



# PROSPECTUS

**1414 DEGREES LIMITED**

ACN 138 803 620



**TAYLOR COLLISON**

## **PROSPECTUS**

For the offer of up to a maximum of 142,857,143 Shares at an offer price of \$0.35 per Share to raise a maximum of \$50,000,000.

The offer has a minimum subscription of 85,714,286 Shares at an offer price of \$0.35 per Share to raise \$30,000,000.

## **IMPORTANT INFORMATION**

This document provides important information to assist prospective investors in deciding whether or not to invest in the Company. It should be read in its entirety. You should consider carefully the risk factors set out in this document in light of your personal circumstances. If you do not fully understand it, you should consult your professional advisers.

THE SHARES OFFERED UNDER THIS PROSPECTUS ARE OF A SPECULATIVE NATURE.

CLEAN  
SCALABLE  
ENERGY  
STORAGE™



# CONTENTS

IMPORTANT NOTICES	3
KEY OFFER INFORMATION	6
LETTER FROM THE CHAIRMAN	9
<b>SECTION 1: INVESTMENT OVERVIEW</b>	12
<b>SECTION 2: COMPANY OVERVIEW</b>	30
<b>SECTION 3: INDUSTRY OVERVIEW</b>	50
<b>SECTION 4: DETAILS OF THE OFFER</b>	54
<b>SECTION 5: DIRECTORS, MANAGEMENT AND CORPORATE GOVERNANCE</b>	64
<b>SECTION 6: RISKS</b>	74
<b>SECTION 7: FINANCIAL INFORMATION</b>	80
<b>SECTION 8: INDEPENDENT LIMITED ASSURANCE REPORT</b>	92
<b>SECTION 9: TECHNICAL EXPERT'S REPORT</b>	96
<b>SECTION 10: INTELLECTUAL PROPERTY REPORT</b>	101
<b>SECTION 11: MATERIAL CONTRACTS</b>	105
<b>SECTION 12: ADDITIONAL INFORMATION</b>	111
<b>SECTION 13: DEFINITIONS</b>	118
APPLICATION FORM	119
CORPORATE DIRECTORY	121

# IMPORTANT NOTICES

This Prospectus is dated 28 May 2018 and a copy was lodged with the Australian Securities and Investments Commission (ASIC) on that date. This is a replacement prospectus, which replaces the prospectus dated 30 April 2018 and lodged with ASIC on that date (Original Prospectus).

Neither ASIC nor ASX Limited (ASX) takes any responsibility for the contents of this Prospectus. No Shares will be issued on the basis of this Prospectus later than 13 months after the date of the Original Prospectus. The directors of, and advisers to, the Company do not guarantee the success of the Company, repayment of capital, payment of dividends or the price at which Shares will trade on the ASX.

## OFFER

The Offer is an invitation to apply for fully paid ordinary shares in the Company. This Prospectus is issued by the Company for the purposes of Chapter 6D of the Corporations Act.

## LISTING

The Company, within seven days after the date of the Original Prospectus, applied to the ASX for admission to the Official List of the ASX and quotation of its shares on the ASX. Neither ASIC nor the ASX takes any responsibility for the contents of this Prospectus or the merits of the investment to which this Prospectus relates. The fact that the ASX may admit the Company to the Official List is not to be taken in any way as an indication of the merits of the Company or the Shares offered under this Prospectus.

## NOTE TO APPLICANTS

The information in this Prospectus is not financial product advice and does not take into account your investment objectives, financial situation or particular needs.

It is important that you read this Prospectus in its entirety before deciding whether to invest. In particular, you should consider the relevant risk factors that could affect the Company's business and financial condition. You should carefully consider these risks in light of your personal circumstances and seek professional guidance before deciding whether to invest in the Shares.

No person named in this Prospectus, nor any other person, guarantees the performance of the Company or the repayment of capital or any return on investment.

## ELECTRONIC PROSPECTUS

This Prospectus will be issued in paper form and any person in Australia or New Zealand may obtain a copy free of charge upon request by emailing [info@1414degrees.com.au](mailto:info@1414degrees.com.au). This Prospectus will also be available in electronic form and may be accessed on the internet at <https://1414degrees.com.au/prospectus/>. Persons who access the electronic version of this Prospectus should ensure that they download and read the entire Prospectus. The offer of Shares pursuant to the paper form or electronic Prospectus is only available to persons receiving this

Prospectus in Australia or New Zealand. The Corporations Act prohibits any person passing onto another person the Application Form unless it is attached to, or accompanied by, a hard copy of this Prospectus or the complete and unaltered electronic version of this Prospectus.

## FINANCIAL FORECASTS

The directors have considered the matters set out in ASIC Regulatory Guide 170 and believe that they do not have a reasonable basis to forecast future earnings on the basis that the operations of the Company are inherently uncertain. Accordingly, any forecast or projection information would contain such a broad range of potential outcomes and possibilities that it is not possible to prepare a reliable best estimate forecast or projection.

## FOREIGN JURISDICTIONS

The Offer does not constitute a public offer in any jurisdiction outside Australia and New Zealand.

This Prospectus does not constitute an offer or invitation in any place in which, or to any person to whom, it would not be lawful to make such an offer or invitation.

This Prospectus has been prepared for distribution in Australia and New Zealand.

The distribution of this Prospectus (including an electronic copy) in jurisdictions outside Australia and New Zealand may be restricted by law, and persons who come into possession of this Prospectus should seek advice on, and observe, any such restrictions. No action has been taken to register or qualify the Shares or the Offer, or to otherwise permit a public offering of the Shares, in any jurisdiction outside Australia and New Zealand.

Any failure to comply with such restrictions may constitute a violation of applicable securities laws. It is the responsibility of Applicants outside Australia and New Zealand to obtain all necessary approvals for the allotment and issue of the Shares pursuant to this Prospectus. Lodgement of a duly completed Application Form or making the application payment for shares by BPAY® will be taken by the Company to constitute a representation and warranty by the Applicant that all relevant approvals have been obtained and that there has been no breach of such laws.

If you are resident in countries other than Australia or New Zealand you should consult your professional advisors as to whether any governmental or other consents are required or whether any other formalities need to be considered and followed.

**Important notice to New Zealand investors:** This Offer to New Zealand investors is a regulated offer made under Australian and New Zealand law. In Australia, this is Chapter 8 of the Corporations Act and the Corporations Regulations 2001 (Cth). In New Zealand, this is subpart 6 of Part 9 of the Financial Markets Conduct Act 2013 and Part 9 of the Financial Markets Conduct Regulations 2014.

The Offer and the content of this Prospectus are principally governed by Australian rather than New Zealand law. In the main, the Corporations Act and the Corporations Regulations 2001 (Cth) set out how the Offer must be made.

There are differences in how financial products are regulated under Australian law. For example, the disclosure of fees for managed investment schemes is different under the Australian regime.

The rights, remedies, and compensation arrangements available to New Zealand investors in Australian financial products may differ from the rights, remedies, and compensation arrangements for New Zealand financial products.

Both the Australian and New Zealand financial markets regulators have enforcement responsibilities in relation to the Offer. If you need to make a complaint about the Offer, please contact the Financial Markets Authority, New Zealand (<http://www.fma.govt.nz>). The Australian and New Zealand regulators will work together to settle your complaint.

The taxation treatment of Australian financial products is not the same as for New Zealand financial products.

If you are uncertain about whether this investment is appropriate for you, you should seek the advice of an appropriately qualified financial adviser.

The Offer may involve a currency exchange risk. The currency for the financial products is not New Zealand dollars. The value of the financial products will go up or down according to changes in the exchange rate between that currency and New Zealand dollars. These changes may be significant.

If you expect the financial products to pay any amounts in a currency that is not New Zealand dollars, you may incur significant fees in having the funds credited to a bank account in New Zealand in New Zealand dollars.

If the financial products are able to be traded on a financial product market and you wish to trade the financial products through that market, you will have to make arrangements for a participant in that market to sell the financial products on your behalf. If the financial product market does not operate in New Zealand, the way in which the market

operates, the regulation of participants in that market, and the information available to you about the financial products and trading may differ from financial product markets that operate in New Zealand.

## AMOUNTS

All financial amounts contained in this Prospectus are expressed in Australian currency unless otherwise stated. Any discrepancies between totals and sums and components in tables contained in this Prospectus are due to rounding. Fractional amounts are being rounded up to the next whole number.

## RISK FACTORS

Potential investors should be aware that subscribing for Shares involves a number of risks. The key risk factors of which investors should be aware are set out on pages 18-21 of the Investment Overview and Section 6 of this Prospectus. These risks together with other general risks applicable to all investments in listed securities not specifically referred to, may affect the value of the Shares in the future. Accordingly, an investment in the Company should be considered highly speculative. Investors should consider consulting their professional advisers before deciding whether to apply for Shares pursuant to this Prospectus.

## FORWARD LOOKING STATEMENTS

This Prospectus may contain forward looking statements or information. Forward looking statements can be identified by the use of words such as 'may', 'should', 'could', 'will', 'expect', 'anticipate', 'believe', 'estimate', 'aim', 'intend', 'scheduled' or 'continue' or similar expressions. Such statements and information are subject to risks and uncertainties and are based on an assessment of present economic and operating conditions and on a number of assumptions, which may cause the actual results or events to differ materially from the expectations described in such forward looking statements or information. The Company cannot and does not give any assurance that the results, performance, achievements and expectations expressed or implied by the forward looking statements contained in this Prospectus will actually occur. The risk factors outlined in Section 6 of this Prospectus, as well as other matters as not yet known to the Company or not currently considered material by the Company, may cause actual events to be materially different from those expressed, implied or projected in any perceived forward looking statements or information. Forward looking statements should be read in conjunction with the risk factors set out in Section 6 and other information in this Prospectus. Any forward looking statements or information contained in this Prospectus is qualified by this cautionary statement.

## STATEMENT OF PAST PERFORMANCE

This Prospectus includes information regarding the past performance of the Company. Investors should be aware that past performance should not be relied upon as being indicative of future performance.

## WEBSITE ADDRESS

The Prospectus can be downloaded from:  
<https://1414degrees.com.au/prospectus/>.

## PHOTOGRAPHS AND DIAGRAMS

Photographs used in this Prospectus without descriptions are only for illustration. Items and undertakings depicted in photographs and diagrams in this Prospectus are not assets of the Company, unless otherwise stated. The inclusion of photographs supplied by persons or entities other than the Company does not constitute an endorsement or recommendation by those persons or entities of the Offer under the Prospectus. Diagrams appearing in this Prospectus are illustrative only and may not be drawn to scale.

## DEFINITIONS

Throughout this Prospectus abbreviations and defined terms are used. Abbreviations and legal and technical terms are contained in the Definitions in Section 13 of this Prospectus. Defined terms are generally identified by the uppercase first letter.

## DISCLAIMER

No person is authorised to give any information or to make any representation in connection with the Offer that is not contained in this Prospectus. Any information not so contained may not be relied upon as having been authorised by the Company, the Lead Manager or any other person in connection with the Offer. You should rely only on information in this Prospectus.

## EXPOSURE PERIOD

The Corporations Act prohibits the Company from processing Applications in the seven day period after the date of lodgement of the Original Prospectus with ASIC (Exposure Period). The Exposure Period was extended by ASIC for a further period of seven days and ended on 14 May 2018. The purpose of the Exposure Period is to enable this Prospectus to be examined by market participants prior to the raising of funds. Applications received during the Exposure Period will be dealt with in accordance with section 724 of the Corporations Act. Applications received prior to the expiration of the Exposure Period will not be processed until after the expiry of the Exposure Period. During the Exposure Period, the Original Prospectus was made generally available to Australian and New Zealand residents at the Company's website, <https://1414degrees.com.au/prospectus/>.

## PRIVACY

By completing an Application Form, you are providing personal information to the Company through the Share Registrar, which is contracted by the Company to manage Applications. The Company and the Share Registrar, on the Company's behalf, collect, hold and use that personal information to process your Application, service your needs as an investor, provide facilities and services that you request and carry out appropriate administration. The Company is also required under relevant laws to collect some of this information. If you do not provide the information requested in the Application Form, your Application may not be able to be processed efficiently, if at all. The Company and/or the Share Registrar may use the information in the Application Form for the purposes set out in this Prospectus and may disclose it, or your personal information, for those purposes to the Share Registrar, the Company's related bodies corporate, agents, contractors, third party service providers (including mailing houses), the ASX, ASIC and other regulatory authorities or as otherwise authorised under the Privacy Act 1988 (Cth) (as applicable). You may request access to your personal information held by or on behalf of the Company. You can request access to your personal information or obtain further information about the Company's privacy practices by contacting the Share Registrar or the Company. The Company aims to ensure that the personal information it retains about you is accurate, complete and up-to-date. Please contact the Company or the Share Registrar if any of the details you have provided change. In accordance with the requirements of the Corporations Act, information on the share register will be accessible by members of the public.

## LEAD MANAGER

Taylor Collison has agreed to act as Lead Manager to the Offer. Details of the terms of appointment of the Lead Manager, including fees payable, are set out in Sections 11 and 12 of this Prospectus.

## KEY OFFER INFORMATION

TABLE 1

Key Dates	
Lodgement date of this Prospectus	28 May 2018
Opening Date of the Offer (9.00am)	28 May 2018
Expected Closing Date of the Offer (5.00pm)	15 June 2018
Expected date of issue and allotment of Shares under the Offer	25 June 2018
Expected date of despatch of holding statements	28 June 2018
Expected date of quotation of Shares on the ASX	3 July 2018

Note: This timetable is indicative only and is subject to change. Unless otherwise indicated, all times are in AEST. The Company reserves the right to vary the dates and times of the Offer, including to open or close the Offer early, to extend the time or date of the Closing Date or to accept late Applications, in each case without prior notice. Applicants are encouraged to submit their Applications as soon as possible.

TABLE 2

Key Offer Statistics	Minimum Subscription	Maximum Subscription
Offer Price per Share	\$0.35	\$0.35
Total number of Shares currently on issue	125,708,946	125,708,946
Shares offered under the Prospectus	85,714,286	142,857,143
Total Shares on issue at listing on the ASX	211,423,232	268,566,089
Other Shares offered but yet to be issued <sup>(1) (2) (3)</sup>	1,830,000	1,830,000
Total Shares on issue on a fully diluted basis	213,253,232	270,396,089
Gross proceeds of the Offer	\$30,000,000	\$50,000,000

(1) The Company has offered to issue 500,000 Shares to Reactive Engineering Pty Ltd or its nominee, subject to the satisfaction of certain conditions, pursuant to the terms of a Letter of Offer dated 23 March 2018. Further details of the offer are set out in Section 11.

(2) The Company has agreed to issue 1,000,000 Shares to Pitstop Marketing Pty Ltd, subject to the satisfaction of certain conditions, pursuant to the terms of an undated Offer of Contractual Engagement. Further details of the agreement are set out in Section 11.

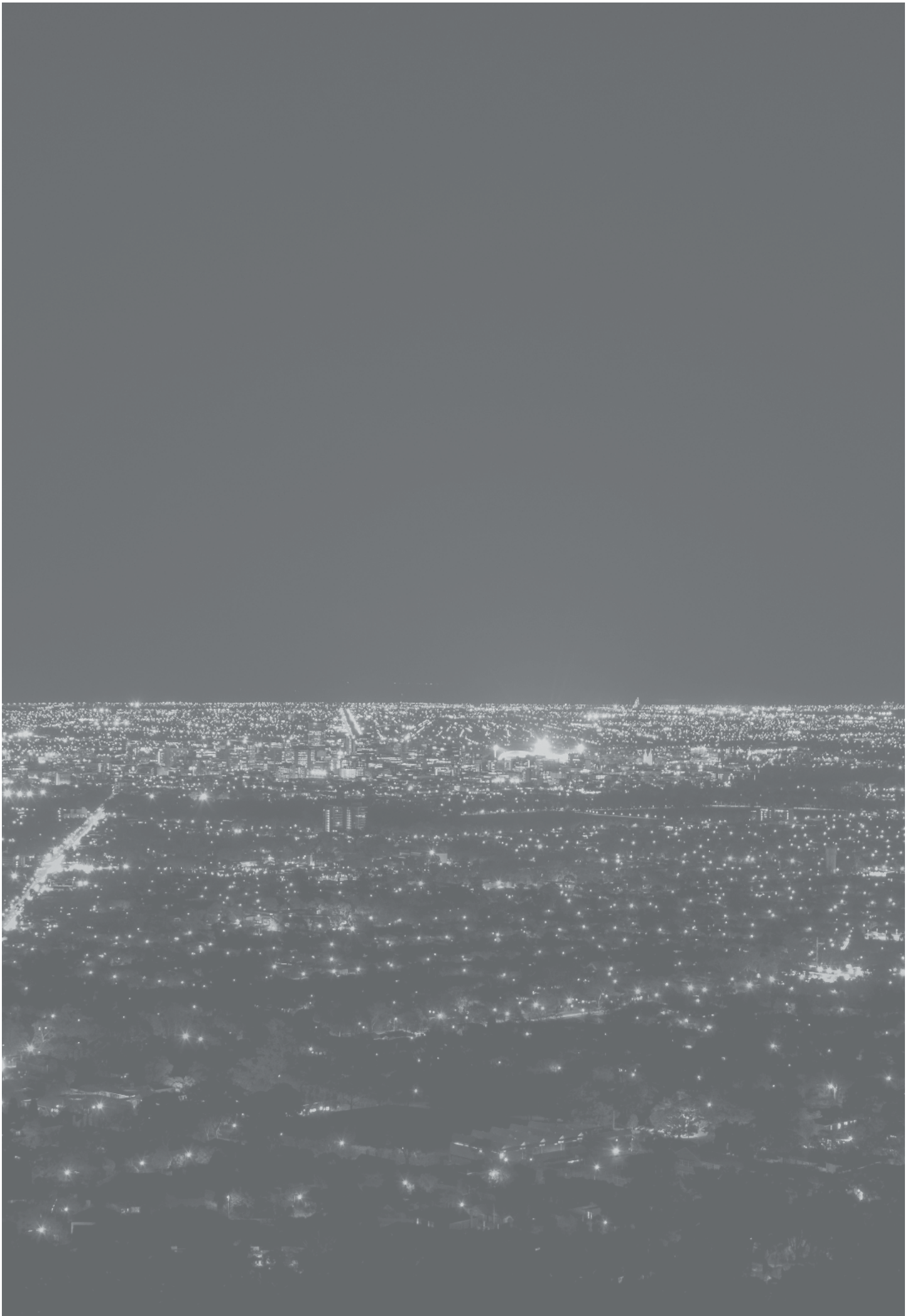
(3) The Company has agreed to issue 330,000 Shares to Burwood Family Investments Pty Ltd as trustee for the Burwood Family Investment Trust, subject to the satisfaction of certain conditions, pursuant to the terms of a Heads of Agreement dated 16 April 2018. Further details of the agreement are set out in Section 11.

### HOW TO INVEST

Applications for Shares under the Offer can only be made by completing the Application Form accompanying or attached to this Prospectus.

Instructions on how to apply for Shares under the Offer are set out in Section 4 of this Prospectus.









## LETTER FROM THE CHAIRMAN

---

Welcome to 1414 Degrees. We believe in a sustainable energy future, where energy is available to all, at all times. Affordable and accessible energy drives humanity, our economy and innovation. Our Australian roots ground us in an environment that demands us to challenge the status quo, and our agility and commitment will deliver global applications. I am delighted to invite you to invest in what I believe is a game-changer in energy storage.

Energy storage is essential for the successful integration of renewable energy into electricity networks. It's also important for consumers who need reliable electricity and heat supply at a lower cost. Heat energy requirements are often underestimated so it is worth noting that global thermal energy needs are larger than transport or electricity. In particular, industries have critical needs for heat for processing, manufacturing and greenhouse growing of food – and increasingly demand clean, carbon free heat.

1414 Degrees' technology stores energy generated from electricity or gas and supplies both heat and electricity in the proportions required by consumers. It is unique in its combination of low cost, flexibility of location, scalability, and sustainability.

Over the past 18 months, in response to remarkable interest in its technology, the Company has greatly enlarged its vision for electricity storage and recovery. The ability to meet the demand for clean energy in the form of high temperature heat and steam triggered expansion of our business model into industrial markets requiring very high combined heat and power efficiency. The demand derives from fact that the worldwide requirement for heat energy is larger than transport and electricity combined. By also servicing the heat market we will be able to provide more efficient and low cost electricity storage and recovery. This Prospectus provides more detail on the business model and storage technologies.

### KEY FACTORS TO CONSIDER BEFORE INVESTING

Following years of effort by the Company's engineering team and the successful development of its commercial demonstrator, together with the support of a Commonwealth Government AusIndustry Accelerated Commercialisation grant, the Company is now in an early stage of product development and commercialisation. This stage may not provide investors with a meaningful basis to assess the business, financial position and prospects of the Company so any investment should be considered high risk and speculative.

Investors should be aware that the Company may never generate a profit, even after the Company commences generating revenue.

You should be aware of the key risks associated with the Company's activities and its proposed involvement in the thermal energy storage market. The most significant of these are a short operating history, the early stage of product development, and dependency on third parties for the commercialisation of its TESS technology. Although these third parties invited the Company to trial its technology to potentially provide a solution to their energy storage and recovery needs, we are reliant on the ongoing success of our relationships to install and commission the TESS technology at their sites. Although our strategy has been to develop multiple unrelated sites, it is possible that none of the sites will progress so there

can be no certainty that the Company will be able to generate operating specifications for its TESS products or demonstrate the technology for customers. The most advanced is the SA Water installation, for which an implementation agreement is in preparation, and the device is under construction assisted by matched funding from the South Australian Government. The other sites require feasibility assessment and execution of an implementation agreement to be undertaken following the close of this Offer.

Although the success of any one installation will be sufficient to demonstrate the technology for industrial heat and electricity applications, there is also no guarantee that any device will generate the operating specifications required for the Company to bid for further sales to generate revenues for the Company. In the event that none of the pilot installations are successful, the Company is unlikely to generate significant revenue until it has further invested to commercialise its TESS technology.

Notwithstanding, this Prospectus describes the potential markets and applications for the technology that the Company considers are appropriate to the risks at this stage of the commercialisation of the technology.

## HOW WE WILL BUILD VALUE AND SALES

The Company is positioning itself in a large and growing energy storage systems market and is developing products in response to customer demand for combined heat and power solutions. This gap in the current market provides an opportunity to commercialise our technology in a receptive setting.

The ability to deliver heat with high efficiency means 1414 Degrees' technology has been particularly sought-after by industry, property developers and by entities responsible for self-sufficient networks in the unregulated commercial setting. The Company's industrial product line is being developed to meet the needs of end users ranging from waste treatment utilities to poultry processors and packaging manufacturers, all of whom have approached the company on their own initiative, seeking solutions to high energy costs and reduction in carbon emissions.

The Company has entered into a non-exclusive sales/agency agreement with Energy & Carbon Solutions Pty Ltd to assist in the sale and distribution of 1414 Degrees' technology into the Australian market. To date, the Company has agreed to supply and commission its devices

at the processing plant controlled and operated by Pepe's Ducks, and a manufacturing plant owned and operated by Austcor Packaging, both of which were introduced by Energy & Carbon Solutions Pty Ltd.

The device being built at SA Water's Glenelg Wastewater Treatment Plant is a pilot to prove the technology as a replacement for existing plant to reduce costs and improve process efficiency for the water utility.

While these pilot installations will not generate any material revenue for the Company, the successful commissioning of pilot devices at the Pepe's Ducks site, the Austcor Packaging site and the SA Water site will provide demonstration sites and the necessary certification to seek sales in the Australasian and global processing, manufacturing and wastewater industries on commercial terms.

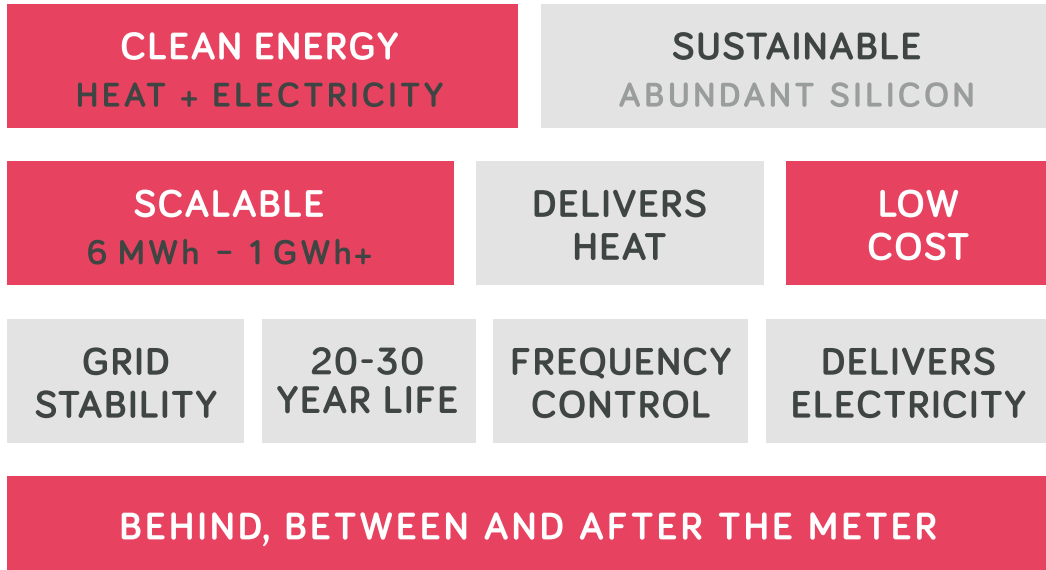
A large water utility in Victoria has engaged the Company to undertake a feasibility study into the supply and commission of a number of devices at its wastewater treatment sites.

It is anticipated that utility companies are likely to invest substantial amounts over the short and long term to reduce their carbon emissions and electricity costs. 1414 Degrees considers that it is likely to benefit by providing options for more efficient waste-gas burning coupled with reliable low-cost energy storage.

The medium to longer term goal of the Company is to produce larger devices for co-location with industries and businesses requiring space heating or heat and steam for processing. Many agri-businesses are actively seeking renewable sources of heat and 1414 Degrees' technology is expected to be lower cost than any of the current offerings. The Company is in discussions with large greenhouse developers and authorities seeking to develop food parks. 1414 Degrees' technology developments are aimed at providing a competitive solution for industrial process heat, displacing gas or other fossil fuels while providing large scale energy storage.

There are global opportunities for our large device because it is aimed at reducing storage costs for renewable generation. We are expecting to be able to augment our funding under this Offer with rebates, grants and assistance from turbine suppliers, but its development involves significant capital investment over several years, with concomitant higher risk, and you should consider this when deciding whether to invest in the Offer.

› KEY TECHNOLOGY BENEFITS



We will demonstrate the ability and benefits of the technology in Australia as we continue to develop the global opportunities and the larger device.

