rules which apply to UK resident Shareholders. Non-UK resident Shareholders may also be subject to tax on gains under any law to which they are subject outside the UK. Such Shareholders should consult their own professional tax adviser concerning their tax liabilities.

A Shareholder who is an individual and who is temporarily resident for tax purposes outside the UK at the date of disposal of the Ordinary Shares may be liable to UK capital gains tax on that disposal on returning to the UK (subject to any available exemption or relief).

(iii) *Admission to AIM*

The admission of the existing Ordinary Shares to AIM should not constitute a disposal of the existing Ordinary Shares for the purposes of UK capital gains tax.

Inheritance Tax

UK inheritance tax may be chargeable in respect of Ordinary Shares when a Shareholder dies or makes a gift of Ordinary Shares (subject to any available reliefs or exemptions, including business property relief). Inheritance tax is a complex area and Shareholders should consult their own professional tax adviser in this regard.

Stamp duty and stamp duty reserve tax ("SDRT")

The statements below set out advice received by the Company which summarise the current position and are intended as a general guide only to stamp duty and SDRT. Special rules apply to agreements made by broker dealers and market makers in the ordinary course of their business and to transfers, agreements to transfer or issues to certain categories of person (such as depositaries and clearance services) which may be liable to stamp duty or SDRT at a higher rate.

No UK stamp duty or UK SDRT should arise on the issue of Ordinary Shares (whether in certificated form or represented by Depositary Interests).

A transfer of Ordinary Shares in certificated form will generally be subject to stamp duty to the extent the instrument of transfer is executed in the UK or relates to any property situated or matter or thing done or to be done in the UK (although there may be no requirement to pay stamp duty).

A transfer of Ordinary Shares represented by Depositary Interests will be subject to SDRT.

The amount of stamp duty payable on a transfer of Ordinary Shares in certificated form is generally calculated at the rate of 0.5 per cent. of the consideration paid rounded to the nearest £5. An exemption from stamp duty is available on an instrument transferring shares where the amount or value of the consideration is £1,000 or less and it is certified on the instrument that the transaction effected by the instrument does not form part of a larger transaction or series of transactions for which the aggregate consideration exceeds £1,000.

Paperless transfers of Ordinary Shares represented by Depositary Interests within the CREST system are generally liable to SDRT (rather than stamp duty) at the rate of 0.5 per cent. of the amount or value of the consideration payable. SDRT on relevant transactions is settled within the CREST system.

Stamp duty and SDRT are normally payable by the buyer or transferee (although where such acquisition is effected through a stockbroker or other financial intermediary, that person should normally account for the liability to SDRT).

The UK Government has announced that it intends to abolish stamp duty on shares quoted on AIM and that legislation to achieve this will be in the Finance Bill 2014.

19.2 ***Singapore Fiscal Regime***

The following comments address the specific issues mentioned below only and are not intended as a comprehensive summary of the Singapore tax consequences of the Placing and ownership of Ordinary Shares. These comments set out the position under current Singapore tax law and what is understood to be the current practice of the Singapore tax authorities (which may change in the future, including with retrospective effect). **Those in doubt as to their tax position are strongly recommended to consult their own professional tax adviser.**

(i) *Overview*

Singapore adopts a territorial system of taxation where income tax is imposed on income accrued in or derived from Singapore or remitted/ deemed remitted in Singapore from outside Singapore (with certain exemptions – see below).

In addition, all sources of income are taxed on a preceding year basis i.e. income brought to tax for the Year of Assessment 2013 is income accruing in or derived from Singapore or received from outside Singapore for the basis period 1 January 2012 to 31 December 2012.

Foreign sourced income will only be taxable in Singapore upon remittance / deemed remittance into Singapore. Tax exemption schemes are applicable to certain sources of foreign income (such as branch profits, dividend income and service income) remitted / deemed remitted into Singapore by a Singapore tax resident, subject to certain conditions being met. Where the tax exemption schemes are not applicable, foreign tax credits may be applicable.

(ii) *Tax residence*

A company is tax resident in Singapore for income tax purposes if the management and control of its business is exercised in Singapore. Generally, a company will be treated as resident in Singapore if the directors of the Company hold their board meetings in Singapore.

More recently, the Singapore tax authorities have been focusing on whether a company carries on substantive business activities in Singapore as a criterion for determining Singapore tax residence.

(iii) *Taxable income and rates*

The prevailing corporate tax rate is 17 per cent. Companies are also able to enjoy a partial tax exemption of up to S$152,500 for the first S$300,000 of their chargeable income.

Singapore grants tax incentives for activities that enhance its economic or technological development. Tax incentives are available to a wide spectrum of industries and broadly cover activities including manufacturing, services, trading and finance. For companies who qualify for tax incentives, the corporate tax rate will typically be lowered to between 0 per cent. to 15 per cent.

(iv) *Capital gains taxation*

There is no capital gains tax regime in Singapore. The badges of trade as established based on case law precedent are usually used as the guiding factor for distinguishing between capital and revenue gains.

(v) *Withholding tax*

Generally, withholding tax is applicable on certain payments (i.e. royalties, interest payments, rent or payment for use of moveable property, management fees, technical assistance fees etc.) made to non- tax residents of Singapore, although the comprehensive network of tax treaties that Singapore has entered into may provide for a exemption or reduced rate of withholding.

In addition, payments may fall outside the ambit of the withholding tax system in certain circumstances. For example, technical and management fee payments for services which are performed entirely outside Singapore are not subject to withholding tax as long as the transactions are conducted on an arm's length basis.

There is no Singapore withholding tax imposed on dividend payments in Singapore.

(vi) *Related party transactions*

Transfer pricing

The Singapore tax authorities generally require all related party transactions to be conducted on an arms' length basis and have accordingly issued transfer pricing guidelines on 23 February 2006 and 23 February 2009. A transfer pricing provision has also been passed into law in 2009 which empowers the Singapore tax authorities to make adjustments to a taxpayer's income if it is determined that the related party transactions are not carried out at arm's length.

One key emphasis of the transfer pricing regime in Singapore is that taxpayers should exert "reasonable efforts" to ensure that related party transactions have been conducted at arm's length and maintain sufficient documentation to demonstrate that such efforts have been undertaken.

Thin capitalisation

Singapore does not have thin capitalisation rules.

Controlled foreign companies (CFC)

Singapore does not have CFC rules.

(vii) *Stamp Duty*

No Singapore stamp duty should arise on the issue of Ordinary Shares (whether in certificated form or represented by Depositary Interests).

A transfer of Ordinary Shares in certificated form will generally be subject to Singapore stamp duty at the rate of 0.2 per cent. of the higher of the consideration given for the Ordinary Shares and their net asset value. This stamp duty should be paid by the buyer or transferee unless the transfer documents provide otherwise.

A transfer of Ordinary Shares represented by Depositary Interests should not be subject to Singapore stamp duty.

20. Singapore Takeover Code

Overview

20.1 The Singapore Code issued pursuant to the Singapore Securities & Futures Act (Cap 289) applies to both takeovers and mergers of, *inter alia*, public companies in Singapore with a primary listing overseas. It therefore applies to the Company. However, the Singapore Code is non-statutory in that it does not have the force of law but parties in a takeover or merger transaction are expected to observe the spirit as well as the precise wording of the Singapore Code, as it represents the collective public opinion on the standard of conduct to be observed in general, and how fairness can be achieved in particular, in a takeover or merger transaction.

Mandatory Offer

20.2 Except with the consent of the Securities Industry Council ("SIC"), where any person acquires, whether by a series of transactions over a period of time or not, shares which (taken together with shares held or acquired by persons acting in concert with him) carry 30 per cent. or more of the voting rights of a company, or if any person, together with persons acting in concert with him, holds not less than 30 per cent. but not more than 50 per cent. of the voting rights and such person, or any person acting in concert with him, acquires in any period of six months additional shares carrying more than one per cent. of the voting rights, such person must extend offers immediately, in accordance with the provisions of the Singapore Code, to the holders of any class of share capital of the company which carries votes and in which such person, or persons acting in concert with him, hold shares (a "Mandatory Offer").

20.3 A Mandatory Offer must be in cash or be accompanied by a cash alternative at not less than the highest price paid by the offeror or any person acting in concert with it for voting rights of the offeree company during the offer period and within six months prior to its commencement.

Voluntary Offer

20.4 A voluntary offer is a take-over offer for the voting shares of a company made by a person when he has not incurred an obligation to make a mandatory offer. A voluntary offer must be conditional upon the offeror receiving acceptances in respect of voting rights which, together with voting rights acquired or agreed to be acquired before or during the offer, will result in the offeror and person acting in concert with it holding more than 50 per cent. of the voting rights (a "Voluntary Offer").

20.5 A Voluntary Offer must be in cash or securities or a combination thereof at not less than the highest price paid by the offeror or any person acting in concert with it for voting rights of the offeree company during the offer period and within three months prior to its commencement.