This Prospectus contains detailed information about 1414 Degrees, the Offer, our industry and opportunity, as well as a number of specific and general risks which, if realised, may affect the Company's ability to achieve its business objectives. I encourage you to read this document carefully and in its entirety before making your investment decision.

I look forward to welcoming you as a shareholder.

**DR KEVIN MORIARTY**  
CHAIRMAN

## SECTION 1: INVESTMENT OVERVIEW

The information set out in this Section is intended to be a summary only and should be read in conjunction with the more detailed information elsewhere in this Prospectus. In deciding whether to apply for Shares under the Offer, you should read this Prospectus carefully in its entirety and consult your professional advisers.

### 1.1 INTRODUCTION

Question	Answer	More information
<b>Who is the issuer under the Prospectus?</b>	1414 Degrees Limited (ACN 138 803 620).  The Company was incorporated on 11 August 2009 as Gnomon Technologies Pty Ltd and changed its name to Latent Heat Storage Pty Ltd on 2 June 2014. On 8 December 2016, it converted to public company and changed its name to 1414 Degrees Limited.	<b>SECTION 2</b>
<b>What is the purpose of the Prospectus and the Offer?</b>	<p>The purpose of this Prospectus and the Offer is to facilitate an application by the Company for admission of the Company to the Official List and to raise capital sufficient to position the Company to achieve the objectives set out in this Prospectus, including the development of the thermal energy storage systems business strategy. Most notably, the Company intends to use funds raised to build and install the first TESS modules at commercial pilot sites in order to qualify its products for long term project financing by demonstrating product reliability and efficacy. Investors should note that the Company will not generate material revenues from these pilot installations however, they will be open to customers requiring demonstrations.</p> <p>The Company is at an early stage in its commercialisation journey. This stage may not provide investors with a meaningful basis to assess the business, financial position and prospects of the Company so any investment should be considered high risk and speculative.</p> <p>Investors should be aware that the Company may never generate a profit, even after the Company commences generating revenue.</p>	<b>SECTIONS 2 AND 4</b>
<b>What is the Company's corporate structure?</b>	The Company is the sole entity in the corporate group. The Company does not have any subsidiaries.	<b>SECTION 2</b>
<b>What is the Company's capital structure at the date of this Prospectus?</b>	The Shareholders as at the date of this Prospectus hold 125,708,946 Shares.  For further information in relation to the substantial Shareholders as at the date of this Prospectus, please refer to Section 4.	<b>SECTION 4</b>

## 1.2 OVERVIEW OF THE COMPANY'S BUSINESS

Question	Answer	More information
<p><b>What is the business of the Company?</b></p>	<p>The Company designs, develops and manufactures Thermal Energy Storage Systems (TESS) that utilise the very high energy density of molten silicon to maximise efficiency.</p> <p>The TESS is intended to provide affordable and reliable renewable energy storage. The Company's TESS devices are versatile and scalable, differentiating them from other storage systems and technologies.</p> <p>The Company has four modular TESS designs based on the core silicon phase change storage technology:</p> <ol style="list-style-type: none"> <li>1. The <b>TESS-GRID</b> has an architecture allowing it to store bulk energy at very high current flows and supply electricity and heat for long periods. The device is aimed at providing energy security in electricity markets with substantial renewable generation.</li> <li>2. The <b>TESS-IND</b> is designed for industries and residential developments requiring reliable electricity and heat energy from renewable generation.</li> <li>3. The <b>TESS-STEAM</b> is designed for industries with a very high demand for heat compared to electricity. It is designed as a very high efficiency steam generator to replace gas or other energy sources with renewable energy.</li> <li>4. The <b>GAS-TESS</b> is being developed to burn waste gas and store the energy for recovery as electricity and heat. Its market is waste management utilities and entities requiring efficient waste gas disposal and flexible energy supply.</li> </ol> <p>What differentiates the Company's technology from alternative energy storage technologies is the capacity of its TESS products to efficiently supply high temperature heat as well as energy in the form of electricity in proportions that suit users' specific requirements, making it unique in the energy storage market and of interest to customers in a range of industries, for a variety of applications. Although some alternative energy storage technologies are capable of delivering higher electrical efficiency than the Company's TESS technology, it is the combined heat and power efficiency of the TESS devices which deliver the most optimal results for this technology. As a result, the Company has developed its technology and commercial opportunities on this basis.</p>	<p><b>SECTION 2</b></p>
<p><b>How does 1414 Degrees generate its income and what are the Company's key costs?</b></p>	<p>The Company intends to install TESS devices in industry sites to generate operating specifications required for sales to national and international customers. The Company has entered into arrangements with various customers who offered their sites for trials, and is working towards agreeing formal project documentation in the near term. In addition to providing demonstrations for other customers these trials will provide specifications, including capital cost, operating performance and maintenance cost, thereby enabling the Company to offer long term storage solutions in its target market. In addition to direct sales (which will include the Company retaining a right to buy back the TESS device), the Company will generate revenue by:</p> <ol style="list-style-type: none"> <li>1. offering lease-purchase plans over a 10 - 20 year term with an option for the customer to purchase, subject to the Company retaining a right to buy back the TESS device. This structure, known as 'Hardware-as-a-Service' (HaaS), will have associated long term operating and maintenance agreements (O&amp;M Agreements) also generating revenue; and</li> <li>2. incorporating special purpose vehicles (SPVs) that integrate its TESS-GRID with renewable generation and industry customers. The Company would then generate cash flows from sales of its devices to the SPV and from ongoing management fees and/or fees under O&amp;M Agreements entered into with those entities. It will also share in revenues (via its shareholding in the SPVs) from renewable energy certificates, network fees, energy trading and heat sales.</li> </ol>	<p><b>SECTION 2</b></p>

## 1.2 OVERVIEW OF THE COMPANY'S BUSINESS

Question	Answer	More information
<p><b>How does 1414 Degrees generate its income and what are the Company's key costs?</b></p> <p>&gt; continued</p>	<p>The GAS-TESS is expected to generate sales of large systems to waste management utilities and industries with excess gas production.</p> <p>The Company plans to build and test its first 200MWh TESS-GRID module at a site with network connection to solar or wind generation.</p> <p>Key costs for the Company over the next 24 months arise from building and installing up to four devices at the characterisation sites. The corporate team will be expanded to assess and contract the most profitable of the worldwide opportunities. The Company will licence manufacturing and distribution of the smaller devices to reduce capital requirements.</p>	<p><b>SECTION 2</b></p>
<p><b>What is the 1414 Degrees business strategy?</b></p>	<p>The basis of the 1414 Degrees business model is to derive recurrent revenue from its devices through direct sales or leasing with associated O&amp;M Agreements, and by sharing in revenues earned through commercialisation joint ventures.</p> <p>In the short term, 1414 Degrees will provide clean and low cost energy for industries which require heat and electricity. 1414 Degrees' TESS-IND, GAS-TESS and TESS-STEAM service this market.</p> <p>The Company is currently implementing this strategy by entering into arrangements with industry to enable it to conduct pilot programs to generate operating specifications for a number of these devices including specifications for product use, cost, output and maintenance costs. Although these arrangements will only generate nominal revenue for the Company in the short term, if the trials are successful, they will provide the basis for the broader marketing of its products on commercial terms without the need for material further investment by the Company in the underlying technology. Details of the proposed allocation of funds to be raised under the Offer are described in Section 4 of this Prospectus.</p> <p>In the longer term, following commercialisation of the above products, the Company intends to provide electricity networks with combined heat and power energy storage solutions. The TESS-IND and TESS-GRID products will service this market. Customers for grid applications and large commercial developments will be attracted by the scalability, low cost and flexibility of location.</p> <p>The design of the TESS-GRID and its 1/15th size test cell will commence following the close of the Offer with the aim of commissioning the test cell in first half of 2019. Concurrently, commercial sites for construction of the 200MWh TESS-GRID device will be assessed. The Company's business plan contemplates commercialisation of the TESS-GRID within three years of the Offer. If the Company achieves the Maximum Subscription as a result of the Offer, the Company expects to be in a position to construct a 200MWh storage module to provide specifications for product use, cost, output and maintenance cost as the basis to commercialise the TESS-GRID.</p> <p>The Minimum Subscription will provide sufficient funds to finalise the design of this device and construct and commission the test cell as a necessary precursor to development of the full device. Concurrently, commercial sites for construction of the 200MWh TESS-GRID device will be assessed but the construction of the 200MWh device will require further funding to be secured. In these circumstances, the Company's focus will remain on commercialisation and marketing of its smaller devices as described above. The ability (or otherwise) of the Company to implement the part of its business strategy which relates specifically to commercialising the TESS-GRID device will not negatively impact the achievement of its near term business strategy in relation to TESS-IND, GAS-TESS and TESS-STEAM.</p>	<p><b>SECTION 2</b></p>



## 1.2 OVERVIEW OF THE COMPANY'S BUSINESS

Question	Answer	More information
<p><b>What is the 1414 Degrees business strategy?</b></p> <p>&gt; continued</p>	<p>Our near term customers are industrial users of electricity and heat energy, which include but are not limited to wastewater management organisations, commercial operations with a need for heat such as packaging manufacturing, agribusiness and greenhouses.</p> <p>Current customers include SA Water, Pepe's Ducks and Austcor Packaging. Commissioning of the SA Water device is scheduled for Q4 2018 to be followed by an up to eighteen-month trial. The Pepe's Ducks and Austcor Packaging projects will commence feasibility studies in June 2018.</p> <p>1414 Degrees expects to develop the much larger and more capital intensive TESS-GRID projects in joint ventures with infrastructure financing sources, developers of renewable generation and agribusiness or industrial parks.</p> <p>The Company's devices will be introduced to market via contractual arrangements with established providers of energy efficiency and sufficiency solutions for industry.</p> <p>Components of the Company's TESS sourced from specialist suppliers will be assembled by a contract manufacturer under 1414 Degrees supervision to preserve the confidentiality of the Company's intellectual property.</p>	<p><b>SECTION 2</b></p>
<p><b>What are the Company's key strengths?</b></p>	<p>The Company has the following key strengths:</p> <p><b>1. LOW COST ENERGY STORAGE PROVIDER:</b> The 1414 Degrees technology uses abundant materials, off the shelf components and known processes, thereby reducing the risks and costs of product manufacture. It is expected to operate at a low levelised cost of storage with output of electricity and heat, and by providing very high energy efficiency through supply of hot air or steam at the temperatures required by industry and buildings.</p> <p><b>2. LONG LIFE TECHNOLOGY:</b> The 1414 Degrees TESS products have been specified to last 20 years or more without declining performance and replacement.</p> <p><b>3. COMPACT ENERGY STORAGE PRODUCT:</b> The very high energy density of silicon allows a compact solution to energy storage permitting integration into existing facilities.</p> <p><b>4. UNIQUE PRODUCT:</b> 1414 Degrees modular TESS will store energy from either gas or electricity and supply both heat and electricity in the proportions required by customers. It is unique in combination of affordability, flexibility of location, scalability, and sustainability.</p> <p><b>5. POTENTIAL FOR RECURRENT EARNINGS:</b> There is potential to generate long term revenues based on 1414 Degrees leasing or licencing its devices to share the benefits of growing storage requirements as the utilisation of renewables rises worldwide.</p> <p><b>6. OWNERSHIP OF EXPERTISE &amp; IP:</b> The Company can maintain its competitive advantage by continuing to build its intellectual property through in-house research and development leading to new patents.</p> <p><b>7. EXPERIENCED MANAGEMENT TEAM:</b> 1414 Degrees management team has significant engineering, business development, legal, and marketing competence. The management team is supported by specialist engineering service contractors and financial service providers.</p>	<p><b>SECTION 2</b></p>

## 1.2 OVERVIEW OF THE COMPANY'S BUSINESS

Question	Answer	More information
<p><b>What technologies and companies offer alternatives to the Company and its products?</b></p>	<p>As far as 1414 Degrees is able to ascertain there is no direct competing technology, wherein an electrically or continuous biogas heated thermal storage system utilises the very high temperatures (up to 1414°C) and latent heat properties of silicon to store and recover high temperature heat and electricity.</p> <p>Alternative storage technologies are those that store and recover heat and/or electricity using other means, including electro-chemical storage (e.g. lithium-ion batteries); thermal storage (gas or electric heated water tanks, hot rocks (rock or concrete) and phase change material, particularly molten salt); “thermal batteries”; and mechanical technologies for the storage and recovery of electrical energy (including pumped hydro, flywheels, and compressed air energy storage). There are alternative energy storage technologies that offer higher electrical efficiency than the Company’s TESS technology, however, based on demand from potential customers, the Company considers that the most efficient use of its technology is the storage and supply of both heat and electricity and it has developed its technology on that basis.</p> <p>Currently, the Company’s developed product applications (being TESS-IND, GAS-TESS and TESS-STEAM) are mainly designed for industries and urban developments requiring high temperature heat energy, with or without power, and therefore offering a alternative solution to electric-only battery storage and lower temperature thermal storage. When the Company develops and proves its TESS-GRID technology, it may compete with large scale storage alternatives including large scale battery installations or pumped hydro, by supplying heat as well as power to maximise efficiency.</p> <p>Further details of the Company’s TESS technology compared with other energy storage technologies are set out in Section 2.6.</p>	<p><b>SECTION 2</b></p>
<p><b>How does the Company expect to fund its operations?</b></p>	<p>Prior to generating significant ongoing revenues, the Company expects to fund its operations through the funds raised under the Offer.</p>	<p><b>SECTION 4</b></p>
<p><b>Who are the 1414 Degrees customers?</b></p>	<p>1414 Degrees’ energy storage system has global applications for renewable energy farms, electricity networks, waste treatment plants, district heating, agribusiness and industrial processes, most of which are intensive consumers of heat. There has been international interest from potential customers seeking to reduce energy costs and carbon emissions by utilising renewable energy sources.</p> <p>The Company is currently implementing its business strategy by entering into arrangements with industry to enable it to conduct pilot programs to generate operating specifications for a number of its devices. Although these arrangements will only generate nominal revenue for the Company in the short term, if the trials are successful, they will provide the basis for the broader marketing of its products to the types of customers referred to above on commercial terms.</p> <p>The Company has entered into a Non-Binding Term Sheet with SA Water to supply, construct and install a GAS-TESS at SA Water’s Glenelg Wastewater Treatment Plant in South Australia. This project is being co-funded by the South Australian Government with a grant of A\$1.6m, with final legal documentation between the Company and SA Water to be agreed in advance of a notional operational start date for the pilot program of 1 July 2018.</p> <p>The Company has agreed with poultry producer Pepe’s Ducks to supply and commission a TESS-IND at its processing plant in NSW. The Offer Letter signed by the parties contemplates that the parties will enter into detailed lease and O&amp;M Agreements in respect of the TESS-IND unit to be installed, which documents will reflect the key commercial terms set out in the Offer Letter.</p>	<p><b>SECTIONS 2 AND 11</b></p>

## 1.2 OVERVIEW OF THE COMPANY'S BUSINESS

Question	Answer	More information
<p><b>Who are the 1414 Degrees customers?</b></p> <p>&gt; continued</p>	<p>The Company has agreed with packaging manufacturer Austcor Packaging to supply and commission a TESS-IND at one of its paper manufacturing plants in NSW. The Offer Letter signed by the parties contemplates that the parties will enter into detailed lease and O&amp;M Agreements in respect of the TESS-IND unit to be installed, which documents will reflect the key commercial terms set out in the Offer Letter.</p> <p>As noted above, the Company will generate only nominal revenue from these pilot projects. Further details of the terms of these arrangements are set out at Section 11.</p>	<p><b>SECTIONS 2 AND 11</b></p>
<p><b>Where are the 1414 Degrees operations located?</b></p>	<p>1414 Degrees' principal operations and headquarters are located at Level 4, 81 Flinders Street, Adelaide South Australia. Its engineering operations are located in the Southlink Industrial Park, Lonsdale, South Australia.</p>	<p><b>SECTION 2</b></p>
<p><b>Is 1414 Degrees' technology patented?</b></p>	<p>1414 Degrees' technology and brand is protected by a portfolio of patents, registered brands, provisional patent applications and trade secrets. The Company's portfolio of intellectual property assets (including granted patents and pending patent applications in Europe and India) have clear importance and value to the Company.</p> <p>In the event that any of the Company's pending patent applications are not granted, then the Company would not be able to prevent third parties from infringing or misappropriating its intellectual property within the relevant jurisdictions. While this would not prevent the Company from exploiting its intellectual property in those applicable jurisdictions, it would allow potential competitors to enter the market, although given the nature and scale of the technology, a certain amount of engineering and fabrication effort would be required to develop competing systems.</p> <p>The Company does not expect there to be any material impediment to the grant of the pending patent applications in Europe and India.</p>	<p><b>SECTION 10</b></p>
<p><b>Who are 1414 Degrees' business partners or proposed business partners?</b></p>	<p>Sales of the smaller devices will be channelled through service companies that provide technology and energy efficiency solutions to industry customers.</p> <p>The Company has entered into a binding, non-exclusive sales/licensing Heads of Agreement with Energy &amp; Carbon Solutions Pty Ltd for the sale and distribution of 1414 Degrees' technology into the Australian market. The parties have agreed to co-operate to negotiate a detailed sales/agency agreement, which will incorporate the terms of the Heads of Agreement, in the near term.</p> <p>SunKconnect Pte Ltd, Resourtium International Sdn Bhd and 1414 Degrees have entered into a non-binding Memorandum of Understanding in relation to collaborating to optimise the TESS with solar PV in the ASEAN market. The Memorandum of Understanding contemplates that the parties will enter into formal documentation in relation to detailed work programs for the collaboration, once agreed, and subject to SunKconnect Pte Ltd securing grant funding from the Government of Singapore.</p> <p>The Company is undertaking a feasibility study for a Victorian water utility to assess GAS-TESS and TESS-IND devices for multiple sites.</p>	<p><b>SECTIONS 2 AND 11</b></p>

## 1.3 KEY RISKS

Question	Answer	More information
<p><b>What are the key company specific risks?</b></p>	<p>The top three key Company specific risks associated with the Company's activities and its proposed involvement in the thermal energy storage market are:</p> <p><b>1. SHORT OPERATING EXPERIENCE AND EARLY STAGE RISK:</b> The Company to date has been developing and proving a novel technology with limited operating history. The Company's limited operating history may not provide investors with a meaningful basis to assess the business, financial position and prospects of the Company. Investors should consider the Company's business and prospects in view of the risks, costs, expenses and challenges that the Company may face as an early stage business. The Company is unlikely to generate significant revenue until such time that it has commercialised its TESS technology following the completion of the pilot trials. In addition, the Company may not generate a profit even after the Company commences generating revenue. An investment in the Company is therefore speculative. Risks associated with investments in early stage companies are generally considered high.</p> <p><b>2. RELIANCE ON THIRD PARTIES:</b> The Company has entered into several contracts, which are summarised in Section 11. The loss or impairment of these key customer and business relationships could have a material adverse effect on the Company's operations, financial condition and prospects, at least until alternative arrangements can be implemented. The Company has entered into initial binding agreements with two customers and a further non-binding Term Sheet to supply and commission the TESS technology at customer sites, and it has also entered into a non-exclusive sales/licensing agreement. Under these initial agreements with its customers, the Company is required to enter into more detailed and final implementation agreements with each of its customers for the supply and commission of the TESS technology. There is the risk that if the Company's relationships with its customers break down, including if the final project agreements as contemplated by the initial agreements are not agreed, or if the parties fail to perform their obligations under the initial agreements or the final project agreements, the Company's operational performance may be adversely affected. Similarly, the Company will also procure equipment for the manufacture of the TESS technology from third party manufacturers under applicable purchase order contracts. Whilst the Company will have various contractual rights in the event of a breach by the other party, no guarantee can be made that each contract agreed by the Company can be fully complied with by the other party. Furthermore, no guarantee can be made that if the other party does not comply with each contractual provision, the Company will be successful in enforcing compliance.</p> <p><b>3. FAILURE TO BUILD AND COMMISSION TESS TECHNOLOGY:</b> There is no assurance that the Company will be able to develop the TESS technology to meet the Company's operational objectives, and failure to meet such objectives may adversely impact the financial position and operating results of the Company. For example, there can be no guarantee that the Company will be successful in building and commissioning the pilot TESS units at the commercial sites. The Company is in the process of commencing trials of the TESS technology in operating industries. These trials will be funded by the Company in accordance with the allocation of funds set out in Section 4, and supported by grant funding. There is a risk that the TESS technology may not perform in the same way outside of the Company's demonstration trials, which may further delay the development and commercialisation of the TESS technology and the Company's marketing and distribution of the TESS. As part of the pilot projects, the TESS technology will need to be integrated into a customer's existing facilities at the site, including the use, extraction and application of the heat, which will differ for each customer installation.</p>	<p><b>SECTION 6</b></p>

### 1.3 KEY RISKS

Question	Answer	More information
<p><b>What are the key company specific risks?</b></p> <p>&gt; continued</p>	<p>The Company cannot and does not make any assurance, representation or warranty in relation to the way that the TESS technology may be integrated into a customer's site until such time as an engineering feasibility study has been completed and agreed between the relevant customer and the Company. In the short term, the failure to successfully integrate the TESS devices into customer sites may adversely affect the Company's ability to achieve its business strategy (in particular the ability to generate operating specifications required to support future sales of TESS devices), and as a result, its operational and financial performance.</p> <p>The other key risks specific to the Company's operations are:</p> <p><b>4. BUSINESS STRATEGY EXECUTION:</b> The ability of 1414 Degrees to achieve growth of its business is dependent on the successful implementation of the Company's growth strategies, business plans and strategic initiatives outlined in this Prospectus (including the business model outlined in Section 2.9). An inability to successfully implement these plans and initiatives, whether wholly or partially, could adversely affect the Company's operating and financial performance. Although a successful commissioning at any site will provide operational assurance, there is no certainty that the Company will be able to generate income or capital growth from the TESS units. Furthermore, the complexity and uncertainty in the evolving energy systems could potentially render it more difficult than the Company expects to gain traction for its business model and to win new customers.</p> <p><b>5. SHORTAGE OF FUNDING:</b> Based on the application of the funds set out in Section 4, the Company believes it will have sufficient funds after completion of the Offer to implement the Company's growth strategies, business plans and strategic initiatives outlined in this Prospectus (including the business model outlined in Section 2.9) for the near term. The Company may seek to exploit other opportunities that will require it to raise additional capital from equity or debt markets. There can be no assurances that the Company will be able to raise such additional funding on favourable terms or at all. If the Company is unable to obtain such additional capital, it may be required to reduce the scope of its anticipated additional activities, which could adversely affect its business, financial condition and operations. In addition, the Company's operating results may vary significantly from period to period, and it may not be able to sustain operating profitability. If the Company incurs unexpected costs or is unable to generate sufficient operating income, further funding may be required. The Company may require additional funding to carry out further product development or product improvement. Any additional financing through share issues may dilute shareholdings acquired under this Prospectus. Debt financing may not be available to support the scope and extent of proposed developments. If available, it may impose restrictions on operating activities or anticipated expansion of the Company's operations.</p> <p><b>6. INTELLECTUAL PROPERTY RISK:</b> The Company has invested significant time and resources in protecting the intellectual property which is important to it, including a patent (granted in several jurisdictions and pending in Europe and India) for its thermal energy storage and retrieval system, that was the precursor to the Company's current design for its GAS-TESS and TESS-IND. The Company has also filed a patent application (PCT) in respect of the current design of the TESS-IND which is also the platform technology that the GAS-TESS is based on. The Company anticipates that the PCT patent application will be published in September 2018. There is a risk to the Company if any of the pending applications in respect of the First Patent or the PCT are not granted to the Company. Notably, there are only two pending applications remaining in respect of the First Patent (Europe and India) and these are expected to be granted in due course. In this circumstance, the Company would not be able to prevent third parties from infringing or misappropriating its intellectual property within the relevant jurisdictions.</p>	<p><b>SECTION 6</b></p>

### 1.3 KEY RISKS

Question	Answer	More information
<p><b>What are the key company specific risks?</b></p> <p>&gt; continued</p>	<p>While this would not prevent the Company from exploiting its intellectual property in those applicable jurisdictions, it would allow potential competitors to enter the market although, given the nature and scale of the technology, a certain amount of engineering and fabrication effort would be required to develop competing systems. Despite the Company having certain granted patents, there remains the risk that third parties may still breach the intellectual property rights held by the Company in relation to its products, including the risk that other parties may claim to have an interest in a patent or trade secret of the Company. Any of these actions would likely require legal action by 1414 Degrees and may impact 1414 Degrees adversely.</p> <p><b>7. RELIANCE ON KEY PERSONNEL:</b> The Company's operational success will substantially rely on the experience of its existing management team and directors. In particular the Company is dependent on the knowledge and expertise of its Executive Chairman, Dr Kevin Moriarty and its key engineers, Mr Matthew Johnson (Chief Technical Officer) and Mr Isaac Mathwin (Head of Engineering) to achieve its business plan, most significantly the installation and commissioning of the proposed pilot devices. There would likely be a detrimental impact on the achievement of the Company's business plan and therefore an adverse impact on its financial position and operating results if one or more of these persons were to leave the Company.</p> <p><b>8. COMPETITION RISK:</b> 1414 Degrees participates in the developing renewable energy storage market. As outlined in Section 2.6, while the Company is of the view that there are currently no identified technologies which directly compete with the 1414 Degrees products, there are a range of other technologies currently available and in development which offer alternatives to the Company's technology without competing directly with it (for example, battery technologies like lithium-ion or "thermal batteries" which are designed to discharge electricity only, and not heat). Despite this, in the future, this market may be entered by globally focused competitors with significantly more access to capital and resources. Should any of 1414 Degrees' competitors participate more aggressively on price, product, innovation or other means then this could have a material adverse impact on 1414 Degrees performance and the future prospects of the business</p> <p><b>9. LITIGATION:</b> Litigation brought against the Company by third parties, including (but not limited to) customers, partners, or suppliers could adversely affect the business whether the impact of the litigation is greater than or outside the scope of the Company's insurance.</p> <p><b>10. REGULATORY RISK:</b> Participation in the energy market in Australia is subject to laws and regulations. Existing laws or regulations, as currently interpreted or reinterpreted in the future, or future laws or regulations, could adversely affect the Company's ability to implement its business strategy.</p> <p><b>11. REPUTATION RISK:</b> The success of the Company is dependent on its reputation. The Company's inability to address adverse publicity or other issues including (but not limited to) concerns about non-performance of the TESS technology, safety or quality issues regarding the TESS technology, or similar matters, real or perceived, could negatively impact sentiments towards the Company and its TESS technology and brands. Any facts or events that diminish the Company's reputation, brand names or related trademarks may adversely affect the operating and financial performance of the Company.</p> <p><b>12. ECONOMIC RISKS:</b> The performance of the Company is likely to be affected by changes in economic conditions including future demand for renewable energy storage technology; the effects of fluctuations in exchange and interest rates; the general deterioration of economic conditions and business sentiment; the strength of share markets in Australia and throughout the world; financial failure by any entity with which the Company may become involved; and industrial disputes, terrorism or other hostilities.</p>	<p><b>SECTION 6</b></p>