Acting in Concert

20.6 Persons "acting in concert" comprise individuals or companies who, pursuant to an arrangement or understanding (whether formal or informal), co-operate, through the acquisition by any of them of shares in a company, to obtain or consolidate effective control of that company. The following individuals and companies will be presumed to be persons acting in concert with each other unless the contrary is established:

(a) the following companies:

(i) a company;

(ii) the parent company of (i);

(iii) the subsidiaries of (i);

(iv) the fellow subsidiaries of (i);

(v) the associated companies of any of (i), (ii), (iii) or (iv);

(vi) companies whose associated companies include any of (i), (ii), (iii), (iv) or (v); and

(vii) any person who has provided financial assistance (other than a bank in the ordinary course of business) to any of the above for the purchase of voting rights;

(b) a company and its directors (together with their close relatives, related trusts as well as companies controlled by any of the directors, their close relatives and related trusts);

(c) a company and its pension funds and employee share schemes;

(d) a person and any investment company, unit trust or other fund whose investment such person manages on a discretionary basis, but only in respect of the investment account which such person manages;

(e) a financial or other professional adviser (including a stockbroker) with its client in respect of the shareholdings of:

(i) the adviser and persons controlling, controlled by or under the same control as the adviser; and

(ii) all the funds which the adviser managers on a discretionary basis, where the shareholdings of the adviser and any of those funds in the client total 10 per cent. or more of the client's equity share capital;

(f) directors of a company (together with their close relatives, related trusts and companies controlled by any of such directors, their close relatives and related trusts) which is subject to an offer or where the directors have reason to believe a bona fide offer for the company may be imminent;

(g) partners; and

(h) the following persons and entities:

(i) an individual;

(ii) the close relatives of (i);

(iii) the related trusts of (i);

(iv) any person who is accustomed to act in accordance with the instructions of (i); and

(v) companies controlled by any of (i), (ii), (iii) or (iv); and

(vi) any person who has provided financial assistance (other than bank in the ordinary course of business) to any of the above for the purchase of voting rights.

Equality of information

20.7 An offeror must treat all shareholders of the same class in an offeree company equally. Information about companies involved in an offer must be made equally available to all shareholders as nearly as possible at the same time and in the same manner.

20.8 Shareholders must be given all the facts necessary to make an informed judgment on the merits or demerits of an offer. Such facts require accurate and fair presentation, and a fundamental requirement is that shareholders in the company subject to the takeover offer must be given sufficient information, advice and time to consider and decide on the offer.

Restrictions on dealings before the offer

20.9 No dealings of any kind in the securities of the offeree company (including convertible securities, warrants, Options and derivatives in respect of such securities) may be transacted by any person, not being the offeror, who has confidential price-sensitive information concerning an actual or contemplated offer or revised offer between the time when there is reason to suppose that an approach or an offer or revised offer is contemplated and the announcement of the approach, the offer, the revised offer, or of the termination of the discussions.

20.10 Further to the above, no such dealings may take place in the securities of the offeror (including convertible securities, warrants, Options and derivatives in respect of such securities) except where the proposed offer is not deemed price-sensitive in relation to such securities.

Restrictions on dealings during the offer

20.11 The offeror and persons acting in concert with it must not sell any securities in the offeree company during the offer period except in accordance with the Singapore Code.

Disclosure of dealings during the offer

20.12 (a) Dealings by parties and their associates for themselves or for discretionary clients

Dealings in the relevant securities by the offeror, the offeree company or any of their associates for their own accounts or for the accounts of discretionary investment clients during the offer period must be publicly disclosed in accordance with the Singapore Code.

(b) Dealings by parties and their associates for non-discretionary clients

Except with the consent of the SIC, dealings in the relevant securities during the offer period by an offeror, the offeree company or any of their associates for the account of non-discretionary investment clients (other than an offeror, the offeree company and any of their associates) must be privately disclosed in accordance with the Singapore Code.

(c) Dealings by parties and their associates in their capacities as agents

Where the offeror, the offeree company or any of their associates deal in relevant securities during the offer period only as brokerage agents for investment clients and not as principal, such transactions need not be disclosed.

Restrictions following Offers and Possible Offers

20.13 Except with the SIC's consent, where any offer has been announced or posted but has not become or been declared unconditional in all respects and has been withdrawn or has lapsed, neither the offeror, any persons who acted in concert with it in the course of the original offer not any person who is subsequently acting in concert with any of them may within 12 months from the date on which such offer is withdrawn or lapses (a) announce an offer or possible offer for the offeree company, or (b) acquire any voting rights of the offeree company if the offeror or persons acting in concert with it would thereby become obligated to make a Mandatory Offer under the Singapore Code.

20.14 Where a person makes an announcement that he does not intend to make an offer for a company, the above restrictions will normally apply for 6 months from the date of the announcement.