### 1.3 KEY RISKS

Question	Answer	More information
<p><b>What are the key general risks?</b></p>	<p>The key general risks affecting the Company's activities and its proposed involvement in the thermal energy storage market include:</p> <p><b>1. LIQUIDITY RISK:</b> Once the Shares are quoted on the ASX, there can be no guarantee that an active trading market for the Shares will develop or that the price of the Shares will increase. There may be relatively few potential buyers or sellers of the Shares on the ASX at any given time which may increase the volatility of the market price of the Shares.</p> <p><b>2. PRICE OF SHARES:</b> Once the Company becomes a publicly listed company on the ASX, the Company will become subject to general market risk that is inherent in all securities listed on a stock exchange. This may result in fluctuations in the Share price that are not explained by the Company's fundamental operations and activities.</p> <p><b>3. SHAREHOLDER DILUTION:</b> In the future, the Company may elect to issue Shares or other securities. While the Company will be subject to the constraints of the ASX Listing Rules regarding the issue of Shares or other securities, Shareholders at the time may be diluted as a result of such issues of Shares or other securities.</p> <p><b>4. ACCOUNTING STANDARDS:</b> Changes in the Australian Accounting Standards and subjective assumptions, estimates, and judgements by management related to complex accounting matters could significantly affect the Company's financial results or financial conditions. There is also a risk that interpretations of existing Australian Accounting Standards, including those relating to the measurement and recognition of key income statement and balance sheet items, including revenue and receivables, may differ. Changes to the Australian Accounting Standards or to commonly held views on the application of those standards could materially adversely affect the financial performance of the Company.</p> <p><b>5. GOVERNMENT POLICY:</b> A change in the policy of a government (including in relation to Accounting Standards, tax laws and regulations and restrictions or requirements related to privacy and reporting) could adversely affect the Company's financial results. Non-compliance may result in financial penalties being levied against the Company.</p> <p><b>6. INSURANCE RISK:</b> While the Company seeks, wherever practicable and economically advisable, to utilise insurance to mitigate business risks, such insurance may not always be available or claims against the Company may fall outside the scope of insurance cover. If realised, uninsured risks may adversely affect the financial position of the Company.</p> <p><b>7. FORCE MAJEURE:</b> Force majeure events, or events beyond the control of the Company, may occur within or outside Australia that could impact upon the world economy, the Company's operations and the price of the Shares. While the Company seeks to maintain insurance in accordance with industry practice to insure against the risks it considers appropriate, no assurance can be given as to the Company's ability to obtain such insurance coverage in the future at reasonable rates or that any coverage arranged will be adequate and available to cover any and all potential claims.</p>	<p><b>SECTION 6</b></p>

## 1.4 FINANCIAL INFORMATION

Question	Answer	More information																															
<p><b>What is the key financial information of the Company?</b></p>	<p>The following is a summary of the Company's consolidated financial information for the financial years ended 30 June 2016 and 30 June 2017 and half financial year ended 31 December 2017:</p> <table border="1"> <thead> <tr> <th></th> <th>Audited</th> <th>Audited</th> <th>Reviewed</th> </tr> <tr> <th>\$000s</th> <th>FY16</th> <th>FY17</th> <th>HYDec17</th> </tr> </thead> <tbody> <tr> <td>Sales revenue</td> <td>-</td> <td>3</td> <td>27</td> </tr> <tr> <td>Total comprehensive loss for the period, net of tax</td> <td>(294)</td> <td>(954)</td> <td>(3,266)</td> </tr> </tbody> </table> <p>Further historical financial information for the periods ended 30 June 2016, 30 June 2017 and 31 December 2017 is set out in Section 7 and is considered in the Independent Limited Assurance Report in Section 8.</p> <p><b>PRO FORMA STATEMENT OF FINANCIAL POSITION</b></p> <p style="text-align: center;"><b>Pro Forma Statement of Financial Position</b></p> <table border="1"> <thead> <tr> <th>\$000s</th> <th>Minimum</th> <th>Maximum</th> </tr> </thead> <tbody> <tr> <td>Cash assets</td> <td>33,735</td> <td>52,896</td> </tr> <tr> <td>Total assets</td> <td>37,124</td> <td>56,284</td> </tr> <tr> <td>Total liabilities</td> <td>300</td> <td>300</td> </tr> <tr> <td>Net assets</td> <td>36,824</td> <td>55,984</td> </tr> </tbody> </table> <p>The Company is not a party to any banking, financial or investment facilities (whether as lender, borrower or guarantor).</p>		Audited	Audited	Reviewed	\$000s	FY16	FY17	HYDec17	Sales revenue	-	3	27	Total comprehensive loss for the period, net of tax	(294)	(954)	(3,266)	\$000s	Minimum	Maximum	Cash assets	33,735	52,896	Total assets	37,124	56,284	Total liabilities	300	300	Net assets	36,824	55,984	<p><b>SECTIONS 7 AND 8</b></p>
	Audited	Audited	Reviewed																														
\$000s	FY16	FY17	HYDec17																														
Sales revenue	-	3	27																														
Total comprehensive loss for the period, net of tax	(294)	(954)	(3,266)																														
\$000s	Minimum	Maximum																															
Cash assets	33,735	52,896																															
Total assets	37,124	56,284																															
Total liabilities	300	300																															
Net assets	36,824	55,984																															
<p><b>Are there any forecasts of future earnings?</b></p>	<p>Given the inherent uncertainties around forecasting financial information, the Board has elected not to include forecast financial information in this Prospectus.</p>	<p><b>SECTION 7</b></p>																															
<p><b>Will the Company have sufficient funds for its activities?</b></p>	<p>The Board is satisfied that, upon completion of the Offer, the Company will have sufficient funds to meet its stated objectives for a period of at least two years.</p>	<p><b>SECTION 7</b></p>																															
<p><b>What is the Company's current dividend policy?</b></p>	<p>The Company does not expect to pay dividends in the near future as its focus will primarily be on using cash reserves to grow and develop the 1414 Degrees' business.</p> <p>Any future determination as to the payment of dividends by the Company will be at the discretion of the Directors and will depend upon matters such as the availability of distributable earnings, the operating results and financial condition of the Company, future capital requirements, general business and other factors considered relevant by the Directors.</p>	<p><b>SECTION 7</b></p>																															



## 1.5 DIRECTORS AND KEY MANAGEMENT

Question	Answer	More information
<p><b>Who are the Directors and Company Secretary of 1414 Degrees?</b></p>	<p>The Board is comprised of three Directors, including one independent director.</p> <p>The Directors are as follows:</p> <ol style="list-style-type: none"> <li><b>Kevin Moriarty</b> – Executive Chairman</li> <li><b>Robert Shepherd</b> – Non-Executive Director</li> <li><b>Dana Larson</b> – Independent Non-Executive Director</li> </ol> <p>The Company Secretary is <b>Richard Willson</b>.</p> <p>The Executive Chairman and Company Secretary have many years of ASX listed company board experience.</p> <p>Please refer to Section 5 for more information on the Directors and Company Secretary.</p>	<p><b>SECTION 5</b></p>
<p><b>Who comprises the key management of the Company and what is their expertise?</b></p>	<p>The key management team consists of:</p> <ol style="list-style-type: none"> <li><b>Kevin Moriarty</b>, BSc (Hons), PhD, MAusIMM, is Executive Chairman with over 31 years of experience as Chief Executive and director of ASX listed operating companies.</li> <li><b>Matthew Johnson</b>, BSc is Chief Technology Officer with 25 years of experience in engineering, and the principal engineer and founder of a specialist engineering practice.</li> <li><b>Penelope Bettison</b>, BBus, MAICD, FAMI, CPM, is Head of Corporate Services &amp; Marketing with 20 years of experience in marketing and business management.</li> <li><b>Marnie Robinson</b>, LLB, is an experienced corporate lawyer with over 18 years specialising in energy and regulatory law.</li> <li><b>Isaac Mathwin</b>, BEng (Mech)(Hons) is Head of Engineering with 17 years of experience in designing, building and commissioning manufacturing systems to rigorous quality standards.</li> <li><b>Jonathan Whalley</b>, BSc (Hons), MSc, MBA is Head of Contracts with 30 years of experience as an electronic engineer and entrepreneur.</li> <li><b>Richard Willson</b>, BAc, FCPA, FAICD is Company Secretary with more than 20 years' experience as CFO, Company Secretary and Non-Executive Director for publicly listed and private companies.</li> </ol>	<p><b>SECTION 5</b></p>

## 1.6 SIGNIFICANT INTERESTS OF KEY PEOPLE AND RELATED PARTY TRANSACTIONS

Question	Answer	More information												
<p><b>Who are the key shareholders of the Company and what is their interest in the Company upon completion of the Offer?</b></p>	<p>Those Shareholders holding 5% or more of the Shares on issue at the date of this Prospectus are:</p> <table border="1"> <thead> <tr> <th>Shareholder</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Harold Tomblin &amp; Judith Johnston &lt;Tomblin Superfund&gt;</td> <td>9.98%</td> </tr> <tr> <td>Focem Pty Ltd &lt;Towarnie Superannuation Fund&gt; <sup>(1)</sup></td> <td>9.87% <sup>(1)</sup></td> </tr> <tr> <td>John &amp; Wendy Moss &lt;Moss Retirement Trust&gt;</td> <td>6.82%</td> </tr> <tr> <td>Robert &amp; Lynette Shepherd &lt;Shepherd Superfund&gt;</td> <td>5.65%</td> </tr> <tr> <td>ammjohn Pty Ltd <sup>(2)</sup></td> <td>5.14% <sup>(2)</sup></td> </tr> </tbody> </table> <p><i>(1) Kevin Moriarty is a director and shareholder of Focem Pty Ltd which is the trustee of the Towarnie Superannuation Fund.</i></p> <p><i>(2) Matthew Johnson is a director and shareholder of ammjohn Pty Ltd.</i></p>	Shareholder	%	Harold Tomblin & Judith Johnston <Tomblin Superfund>	9.98%	Focem Pty Ltd <Towarnie Superannuation Fund> <sup>(1)</sup>	9.87% <sup>(1)</sup>	John & Wendy Moss <Moss Retirement Trust>	6.82%	Robert & Lynette Shepherd <Shepherd Superfund>	5.65%	ammjohn Pty Ltd <sup>(2)</sup>	5.14% <sup>(2)</sup>	<p><b>SECTION 4</b></p>
Shareholder	%													
Harold Tomblin & Judith Johnston <Tomblin Superfund>	9.98%													
Focem Pty Ltd <Towarnie Superannuation Fund> <sup>(1)</sup>	9.87% <sup>(1)</sup>													
John & Wendy Moss <Moss Retirement Trust>	6.82%													
Robert & Lynette Shepherd <Shepherd Superfund>	5.65%													
ammjohn Pty Ltd <sup>(2)</sup>	5.14% <sup>(2)</sup>													

## 1.6 SIGNIFICANT INTERESTS OF KEY PEOPLE AND RELATED PARTY TRANSACTIONS

Question	Answer	More information						
<p><b>Who are the key shareholders of the Company and what is their interest in the Company upon completion of the Offer?</b></p> <p><b>continued &gt;</b></p>	<p>On completion of the Offer (assuming Minimum Subscription and that no existing substantial Shareholder subscribes for and receives additional Shares pursuant to the Offer), those Shareholders holding 5% or more of the Shares on completion of the Offer will be:</p> <table border="1"> <thead> <tr> <th>Shareholder</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Harold Tomblin &amp; Judith Johnston &lt;Tomblin Superfund&gt;</td> <td>5.93%</td> </tr> <tr> <td>Focem Pty Ltd &lt;Towarnie Superannuation Fund&gt; <sup>(1)</sup></td> <td>5.87% <sup>(1)</sup></td> </tr> </tbody> </table> <p><i>(1) Kevin Moriarty is a director and shareholder of Focem Pty Ltd which is the trustee of the Towarnie Superannuation Fund.</i></p> <p>Assuming the Maximum Subscription and that no existing substantial Shareholder subscribes for and receives additional Shares pursuant to the Offer, there will be no existing substantial Shareholders holding 5% or more of the Shares on completion of the Offer.</p> <p>The Company will announce to the ASX details of its top-20 Shareholders (following completion of the Offer) prior to the Shares commencing trading on the ASX.</p>	Shareholder	%	Harold Tomblin & Judith Johnston <Tomblin Superfund>	5.93%	Focem Pty Ltd <Towarnie Superannuation Fund> <sup>(1)</sup>	5.87% <sup>(1)</sup>	SECTION 4
Shareholder	%							
Harold Tomblin & Judith Johnston <Tomblin Superfund>	5.93%							
Focem Pty Ltd <Towarnie Superannuation Fund> <sup>(1)</sup>	5.87% <sup>(1)</sup>							
<p><b>What are the current Directors' current holdings in the Company?</b></p>	<p>The current Directors' direct and indirect interests in the Shares as at the date of this Prospectus are as follows:</p> <ul style="list-style-type: none"> <li>• Kevin Moriarty: 12,403,000 / 9.87%</li> <li>• Robert Shepherd: 7,107,594 / 5.65%; and</li> <li>• Dana Larson: 250,000 / 0.20%</li> </ul>	SECTION 5						
<p><b>What escrow restrictions apply to the existing Shareholders' Shares?</b></p>	<p>Subject to the Company being admitted to the Official List and quotation of the Shares on the ASX, certain of the Shares on issue prior to the Offer are likely to be classified by the ASX as restricted securities and will be required to be held in escrow for the period imposed by the ASX under the ASX Listing Rules.</p> <p>The Company will announce to the ASX full details (quantity and duration) of the Shares required to be held in escrow prior to the Shares commencing trading on the ASX.</p> <p>For further detail in relation to the restrictions imposed on escrowed Shares, please refer to Section 4.</p>	SECTION 4						
<p><b>Are the Directors or any existing Shareholders selling Shares into this Offer?</b></p>	<p>No, the Directors and the Shareholders as at the date of the Prospectus are not selling Shares into the Offer.</p>	SECTION 4						

## 1.6 SIGNIFICANT INTERESTS OF KEY PEOPLE AND RELATED PARTY TRANSACTIONS

Question	Answer	More information
<p><b>What significant benefits are payable to Directors and the other persons connected with the Company or the Offer?</b></p>	<p>Following completion of the Offer, Kevin Moriarty will be paid \$295,000 per annum (excluding superannuation) in connection with the ongoing role as Executive Chairman (noting that no additional remuneration is payable to Dr Moriarty in connection with his appointment as a Director).</p> <p>Robert Shepherd will be paid a director fee of \$40,000 per annum (exclusive of superannuation).</p> <p>Dana Larson has been issued 250,000 Shares in lieu of cash remuneration as a Director.</p> <p>The remuneration of the Directors as outlined above is current as at the date of this Prospectus, but is subject to adjustment in the ordinary course of business.</p> <p>The Company and ammjohn entered into a Deed of Termination on 8 January 2018. Matthew Johnson is a former Director and a related party of the Company. Matthew Johnson is a shareholder and a director of ammjohn. Under the Deed of Termination, the Company and ammjohn agreed:</p> <ul style="list-style-type: none"> <li>• to terminate the Services Agreement dated 1 July 2014 between the Company and ammjohn;</li> <li>• that the Company was permitted to make employment offers to certain employees and contractors of ammjohn; and</li> <li>• that the Company would pay the amount of \$168,791.68 (being a lump sum payment of \$230,000 less the value of certain accrued employee entitlements owed to transferring employees assumed by the Company) to ammjohn upon the Company successfully obtaining equity capital of at least \$5,000,000 in aggregate. The Company will therefore be required to pay this amount to ammjohn within 30 days after successful completion of the Offer.</li> </ul> <p>The Company and ammjohn entered into an Executive Services Agreement under which ammjohn has agreed to procure Matthew Johnson to provide services to the Company as Chief Technology Officer. The Company has agreed to pay ammjohn \$150,000 per annum for these services (excluding GST and superannuation, if applicable).</p> <p>The Lead Manager will be paid fees according to its performance under its mandate, further details of which are set out in Section 11.</p>	<p><b>SECTIONS 5, 11 AND 12</b></p>

## 1.7 OVERVIEW OF THE OFFER

Question	Answer	More information
<p><b>Who is the Issuer of this Prospectus?</b></p>	<p>1414 Degrees Limited (ACN 138 803 620).</p>	<p><b>SECTION 2</b></p>
<p><b>What is the Offer?</b></p>	<p>An offer of up to 142,857,143 Shares at an Offer Price of \$0.35 per Share to raise a maximum of \$50,000,000.</p> <p>The Offer made under this Prospectus and the issue of Shares pursuant to this Prospectus are subject to and conditional upon the Company achieving the Minimum Subscription of 85,714,286 Shares to raise at least \$30,000,000.</p> <p>Fractional amounts are being rounded up to the next whole number.</p> <p>For details relating to the rights and liabilities of the Shares, refer to Section 12.</p>	<p><b>SECTION 4</b></p>
<p><b>What is the Offer Price?</b></p>	<p>The Offer Price is \$0.35 per Share.</p>	<p><b>SECTION 4</b></p>

## 1.7 OVERVIEW OF THE OFFER

Question	Answer	More information
<b>Is the Offer underwritten?</b>	The Offer is not underwritten.	<b>SECTION 4</b>
<b>What happens if the Minimum Subscription is not received?</b>	The Minimum Subscription for the Offer to proceed is \$30,000,000. If the Minimum Subscription is not obtained within three months after the date of this Prospectus (or any longer period permitted by law), the issue of Shares under the Offer will not proceed and no Shares will be allotted pursuant to this Prospectus. The Company will repay all Application Monies in full without interest as soon as practicable, or the Company will issue a Supplementary or Replacement Prospectus and allow applicants one month to withdraw their applications and be repaid their Application Monies in full without interest.	<b>SECTION 4</b>
<b>What are the terms of the Shares?</b>	The rights attaching to the Shares are summarised in Section 12.	<b>SECTION 12</b>
<b>Where and when will the Shares be quoted?</b>	<p>The Company applied to the ASX within seven days of the date of the Original Prospectus, for its admission to the Official List and quotation of the Shares on the ASX. The Shares are expected to be quoted under the ASX trading code of "14D". Quotation of the Shares is expected to occur on 3 July 2018.</p> <p>Completion of the Offer is conditional on the ASX approving the Company's listing application and the Shares being admitted to quotation by the ASX.</p> <p>If the Shares are not admitted to quotation within three months after the date of this Prospectus (or any longer period permitted by law), the Company will repay all Application Monies in full without interest as soon as practicable or issue a Supplementary or Replacement Prospectus and allow applicants one month to withdraw their applications and be repaid their Application Monies in full without interest.</p>	<b>SECTION 4</b>
<b>Are there any restrictions on the disposal of the Shares?</b>	<p>Upon completion of the Offer and subject to the ASX Listing Rules, the Shares issued under the Prospectus will not be subject to any restrictions on disposal.</p> <p>It is expected that some of the Shares held by the Company's Shareholders as at the date of this Prospectus will be subject to escrow.</p>	<b>SECTION 4</b>
<b>What is the minimum investment amount under the Offer?</b>	Applications must be for a minimum of 6,000 Shares (\$2,100) and can only be made by completing the Application Form accompanying or attached to this Prospectus.	<b>SECTION 4</b>
<b>What are the tax implications of investing in the Offer securities?</b>	The taxation consequences of an investment in the Shares will depend on your particular circumstances. It is your responsibility to make your own enquiries concerning the taxation consequences of an investment in the Company.	<b>SECTION 4</b>
<b>What is the allocation policy?</b>	<p>Pursuant to the terms of the Mandate Letter with Taylor Collison, the Directors have the authority to allocate up to \$20 million in Shares under the Offer to Applicants from the Pre-Registered List. Taylor Collison will be entitled to allocate (in consultation with the Company) the remaining Shares to Applicants. Taylor Collison must disclose the identity of the beneficial owners of Applicants who apply for more than \$500,000 in Shares and allocation to these Applicants will be at the Directors' discretion (acting reasonably).</p> <p>The Company reserves the right to reject any Application or allocate a lesser amount of Shares than those applied for at its absolute discretion.</p> <p>In determining allocations, regard will be given by the Company and the Lead Manager to the timing of receipt of Applications and the Applicants are therefore encouraged to submit their Applications as soon as possible.</p>	<b>SECTION 4</b>

## 1.7 OVERVIEW OF THE OFFER

Question	Answer	More information
<b>What is the proposed use of the proceeds received in connection of with the Offer?</b>	The Company's primary use of funds received in connection with the Offer will be to construct and commission its products on four sites – a wastewater treatment plant, a poultry processing facility, a packaging manufacturer, and a site with heat offtake and connection to the electricity network. The funds will also be used for engineering and commercial assessment of the local and international proposals received for TESS installations to identify the most profitable and logistically viable sites to build sales.	<b>SECTIONS 2 AND 4</b>
<b>How is the Offer structured?</b>	The Offer presented in this Prospectus is open to investors who have a registered address in Australia and New Zealand.	<b>SECTION 4</b>
<b>Who is the Lead Manager?</b>	Taylor Collison.	<b>SECTION 11</b>
<b>What fees and costs are payable to the Lead Manager?</b>	The Company has agreed to pay the Lead Manager: <ul style="list-style-type: none"> <li>• an offer management fee of 1.5% of the total funds raised under the Offer; and</li> <li>• a selling fee of 4.5% of the funds raised under the Offer other than those funds raised from investors on the Pre-Registered List (unless such persons on the Pre-Registered List were clients of Taylor Collison as at 18 April 2018).</li> </ul>	<b>SECTION 11</b>
<b>Is there any brokerage, commission or stamp duty payable by applicants?</b>	No brokerage, commission or stamp duty is payable by applicants on acquisition of Shares under the Offer.	<b>SECTION 4</b>
<b>How can I apply?</b>	<p>Applications for Shares can only be made by completing the Application Form accompanying or attached to this Prospectus.</p> <p>Applications under the Offer may be made, and will only be accepted by:</p> <ul style="list-style-type: none"> <li>• submitting a paper Application Form accompanying or attached to this Prospectus and a personal cheque, money order or bank draft for the Application Monies to the Share Registrar; or</li> <li>• completing an electronic Application Form which accompanies the electronic version of this Prospectus, both of which can be found at <a href="https://1414degrees.com.au/prospectus/">https://1414degrees.com.au/prospectus/</a>, and making payment of the Application Monies by BPAY®.</li> </ul> <p>The Application constitutes an offer by the Applicant to subscribe for Shares on the terms and subject to the conditions set out in this Prospectus. Applications will be accepted at any time after the Opening Date and prior to 5.00pm (AEST) on the Closing Date. Applications must be received by the Share Registrar no later than 5.00 pm (AEST) on the Closing Date.</p> <p>An Application may not be withdrawn after it is submitted unless the applicant is permitted to withdraw the Application in accordance with the Corporations Act.</p> <p>For further information on how to apply, please refer to Section 4.</p>	<b>SECTION 4</b>

## 1.7 OVERVIEW OF THE OFFER

Question	Answer	More information
<p><b>How do I pay for the Shares using cheque, money order or bank draft?</b></p>	<p>An Applicant may apply for Shares by completing the paper Application Form accompanying or attached to this Prospectus. Detailed instructions on how to complete paper Application Forms are set out on the reverse of the Application Form. You are not required to sign the Application Form.</p> <p>Paper Application Forms must be accompanied by payment of the Application Monies by personal cheque, money order or bank draft, payable in Australian dollars. Cash will not be accepted. Receipt of payment will not be forwarded.</p> <p>Completed paper Application Forms, together with accompanying cheque(s), money order(s) or bank draft(s), should be mailed to:</p> <p style="text-align: center;"><b>1414 Degrees Ltd Share Issue Computershare Investor Services Pty Limited GPO Box 1326 Adelaide, SA, 5001</b></p> <p>Paper Application Forms and Application Monies will not be accepted at any other address or office and will not be accepted at the Company's registered office.</p> <p>Completed paper Application Forms, together with accompanying cheque(s), money order(s) or bank draft(s), must be received by the Share Registrar no later than 5.00 pm (AEST) on the Closing Date.</p>	<p><b>SECTION 4</b></p>
<p><b>How do I pay for the Shares using BPAY®?</b></p>	<p>You may apply for Shares online and pay your Application Monies by BPAY®.</p> <p>Applicants wishing to pay by BPAY® should complete the online Application Form accompanying the electronic version of this Prospectus, both of which can be found at <a href="https://1414degrees.com.au/prospectus/">https://1414degrees.com.au/prospectus/</a> and follow the instructions for the online Application.</p> <p>A unique BPAY® reference number will be quoted upon completion of the online Application. Your BPAY® reference number will process your payment to your Application electronically and you will be deemed to have applied for such Shares for which you have paid.</p> <p>It is the responsibility of the Applicant to ensure that funds submitted through BPAY® are received prior to 5.00pm (AEST) on Closing Date.</p> <p>You do not need to return any documents if you have made payment via BPAY®.</p>	<p><b>SECTION 4</b></p>
<p><b>When will I receive confirmation that my application has been successful?</b></p>	<p>The Company expects that holding statements confirming applicants' allocations under the Offer will be sent to the successful applicants by regular post on or about 28 June 2018.</p>	<p><b>SECTION 4</b></p>
<p><b>When are the Shares expected to commence trading?</b></p>	<p>It is expected that the Shares issued under this Offer will commence trading on the ASX on a normal settlement basis on or about 3 July 2018.</p> <p>After quotation, shareholders and other investors may buy or sell Shares at the prevailing market price. There may or may not be a liquid market for Shares, and Shares may trade above or below the Offer price.</p> <p>It is the responsibility of each Applicant to confirm their holding before trading Shares. Applicants who sell Shares before they receive an initial holding statement do so at their own risk.</p>	<p><b>SECTION 4</b></p>
<p><b>Can the Offer be withdrawn?</b></p>	<p>Yes. The Company reserves the right not to proceed with the Offer at any time before the issue of Shares to successful Applicants.</p> <p>If the Offer does not proceed, Application Monies will be refunded.</p> <p>No interest will be paid on any Application Monies refunded as a result of the withdrawal of the Offer.</p>	<p><b>SECTION 4</b></p>

## 1.7 OVERVIEW OF THE OFFER

Question	Answer	More information
<b>Is there a cooling off period?</b>	<p>No. The Application constitutes an offer by the Applicant to subscribe for Shares on the terms and subject to the conditions set out in this Prospectus. Application Forms will be accepted at any time after the Opening Date and prior to the Closing Date.</p> <p>An Application may not be withdrawn after lodgement unless the Applicant is permitted to withdraw the Application in accordance with the Corporations Act.</p>	<b>SECTION 4</b>
<b>Where can I find more information about this Prospectus or the Offer?</b>	<p>If you would like more information or have any questions relating to the Offer, please contact the Share Registrar on 1300 556 161 (within Australia) or +61 3 9415 4000 (outside Australia) from 9.00am to 5.00pm (AEST) Monday to Friday or <a href="http://www.investorcentre.com/contact">www.investorcentre.com/contact</a>.</p> <p>An electronic copy of the Prospectus can be downloaded at <a href="https://1414degrees.com.au/prospectus/">https://1414degrees.com.au/prospectus/</a>.</p> <p>If you are uncertain as to whether an investment in the Company is suitable for you, please contact your stockbroker, financial advisor, accountant, lawyer or other professional advisor.</p>	<b>SECTION 4</b>

## 1.8 CAPITAL STRUCTURE

Question	Answer	More information																					
<b>What is the Company's share capital structure on completion of the Offer?</b>	<p>As at the date of this Prospectus, the Company has 125,708,946 Shares on issue. The Company has:</p> <ul style="list-style-type: none"> <li>offered to issue 500,000 Shares to Reactive Engineering Pty Ltd, subject to the satisfaction of certain milestones;</li> <li>agreed to issue 1,000,000 Shares to Pitstop Marketing Pty Ltd, subject to the satisfaction of certain conditions; and</li> <li>agreed to issue 330,000 Shares to Burwood Family Investments Pty Ltd as trustee for the Burwood Family Investment Trust, subject to the satisfaction of certain conditions.</li> </ul> <p>Further details of these arrangements can be found in Section 11 of this Prospectus. There are no other securities in the Company on issue as at the date of this Prospectus.</p> <p>The Company's indicative Share capital structure at the various levels of Subscriptions will be:</p> <table border="1"> <thead> <tr> <th></th> <th>Minimum Subscription</th> <th>Maximum Subscription</th> </tr> <tr> <th></th> <th>\$30 million</th> <th>\$50 million</th> </tr> </thead> <tbody> <tr> <td>Existing Shares on issue</td> <td>125,708,946</td> <td>125,708,946</td> </tr> <tr> <td>Shares issued under this Prospectus</td> <td>85,714,286</td> <td>142,857,143</td> </tr> <tr> <td>Total Shares on issue at the completion of the Offer</td> <td>211,423,232</td> <td>268,566,089</td> </tr> <tr> <td>Other Shares offered but yet to be issued</td> <td>1,830,000</td> <td>1,830,000</td> </tr> <tr> <td>Total Shares on issue on a fully diluted basis</td> <td>213,253,232</td> <td>270,396,089</td> </tr> </tbody> </table>		Minimum Subscription	Maximum Subscription		\$30 million	\$50 million	Existing Shares on issue	125,708,946	125,708,946	Shares issued under this Prospectus	85,714,286	142,857,143	Total Shares on issue at the completion of the Offer	211,423,232	268,566,089	Other Shares offered but yet to be issued	1,830,000	1,830,000	Total Shares on issue on a fully diluted basis	213,253,232	270,396,089	<b>SECTION 4</b>
	Minimum Subscription	Maximum Subscription																					
	\$30 million	\$50 million																					
Existing Shares on issue	125,708,946	125,708,946																					
Shares issued under this Prospectus	85,714,286	142,857,143																					
Total Shares on issue at the completion of the Offer	211,423,232	268,566,089																					
Other Shares offered but yet to be issued	1,830,000	1,830,000																					
Total Shares on issue on a fully diluted basis	213,253,232	270,396,089																					



## SECTION 2: COMPANY OVERVIEW

### 2.1 COMPANY HISTORY

Originally incorporated on 11 August 2009 as Gnomon Technologies Pty Ltd, 1414 Degrees has conducted research and development (R&D) into the development of bulk energy storage solutions for energy security in light of the expanding distributed renewable energy that is a feature of modern electricity networks.

The Company changed its name to Latent Heat Storage Pty Ltd on 2 June 2014 and successfully commissioned a prototype of its large-scale thermal energy storage system (TESS) in September 2016. The prototype is storing and regenerating electricity with a high combined heat and power efficiency (CHP) from its energy recovery system (ERS) – a ‘Stirling’ engine. After restructuring and retiring all debt, the Company converted to a public company limited by shares and changed its name to 1414 Degrees Limited on 8 December 2016. The Company is the sole entity in the corporate group.

The Company’s concept of using silicon to store solar energy arose out of research into methods of high temperature direct capture using mirrors. The original concept soon proved to be unscalable and infeasible, leading the Company to retain engineering company, ammjohn, which proposed direct heating from electricity and recovery through heat exchangers. This proved to be a simple but powerful means to exploit the extraordinarily high energy density of molten silicon. Importantly the new concept used readily available industrial components and well understood engineering processes. System design and development was complemented by computational fluid dynamic studies in the Mechanical Engineering Department of the University of Adelaide, co-funded by the Company. The result was a robust, scalable system and a prototype demonstrator was built and commissioned in 2016 with co-funding from the Commonwealth Government through an AusIndustry Accelerating Commercialisation grant. In early 2018, the services agreement between the Company and ammjohn was terminated and all of ammjohn’s contract staff involved in the development were transferred to 1414 Degrees staff positions.

The Company’s principal operations and headquarters are located at Level 4, 81 Flinders Street, Adelaide South Australia. Its engineering operations are located in the Southlink Industrial Park, Lonsdale, South Australia.

### 2.2 THE COMPANY’S OBJECTIVES

Upon completion of the Offer, the Company intends to commission and test three of its four key product lines in operating commercial industries, thereby generating product specifications for further sales. In addition, it will build and test a 1/15th scale cell of its TESS-GRID device before proceeding with construction of a 200MWh module (noting that the Company will require further funding for the construction phase of the TESS-GRID module if the Maximum Subscription is not achieved). The Company will also assess the large number of sites proposed by potential customers in many countries to determine their priority to generate revenues from sales.

The Company’s business strategy centres on the following key elements:

- Focusing on its core competency in heat storage technologies with low energy specific costs, a high potential for scalability, locational independence and low environmental impact;
- Placing product through established service providers of energy efficiency and sufficiency solutions for industry;
- Establishing commercialisation joint ventures to combine TESS technology with heat dependent industry and renewable generation sources, delivering on-demand heat, electricity and frequency support from turbines;
- Responding to market opportunities to generate new projects and extend and develop the TESS technology;
- Using contracted manufacturers under 1414 Degrees’ supervision and control to preserve 1414 Degrees’ intellectual property rights in the TESS, when manufacturing and assembling TESS devices; and
- Growing a long term revenue stream that is shared with clients and stakeholders.

1414 Degrees anticipates the majority of its transactions, in the near term, will be the leasing of the TESS-IND devices to industrial users and sales of GAS-TESS devices for wastewater treatment. To facilitate these arrangements, the Company will establish commercialisation joint ventures or enter into agency agreements with established service providers, examples being ECS and Resourtiem International Sdn Bhd. For its larger TESS-GRID devices, 1414 Degrees aims to partner with entities to establish commercial ventures to integrate the TESS-GRID with





connected renewable generation and industrial or greenhouse facilities.

### 2.3 INVESTMENT HIGHLIGHTS

1414 Degrees' major objective is to develop systems that make energy available to all that is clean, reliable and affordable. The main highlights of the Company's business are as follows:

#### BIG GAP IN THE ENERGY STORAGE MARKET

1414 Degrees systems can fill the gap in the energy storage market. Its technology is versatile, scalable, cost effective, safe and not geographically limited. Currently there are no known alternative storage technologies able to compete with 1414 Degrees products in terms of scalability, versatility and cost. This is confirmed by potential customers who have contacted the Company to request its technology for applications ranging from network electricity to process heating and bio-gas disposal.

#### VERSATILITY

The TESS technology is an important part of solutions for reliable energy supply from renewable generation because it can provide electricity and heat using gas and other fuels if renewable generation is insufficient for whatever reason. The TESS can be located at the generation site, as part of

the transmission or distribution network, or after the meter within an industrial or residential development.

#### SUSTAINABILITY AND AFFORDABILITY

The TESS has a low environmental impact resulting from its component manufacture. It uses readily available silicon, iron and refractory ceramics. Silicon is the most abundant metalloid in the earth's crust and is primarily sourced from silicon dioxide, the same material that is melted to make glass. TESS silicon will not decline in energy storage capacity and can be cycled indefinitely unlike lithium-ion and other batteries that must be periodically replaced because their capacity declines with each charge-discharge cycle. Like pumped hydro, the TESS will deliver the highest cost benefit when cycled frequently.

#### NEW PRODUCT DEVELOPMENT

The Company has a technical team with experience in ground-breaking projects at the very edge of what is considered technically feasible, thus providing an excellent basis for value adding R&D within 1414 Degrees.

## 2.4 1414 DEGREES' TECHNOLOGY

The 1414 Degrees TESS stores electrical energy as heat in molten silicon in an insulated container, then retrieves this energy to supply heat or to generate electricity when required. Highly efficient variants of the system include burning bio-fuel to heat the store, and a heat-only version outputting steam or hot air.

The novelty of the TESS is in the high temperature use of silicon in its melting phase of 1414°C. This means the TESS is able to store large amounts of energy as both latent and sensible heat (latent heat is heat that causes a change of state with no change in temperature whereas sensible heat is related to changes in temperature with no change in phase).

Other energy storage systems use the latent heat of a phase change material (PCM) such as Lithium Fluoride (molten salt) that typically operate at less than 50% of the temperature of molten silicon and as a result have substantially lower efficiencies for energy recovery. The graph in Figure 2 highlights the advantage of silicon relative to common PCMs in terms of latent heat storage capacity.

The TESS is able to harness silicon's latent heat to achieve a much higher density of energy storage than thermal storage systems based on other PCMs. Operating at high temperature provides efficiency benefits in the conversion back to electricity and usable heat. Electrical energy is generated utilising a heat engine or turbine as an energy recovery system.

### > TESS COMPONENTS

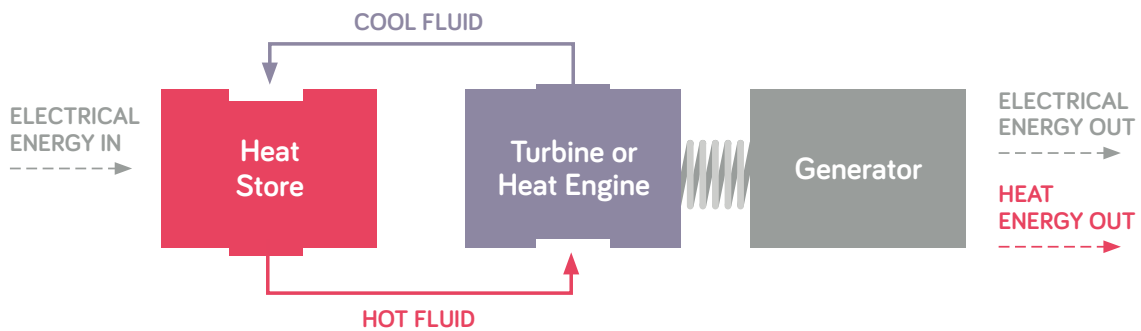


FIGURE 1: TESS COMPONENTS.

### > LATENT HEAT CAPACITIES OF COMMON PCMs

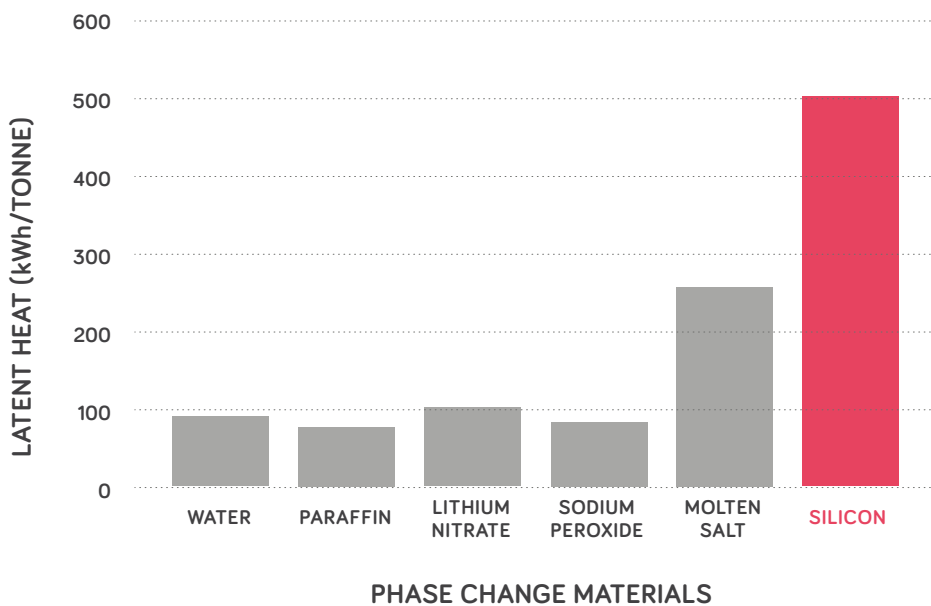


FIGURE 2: SILICON - PHASE CHANGE MATERIAL (PCM) OF CHOICE.

The energy storage capacity of silicon in its latent phase is shown in Figure 3 below.

Operating at very high temperature creates attributes for a very desirable system:

- the silicon PCM stores up to 300kWh/t of useful energy in the sensible heat phase below 1414°C;
- as the silicon PCM changes from a solid to a liquid, its latent phase stores about 500kWh/t at constant high temperatures;
- these high temperatures provide for more options and greater efficiencies in energy recovery by enabling the use of high temperature turbines; and

- a silicon based PCM is cost effective, durable, recyclable and available in abundance in nature.

Although the high temperature is challenging, many industrial processes operate at similar levels, for example, cement manufacture (1400°C). Many of the materials and technologies employed by 1414 Degrees are proven technologies derived from these industries.

### › ENERGY STORAGE CAPACITY OF SILICON

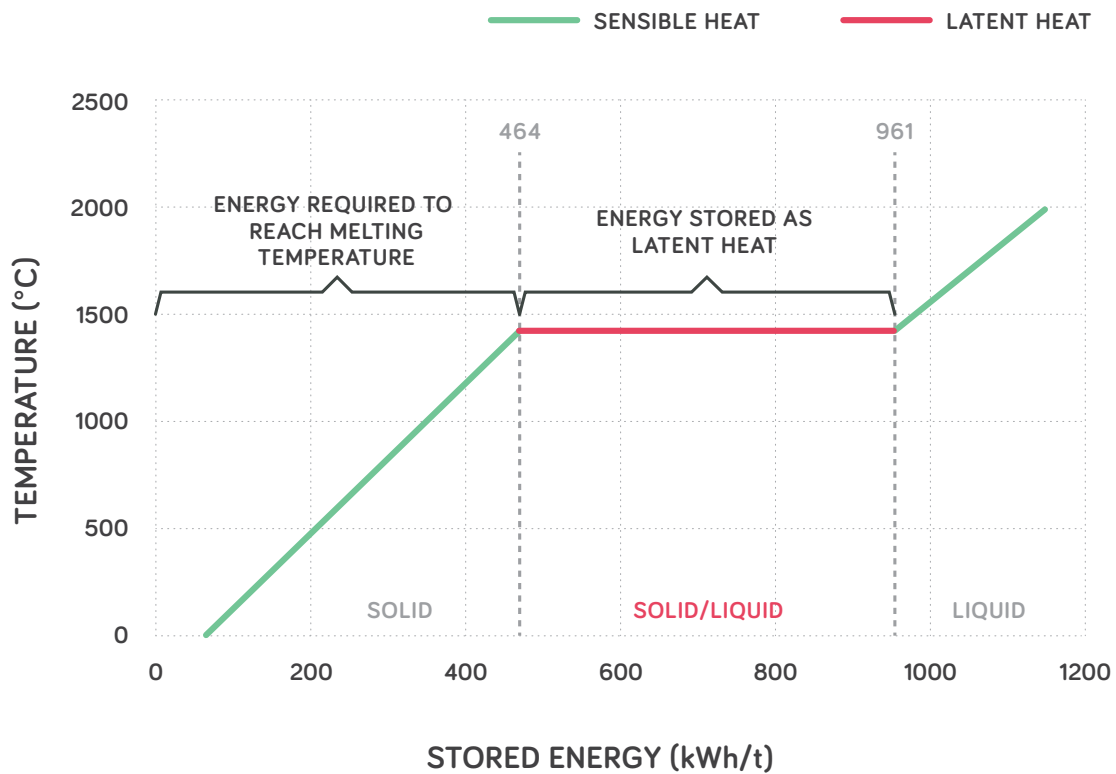


FIGURE 3: LATENT HEAT STORED IN SILICON PER TONNE.

## PRINCIPLES OF OPERATION

There are three operational phases in a thermal energy storage system - heating, holding, and energy recovery. The details of how the silicon is heated and contained are a key element of 1414 Degrees intellectual property.

### HEATING

Heating of the PCM is equivalent to the “charging” cycle in batteries.

In the TESS-IND, electricity is used to heat the silicon PCM. Unlike batteries or motors used in pumped hydro, the heating technology requires no adjustment for high varying current loads from wind turbines or solar farms.

1414 Degrees is also developing the GAS-TESS to be charged by combusting gas. This has been undertaken at the request of SA Water, which has a continuous source of methane generated from wastewater plants, but an intermittent need for energy. The methane will be continuously combusted in the GAS-TESS as the gas is produced, storing the heat in molten silicon for recovery when energy in the form of electricity as well as heat is required to augment the waste digestion.

### STORING

Once the silicon has reached the maximum operating temperature, or the feed energy is no longer available, the silicon TESS holds the heat until it is reclaimed. The holding efficiency depends on the amount and quality of insulation. Although the store will hold heat for weeks, and longer if higher specification refractory materials are used, commercial value is maximised by cycling on a daily basis or even more frequently. The silicon PCM is protected from chemical processes therefore, unlike electrochemical storage, it can cycle indefinitely without losing capacity because the phase change is a physical process.

The current 1414 Degrees devices are being designed for daily cycling, radiating up to 4% of the stored heat through the shell each day. This energy is not necessarily all lost because a substantial amount of this heat can be recovered and reused in applications of the technology.

### ENERGY RECOVERY

In the discharge phase, the heat is recovered from the silicon to generate electricity or heat as required. The conversion of heat into electricity is the key element of conventional power generation plants and their performance is measured in thermal efficiency. The most efficient plants achieve about up to 62% efficiency. Options for the use of original equipment manufacturer ERS in the 1414 Degrees TESS include:

- **GAS TURBINE:** A gas is compressed, fuel is burnt in the compressed gas causing it to expand and the expanded gas generates electricity through a turbine attached to a generator. When configured to run in the 1414 Degrees system, heat from the TESS is used to

expand air, and no fuel is burnt to generate electricity or heat. This results in an ERS efficiency of over 80% CHP.

- **STEAM TURBINE:** The TESS is used to generate steam, which in turn expands in a turbine to generate electricity without a fuel and captures the clean heat for other applications. The configuration takes the CHP efficiency up to 90%.
- **STIRLING MOTOR:** this is a heat engine that directly converts heat to mechanical energy in a piston that drives a generator. The prototype demonstration unit was commissioned with a ‘Stirling’ motor capable of achieving a CHP efficiency of better than 80%.
- **STEAM GENERATOR:** The TESS can provide hot clean air or steam without electricity generation. In this mode it would operate at its highest efficiency, which is over 80% if cycled daily.
- **BACK-UP GENERATOR:** An additional benefit of the TESS with a gas turbine ERS is the ability to burn a fuel to provide energy. In this configuration, the TESS would reduce the requirement for backup generators in remote sites or where a site relies on electricity being sourced from the transmission or distribution network and that network supply becomes unavailable or is interrupted.

In thermodynamics the recovery efficiency of a thermal system is known as the ‘Carnot efficiency’. Carnot’s Theorem specifies that the efficiency of an ideal heat engine is proportional to the temperature difference between the hot and cold side. This is a key benefit of the TESS in that the high head temperature allows for a greater efficiency in the conversion of heat to electricity when compared to other thermal storage systems that run at much lower temperatures.

The other key benefit of the TESS is the ability to supply clean heat in the form of hot air or steam, as well as electricity. The energy not converted to electricity mostly presents in the ERS as very hot air or steam that has many direct uses in industry and urban situations. There has also been strong interest from industry for a TESS that exclusively outputs heat in the form of steam. Based on this industry feedback, the Company designed the TESS-STEAM device to fill this demand in the market.

## 2.5 1414 DEGREES APPLICATIONS

The primary demand for the TESS products is driven by customers requiring low cost energy storage to improve the performance and economics of renewable generation by addressing the key issue of intermittency.

The intermittency of renewable generation constrains the amount of renewable energy that can be beneficially injected into an electricity network. There are also technical limitations due to the historical root and branch structure of networks, and market constraints from mismatches in supply and demand. As a result, renewable energy

generation and energy consumption are not necessarily well correlated.

Installing distributed energy storage systems into the electricity network to counteract the intermittency of wind and solar PV generation will also optimise the existing network infrastructure. This will reduce investment in transmission and distribution upgrades to provide for peak demand with flow-on benefits in energy costs, security and reliability for all electricity consumers.

A key feature of a TESS device is that it is able to store and supply high temperature heat in addition to electricity. The very high energy density of silicon results in compact devices, facilitating integration into existing industries that use or rely on heat as a main use of energy.

An under appreciated fact is that heat, not electricity, is the main use for energy in many industries and residential complexes – together comprising a very large segment in the energy market. For example, within UK industry, the proportion of heat to power was approximately 60% in 2017 and, to meet this requirement, most of the generated renewable electricity must be converted to heat.

In Australia, industrial customers rely primarily on gas or electricity to generate the necessary heat for their requirements. Some customers are investing in renewable generation (such as solar PV) for their site, mainly to displace gas, but the intermittent electricity from the renewable source cannot supply process heat on demand. The installation of thermal storage allows the customer to store the electricity and supply heat and electricity on

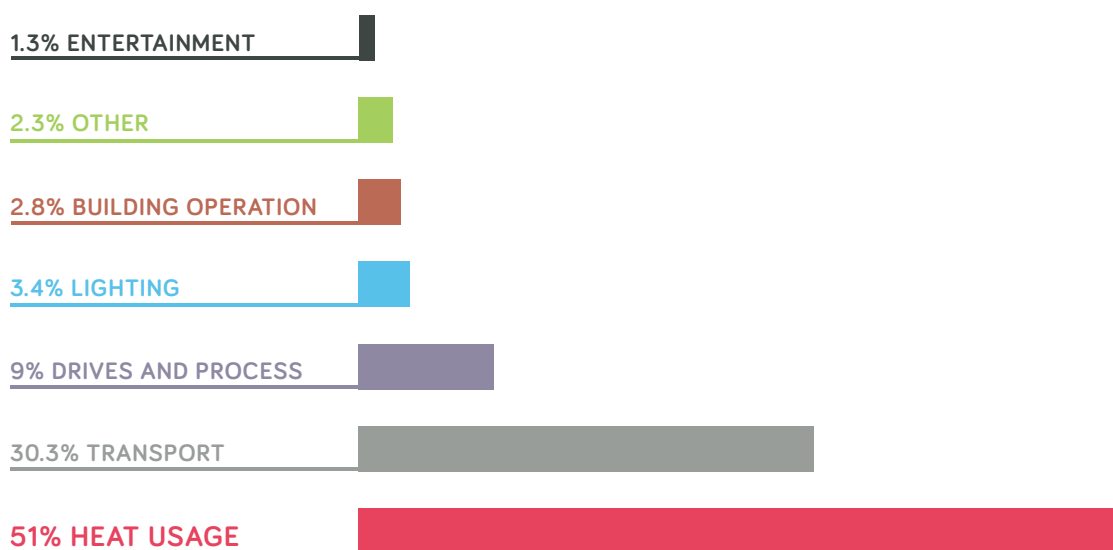
demand. The compact design and high temperature output of the TESS is well-matched to this industrial market. In addition, the TESS can be used to store power from the grid when prices are low and release power and heat on demand.

The TESS is the ideal solution to meet these dual needs, as it can be configured to deliver electricity and heat in the required proportion with a very high efficiency. For example, the theoretical energy efficiency of the TESS-STEAM is over 90% when cycled frequently.

Although operating out of the public eye, wastewater treatment is a major consumer of energy for heating the raw waste. The industry also generates significant electrical and heat energy from engines that combust the gas it produces, but this generation is costly and not aligned with the internal electricity and heat requirements. The Company's GAS-TESS product is being developed for efficient conversion of gas to stored heat, providing delivery of electricity and heat on demand.

District heating is the major use for energy in many countries as exemplified in Europe where the European Union (EU) found heating and cooling consumed more energy than transport and electricity generation combined. District heating systems generate heat in a centralised location for residential and commercial heating requirements such as space heating and water heating. A detailed study in Switzerland (Figure 4) illustrates the importance of heat energy.

## › ENERGY USE



ADAPTED FROM: THE SWISS COMPETENCE CENTER FOR HEAT AND ELECTRICITY STORAGE

FIGURE 4: USES OF ENERGY IN SWITZERLAND. NOTE THAT HEATING CONSUMES OVER HALF OF THE ENERGY. THE PROPORTIONS ARE GENERALLY SIMILAR IN OTHER NORTHERN EUROPEAN STATES.

## 2.6 TECHNOLOGIES IN THE ENERGY STORAGE MARKET AND COMPETING TECHNOLOGIES

The commercialisation strategy of the Company, which is based upon building and trialling its TESS devices in operating industries, is expected to result in a new class of product for the energy storage market. Following the commissioning of the TESS devices at the three pilot projects, the Company intends to develop product specifications and requirements for the commissioned TESS devices which will enable the Company to further refine and model the supply of the TESS devices for its market base.

Currently, the Company knows of no storage technologies that service its anticipated market segments. There are no known technologies that can store and supply heat

and electricity as efficiently for industries or district heating, as compared to the TESS devices.

Aspects of the target TESS storage markets could be serviced by other technologies, for example, networks can be supported by TESS, pumped hydro, and large battery complexes each with very different characteristics as illustrated in Table 3, which compares the TESS products with other electricity storage technologies in the market. This comparison does not imply competitiveness as technologies will be selected on a case by case basis according to the requirements and economics of market segments.