20.15 Further to the above, except with the SIC's consent, if a person, together with any person acting in concert with him, holds shares carrying more than 50 per cent. of the voting rights of a company, neither that person nor any person acting in concert with him may, within 6 months of the closure of any previous offer made by him to the shareholders of that company which became or was declared

unconditional in all respects, make a second offer to, or acquire any shares from, any shareholder in that company on terms better than those made available under the previous offer.

Waiver from compliance with the Mandatory Offer Requirement

20.16 Where, as a result of the issue of new securities as consideration for an acquisition or a cash injection or in fulfillment of obligations under an agreement to underwrite the issue of new securities, a person or group of persons acting in concert acquire shares which give rise to an obligation to make a Mandatory Offer, such person(s) may apply to the SIC to seek a waiver from such obligation to make a Mandatory Offer.

20.17 In each case, a specific grant of a waiver is required, and such grant by the SIC will be subject to certain conditions, including, but not limited to, the following:

(a) a majority of holders of voting rights of the offeree company approve at a general meeting, before the issue of new securities to the offeror, a resolution (the "Whitewash Resolution") by way of a poll to waive their rights to receive a general offer from the offeror and parties acting in concert with the offeror;

(b) the Whitewash Resolution is separate from other resolutions;

(c) the offeror, parties acting in concert with them and parties not independent of them abstain from voting on the Whitewash Resolution;

(d) the offeree company appoints an independent financial adviser to advise its independent shareholders on the Whitewash Resolution;

(e) the offeree company setting out clearly certain specific information as required by the Singapore Code in its circular to shareholders (the "Circular"); and

(f) the SIC's approval being obtained in advance for those parts of the Circular that refer to the v Whitewash Resolution; and

(g) to rely on the Whitewash Resolution, the acquisition of new shares or convertibles by the offeror pursuant to the proposal must be completed within 3 months of the approval of the Whitewash Resolution.

21. General

21.1 The total costs and expenses payable by the Company in connection with or incidental to the Placing and Admission, including London Stock Exchange fees, professional fees, consulting and investor relation services and the costs of printing and distribution, are estimated to amount to approximately £1.4 million (excluding VAT).

21.2 The gross proceeds expected to be raised by the Placing are approximately £12.0 million. The net proceeds are expected to be £10.6 million.

21.3 The Nominated Adviser has given and has not withdrawn its written consent to the issue of this document with the inclusion herein of references to its name in the form and context in which it appears.

21.4 Ricardo-AEA has given and has not withdrawn its written consent to the inclusion in this document of the Technical Report set out in Part III of this document, and the references thereto and to its name, in the form and context in which they appear and has authorised the contents of those parts of this document. The Technical Report was prepared at the request of the Company. Ricardo-AEA has no interest in the share capital of the Company nor any member of the Group.

21.5 Deloitte LLP has given and has not withdrawn its written consent to the inclusion of its Accountants' Reports in Part IV and Part V of this document in the form and context in which it is included and has authorised the contents of those parts of this document.

21.6 The Ordinary Shares are in registered form and will, on Admission, be capable of being held in uncertificated form through depositary interests. The Ordinary Shares will be admitted with the ISIN SG9999011118.

21.7 Conditional upon Admission the Company, through the Depositary, will establish a depositary arrangement whereby the Depositary Interests representing Ordinary Shares will be issued to any shareholders who wish to hold their Ordinary Shares in electronic form within the CREST system.

21.8 The Company is not aware of any arrangements which may at a subsequent date result in a change of control of the Company.

21.9 No public takeover bids have been made by third parties in respect of the Company's issued share capital in the current financial year nor in the last financial year.

21.10 Save as disclosed in this document, the Directors are unaware of any trends, uncertainties, demands, commitments or events that are reasonably likely to have a material effect on the Company's prospects for the current financial year.

21.11 Save as disclosed in this document, the Company had no principal investments for each financial year covered by the historical financial information and there are no principal investments in progress and there are no principal future investments on which the Board has made a firm commitment.

21.12 The Placing Shares represent approximately 16.6 per cent., of the Company's Ordinary Shares on Admission.

21.13 Information sourced from a third party has been accurately reproduced and so far as the Company is aware, and able to ascertain from information published by that third party, no facts have been omitted which would render the reproduced information inaccurate or misleading.

22. Availability of Admission Document

Copies of the following documents are available during normal business hours on any Business Day free of charge from the Company's registered office and at the offices of N+1 Singer for the period from the date of this document until one month after the date of Admission:

(a) the Articles;

(b) the Technical Report; and

(c) this document

Dated: 19 February 2014

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