TABLE 3

Rating	Technology	What The Technology Does	Typical Electrical Efficiency	Heat & Power CHP Efficiency*	Turbine Spinning Inertia**	Location Flexibility	Service Life: Full Daily Cycling	Active Entities
<1MWh	<b>Super Capacitors</b>	Stores electricity as potential energy in a high density electric field to provide extremely rapid charge and discharge times. Can be cycled many times without degrading	High	-	-	High	Decades >20 years	KiloWatt Labs
	<b>Thermal "battery"</b>	Uses heat in phase change materials (including molten silicon) to store electricity. These devices recover electricity (but not heat) using motors or photo-voltaic cells	Low	-	-	High	Unknown	CCT Amadeus
<10MWh	<b>Flywheels</b>	Uses a heavy rotating wheel operating at very high speeds to store and discharge electricity as rotational energy	High	-	Yes	High	Decades >20 years	Consortium of University of Sheffield, Freqcon Schwungrad Energie, Adaptive Balancing Power
	<b>Batteries</b>	Rechargeable batteries comprise one or more electrochemical cells to store and release electrical charge. There are a large variety of wet and dry types including lithium ion, lead acid and redox flow batteries	High	-	-	High	Years 8-15 years	Zen Energy Pty Ltd AGL Energy Ecoul Energy Storage Solutions

\* See glossary for the definition of "CHP efficiency".

\*\*Spinning inertia is created by the heavy, rotating mass of a spinning turbine, helping to stabilise electricity networks as loads vary.

**TABLE 3**  
 > continued

Rating	Technology	What The Technology Does	Typical Electrical Efficiency	Heat & Power CHP Efficiency*	Turbine Spinning Inertia**	Location Flexibility	Service Life: Full Daily Cycling	Active Entities
Between 10MWh and 200MWh	<b>TESS-IND</b>	Uses electricity or gas to heat silicon phase change material and then recover both heat and electricity	Medium	High >500°C	Yes	High	Decades	1414 Degrees
	<b>Molten Salt</b>	Uses solar or electrical energy to heat a salt phase change material and recover heat and/ or electricity by heating water or driving steam turbines	Low to Medium	Medium 200-500°C	Yes	Medium	Years 12-20 years	SolarReserve
	<b>Compressed Air</b>	Stores electricity by compressing air (for example in a tank or underground space) and recovers electricity by heating the compressed air to drive a turbine	Medium	-	Yes	Low	Decades 25-40 years	Hydrostor Canada
	<b>Lithium Ion battery (large scale)</b>	Big lithium ion batteries combine a very large number of interconnected smaller cells in packs to meet large scale network storage and stability requirements	High	-	-	High	Years 8-15 years	Tesla Powerpack paired with French company Neoen's Hornsdale windfarm in South Australia
≥200MWh	<b>TESS-GRID</b>	Uses electricity to heat silicon phase change material in large containers and recover heat and electricity	Medium	High >500°C	Yes	High	Decades	1414 Degrees
	<b>Pumped Hydro</b>	A method which stores electricity by pumping water to a higher altitude and recovers electricity by reversing the flow through a turbine	Medium	-	Yes	Low	Decades 50-100 years	Concept study prepared by Entura Hydro Tasmania for ZEN Energy Pty Ltd and Arrium Mining

\* See glossary for the definition of "CHP efficiency".

\*\*Spinning inertia is created by the heavy, rotating mass of a spinning turbine, helping to stabilise electricity networks as loads vary.



## 2.7 ANTICIPATED APPLICATIONS FOR TESS DEVICES

Following the definition of product specifications from the pilot trials of the commissioned TESS devices, the Company will be able to further refine and model the supply of its TESS devices for its market base.

Based on the Company's current expectation, the TESS devices will have a substantially lower capital and operating cost than batteries for network scale storage because the silicon PCM should not need replacement no matter how often it is cycled, and is expected to operate most effectively under intensive usage, thereby compensating for the technology's lower electrical efficiency when compared with some alternative energy storage technologies such as batteries, flywheels and super capacitors. Furthermore, the efficiency gap can be reduced or eliminated by co-locating the TESS with heat consumers, for example, district heating, glasshouses and industry using process heat.

As batteries (including lithium-ion; lead acid; nickel-cadmium; so-called thermal "batteries"; super capacitors and redox flow) do not provide any useful or industrial heat output, it is considered that they are not directly competitive with the Company's products, as illustrated by Table 3.

When the Company develops and proves its TESS-GRID technology, it may compete with large scale electricity only storage alternatives including battery installations (such as Tesla's battery in Jamestown in South Australia, or the battery being built by SIMEC Zen Energy in Port Augusta, South Australia), by offering a unique high efficiency CHP solution combining robust long term electricity output from its turbines, along with industrial heat.

The very high temperatures and energy densities of molten silicon result in very compact devices and high efficiencies of energy recovery. The controlled extraction of heat through an external ERS provides optionality to match a wide range of electricity and heat supply requirements. This, in turn, means that 1414 Degrees devices are suitable for a wider range of customers as they are more cost effective and, due to their compact size, can be more easily integrated into a wider range of customer sites. This enables customers to achieve lower capital and operating costs from their energy sources.

Currently, the Company's developed product applications (being TESS-IND, GAS-TESS and TESS-STEAM) are mainly designed for industries and urban developments requiring high temperature heat energy, with or without electricity, and therefore offer an alternative solution to battery storage because these batteries cannot directly supply heat.

The Company anticipates that the TESS devices will match pumped hydro in capacity and ability to supply demand-following electricity over long periods. Furthermore, it is expected the flexibility of scale and location of the TESS will assist in providing distributed generation and storage to increase renewable generation, as fossil fuel generation is decommissioned.

However, unlike other large-scale storage technologies, the TESS would simultaneously service the market for high temperature heat while providing network scale storage and electricity generation from turbines. These factors are expected to create a new market segment for high density bulk energy storage.

Additional advantages of the TESS include:

- constant, high operating temperature that improves overall system efficiency and product durability;
- high density thermal storage results in compact design for integration into existing facilities;
- the ability to simultaneously charge and discharge energy;
- the provision of system inertia and the consequential improvement in network stability;
- the ability to rapidly absorb large quantities of energy in the heating system;
- designed and manufactured for a long life cycle; and
- built with abundant materials (silicon, steel, etc.) using readily available industrial components and well understood engineering processes.

From an environmental perspective, decommissioning of a TESS is benign in that the waste can easily be disposed or recycled. Silicon does not need to be treated or specially contained, and has no damaging chemical impact if it needs to be discarded at the end of its useful life.

The fundamental role for energy storage in smarter networks means that global demand for storage will increase over the next two decades, particularly as the cost of renewables continues to decrease.

The net effect is a reduced reliance on fossil fuels, which could be used to more value in, for example, agricultural production needed to cope with feeding a projected population of 10 billion people. As a consequence, the energy storage market is expected to exceed 1.4 GW per year by 2020, with strong growth in electro-mechanical technologies. TESS will also enable more renewables with zero fuel cost thus driving down energy prices.





### UNSUITABLE APPLICATIONS FOR TESS DEVICES

The Company acknowledges that there are alternative energy storage technologies that offer higher electrical efficiency than the Company's TESS technology (this is summarised in Table 3). However, the Company considers that the most optimal use of its technology is the storage and supply of both heat and electricity and it has developed its technology on that basis.

The current design of the TESS devices is not suitable for single residential dwellings and would require many single sites to be interconnected to achieve economic viability. The TESS devices are also unsuitable for network storage providing 'on demand' fast frequency control. To provide this service the TESS devices must be actively charging.

Economic operation of the TESS devices will require frequent cycling (charging and discharging) on a daily or twice daily basis, and it is therefore not suited for long-term storage.

## › TESS COMMERCIAL DEMONSTRATOR MODEL



FIGURE 5: TESS COMMERCIAL DEMONSTRATOR MODEL

### 2.8 1414 DEGREES TESS PRODUCTS

#### COMMERCIAL DEMONSTRATORS

The Company's first industrial scale TESS demonstrator was commissioned in September 2016 (TESS Demonstrator). The development of the TESS Demonstrator was co-funded by an AusIndustry grant from the Commonwealth Government, with control equipment contributed by Schneider Electric. The aim of the demonstrator was to establish that silicon could be contained in the liquid phase and the heat could be recovered into an ERS. The initial ERS was a 'Stirling' engine of a maximum 43kW power output. 200kg of stored silicon could be charged at 50kW.

The TESS Demonstrator is still in use and is located in the Company's R&D facility in the Southlink Industrial Park in Lonsdale, South Australia. It is used as a test bed for refinement of the technology and durability testing with the 'Stirling' motor now replaced by a gas turbine.

A new TESS module of 10MWh thermal capacity is being assembled in the Company's Southlink plant for commissioning in June 2018. Following testing with the electric charging technology, the storage section will be converted to charge from gas combustion as part of the installation of a GAS-TESS at the Glenelg Wastewater Treatment Plant, and further TESS-IND modules assembled as demonstrators in the commercial sites for Pepe's Ducks and Austcor Packaging.

#### COMMERCIAL MODULE TYPES

The silicon PCM store is readily scaled up and is of modular construction such that many units can be connected in series or parallel to increase the energy output or storage capacity respectively. The high energy density results in a compact footprint while a flexible energy recovery system uses conventional gas or steam turbine or high recovery steam generator (HRSG). Supplementary fuels can be used in a turbine if heat is not available.

The Company has four modular TESS designs as variations on the commercial prototype:

- The TESS-GRID design specification will be for bulk energy storage at very high current flows and supply of electricity and heat for long periods. The device is aimed at providing energy security in electricity markets with substantial renewable generation.
- The TESS-IND is designed for medium scale industries and residential developments requiring reliable electricity and heat energy from renewable generation. The product has interest from consumers ranging from poultry producers, food processors, agribusiness, packaging manufacturing, industrial laundries, and resorts.
- The GAS-TESS is being developed to combust waste gas and store the energy for recovery as electricity and heat. The ERS and silicon heat store are based on the TESS-IND design but the unit charges from highly efficient gas burners. The GAS-TESS market is waste management utilities and other entities requiring efficient waste gas disposal with flexible energy supply.
- The TESS-STEAM is being designed for industries with a high demand for heat compared to electricity. It will incorporate a high efficiency steam generator for industries seeking to replace gas or other energy sources with renewable energy. The TESS-STEAM market includes cardboard manufacturers, poultry processors and steam turbine electricity generation.

The TESS technology is intended to provide carbon free, high-grade heat to nearby industry and progressively put downward pressure on energy prices as the marginal operating cost of renewable generation reduces. The technology offers a whole of energy solution, not just decarbonised electricity, but decarbonised heat as well.

## › TESS-GRID – LOW COST STORAGE AND GENERATION FOR LARGE INDUSTRIES AND ELECTRICITY NETWORKS



FIGURE 6: ARTIST'S IMPRESSION OF THE 200MWh TESS.

The ability to scale silicon storage to large dimensions is one of the key attributes of 1414 Degrees technology, making it very competitive for network scale energy storage. The industries that inspired the TESS-GRID, and with which the Company shares many of its suppliers, operate sites with furnaces holding molten metal weighing thousands of tonnes. A TESS-GRID system is capable of storing amounts of energy normally associated with pumped hydro schemes but does not have the constraints of needing appropriate geographical features and water. The TESS-GRID can be located at a generation site, in an electricity network, or at consumer sites.

The TESS-GRID has the benefit of being able to supply an industrial amount of heat, which is important in many markets. Many parts of Europe have significant district heating infrastructure and have an excess of renewable energy at certain times. A TESS-GRID could store the excess energy when it is available and then return electricity to the network and heat to a district heating system when it is required.

A single TESS-GRID module is proposed to have a capacity of 200MWh of latent thermal storage equivalent to approximately 400 tonnes of silicon PCM, a heating (or charging) capacity of approximately 40MW, and an ERS supplying up to 20MW of heat and electricity.

The Company has begun early conversations with SA Water to potentially identify a suitable location adjacent to the Adelaide Desalination Plant or other sites owned by SA Water. As a preliminary, a test cell, being a 1/15th size section of the 200MWh unit will be built and commissioned for technical testing and validation of the thermal modelling before the Company builds the first TESS-GRID. (noting that the Company will require further funding for the construction phase of the TESS-GRID module if the Maximum Subscription is not achieved).



## > 1 GWh TESS-GRID INTEGRATED CONCEPT



FIGURE 7: ARTIST'S IMPRESSION OF THE 1GWh TESS.

The Company has developed a scheme for five connected 200MWh modules to provide 1,000MWh (1GWh) of energy storage as part of an integrated solution for reliable renewable supply. It could be connected to a large renewable farm directly or through an electricity network. It would include an industrial park with industries requiring process heat, such as greenhouse food producers, abattoirs or packaging manufacturers.

Project costs will vary according to the site and network connection requirements. First pass financial modelling estimated a positive EBITDA after year three from a 1GWh integrated project in South Australia comprising 500MW of solar generation, energy trading on the National Electricity Market (NEM), sale of heat and desalinated water to co-collated greenhouses, and payments for network stability services such as Frequency Control Ancillary Services (FCAS).

› **TESS-IND** – LOW COST STORAGE AND ENERGY FOR INDUSTRY



FIGURE 8: DESIGN CONCEPT FOR TESS-IND.

The TESS-IND series has a different silicon PCM storage design to the TESS-GRID but shares the same principle of operation. There are several models and sizes being designed for the medium industrial sector where heat is the major energy requirement – as much as 95% of energy consumption. These units suit food production, agribusiness, paper manufacturing, industrial laundries, and resorts or off-grid towns.

The modules are of a cellular construction for nominal thermal capacities up to 16MWh. Note that the recovered energy can be substantially higher than the nominal capacity, for example, a 10MWh (latent heat) TESS could supply as much as 25MWh from its ERS in CHP mode.

A 10MWh module with 5 cells is being constructed to nominally charge at 1,200kW. With a gas turbine ERS the nominal discharge is expected to be 170kW electrical and 360kW heat. This does not include heat recovered from the casing of the TESS.

› **GAS-TESS** – EFFICIENT WASTE GAS CONVERSION FOR ON-DEMAND ENERGY SUPPLY

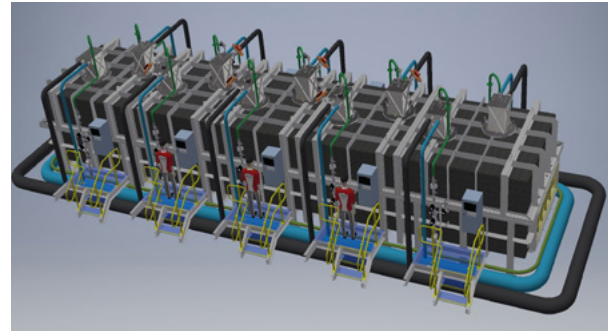


FIGURE 9: DRAFT DESIGN CONCEPT FOR GAS-TESS.

The GAS-TESS has been developed to meet the requirements of a waste disposal utility for a more effective energy supply from methane generated in its facilities. Its heat and electricity demand are currently not matched to the supply of methane, requiring it to burn gas and buy electricity from the NEM. The TESS energy storage enables the utility to match its energy demand and, in the process, provide higher temperature combustion of methane to destroy the many toxic chemicals found in waste treatment facilities.

The GAS-TESS is based on the TESS-IND but modified to charge from gas combustion in the heat store instead of electricity. A pilot plant fitted with gas burners rated at 85% efficiency is to be commissioned at SA Water's Glenelg Wastewater Treatment Plant during the fourth quarter 2018. The GAS-TESS will be a 5 cell module with a thermal capacity of approximately 10MWh, an electrical output of approximately 250kW, and the ability to provide over 500kW of heat to the waste digesters, replacing natural gas. The South Australian Government is co-funding this project with a grant of A\$1.6m.

## › TESS-STEAM – LOWEST COST, HIGHEST EFFICIENCY FOR HEAT INTENSIVE INDUSTRIES

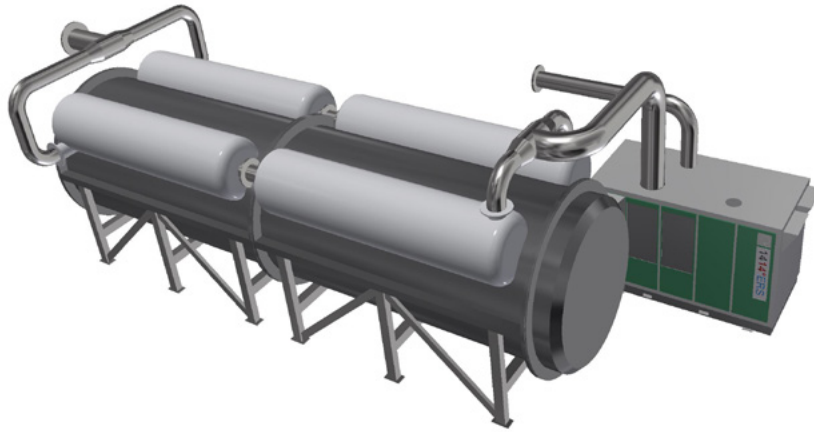


FIGURE 10: TESS-STEAM - CONCEPT PICTURE (PROVISIONAL PATENT IS IN THE PROCESS OF SUBMISSION).

Following frequent requests from industry, the Company is designing a TESS to provide steam output directly, dispensing with an external ERS. If higher output of steam is necessary, the Company is also offering a TESS-IND with a HRSG ERS producing 1.65 tonnes per hour of steam at 16bar and 220°C for a nominal discharge time of 5.5 hours.

Excess electrical energy from any source on site can be used to charge the TESS-STEAM, which will then provide steam to the plant when it is required. Such an example could be an industrial manufacturer seeking to install solar PV panels for the purpose of displacing its high cost existing heating sources (such as LPG/gas/electricity) for its steam boilers. In this example, the TESS-STEAM will store the electricity generated by the solar PV during the previous day and produce steam on demand, which will then be available to heat the boilers as required. The Company expects that the carbon footprint of the end-products will be reduced.

As the TESS-STEAM will be in constant operation, it is anticipated that its efficiency is likely to be more than 90%

If required, electricity could be generated by an in-line steam turbine without significant reduction in CHP efficiency. Current designs are intended to provide for a very low cost product with a steam turbine.

### 2.9 1414 DEGREES BUSINESS MODEL

In order to achieve commercial sales the Company must establish the characteristics of its products including operating performance, cost, output and maintenance cost. The funds raised under this Offer will allow the Company to supply and commission TESS at further commercial pilot sites to demonstrate product reliability and efficacy. These pilots will then be available to demonstrate the technology to customers to drive sales. Development of a full suite of pilots will also extend its storage range from 6MWh to 200MWh.

The Company could, in principle, develop smaller heat and electricity devices. Our technology could provide a lower cost solution, particularly in cool climates where heating is a major requirement - for example in multi-residence complexes.

The underlying requirement of its strategy is to protect the Company's intellectual property.

### COMMERCIAL PILOT SITES

The Company's first installations will demonstrate its technology at several operational sites to provide performance and reliability data for sales. This is necessary to provide further assurance from differing operating conditions and to mitigate the risk of dependence on one site. The Company will not earn material revenues from any of these pilot installations but it expects that the outcomes of these projects will form the basis for the Company to further market its products and enter into new contracts on commercial terms. In parallel with these installations,





R&D work will continue on new technology for the thermal storage device and optimisation aimed at substantial cost reduction for materials, manufacturing and assembly.

On completion of this commercialisation phase, the TESS will have global application with quantified specifications and costings for quotation.

The Company will continue to develop its technology to decrease cost and improve performance. All other components in the complete energy storage solution will be commercial off the shelf serviced by the suppliers or service companies. The Company will retain technical control over the TESS through on-going product improvements, cost reductions and system scalability.

### COMMERCIALISATION OF THE INDUSTRY SCALE TESS DEVICES

Commercialising the industry scale TESS devices requires the Company to establish product specifications, including the operating performance, cost, output and maintenance costs. The Company's pilot projects are aimed at demonstrating its technology at operational sites in order to provide performance and reliability data for sales. These sites cover diverse applications ranging from poultry processing to waste treatment. These sites will also be available to demonstrate the operational TESS devices to future customers.

The Company's path to commercialisation is set out below:

#### › Installation of TESS-Devices

1. **Commissioning of TESS Demonstrator:** Successfully completed in September 2016.
2. **Execution of the final implementation and project agreement with SA Water for the GAS-TESS:** This agreement is expected to be executed in June 2018, however this depends upon the timing of the counterparty.
3. **Supply and commissioning of the GAS-TESS at the SA Water installation by Q4 2018:** The timing will depend on other parties to achieve integration of the TESS-Device into the operations at the site.
4. **Feasibility studies for the Pepe's Ducks and Austcor projects to commence June 2018:** The timing will depend on access to the site and the availability of operational staff.
5. **Execution of the final implementation and project agreement with Pepe's Ducks:** This is agreement is dependent on the successful completion of the feasibility study results.
6. **Supply and commissioning of the TESS devices at Pepe's Ducks site, expected by Q4 2018:** This is dependent on the provision of solar generation by Pepe's Ducks and the requirements of site management.
7. **Execution of the final implementation and project agreement with Austcor:** This is agreement is dependent on the successful completion of the feasibility study results.
8. **Supply and commissioning of the TESS devices at the Austcor site, expected by Q1 2019:** This is dependent on the provision of solar generation by Austcor and the requirements of site management.

### › Certification of TESS-Devices – Post Commissioning

Following the commissioning of any one or more of the Company's TESS devices at the pilot projects, the Company will be able to:

1. determine operating performance of the commissioned TESS device; and
2. determine capital, operating and maintenance costs for the commissioned TESS device.

The information ascertained from this process will be used to formulate the Company's revenue and margin structure to place the Company on a path to profitability.

### › Sales to Customers

The Company's three pilots provide for an embedded contingency for the successful commercialisation of its TESS-IND technology.

Following the completion of the commercialisation phase, the Company intends to generate revenue in the following categories:

#### 1. Direct Sale of Device

The TESS device will be sold to customers subject to the Company retaining a right to buyback the TESS device. The Company's intention is to charge a mark-up on the cost of components on commissioning, to be determined once the TESS devices have been certified.

#### 2. HaaS & Lease with an option to purchase

The TESS device will be available in a model similar to leasing or licensing, with a service level agreement and the O&M revenue as described below. The lease agreement will provide for the recoupment of capital amortised over the term of the agreement, relevant staff costs and a commercial return for the Company.

Long term financing for energy efficiency projects in Australia is available through major banks under agreements with the Clean Energy Finance Corporation. Following the completion of the commercial pilot projects, it is anticipated that the TESS-IND and GAS-TESS devices will qualify for long term project financing for new projects.

The TESS device will be leased to the customer for a period of 10 years or 20 years, with an option to purchase, subject to the Company retaining a right to buyback the TESS device.

#### 3. O&M revenue

The Company will also provide operation and maintenance services in respect of the TESS devices and charge fees for these services under O&M Agreements attached to each revenue stream. This service charge will incorporate the recoupment staff time and consumables, and a commercial return for the Company.

### › Manufacturing to meet customer supply

1414 Degrees has analysed the supply and manufacturing chain for its TESS product range and will optimise a combination of in-house manufacturing and local, national and international supply.

1414 Degrees is adapting high temperature furnace technology and materials in innovative ways to improve and develop thermal energy storage products (the TESS-GRID, TESS-IND, GAS-TESS, and TESS-STEAM). The Company's manufacturing plans adopt innovations across a range of manufacturing steps, including:

- development necessary to scale the TESS configuration from a commercial demonstrator;
- design of TESS internal geometry; and
- fabrication of TESS high temperature furnace.

The TESS product range is built on a core architecture comprising a heat store, an ERS and a control system. The Company retains all intellectual property relating to the TESS product configuration and the heat store assembly and verification processes are performed in-house within the Company's purpose built manufacturing facility.

### › Customer segments

In the short term, 1414 Degrees will provide clean and low cost energy for industries which require heat and electricity. 1414 Degrees' TESS-IND, GAS-TESS and TESS-STEAM service this market.

Longer term, following commercialisation of the products, the Company will deliver solutions for large scale energy use with heat. The TESS-IND and TESS-GRID products will service this market. Customers for grid applications and large commercial developments will be attracted by the scalability, low cost and flexibility of location.

Our near term customers are industrial users of electricity and heat energy, which include but are not limited to wastewater management organisations, commercial operations with a need for heat such as packaging manufacturing, agribusiness and greenhouses.

Current customers include SA Water, Pepe's Ducks and Austcor Packaging.

### › Key partners

The successful integration of one or more of the pilot installations proposed for SA Water, Pepe's Ducks and Austcor Packaging sites is important to drive sales and future revenues. Each pilot project will have a project manager and a contract-to-commissioning project management plan. A common milestone driven development approach will be applied across the projects: build; commission; trial; operations. The timing of the milestones for each project will be adjusted to accommodate the peculiarities of the site and the business drivers of the customer.

Although these arrangements will only generate nominal revenue for the Company in the short term, if the trials are successful they will provide the basis for the broader marketing of the Company's products on commercial terms without the need for material further investment by the Company in the underlying technology. Details of the proposed allocation of funds to be raised under the Offer are described in Section 4 of this Prospectus.

On completion of the commercialisation phase under the pilot projects, it is anticipated that the commissioned TESS devices could be offered in the global context. The Company intends to undertake business development activities which will focus on securing customer orders for the commissioned TESS devices based on the pilot trials.

The Company also has a non-exclusive agreement with ECS in respect of the marketing and distribution of TESS within Australia to provide a future pipeline for sales following successful pilot projects.

Additionally, we have developed strategic partnerships with a number of core local and international suppliers to reduce risk and extend our capabilities to accelerate production.

#### COMMERCIALISATION OF THE TESS- GRID DEVICE

Commercialising the grid scale TESS device will require the design and construction of a test cell and its subsequent commissioning to establish product specifications, including the operating performance, cost, output and maintenance costs.

The Company's path to commercialisation of the TESS-GRID is set out below:

- 1. Design, test and site selection:** The cost for the full project will not be known until the design of the 200MWh TESS-GRID device has been finalised and the feasibility studies for the TESS-GRID device have been conducted on the nominated site. The design of the TESS-GRID and its 1/15th size test cell will commence following the close of the Offer with the aim of commissioning the test cell in the first half of 2019. Concurrently, the Company will assess commercial sites for construction of the 200MWh TESS-GRID device.
- 2. Construction Scenario 1 - Maximum Subscription:** in the event of the Maximum Subscription and conclusion of the test cell evaluation, the Company expects to have access to sufficient funding, through rebates and grants similar to those it currently accesses, to construct a 200MWh storage module in a commercial setting without the need for further investment by the Company.
- 3. Construction Scenario 2 - less than Maximum Subscription:** In the event the Company achieves less than the Maximum Subscription, it is anticipated that the Company will have sufficient resources to finalise the design of this device, the construction and commissioning of the test cell, conduct feasibility on and contract a pilot installation. The Company would need

to secure further capital by way of grants, equity, debt, or revenue generated from the commercialisation of its other devices in order to complete construction of the 200MWh TESS-GRID module. The significant variance in the Company's expected funding requirements to construct the 200MWh TESS-GRID device is justified by the significantly larger scale of this unit when compared to the Company's other product offerings and the commensurate increase in technical and operational complexity associated with commissioning this device.

- 4. Commissioning:** An ERS for a TESS-GRID is dependent on the type of site being used for the 200MWh TESS-GRID but is not currently expected to require additional investment because the ERS will not be required until the later stages of the construction of the device, expected during the third year of construction, when it may not be material to the Company because of the anticipated successful commercialisation of the Company's other devices.
- 5. Determine operational specifications:** the device will be operated for a period to derive operational data, including charge and discharge characteristics, operating and maintenance costs. These can then be used to complete the commercial model.
- 6. Commercial Phase:** the device will be the basis for creating large renewable projects with substantial reserve generation capacity that can be stored in multi module TESS-GRID for the reliable supply of heat with electricity sales. Under this arrangement, the Company would receive direct cash flows from the sale of the TESS to the SPV or the JV. The Company would also receive revenue from lease payments and fees payable to it under O&M Agreements. The Company would also share, via the SPV or JV, revenues that are derived or earned from renewable energy certificates, energy trading on the NEM, and heat sales. The generation of electricity through the spinning turbines of the TESS qualify for payments through FCAS markets maintained by the Australian Energy Market Operator to maintain the frequency on the electrical system at close to 50 cycles per second. These services are primarily provided by gas or coal generators.

In the event that the Offer does not achieve the Maximum Subscription, the focus will remain on commercialisation and marketing of its smaller devices as described above. The ability (or otherwise) of the Company to implement the part of its business strategy which relates specifically to commercialising the TESS-GRID device will not negatively impact the achievement of its near term business strategy in relation to TESS-IND, GAS-TESS and TESS-STEAM.

Successful commissioning of the 200MWh TESS-GRID device will provide the basis for commercialisation of the TESS-GRID at any scale. The business plan calls for this to occur within three years of the Offer.

## KEY FACTORS FOR SUCCESS

The key factors that the Company will depend on to meet its objectives are:

- a successful integration of a demonstrator TESS unit at one or more of the pilot sites;
- the successful completion of the Offer;
- substantiating reliability and technical viability through operations in the trial sites;
- proving commercial viability for industrial heat and power to maintain and attract new customers; and
- the ability for the Company to protect its IP and technological advantage.

## 2.10 IP MANAGEMENT

The Company holds a patent (granted in several jurisdictions and pending in Europe and India) for its thermal energy storage and retrieval system, which is built on the concept of elongated canisters containing silicon metalloid and made of refractory material (First Patent). The First Patent was the precursor to the Company's current design for its GAS-TESS and TESS-IND. As the First Patent reflected the original design of the Company's TESS it has clear importance and value for the Company. While the First Patent has been granted in Australia, New Zealand, China and USA, the application is still in process in the jurisdictions of Europe and India. While it is noted that these pending patent applications for Europe and India have been in process for some time, this is not unusual given the long-time scale involved in the examination of these applications for these respective jurisdictions. Based on the information set out in the Intellectual Property Report in Section 10, the Company does not expect there to be any material impediment to the grant of the pending patent applications in Europe and India in due course.

The Company has also filed a patent application (PCT) in respect of the current design of the Company's thermal energy storage and retrieval system for the TESS-IND, which is also the platform technology for the GAS-TESS. As the PCT patent application reflects the current design of the Company's TESS-IND and the platform of the GAS-TESS, it has clear importance and value for the Company. The Company anticipates that the PCT patent application will be published in September 2018.

In the event that any of the pending patent applications for Europe or India for the First Patent or the PCT patent application are not granted to the Company, then the Company would not be able to prevent third parties from infringing or misappropriating its intellectual property within the relevant jurisdictions. While this would not prevent the Company from exploiting its intellectual property in those applicable jurisdictions, it would allow potential competitors to enter the market although, given the nature and scale of the technology, a certain amount of engineering and

fabrication effort would be required to develop competing systems.

The Company's current TESS design relies on a combination of existing and proven subsystems combined in a novel manner to provide the advantages of the current system. It is this new combination of features that form the basis of the PCT patent application and which gives the Company a reasonable level of confidence that it is not infringing a third party's patent in the TESS unit.

1414 Degrees owns the technical documentation that contains the results from the R&D and the specifications and designs in respect of the various TESS devices. It will also exclusively own technical documentation generated as part of the commercial demonstrator TESS device that is to be supplied, constructed and installed at the Glenelg Wastewater Treatment Plant owned and operated by SA Water.

The Company's corporate value is linked to value of its intellectual property (IP) portfolio. Accordingly, IP management is central to 1414 Degrees' business strategy.

The Company's IP strategy will be to patent the foundational and novel aspects of the Company's inventions which it has developed from its R&D. In other cases, where appropriate, the Company will keep the IP developed from its R&D a trade secret and confidential.

Any non-patentable IP is managed through the performance of periodic IP audits. 1414 Degrees itemises technical documentation from its R&D, and the specifications and designs for the TESS developments in its IP register.

Robust IP management will provide 1414 Degrees with a sustainable competitive advantage and the Company will build on its learnings, patents and trade secrets to maintain protection of its IP.

For further information, please refer to the Intellectual Property Report, which has been included in this Prospectus at Section 10.

## 2.11 EMPLOYEES

1414 Degrees recognises and understands the integral part that employees and contractors play in its business success. 1414 Degrees aims to provide a healthy and successful workplace, bringing this to life in the form of individual key performance indicators (KPIs) that list personal health goals alongside sales, business and operational KPIs.

The Company recognises that, given the early stage in its organisational development, it has particular dependencies on certain Key Management Personnel, including its Executive Chairman, Dr Kevin Moriarty and its key engineers, Mr Matthew Johnson (Chief Technical Officer) and Mr Isaac Mathwin (Head of Engineering). Further information about the risks associated with this key personnel dependency is set out at Section 6.





## SECTION 3: INDUSTRY OVERVIEW

### 3.1 COMMERCIAL PROSPECTS IN THE AUSTRALIAN ELECTRICITY NETWORK

Recently, the Australian Energy Market Operator and the Office of the Technical Regulator in South Australia have mandated grid stability measures for new generation. These measures are to provide fast response to frequency change of electricity supply (FFR), so are not directly requiring storage, but they are particularly stringent in South Australia, requiring substantial electrical capacity to be available for FFR. Following approaches from large solar farm developers, 1414 Degrees has developed a scheme to provide this FFR by incorporating a TESS-GRID into the development. When FFR is required, a near instantaneous and substantial response is obtained by switching energy from TESS charging to direct injection into the network. In a modelled example for a potential client, a maximum FFR response of 188.8MW.sec would be available for hours. Further, the large TESS-GRID turbine would be supplying up to 50MW of spinning inertia for frequency control, unlike renewable direct current generators.

The Climate Council of Australia has reported that Australia is expected to reach over 20GW of solar PV in the next 20 years and as more solar is added to Australia's electricity grid, there is a need for complementary technologies and storage is one such technology. The growth trajectory for storage could be similar to that of solar PV, driven by commercial viability, peak demand growth and increasing renewable capacity in that:

- the energy industry consensus is that storage technologies are now becoming commercially viable. As energy prices increase and storage technology costs reduce, a cross-over point is reached resulting in accelerated up-take driven by further storage system cost reductions through economies of scale; and
- a major challenge for the industry is peak demand growth. Network investment over the 2009 to 2014 five year regulatory period was forecast at over \$7 billion for transmission networks and \$35 billion for distribution networks. For example, the characteristics of the South Australian grid are particularly challenging because of peaks in demand, in that almost a third of its generating plant mix is required for less than 200 hours per year.

Also, the composition of the generation mix in the NEM is rapidly changing. Coal fired plants in South Australia and Victoria have been decommissioned and are planned for decommissioning in other jurisdictions of the NEM. Coupled with these developments is the projected rapid build out of renewables to achieve national Renewable Energy Targets.

Achieving these targets without load following plants (in particular gas turbines) will be problematic. If such load following plants are not countenanced, then the stability, security and reliability of grids such as those of South Australia, is at serious risk. A solution to ensuring that consumers retain choice and control is to build out firming renewable generation and bulk energy storage at grid scale. Battery storage for private generation (e.g. domestic solar) and some grid installations is already available. For industrial scale and grid installations, the TESS solution provides a further compelling answer, in particular where heat energy is also required. Importantly, as demonstrated by the proposed installations for Austcor Packaging and Pepe's Ducks, there are no major barriers to an accelerated deployment of 1414 Degrees storage into industrial sites.

### 3.2 COMMERCIAL PROSPECTS IN THE AUSTRALIAN WASTEWATER TREATMENT MARKET

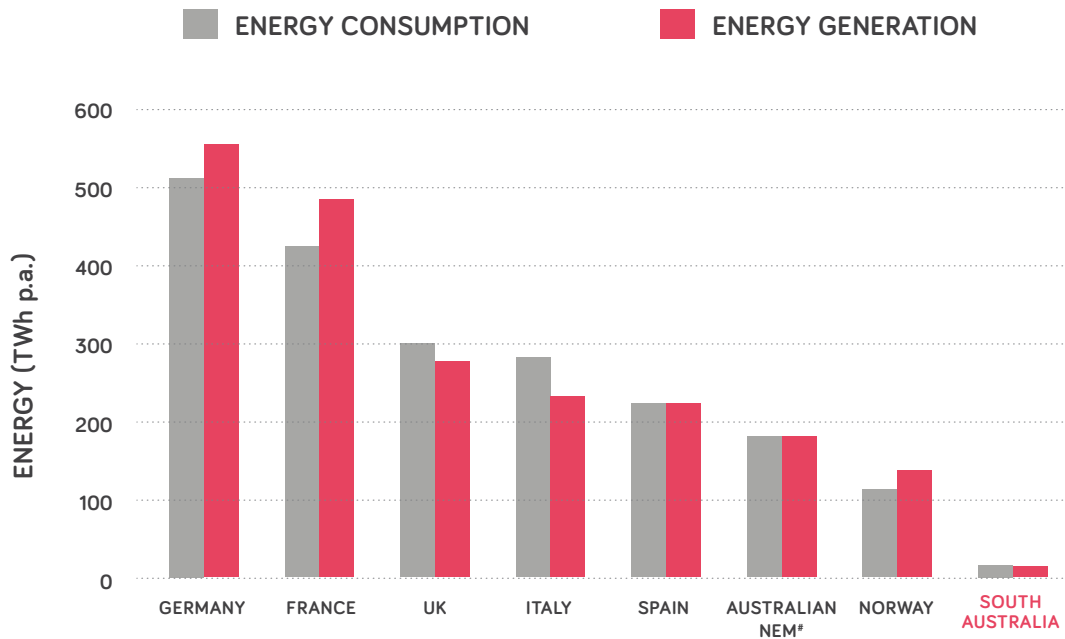
Water is a necessity for life on earth, and wastewater is the unavoidable by-product, making this market truly global and closely tied to population size. High wastewater treatment growth is expected in regions of the Asia Pacific, being water-stressed, high population growth areas. In 2016, Frost & Sullivan projected a global water market of \$625 billion, with wastewater treatment equipment contributing \$29 billion in sales to utilities and utility wastewater treatment suppliers worldwide (e.g. 3M Purification, Aquatech International, Calgon Carbon, Danaher, Degremont, GDF SUEZ, GE Water & Process Technologies, Siemens, Veolia Water Solutions & Technologies).

Statistics published by the Australian Bureau of Statistics for the Australian Water Market show that the eastern states dominate the consumption and discharge of water in Australia. Urban water and wastewater utility providers typically expend more energy on wastewater treatment than any other activity.

In NSW, Sydney Water owns and operates 16 wastewater treatment plants (WWTPs), collecting more than 1.3 billion litres of wastewater from over 1.8 million homes and businesses in Sydney, the Illawarra and the Blue Mountains every day. In Victoria, the Western Treatment Plant at Werribee treats 50% of Melbourne's sewage per day and has been a net exporter of electricity from biogas since 2013-14, generating 71.5GWh per annum. The Eastern Treatment Plant at Bangholme treats about 40% of Melbourne's total sewage. Queensland Urban Utilities operates 27 sewage treatment plants, four of which each serve populations over 100,000 in Brisbane, and one, Bundamba, serves a population over 100,000 in



## > ENERGY CONSUMPTION



SOURCE: EUROPEAN COMMISSION

FIGURE 11: ENERGY CONSUMPTION IN EUROPE.

Ipswich. The Water Corporation operates over 100 WWTPs across Western Australia. The three largest WWTPs are at Woodman Pt, Beenyup and Subiaco with populations of 760,000, 660,000 and 240,000 respectively. South Australia has four major metropolitan WWTPs and one minor metropolitan WWTP, with two major plants collocated at Bolivar, and 19 minor country-based WWTPs. The electricity generated from biogas supplies part of the energy demand at Glenelg, Bolivar and Christies Beach.

The wide range of WWTP sizes distributed around Australia makes it an excellent test market for 1414 Degrees GAS-TESS technology in two ways. Firstly, 1414 Degrees is able to maximise customer benefits by approaching appropriately sized WWTPs for the current stage of GAS-TESS product development. Secondly, the wide-ranging sizes offer the ability to showcase the GAS-TESS's low-cost scalability prior to engaging in international markets. An analysis conducted by 1414 Degrees of the Australian wastewater treatment market indicates that about ten Australian sites could support GAS-TESS installations without the need for additional renewable energy augmentation.

### 3.3 THE GLOBAL MARKET FOR THE TESS

The energy storage market is large and varied in terms of both geographic coverage and storage system sizes. Geographic coverage is wherever there is electricity and heat demand, combined with a desire to increase the proportion of energy supply from renewables – in effect the whole world. And the storage system size ranges from kilowatt-hours to gigawatt-hours. 1414 Degrees intends

to initially focus on high value market segments that are suited to its current product range. The 1414 Degrees low cost technology will open possibilities for storage in some markets that are not already serviced and will have the potential to increase solutions for heat reliant industries, generation from waste treatment and network storage.

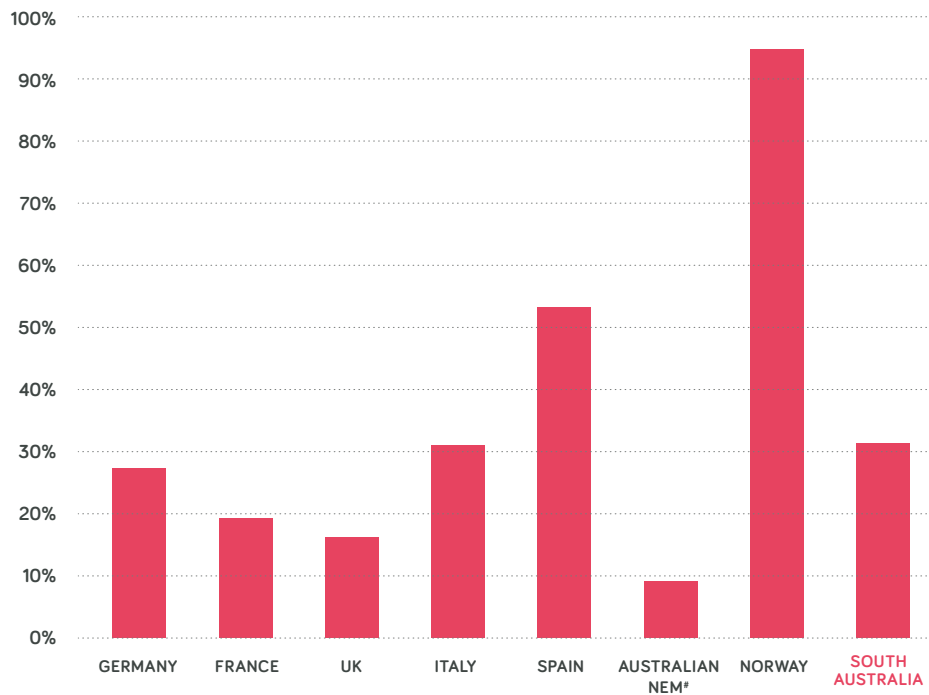
### 3.4 ELECTRICITY IN THE EUROPEAN MARKET

1414 Degrees has explored the European market for the integration of its products in six European economies these being; Germany, France, United Kingdom, Italy, Spain and Norway. The electricity consumption in Germany in 2016 was 514.7TWh. In France the electricity consumption was 83% that of Germany. In the United Kingdom it was 59%, followed by Italy at 56%, Spain at 45% and Norway at 22%.

In contrast, the total electricity consumption for the Australian NEM in 2016 was 184.2TWh and in South Australia it was 12.5TWh. The German demand (Figure 11) in the same year was 2.8 times the entire Australian NEM demand.

Renewables as a percentage of total generation, shown in Figure 12 (next page) for the selected countries, was significant for Germany, France, Italy, Spain and Norway. Of the European nations considered, the UK had the lowest penetration of renewables, and Australia trailed well behind even in comparison with the UK. South Australia, while having significant renewables penetration, has proportionally a very small demand compared with other selected countries and consequently small renewables generation in comparison.

## > RENEWABLES AS A (%) OF GENERATION



\*NEM: NATIONAL ENERGY MARKET

FIGURE 12: RENEWABLES AS A (%) OF GENERATION

The total electricity demand in the six selected European countries was 1,872.8TWh in 2016 and the generation from renewables was 622.4TWh or 33% of the total demand. Compared to the South Australian and Australian market, clearly the opportunity in just these six countries presents a significant potential for the TESS bulk energy storage products. Based on the Company's investigations, the regulatory frameworks and market mechanisms in each of these countries are not dissimilar to those that are currently in place, or envisaged, in Australia.

### 3.5 HEAT MARKETS IN THE NORTHERN HEMISPHERE

The significant point of difference of the TESS with other energy storage, such as batteries, is that it can efficiently meet heat demands as well as electrical demand. Of particular note for the TESS products therefore, is the following quotation from the 'London Heat Network Manual' in the context of the United Kingdom's heat demand.

*"Heat remains the single biggest reason we use energy in our society. We use more energy for heating than for transport or the generation of electricity."*

It is variously unappreciated that in most countries in the Northern Hemisphere, heat forms the most significant proportion of the energy mix as illustrated in the infographic in the accompanying Figure 13. Most of this heat demand is met by gas, oil or other fossil fuels such as burning biogas, woodchips and other waste materials.

1414 Degrees' solution encompasses the entire energy use spectrum and displaces fossil fuels for the purpose

of electricity generation as well as the fossil fuels used to supply heat.

Because the energy output of the TESS products is in the form of heat and electricity, their integration into the large markets in the Northern Hemisphere presents an ideal technological solution, especially as most of these countries generate their heat from fossil fuels and have set targets to have fully decarbonised their heat market by 2050.

### 3.6 GLOBAL BIO-WASTE ENERGY MARKETS

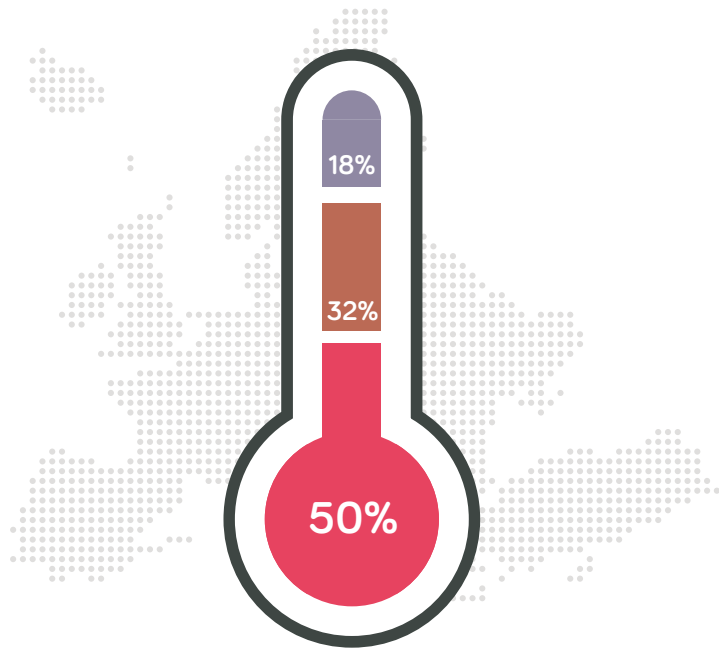
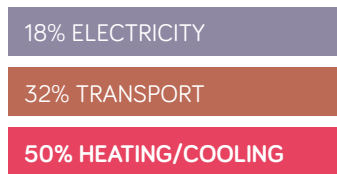
A large international market could benefit from 1414 Degrees' efficient direct bio-gas to storage technology providing power and heat on demand.

Global bio-power capacity increased an estimated 6% in 2016 to 112GW. Generation rose 6% to 504TWh. The leading country for electricity generation from biomass in 2016 was the United States (68TWh) followed by China (54TWh), Germany (52TWh), Brazil (51TWh), Japan (38TWh) and India and the United Kingdom (both 30TWh).

Although the United States remained the largest producer of electricity from biomass sources, generation fell 2% in 2016 to 68TWh, down from 2015 levels of 69TWh, as existing capacity faced increasing price competition from alternative renewable generation sources under the Renewable Portfolio Standards of a number of states. However US bio-power capacity in operation reportedly increased by 197MW (0.5%) to 16.8GW through the installation of 51 small-scale generation plants.

## > ENERGY USAGE

50% of the EU's annual energy consumption is for Heating/Cooling



SOURCE: EUROPEAN COMMISSION  
FIGURE 13: ENERGY USAGE

In Europe, growth in electricity generation from both solid biomass and biogas continued in 2016, driven by the Renewable Energy Directive. In Germany, Europe's largest producer of electricity from biomass, total bio-power capacity increased 2%, to 7.6GW and generation was up 2.5% to 52TWh. Elsewhere in Europe, the United Kingdom's bio-power capacity increased 6% to 5.6GW, due mainly to large-scale generation and to continuing growth in biogas production for electricity; however, generation was up only 1% because increases in output from solid biomass and anaerobic digestion were offset by reductions in generation from landfill gas.

Reports of the European Biogas Association estimate that over 17,000 biogas plants are in operation across Europe in 2015, with the vast majority (59%) residing in Germany, where strong regulations encourage renewable biomass generation.

In China, in response to revised objectives in the 13th Five-Year Plan, bio-power capacity rose by an estimated 13% in 2016, to 12GW and generation increased to an estimated 54TWh. The combustion of municipal solids waste and of agricultural wastes accounted for most of this generation.

Elsewhere in Asia, capacity and generation rose strongly in Japan where bio energy features in the feed-in tariff scheme. The country's capacity from dedicated biomass plants reached a total of 4GW in 2016 and generation totalled some 38TWh, a 5% increase from 2015. India's bio-power capacity increased as well, with on-grid capacity

up by 164MW (up 0.3%) to 8.3GW and off-grid capacity up by 18.9MW (up 2%) to 330MW; generation rose 8% relative to 2015 to 30TWh.

Brazil is the largest overall consumer of electricity and bio-power in Latin America. The country's capacity, which grew rapidly in 2015, rose 5% in 2016 to 13.9GW. Generation also rose 5% to 51TWh. Over 80% of the biomass-based electricity generation in Brazil is fuelled by bagasse, which is produced in large quantities in sugar production.

## SECTION 4: DETAILS OF THE OFFER

---

### 4.1 THE OFFER AND MINIMUM AND MAXIMUM SUBSCRIPTIONS

This Prospectus invites investors to apply for up to 142,857,143 Shares at the Offer Price of \$0.35 per Share to raise a maximum of \$50,000,000. The Offer made under this Prospectus and the issue of Shares pursuant to this Prospectus are subject to and conditional upon the Company achieving the Minimum Subscription of 85,714,286 Shares to raise at least \$30,000,000. Fractional amounts are being rounded up to the next whole number.

All Shares issued pursuant to this Prospectus will be issued as fully paid ordinary shares and will rank equally in all respects with the Shares already on issue. The rights attaching to the Shares are summarised in Section 12 of this Prospectus.

The Offer is not underwritten.

### 4.2 CONDITION PRECEDENT

The Offer made under this Prospectus and the issue of Shares pursuant to this Prospectus are subject to and conditional upon the Company achieving the Minimum Subscription of 85,714,286 Shares to raise at least \$30,000,000 within three months after the date of this Prospectus (or any longer period permitted by law). If the Minimum Subscription is not achieved within the time period set out above, the issue of Shares under the Offer will not proceed and no Shares will be allotted pursuant to this Prospectus and the Company will repay all Application Monies received from Applicants without interest, as soon as practicable, or the Company will issue a Supplementary or Replacement Prospectus and allow Applicants one month to withdraw their applications and be repaid their Application Monies in full without interest.

### 4.3 OFFER PERIOD

The Offer will open on the Opening Date and will remain open until 5.00 pm (AEST) on the Closing Date. The Company reserves the right to vary the dates and times of the Offer, including to open or close the Offer early, to extend the time or date of the Closing Date, or to accept late Applications, in each case without prior notice. Applicants are encouraged to submit their Applications as early as possible.

### 4.4 PURPOSE OF THE OFFER

The purpose of the Offer is to facilitate an application by the Company for admission of the Company to the Official List and to position the Company to achieve the objectives set out in this Prospectus, including the development of the TESS business strategy as described in Section 2.

## 4.5 USE OF FUNDS

The proposed application of funds received in connection with the Offer over two calendar years from the date on which the Shares allotted under this Prospectus are quoted on the ASX is as follows:

### MINIMUM SUBSCRIPTION

The below use of funds is based on the Minimum Subscription being raised.

TABLE 4

Total funds raised under the Offer \$30,000,000			
USE OF FUNDS	Year 1 \$	Year 2 \$	TOTAL \$
Expenses of the Offer*	1,413,785		1,413,785
<b>PRODUCT DEVELOPMENT</b>			
TESS-IND: component testing, Southlink SA	1,058,000	780,000	1,838,000
TESS-GRID: Design, build and test 13.3MWh test cell	3,640,000		3,640,000
TESS-STEAM	1,250,000		1,250,000
<b>INSTALLATIONS AT COMMERCIAL SITES</b>			
Austcor Packaging - NSW	2,950,000		2,950,000
Pepe's Ducks - NSW	3,915,000		3,915,000
GAS-TESS: wastewater treatment plant, Glenelg SA	1,487,000		1,487,000
TESS-GRID: 200MWh module**		2,000,000	2,000,000
Working capital (including staff costs)	5,014,715	6,491,500	11,506,215
<b>Total funds applied</b>	<b>20,728,500</b>	<b>9,271,500</b>	<b>30,000,000</b>

\*A breakdown of the expenses of the Offer is set out in Section 12.

\*\* These funds will be applied to the design and site selection of the first TESS-GRID. Further details of the Company's strategy and timing for development of the TESS-GRID and associated use of funds can be found in Section 2.9.

## MAXIMUM SUBSCRIPTION

The below use of funds is based on the Maximum Subscription being raised.

TABLE 5

Total funds raised under the Offer \$50,000,000			
USE OF FUNDS	Year 1 \$	Year 2 \$	TOTAL \$
Expenses of the Offer*	2,253,485		2,253,485
<b>PRODUCT DEVELOPMENT</b>			
TESS-IND: component testing, Southlink SA	1,058,000	780,000	1,838,000
TESS-GRID: Design, build and test 13.3MWh test cell	3,640,000		3,640,000
TESS-STEAM	1,250,000		1,250,000
<b>INSTALLATIONS AT COMMERCIAL SITES</b>			
Austcor Packaging - NSW	2,950,000		2,950,000
Pepe's Ducks - NSW	3,915,000		3,915,000
GAS-TESS: wastewater treatment plant, Glenelg SA	1,487,000		1,487,000
TESS-GRID: construct 200MWh module**		20,000,000	20,000,000
Working capital (including staff costs)	4,935,015	7,731,500	12,666,515
<b>Total funds applied</b>	<b>21,488,500</b>	<b>28,511,500</b>	<b>50,000,000</b>

\*A breakdown of the expenses of the Offer is set out in Section 12.

\*\* These funds will be applied to the design, site selection and build of the first TESS-GRID. Further details of the Company's strategy and timing for development of the TESS-GRID and associated use of funds can be found in Section 2.9.



## 4.6 APPLICANTS

### WHO CAN APPLY FOR SHARES?

The Offer presented in this Prospectus is open to investors who have a registered address in Australia and New Zealand.

### WHAT IS THE MINIMUM APPLICATION AMOUNT?

Applications must be for a minimum of 6,000 Shares (\$2,100).

### HOW DO I APPLY FOR SHARES?

Applications must be made by completing the Application Form accompanying or attached to this Prospectus. Applications under the Offer may be made, and will only be accepted, by:

- submitting a paper Application Form accompanying or attached to this Prospectus and a personal cheque, money order or bank draft for the Application Monies to the Share Registrar (for further details, please refer to 'How do I pay for the Shares using cheque, money order or bank draft?' below); or
- completing an electronic Application Form which accompanies the electronic version of this Prospectus, both of which can be found at <https://1414degrees.com.au/prospectus/>, and making payment of the Application Monies by BPAY® (for further details, please refer to 'How do I pay for the Shares using BPAY®?').

Applications must be accompanied by payment in Australian currency. Application Monies must be received by cheque, money order or bank draft, or by BPAY® (as set out below).

The Application constitutes an offer by the Applicant to subscribe for Shares on the terms, and subject to the conditions, set out in this Prospectus. Applications will be accepted at any time after the Opening Date and prior to 5.00pm (AEST) on the Closing Date. Applications must be received by the Share Registrar no later than 5.00 pm (AEST) on the Closing Date.

An Application may not be withdrawn after it is submitted unless the Applicant is permitted to withdraw the Application in accordance with the Corporations Act.

The Company reserves the right to accept, reject or scale back any Application, in its absolute discretion.

Where the number of Shares allotted is less than the number applied for, or where no allotment is made, the surplus Application Monies will be refunded (without interest) by cheque as soon as practicable after the Closing Date.

A binding contract to issue Shares will only be formed at the time Shares are allotted to Applicants.

Application Monies will be held in trust in a subscription account established and controlled by the Company until allotment of Shares has taken place.

### HOW DO I PAY FOR THE SHARES USING CHEQUE, MONEY ORDER OR BANK DRAFT?

An Applicant may apply for Shares by completing the paper Application Form accompanying or attached to this Prospectus. Detailed instructions on how to complete paper Application Forms are set out on the reverse of the Application Form. You are not required to sign the Application Form.

Paper Application Forms must be accompanied by payment of the Application Monies (being an amount equal to the number of Shares for which you wish to apply multiplied by the Offer Price of \$0.35 per Share) by personal cheque, money order or bank draft, payable in Australian dollars. Cash will not be accepted. Receipt of payment will not be forwarded.

Cheques, money orders or bank drafts must be drawn on an Australian branch of a financial institution, payable in Australian dollars and made payable to '1414 Degrees Limited Application Account' and crossed 'Not Negotiable'. No brokerage or stamp duty is payable by Applicants. The Offer Price will not vary during the period of the Offer.

Completed paper Application Forms, together with accompanying cheque(s), money order(s) or bank draft(s), should be mailed to:

**1414 Degrees Ltd Share Issue  
Computershare Investor Services Pty Limited  
GPO Box 1326  
Adelaide, SA, 5001**

Paper Application Forms and Application Monies will not be accepted at any other address or office and will not be accepted at the Company's registered office.

Completed paper Application Forms, together with accompanying cheque(s), money order(s) or bank draft(s), must be received by the Share Registrar no later than 5.00 pm (AEST) on the Closing Date.

Payments by cheque, money order or bank draft will be deemed to have been made when the cheque, money order or bank draft is honoured by the bank on which it is drawn. Accordingly, Applicants should ensure that sufficient funds are held in the relevant account(s) to cover their cheque, money order or bank draft at the time the paper Application Form is submitted. Dishonoured cheques, money orders and bank drafts will result in the Application being rejected.

If the amount of your cheque(s), money order(s) or bank draft(s) for Application Monies is insufficient to pay for the amount you have applied for in your paper Application Form, you may be taken to have applied for such lower amount as your cleared Application Monies will pay for (and to have specified that amount in your paper Application Form) or your Application may be rejected.

## HOW DO I PAY FOR THE SHARES USING BPAY®?

You may apply for Shares online and pay your Application Monies (being an amount equal to the number of Shares for which you wish to apply multiplied by the Offer Price of \$0.35 per Share) by BPAY®.

Applicants wishing to pay by BPAY® should complete the online Application Form accompanying the electronic version of this Prospectus, both of which can be found at <https://1414degrees.com.au/prospectus/> and follow the instructions for the online Application.

A unique BPAY® reference number will be quoted upon completion of the online Application. Your BPAY® reference number will process your payment to your Application electronically and you will be deemed to have applied for such Shares for which you have paid.

Applicants using BPAY® should be aware that their own financial institution may implement earlier cut off times with regard to electronic payment, and therefore take this into consideration when making payment. Financial institutions may impose a limit on the amount which a person can transact on BPAY®, and policies with respect to processing BPAY® transactions may vary between financial institutions. Neither the Share Registrar nor the Company accepts any responsibility for loss incurred through incorrectly completed BPAY® payments. Neither the Share Registrar nor the Company accepts any responsibility for any failure to receive Application Monies or payments by BPAY® before the Closing Date arising as a result of, among other things, processing of payments by financial institutions.

## 4.7 CAPITAL STRUCTURE

The Shareholders as at the date of this Prospectus hold 125,708,946 Shares.

Following completion of the Offer, the proposed issued capital structure of the Company will be as set out in the Table below:

TABLE 6

Shares	Minimum Subscription		Maximum Subscription	
	Number	%	Number	%
Shares on issue as at date of this Prospectus <sup>(1)</sup>	125,708,946	59.46	125,708,946	46.81
Shares issued pursuant to this Prospectus	85,714,286	40.54	142,857,143	53.19
Total Shares on issue following completion of the Offer	211,423,232	100	268,566,089	100
Other Shares offered but yet to be issued <sup>(2)(3)(4)</sup>	1,830,000		1,830,000	
Total Shares on issue on a fully diluted basis	213,253,232		270,396,089	

(1) Some of these Shares may be subject to escrow arrangements. Details are provided in this Section 4.

(2) The Company has offered to issue 500,000 Shares to Reactive Engineering Pty Ltd or its nominee, subject to the satisfaction of certain conditions, pursuant to the terms of a Letter of Offer dated 23 March 2018. Further details of the agreement are set out in Section 11.

(3) The Company has agreed to issue 1,000,000 Shares to Pitstop Marketing Pty Ltd, subject to the satisfaction of certain conditions, pursuant to the terms of an undated Offer of Contractual Engagement. Further details of the agreement are set out in Section 11.

(4) The Company has agreed to issue 330,000 Shares to Burwood Family Investments Pty Ltd as trustee for the Burwood Family Investment Trust, subject to the satisfaction of certain conditions, pursuant to the terms of a Heads of Agreement dated 16 April 2018. Further details of the agreement are set out in Section 11.

It is the responsibility of the Applicant to ensure that funds submitted through BPAY® are received prior to 5.00pm (AEST) on the Closing Date.

You should be aware that you will only be able to make a payment via BPAY® if you are the holder of an account with an Australian financial institution which supports BPAY® transactions.

You do not need to return any documents if you have made payment via BPAY®.

## FURTHER INSTRUCTIONS

The Company reserves the right to reject any Application (including where the Application has not been correctly completed) or to allocate fewer Shares than the number for which an Application was received, or vary the dates and times of the Offer without prior notice. Regard will be given by the Company and the Lead Manager to the timing of receipt of Applications, and Applicants are therefore encouraged to submit their Applications as soon as possible.

Where Applications are rejected or fewer Shares are allotted than applied for, surplus Application Monies will be refunded. No interest will be paid on any Application Monies refunded.

The Company reserves the right not to proceed with the Offer at any time before the issue of Shares to successful Applicants. If the Offer does not proceed, Application Monies will be refunded. No interest will be paid on any Application Monies refunded as a result of the withdrawal of the Offer.

The Company does not have any other securities on issue other than the Shares set out above. The rights attaching to the Shares are summarised in Section 12 of this Prospectus.

#### 4.8 SUBSTANTIAL SHAREHOLDERS

Those Shareholders holding 5% or more of the Shares on issue at the date of this Prospectus are:

TABLE 7

Shareholder	Shares	%
Harold Tomblin & Judith Johnston <Tomblin Superfund>	12,544,527	9.98
Focem Pty Ltd <Towarnie Superannuation Fund> <sup>(1)</sup>	12,403,000	9.87
John & Wendy Moss <Moss Retirement Trust>	8,567,427	6.82
Robert & Lynette Shepherd <Shepherd Superfund>	7,107,594	5.65
ammjohn Pty Ltd <sup>(2)</sup>	6,466,039	5.14

(1) Kevin Moriarty is a director and shareholder of Focem Pty Ltd which is the trustee of the Towarnie Superannuation Fund.

(2) Matthew Johnson is a director and shareholder of ammjohn Pty Ltd.

#### MINIMUM SUBSCRIPTION

On completion of the Offer (assuming Minimum Subscription and no existing substantial Shareholder subscribes for and receives additional Shares pursuant to the Offer), those Shareholders holding 5% or more of the Shares on completion of the Offer will be:

TABLE 8

Shareholder	Shares	%
Harold Tomblin & Judith Johnston <Tomblin Superfund>	12,544,527	5.93
Focem Pty Ltd <Towarnie Superannuation Fund> <sup>(1)</sup>	12,403,000	5.87

(1) Kevin Moriarty is a director and shareholder of Focem Pty Ltd which is the trustee of the Towarnie Superannuation Fund.

#### MAXIMUM SUBSCRIPTION

Assuming the Maximum Subscription and that no existing substantial Shareholder subscribes for and receives additional Shares pursuant to the Offer, there will be no existing substantial Shareholders holding 5% or more of the Shares on completion of the Offer.

#### TOP 20 SHAREHOLDERS

The Company will announce to the ASX details of its top-20 Shareholders (following completion of the Offer) prior to the Shares commencing trading on the ASX.

#### 4.9 ALLOCATION AND ALLOTMENT OF SHARES

Subject to the Minimum Subscription under the Offer being achieved and the ASX granting approval for quotation of the Shares on the ASX, the allotment of Shares will occur as soon as practicable after the Closing Date. Holding statements will be dispatched as required by the ASX. It is the responsibility of Applicants to determine their allocation prior to trading in Shares.

Pending the allotment and issue of Shares or payment of refunds pursuant to this Prospectus, all Application Monies will be held in trust in a subscription account established and controlled by the Company. The Company will, however, be entitled to retain all interest that accrues on the subscription account and you waive the right to claim interest.

Pursuant to the terms of the Mandate Letter with Taylor Collison, the Directors have the authority to allocate up to \$20 million in Shares under the Offer to Applicants from the Pre-Registered List. Taylor Collison will be entitled to allocate (in consultation with the Company) the remaining Shares to Applicants. Taylor Collison must disclose the identity of the beneficial owners of Applicants who apply for more than \$500,000 in Shares and allocation to these Applicants will be at the Directors' discretion (acting reasonably). The Company reserves the right to reject any application or allocate Applicants fewer Shares than that Applicant applied for at its absolute discretion. Regard will be given by the Company and the Lead Manager to the timing of receipt of Applications and Applicants are therefore encouraged to submit their Applications as soon as possible. The Company reserves the right to reject any application or allocate Applicants fewer Shares than that Applicant applied for at its absolute discretion. Regard will be given by the Company and the Lead Manager to the timing of receipt of Applications and Applicants are therefore encouraged to submit their Applications as soon as possible.

Where Applications are rejected or fewer Shares are allotted than applied for, surplus Application Monies will be refunded as soon as practicable after the Closing Date. No interest will be paid on any Application Monies refunded.

#### 4.10 BROKERAGE AND HANDLING FEES

No brokerage, commission or stamp duty is payable by Applicants on acquisition of Shares under the Offer.

#### 4.11 ASX LISTING

It is expected that the Shares issued under this Offer will commence trading on the ASX on a normal settlement basis on or about 3 July 2018.

The Shares are expected to be quoted under the ASX trading code of "14D".

Within seven days after the date of the Original Prospectus, the Company applied to the ASX for the Company to

be admitted to the Official List and for quotation of the Shares on the ASX. If approval for quotation of the Shares is not granted within three months after the date of this Prospectus (or any longer period permitted by law), the Company will not allot any Shares pursuant to the Offer and will repay all Application Monies in full without interest as soon as practicable, or the Company will issue a Supplementary or Replacement Prospectus and allow Applicants one month to withdraw their Applications and be repaid their Application Monies in full without interest.

The fact that the ASX may admit the Company to its Official List is not to be taken in any way as an indication of the merits of the Company or the Shares offered pursuant to this Prospectus. The ASX takes no responsibility for this Prospectus or the investment to which it relates. Admission to the Official List and quotation of the Shares on the ASX are not to be taken as an endorsement by the ASX of the Company.

#### 4.12 CHESS AND ISSUER SPONSORSHIP

The Company will participate in CHESS, operated by ASX Settlement, a wholly owned subsidiary of the ASX, in accordance with the Listing Rules and the ASX Settlement Operating Rules.

Under this system, the Company will not issue certificates to investors in relation to their Shares. Instead, Shareholders will receive a statement of their shareholdings in the Company.

If an investor is broker sponsored, ASX Settlement will send them CHESS statements. The CHESS statement will set out the number of Shares allotted to the investor under this Prospectus, give details of the Shareholder's Holder Identification Number and give the participant identification number of the sponsor.

Alternatively, if an investor is registered on the issuer sponsored sub register, the statement will be dispatched by the Share Registrar and will contain the number of Shares allotted under this Prospectus and the Shareholder's Security Holder Reference Number (SRN).

A CHESS statement or issuer sponsored statement will routinely be sent to Shareholders at the end of any calendar month during which the balance of their holding changes. A Shareholder may request a statement at any other time, however, a charge may be made for additional statements.

#### 4.13 FOREIGN JURISDICTIONS

The Offer does not constitute a public offer in any jurisdiction outside Australia and New Zealand. This Prospectus does not constitute an offer or invitation in any place in which, or to any person to whom, it would not be lawful to make such an offer or invitation.

This Prospectus has been prepared for distribution in Australia and New Zealand. The distribution of this

Prospectus (including an electronic copy) in jurisdictions outside Australia and New Zealand may be restricted by law, and persons who come into possession of this Prospectus should seek advice on, and observe, any such restrictions. No action has been taken to register or qualify the Shares, or the Offer, or otherwise to permit a public offering of the Shares, in any jurisdiction outside Australia and New Zealand.

Any failure to comply with such restrictions may constitute a violation of applicable securities laws. It is the responsibility of Applicants outside Australia and New Zealand to obtain all necessary approvals for the allotment and issue of the Shares pursuant to this Prospectus. Lodgement of a duly completed Application Form will be taken by the Company to constitute a representation and warranty by the Applicant that all relevant approvals have been obtained and that there has been no breach of such laws.

If you are resident in countries other than Australia or New Zealand you should consult your professional advisors as to whether any governmental or other consents are required or whether any other formalities need to be considered and followed.

**Important notice to New Zealand investors:** This Offer to New Zealand investors is a regulated offer made under Australian and New Zealand law. In Australia, this is Chapter 8 of the Corporations Act and the Corporations Regulations 2001 (Cth). In New Zealand, this is subpart 6 of Part 9 of the Financial Markets Conduct Act 2013 and Part 9 of the Financial Markets Conduct Regulations 2014.

The Offer and the content of this Prospectus are principally governed by Australian rather than New Zealand law. In the main, the Corporations Act and the Corporations Regulations 2001 (Cth) set out how the Offer must be made.

There are differences in how financial products are regulated under Australian law. For example, the disclosure of fees for managed investment schemes is different under the Australian regime.

The rights, remedies, and compensation arrangements available to New Zealand investors in Australian financial products may differ from the rights, remedies, and compensation arrangements for New Zealand financial products.

Both the Australian and New Zealand financial markets regulators have enforcement responsibilities in relation to the Offer. If you need to make a complaint about the Offer, please contact the Financial Markets Authority, New Zealand (<http://www.fma.govt.nz>). The Australian and New Zealand regulators will work together to settle your complaint.

The taxation treatment of Australian financial products is not the same as for New Zealand financial products.

If you are uncertain about whether this investment is appropriate for you, you should seek the advice of an appropriately qualified financial adviser.

The Offer may involve a currency exchange risk. The currency for the financial products is not New Zealand dollars. The value of the financial products will go up or down according to changes in the exchange rate between that currency and New Zealand dollars. These changes may be significant.

If you expect the financial products to pay any amounts in a currency that is not New Zealand dollars, you may incur significant fees in having the funds credited to a bank account in New Zealand in New Zealand dollars.

If the financial products are able to be traded on a financial product market and you wish to trade the financial products through that market, you will have to make arrangements for a participant in that market to sell the financial products on your behalf. If the financial product market does not operate in New Zealand, the way in which the market operates, the regulation of participants in that market, and the information available to you about the financial products and trading may differ from financial product markets that operate in New Zealand.

#### 4.14 PRIVACY ACT

The Company and the Share Registrar, on the Company's behalf, collect, hold and use information about each Applicant from the Application Form for the purposes of processing the Application and, if the Application is successful, to administer the Applicant's shareholding in the Company. The Company is also required under relevant laws to collect some information.

By submitting an Application Form, each Applicant agrees that the Company and/or the Share Registrar may use the information in the Application Form for the purposes set out in this Prospectus and may disclose it or your personal information for those purposes to the Share Registrar, the Company's related bodies corporate, agents, contractors, third party service providers (including mailing houses), the ASX, ASIC and other regulatory authorities or as otherwise authorised under the Privacy Act 1988 (Cth) (as applicable).

If an applicant becomes a Shareholder, the Corporations Act requires the Company to include information about the Shareholder (name, address and details of the Shares held) in its public registers. This information must remain in the registers even if that person ceases to be a Shareholder. Information contained in the Company's registers is also used to facilitate distribution payments and corporate communications (including the Company's financial results, annual reports and other information that the Company may wish to communicate to the Shareholders) and compliance by the Company with legal and regulatory requirements. Successful Applicants may request access to their personal information held by (or on behalf of) the Company by telephoning or writing to the Company Secretary.



If you do not provide the information required on the Application Form, the Company may not be able to accept or process your Application.

#### 4.15 TAXATION

The Australian taxation consequences of any investment in Shares will depend upon an investor's particular circumstances. It is an obligation of investors to make their own enquiries concerning the taxation consequences of an investment in the Company. If you are in doubt as to the course of action you should take, you should consult your professional advisors.

#### 4.16 RESTRICTED SECURITIES

Subject to the Company being admitted to the Official List and quotation of the Shares on the ASX, certain Shares on issue prior to the Offer (Escrowed Securities), are likely to be classified by the ASX as restricted securities and will be required to be held in escrow for the period imposed by the ASX under the ASX Listing Rules (Escrow Period).

The restriction agreements to be entered into by the holders of Escrowed Securities which are subject to escrow (Escrowed Shareholders) will be in the form as required by the ASX, and will include standard terms prohibiting the Escrowed Shareholders during the Escrow Period from:

- disposing of, or agreeing to offer to dispose of, the Escrowed Securities;
- creating, or agreeing to offer to create, any security interest in the Escrowed Securities;
- doing, or omitting to do, any act if the act or omission would have the effect of transferring effective ownership or control of the Escrowed Securities; and
- participating in a return of capital made by the Company.

The imposition of the Escrow Period is intended to:

- help to create a stable market for the Shares (by reducing the number of Shares that can be traded immediately after quotation of the Shares on the ASX);
- prevent the Escrowed Shareholders from selling out of the Company on a large scale within the Escrow Period (which could diminish the value of the Shares); and
- keep the Escrowed Shareholders interested in the operations and success of the Company.

The Company will announce to the ASX full details (quantity and duration) of the Shares required to be held in escrow prior to the Shares commencing trading on the ASX.

#### 4.17 FREE FLOAT

The Company expects that it will have a free float of not less than 20% at the time of its admission to the ASX. "Free float" refers to the percentage of the entity's main class of securities that:

- are not restricted securities or subject to voluntary escrow; and
- are held by non-affiliated security holders.

#### 4.18 INVESTOR ENQUIRIES

This Prospectus is important and should be read in its entirety. Persons in doubt as to the course of action to be followed should consult their stockbroker, solicitor, accountant or other professional advisor without delay.

Additional copies of this Prospectus can be obtained from the Share Registrar by telephone on 1300 556 161 (within Australia) or +61 3 9415 4000 (outside Australia).

Questions relating to the Offer or further advice on how to complete the Application Form can be directed to the Company's Share Registrar, on 1300 556 161 (within Australia) or +61 3 9415 4000 (outside Australia) from 9.00am to 5.00pm (AEST) Monday to Friday or [www.investorcentre.com/contact](http://www.investorcentre.com/contact).





## SECTION 5: DIRECTORS, MANAGEMENT AND CORPORATE GOVERNANCE

### 5.1 DIRECTORS AND KEY MANAGEMENT PERSONNEL

#### DIRECTORS

The Company is currently managed by an energetic Board and management team possessing a broad range of technical, commercial and financial skills.

TABLE 9

Name	Position	Independence*
Dr Kevin Moriarty	Executive Chairman	No
Robert Shepherd	Non-Executive Director	No
Dana Larson	Non-Executive Director	Yes

*The Company considers that a Director is an independent director where that Director is free from any business or other relationship that could materially interfere, or be perceived to interfere with, the independent exercise of the Director's judgement. The Company has also assessed the independence of its Directors regarding the requirements for independence which are set out in Principle 2 of the ASX Corporate Governance Principles.*

### 5.2 PROFILES OF THE CURRENT DIRECTORS ARE AS FOLLOWS:



**DR KEVIN MORIARTY** BSc (Hons), PhD, MAusIMM  
EXECUTIVE CHAIRMAN

Kevin has over 40 years of mining and oil exploration and development experience and 29 years of corporate experience in roles including Chairman and Managing Director of listed companies. He founded and led several companies to develop mines in Australia and Africa. He has served as director and Chairman of a number of ASX listed companies guiding their restructure and relisting.



**ROBERT SHEPHERD** FIPA, CTA, JP  
NON-EXECUTIVE DIRECTOR

Robert is a qualified accountant who has practised for 49 years as a public accountant specialising in income tax compliance and company administration. He has owned and managed his own practice with a clientele ranging from primary producers, small business retail clients and medium sized businesses. He has had Local Government experience and held a senior executive position for several years in a national sporting body in addition to operating his accounting practice.

He is a founding investor and director of 1414 Degrees from its incorporation, involved in management, administration and has provided significant funding through the development of the Company.



**DANA LARSON** B.Sc Chemical and Petroleum Engineering  
INDEPENDENT NON-EXECUTIVE DIRECTOR

Dana is an energy expert with 16 years' of experience primarily focusing on acquisitions, reservoir engineering, financial modelling, and engineering management. His most recent positions include undertaking technical assessments for American Energy partners LP. He has a passion for cultivating a culture of success and for leveraging technical knowledge to create and optimise value for companies.

He consults on exploration and production, mining, and renewable energy and is currently running an energy acquisition and divestiture consultancy.

### 5.3 KEY MANAGEMENT PERSONNEL



**MATTHEW JOHNSON** BSc Mechanical Engineering  
CHIEF TECHNOLOGY OFFICER

Matthew is a Mechanical Engineer with 25 years of experience and is the principal engineer and founder of ammjohn Pty Ltd, a specialist industrial engineering practice. Matthew started his career in industrial construction site works, moving to a commissioning engineering role for a range of specialist German cement technology companies. During this time he built and commissioned a number of projects, which at the time were ground-breaking and at the very edge of what was considered technically feasible, which has provided an excellent basis for him to steer the development of 1414 Degrees technology since 2011.



**PENELOPE BETTISON** BBus, GAICD, FAMI, CPM  
HEAD OF CORPORATE SERVICES & MARKETING

Penelope has 20 years' experience in marketing and business management. Before joining 1414 Degrees she founded and was Director and Brand Strategist at Pitstop Marketing. Her experience spans a wide range of industries including, accounting and financial planning, other professional services, engineering, building/construction, education, healthcare, government, business events and tourism.



**MARNIE ROBINSON** LLB  
HEAD OF LEGAL

Marnie is an experienced corporate lawyer with over 18 years' experience specialising in energy and regulatory law. Prior to joining 1414 Degrees, she held senior in-house corporate roles and was a partner in private legal practice. Marnie has worked on a number of significant energy projects, including the development of numerous wind farms across the Australian-Pacific region, as well as the development of major energy infrastructure. She has also provided extensive regulatory advice to energy companies in relation to the National Electricity Market and the National Electricity Rules.



**ISAAC MATHWIN** BEng (Mech) (Hons)  
HEAD OF ENGINEERING

Isaac has 17 years' experience in designing, building and commissioning manufacturing systems to rigorous quality standards. His experience delivering projects spans the automotive industry, mining, mineral processing and heavy industrial construction. At Toyota Australia, he was a supply development specialist focusing on process optimisation. He has proven ability to manage the construction and commissioning of new, novel manufacturing technologies, exceeding ISO and six sigma quality standards.

## KEY MANAGEMENT PERSONNEL (CONTINUED)



**JONATHAN WHALLEY** BSc (Hons), MSc, MBA  
HEAD OF CONTRACTS

Jonathan has over 30 years of experience as an engineer and entrepreneur. In 1994 he founded DSpace Pty Ltd and led the growth of the Company through organic expansion to a multi-million dollar Venture Capital funding round before selling to a NASDAQ listed company in 2007.

From 2008 Jonathan has been an active angel investor and working at CEO level in clean technology start-up companies initially Danvest Australia Pty Ltd (formerly Windesal) a supplier of off-grid 'Wind-Diesel' systems, and Latent Heat Storage Pty Ltd (now 1414 Degrees).



**RICHARD WILLSON** BA., FCPA, FAICD  
COMPANY SECRETARY

Richard has more than 20 years' experience as Chief Financial Officer, Company Secretary, and Non-Executive Director for publicly listed and private companies.

He is currently a Non-Executive Director of Titomic Limited (ASX:TTT), and AusTin Mining Limited (ASX:ANW), Non-Executive Director and Company Secretary of the not-for-profit Unity Housing Company, Company Secretary of Beston Global Food Company Limited (ASX:BFC), and Patron Resources Limited, Director and Treasurer of Variety SA, and a Director and Company Secretary of a number of other private companies. Richard is the Chairman of the Audit & Risk Committees of AusTin Mining Limited, Titomic Limited and Unity Housing Company, and is the Chairman of the Remuneration & Nomination Committee of Titomic Limited.

Richard has previously been the Chief Financial Officer, the Company Secretary and a Non-Executive Director of a number of ASX listed companies. He has significant experience with initial public offerings, back door listings and capital raisings.

### DIRECTORS' INTERESTS

Except as disclosed in this Prospectus, no Director, whether individually or in consequence of a Director's association with any company or firm or in any material contract entered into by the Company, has now, or has had, in the two year period ending on the date of this Prospectus, any interest in:

- the formation or promotion of the Company; or
- property acquired or proposed to be acquired by the Company in connection with its formation or promotion or the Offer; or
- the Offer.

Except as disclosed in this Prospectus, no amounts of any kind (whether in cash, shares, options or otherwise) have been paid or given or agreed to be paid or given to any Director or to any company or firm with which a Director is associated to induce him or her to become, or to qualify as, a Director, or otherwise for services rendered by him or her or any company or firm with which the Director is associated in connection with:

- the formation or promotion of the Company; or
- the Offer.

## DISCLOSURE OF INTERESTS

The current Directors' direct and indirect interests in the Shares as at the date of this Prospectus are as follows:

### SHARES

TABLE 10

1414 Degrees Director	Direct	Indirect	% Total Shares
Kevin Moriarty	0	12,403,000 <sup>(1)</sup>	9.87
Robert Shepherd	7,107,594 <sup>(2)</sup>	0	5.65
Dana Larson	250,000	0	0.20
Total	7,357,594	12,403,000	15.72

(1) As at the date of this Prospectus, Kevin Moriarty has an indirect interest in 12,403,000 Shares held by Focem Pty Ltd as trustee for the Towarnie Superannuation Fund.

(2) As at the date of this Prospectus, Robert Shepherd has an interest in 7,107,594 Shares held by Robert & Lynette Shepherd in their capacity as trustees of the Shepherd Superfund.

On completion of the Offer (assuming the Minimum Subscription and no Director acquires a direct or indirect interest in any additional Shares pursuant to the Offer), the direct and indirect interests of the current Directors in the Shares will be as follows:

### SHARES <sup>(1)</sup>

TABLE 11

1414 Degrees Director	Direct	Indirect	% Total Shares
Kevin Moriarty	0	12,403,000 <sup>(2)</sup>	5.87
Robert Shepherd	7,107,594 <sup>(3)</sup>	0	3.36
Dana Larson	250,000	0	0.12
Total	7,357,594	12,403,000	9.35

(1) Assumes that the maximum number of Shares issued under the Offer is 85,714,286 Shares.

(2) As at the date of this Prospectus, Kevin Moriarty has an indirect interest in 12,403,000 Shares held by Focem Pty Ltd as trustee for the Towarnie Superannuation Fund.

(3) As at the date of this Prospectus, Robert Shepherd has an interest in 7,107,594 Shares held by Robert & Lynette Shepherd in their capacity as trustees of the Shepherd Superfund.

On completion of the Offer (assuming the Maximum Subscription and no Director acquires a direct or indirect interest in any additional Shares pursuant to the Offer), the direct and indirect interests of the current Directors in the Shares will be as follows:

### SHARES <sup>(1)</sup>

TABLE 12

1414 Degrees Director	Direct	Indirect	% Total Shares
Kevin Moriarty	0	12,403,000 <sup>(2)</sup>	4.62
Robert Shepherd	7,107,594 <sup>(3)</sup>	0	2.65
Dana Larson	250,000	0	0.09
Total	7,357,594	12,403,000	7.36

(1) Assumes that the maximum number of Shares issued under the Offer is 142,857,143 Shares.

(2) As at the date of this Prospectus, Kevin Moriarty has an indirect interest in 12,403,000 Shares held by Focem Pty Ltd as trustee for the Towarnie Superannuation Fund.

(3) As at the date of this Prospectus, Robert Shepherd has an interest in 7,107,594 Shares held by Robert & Lynette Shepherd in their capacity as trustees of the Shepherd Superfund.



## REMUNERATION OF DIRECTORS

Each Director is entitled to such remuneration from the Company as the Directors decide, but the total amount provided to all non-executive Directors must not exceed in aggregate \$300,000.

The proposed annual remuneration for the financial year following the Company being admitted to the Official List is set out in the table below.

TABLE 13

Director	Remuneration (per annum) <sup>(1)</sup>
Kevin Moriarty	\$295,000
Robert Shepherd	\$40,000
Dana Larson	\$Nil <sup>(2)</sup>

*(1) Remuneration is exclusive of superannuation*

*(2) Dana Larson was issued 250,000 Shares in lieu of cash remuneration as a Director for one year. From December 2018 he will be eligible for payment as a non-executive director.*

All Directors are entitled to be paid all reasonable expenses (including travelling and accommodation expenses) incurred by them in attending meetings of the Directors or any committee of the Directors or general meetings of the Company, on the business of the Company or in carrying out duties as a Director.

The remuneration of the Directors as outlined above is current as at the date of this Prospectus, but is subject to adjustment in the ordinary course of business.

In the two year period ending on the date of this Prospectus, the following amounts have been paid to the Directors:

TABLE 14

Director	Amounts Received (excluding GST)
Kevin Moriarty	\$111,535 <sup>(1)</sup>
Robert Shepherd	\$38,500 <sup>(2)</sup>
Dana Larson	\$Nil

*(1) Kevin Moriarty received \$111,535 (excluding GST) in connection with his position as Executive Chairman of the Company.*

*(2) Merchant Accounting Partners Pty Ltd, an accounting firm of which Mr Shepherd is a director, received an amount of \$38,500 (excluding GST) in payment for accounting services provided to the Company in the ordinary course of its business and in connection with the Offer.*

In addition, in the two year period ending on the date of this Prospectus, ammjohn received an amount of \$1,692,488 (excluding GST), of which \$104,075 (excluding GST) related to Matthew Johnson's position as Executive Director (until 4 April 2018) and Chief Technology Officer, and the balance of \$1,588,413 which related to the services provided by ammjohn under the Services Agreement dated 1 July 2014 between the Company and ammjohn.

The Company maintains Directors' and Officers' Liability Insurance on behalf of the Directors and other officers of the Company.

## 5.4 AGREEMENTS WITH DIRECTORS, MANAGEMENT OR RELATED PARTIES

The Company policy in respect of related party arrangements is:

- a) a Director with a material personal interest in a matter is required to give notice to the other Directors before such a matter is considered by the Board; and
- b) for the Board to consider such a matter, the Director who has a material personal interest is not present while the matter is being considered at the meeting and does not vote on the matter.

### EXECUTIVE SERVICE AGREEMENT – KEVIN MORIARTY (DIRECTOR AND EXECUTIVE CHAIRMAN)

The Company and Dr Kevin Moriarty entered into a Contract of Employment (KM Agreement) on 1 January 2018.

By the KM Agreement, the Company agrees to formalise the remuneration and other arrangements in relation to the re-appointment of Dr Moriarty as Executive Chairman of the Company for a further period of two years commencing on 1 January 2018 and terminating on 1 January 2020.

The Company will pay Dr Moriarty the amount of \$150,000 (excluding superannuation) in connection with his position as Executive Chairman. No additional amounts will be payable to Dr Moriarty in connection with his role as a Director.

Dr Moriarty's remuneration will increase to \$295,000 from the first business day following the issue of Shares under the Offer.

In the event that the Company proposes to terminate the KM Agreement without cause, the Company must provide the greater of:

- the amount of notice that equates to the remaining balance of the term of the KM Agreement; and
- 6 months' notice.

The Company is permitted to make payment in lieu of any such notice period. Dr Moriarty may resign by providing the Company with at least 6 months' notice.

The Board resolved on 30 November 2017 that, for the purposes of Chapter 2E of the Corporations Act (and in particular section 210(a) of the Corporations Act), the entry into of the KM Agreement did not require shareholder approval on the basis that its terms would be reasonable in the circumstances if the parties were dealing at arm's length.

### LETTER OF APPOINTMENT – ROBERT SHEPHERD (DIRECTOR)

The Company and Mr Robert Shepherd entered into a Letter of Appointment dated 14 April 2018 (RS Letter).

By the RS Letter, the Company agrees to formalise the remuneration and other arrangements in relation to Mr Shepherd's ongoing role as a Director on the terms set out in the RS Letter.

The Company will pay Mr Shepherd the amount of \$40,000 (exclusive of statutory superannuation payments) in connection with his role as a Director.

Mr Shepherd's appointment can be terminated at any time in accordance with the provisions of the Company's Constitution or any applicable law.

The Board resolved on 30 April 2018 that, for the purposes of Chapter 2E of the Corporations Act (and in particular section 211 of the Corporations Act), the entry into of the RS Letter did not require shareholder approval on the basis that the benefit provided to Mr Shepherd under the RS Letter amounts to remuneration to an officer of the Company which is reasonable in the circumstances.

### LETTER OF APPOINTMENT – DANA LARSON (DIRECTOR)

The Company and Mr Dana Larson entered into a Letter of Appointment dated 18 April 2018 (DL Letter).

By the DL Letter, the Company agrees to formalise the remuneration and other arrangements in relation to Mr Larson's ongoing role as a Director on the terms set out in the DL Letter.

Mr Larson has been issued 250,000 Shares in lieu of cash remuneration as a Director.

Mr Larson's appointment can be terminated at any time in accordance with the provisions of the Company's Constitution or any applicable law.

The Board resolved on 30 April 2018 that, for the purposes of Chapter 2E of the Corporations Act (and in particular section 211 of the Corporations Act), the entry into of the DL Letter did not require shareholder approval on the basis that the benefit provided to Mr Larson under the DL Letter amounts to remuneration to an officer of the company which is reasonable in the circumstances.

### INDEMNITY, INSURANCE AND ACCESS DEEDS

The Company has entered into an Indemnity, Insurance and Access Deed (Indemnity Deed) with each Director, on the same terms. Pursuant to the Indemnity Deed, Directors are indemnified by the Company against any liability incurred in their capacity as officers of the Company to the maximum extent permitted by law, subject to certain exclusions.

The Company must keep a complete set of company documents until the later of the date which is seven years after the Director ceases to be an officer of the Company and the date after a final judgment or order has been made in relation to any hearing, conference, dispute, enquiry or investigation in which the Director is involved as a party, witness or otherwise because the Director is or was an officer of the Company (Relevant Proceedings).

The Director has the right to inspect and/or copy a Company document in connection with Relevant Proceedings during the period referred to above.

The Company must maintain an insurance policy insuring the Director against liability as a director and officer of the

Company while the Director is an officer of the Company and until the later of the date which is seven years after the Director ceases to be an officer of the Company and the date any Relevant Proceedings commenced before the date referred to above have been finally resolved.

The Board resolved on 30 April 2018 that, for the purposes of Chapter 2E of the Corporations Act (and in particular section 212 of the Corporations Act), the entering into of the Indemnity Deed with each Director did not require shareholder approval on the basis that the benefit provided to the Directors under the Indemnity Deeds relate to indemnity and insurance arrangements provided to the Directors which are considered to be reasonable in the circumstances.

#### DEED OF TERMINATION – AMMJOHNS PTY LTD

The Company entered into a Deed of Termination with ammjohn Pty Ltd (ammjohn) dated 8 January 2018 (Termination Deed). Matthew Johnson (who is a former Director) is a shareholder and a director of ammjohn. Matthew Johnson was a Director as at the date of the Termination Deed.

The Termination Deed is conditional and not binding unless and until the Board resolves that the Termination Deed and the transactions contemplated by it amount to the giving of a financial benefit to a related party of the Company which satisfies the arm's length exception to the requirements to obtain shareholder approval set out in section 210 (and in particular section 210(a)) of the Corporations Act, and that the Termination Deed is otherwise in compliance with Chapter 2E of the Corporations Act.

The Board passed a resolution to this effect on 31 January 2018.

Under the Termination Deed, the Company and ammjohn agreed to terminate the Services Agreement dated 1 July 2014 between the Company and ammjohn (ammjohn Services Agreement), under which ammjohn provided certain business, management, technology and consulting services to the Company. Pursuant to the terms of the Termination Deed, the termination of the ammjohn Services Agreement took effect on and from 12 January 2018.

The Termination Deed entitled the Company to make offers of employment to certain ammjohn employees and contractors who were previously involved in the provision of services to the Company under the ammjohn Services Agreement on terms and conditions which were no less onerous than the employees' current employment contracts. All ammjohn employees to whom offers of employment were made by the Company have been accepted.

The Termination Deed requires that, in consideration of the termination of the ammjohn Services Agreement, the Company must pay ammjohn a Termination Fee within 30 days after the Company successfully obtains any equity capital of at least \$5,000,000 in aggregate. The Company will therefore be required to pay the Termination Fee to ammjohn upon successful completion of the Offer.

The Termination Fee is the amount of \$230,000 less the value of unused long service leave entitlements accrued by those former ammjohn employees who transitioned to employment with the Company, and which were assumed by the Company under the Termination Deed. An independent accountant has verified that the value of these entitlements is \$66,208.32 such that the Company will be required to pay \$168,791.68 to ammjohn within 30 days after successful completion of the Offer.

#### TERMINATION OF OFFER OF CONTRACTUAL ENGAGEMENT AND NEW EXECUTIVE SERVICES AGREEMENT – AMMJOHNS PTY LTD

The Company and Matthew Johnson entered into a Termination of Executive Services Agreement on 16 April 2018 (MJ Termination Agreement).

Under the terms of the MJ Termination Agreement, the Company and Matthew Johnson agreed to terminate the existing Offer of Contractual Engagement dated 24 October 2016 between the Company and Matthew Johnson (MJ Original Contract) with immediate effect.

For the purposes of governing the ongoing contractual relationship between the Company and Matthew Johnson following termination of the MJ Original Contract, the Company and ammjohn entered into an ongoing Executive Services Agreement (New ammjohn Agreement) on 13 April 2018.

Under the New ammjohn Agreement, on and from 8 April 2018 ammjohn will procure that Matthew Johnson performs the following services for 1414 Degrees as Chief Technology Officer:

- preparing programs and policies to enhance the Company's technology;
- providing advice and assistance to Commercial, Marketing and Engineering departments in assessment and execution of product sales;
- supervision of R&D activity on approved new technology;
- conceiving product enhancements or new technologies;
- advising on existing and new product development;
- identifying opportunities for the Company to commercialise its technology;
- assessing technology's strategic future impact on the Company; and
- oversight of engineering programs as requested by the Chief Executive Officer.

The New ammjohn Agreement provides that these services must be performed diligently, competently, with care and skill, in proper professional manner, and otherwise in compliance with workplace health, safety and welfare requirements. The New ammjohn Agreement acknowledges that ammjohn may undertake work for other parties that is

similar to the services under the New ammjohn Agreement, provided that there is no conflict of interest or perceived conflict of interest with the services under the New ammjohn Agreement or the Company.

Under the New ammjohn Agreement, the Company has agreed to pay ammjohn a fee of \$150,000 (excluding GST but inclusive of any statutory superannuation entitlement) for the performance of the services for a minimum of 20 hours per week, plus any additional hours to do all that is required for the role of Chief Technology Officer.

The New ammjohn Agreement provides that any works created in performance of the services (including any intellectual property rights subsisting in the works) vest in the Company upon creation.

The New ammjohn Agreement requires ammjohn to maintain a public liability insurance policy with a claims limit of \$10,000,000 and a professional indemnity insurance policy with a claims limit of \$5,000,000.

ammjohn indemnifies the Company for all loss, damage or injury to persons or property caused by ammjohn or its employees, agents or subcontractors and including Matthew Johnson.

The Company may terminate the New ammjohn Agreement upon three months' notice in writing. The Company is permitted to make payment in lieu of any such notice period.

ammjohn may terminate the New ammjohn Agreement by providing the Company with three months' notice. ammjohn is permitted to make payment in lieu of any such notice period.

For the purposes of Chapter 2E of the Corporations Act, ammjohn and Mr Johnson are related parties of the Company on the basis that Mr Johnson was a Director until 4 April 2018 and ammjohn is an entity controlled by Mr Johnson. The Company's Board resolved on 30 April 2018 that, for the purposes of Chapter 2E of the Corporations Act (and in particular section 210(a) of the Corporations Act), the entry into of the New ammjohn Agreement did not require shareholder approval on the basis that its terms would be reasonable in the circumstances if the parties were dealing at arm's length.

#### EXECUTIVE SERVICES AGREEMENT - AROONA TECHNOLOGIES PTY LTD

The Company and Aroona Technologies Pty Ltd (Aroona) entered into an ongoing Executive Services Agreement (Aroona Agreement) on 1 November 2017.

Under the Aroona Agreement, Aroona will procure that Jonathan Whalley performs the following services for 1414 Degrees:

- contracts management and monitoring contract documentation;

- intellectual property management;
- monitoring and liaison with stakeholders, including governments, grants' bodies, and customers; and
- preparation of grant submissions, reports and studies (scoping, feasibility, market engagement, etc.).

The Aroona Agreement provides that these services must be performed diligently, competently, with care and skill, in proper professional manner, and otherwise in compliance with workplace health, safety and welfare requirements. The Aroona Agreement acknowledges that Aroona may undertake work for other parties that is similar to the services under the Aroona Agreement, provided that there is no conflict of interest or perceived conflict of interest with the services under the Aroona Agreement or the Company.

Under the Aroona Agreement, the Company has agreed to pay Aroona a fee of \$800 (excluding GST) per day (or a pro-rated amount) for up to four days per week for the performance of the services.

The Aroona Agreement provides that any works created in performance of the services (including any intellectual property rights subsisting in the works) vest in the Company upon creation.

Aroona indemnifies the Company for all loss, damage or injury to persons or property caused by Aroona or its employees, agents or subcontractors and including Jonathan Whalley. Aroona's liability for breach of the Aroona Agreement is limited to \$150,000.

The Company may terminate the Aroona Agreement upon one months' notice in writing. The Company is permitted to make payment in lieu of any such notice period.

Aroona may terminate the Aroona Agreement by providing the Company with one months' notice. Aroona is permitted to make payment in lieu of any such notice period.

#### EXECUTIVE SERVICE AGREEMENT - HEAD OF CORPORATE SERVICES & MARKETING

The Company and Ms Penelope Bettison entered into a Contract of Employment (CM Agreement) on 2 October 2017.

Under the CM Agreement, the Company agreed to employ Ms Bettison in the position of Head of Corporate Services & Marketing on a part-time basis (0.8 FTE) from the commencement of the CM Agreement until 13 August 2019. The CM Agreement was subsequently amended by the parties with effect on and from 5 March 2018 to reflect that Ms Bettison has moved to a full-time role with the Company.

The Company agreed to pay Ms Bettison an annual salary of \$195,000 (excluding superannuation).

In the event that the Company proposes to terminate the CM Agreement without cause, the Company must provide the greater of:

- the amount of notice that equates to the remaining balance of the term of the CM Agreement; and
- 6 months' notice.

The Company is permitted to make payment in lieu of any such notice period. Ms Bettison may resign by providing the Company with at least 6 months' notice.

#### EXECUTIVE SERVICE AGREEMENT – HEAD OF ENGINEERING

The Company and Mr Isaac Mathwin entered into an ongoing Contract of Employment (HE Agreement) commencing on 15 January 2018.

Under the HE Agreement, the Company has agreed to employ Mr Mathwin in the position of Head of Engineering on a full-time basis. The HE Agreement does not impose a fixed term on Mr Mathwin's employment with the Company.

The Company agreed to pay Mr Mathwin an annual salary of \$190,000 (excluding superannuation). In addition, the Company will recognise Mr Mathwin's period of employment with ammjohn between 27 February 2012 and 12 January 2018 for the purposes of calculating long service leave accrued by Mr Mathwin during his employment with the Company.

In the event that the Company proposes to terminate the HE Agreement without cause, the Company must provide at least 3 months' written notice to Mr Mathwin. The Company is permitted to make payment in lieu of any such notice period.

Mr Mathwin may resign by providing the Company with at least 3 months' notice.

#### CONTRACT OF EMPLOYMENT – HEAD OF LEGAL

The Company and Ms Marnie Robinson entered into an ongoing Contract of Employment (HL Agreement) commencing on 2 January 2018.

Under the HL Agreement, the Company has agreed to employ Ms Robinson in the position of Head of Legal on a full-time basis. The HL Agreement does not impose a fixed term on Ms Robinson's employment with the Company.

The Company agreed to pay Ms Robinson an annual salary of \$200,000 (excluding superannuation). In addition, the Company agreed to provide Ms Robinson with reimbursement for reasonable costs associated with her relocation from Melbourne to Adelaide provided that, if Ms Robinson's employment ceases before the second anniversary of the commencement date, 50% of these costs will be repayable to the Company.

The Company agreed to issue 350,000 Shares to Ms Robinson upon commencement of her employment. These Shares were issued on 6 March 2018.

In the event that the Company proposes to terminate the HL Agreement without cause, the Company must provide at

least 4 weeks' written notice to Ms Robinson. The Company is permitted to make payment in lieu of any such notice period.

Ms Robinson may resign by providing the Company with at least 4 weeks' notice.

#### CONTRACT OF EMPLOYMENT – COMPANY SECRETARY

The Company and Mr Richard Willson entered into an ongoing Contract of Employment (CS Agreement) commencing on 19 October 2017.

Under the CS Agreement, the Company has agreed to employ Mr Willson in the position of Company Secretary on a part-time basis (0.4 FTE). The CS Agreement does not impose a fixed term on Mr Willson's employment with the Company.

The Company agreed to pay Mr Willson an annual salary of \$128,400 (excluding superannuation), which is based on a full time equivalent salary of \$312,000 per annum.

In the event that the Company proposes to terminate the CS Agreement without cause, the Company must provide at least 3 months' written notice to Mr Willson. The Company is permitted to make payment in lieu of any such notice period.

Mr Willson may resign by providing the Company with at least 3 months' notice.

#### CONTRACT OF EMPLOYMENT – MARETTA LAYTON

The Company and Ms Maretta Layton entered into a Contract of Employment (ML Contract), commencing on 2 October 2017.

Under the ML Contract, the Company agreed to employ Ms Layton in the position of Marketing & Communications Manager on a part time basis (0.8 FTE) until 3 September 2019.

The Company has agreed to pay Ms Layton an annual salary of \$144,000 (excluding superannuation), which is based on a full time equivalent salary of \$180,000 per annum.

In the event that the Company proposes to terminate the ML Contract without cause, the Company must provide the greater of:

- the amount of notice that equates to the remaining balance of the term of the ML Agreement; and
- 6 months' notice.

The Company is permitted to make payment in lieu of any such notice period. Ms Layton may resign by providing the Company with at least 6 months' notice.

For the purposes of Chapter 2E of the Corporations Act, Ms Layton is a related party of the Company on the basis that she is the daughter of the Executive Chairman, Dr Kevin Moriarty. The Company's Board resolved on 30 April 2018



that, for the purposes of Chapter 2E of the Corporations Act (and in particular section 211 of the Corporations Act), the entry into of the ML Contract did not require shareholder approval on the basis that the benefit provided to Ms Layton under the ML Contract amounts to remuneration to an employee of the Company which is reasonable in the circumstances.

## 5.5 CORPORATE GOVERNANCE

### ASX PRINCIPLES AND RECOMMENDATIONS

The Board is responsible for the corporate governance of the Company including its strategic development.

To the extent applicable, in light of the Company's size and nature of the Company, the Company has adopted the ASX Corporate Governance Principles.

The main corporate governance policies and practices of the Company as at the date of this Prospectus and the Company's compliance and departures from the ASX Corporate Governance Principles are set out in the Company's Corporate Governance Statement, which is available from the Company's website at <https://1414degrees.com.au/corporate-governance/>.

## 5.6 CONTINUOUS DISCLOSURE

The Company will be a "disclosing entity" for the purposes of Part 1.2A of the Corporations Act. As such, it will be subject to regular reporting and disclosure obligations which will require it to disclose to the ASX any information which it is or becomes aware of concerning the Company and which a reasonable person would expect to have a material effect on the price or value of the securities of the Company.

## SECTION 6: RISKS

### 6.1 INTRODUCTION

There are numerous risks associated with investing in any form of business and with investing in the share market generally. There is also a range of specific risks associated with the Company's activities and its proposed involvement in the thermal energy storage market. Some risk factors are largely beyond the control of the Company and the Directors, while others can be influenced by policies and procedures within the Company.

The Shares offered under this Prospectus should be considered speculative because of the nature of the commercial activities of the Company. Whilst the Directors commend the Offer, potential investors should be aware that an investment in the Company involves risks, which may be higher than the risks associated with an investment in other companies.

This Section 6 identifies some of the major risks of which potential investors need to be aware before making a decision on whether or not to invest in the Company. This is not an exhaustive list of the risk associated with an investment in the Company and should be considered in conjunction with other information disclosed in this Prospectus. The risks contained in this Section 6 should be considered carefully by potential investors. Prior to making any decision to accept the Offer, investors should carefully consider the following specific and general risk factors applicable to the Company.

Persons considering whether or not to invest in the Company should read the whole of this Prospectus in order to fully appreciate such matters and the manner in which the Company intends to operate before any decision is made to apply for Shares. Prospective investors should consider whether the Shares offered are a suitable investment for them having regard to their own personal investment objectives and financial circumstances and the risk factors set out below. If in any doubt, they should consult with their professional advisors before deciding whether to apply for Shares.

### 6.2 COMPANY SPECIFIC RISKS

The top three key Company specific risks associated with the Company's activities and its proposed involvement in the thermal energy storage market are:

#### SHORT OPERATING EXPERIENCE AND EARLY STAGE RISK

The Company to date has been developing and proving a novel technology with limited operating history. The

Company's limited operating history may not provide investors with a meaningful basis to assess the business, financial position and prospects of the Company. Investors should consider the Company's business and prospects in view of the risks, costs, expenses and challenges that the Company may face as an early stage business.

As the Company's TESS technology is at a relatively early stage of development, there is uncertainty surrounding the rate of growth and prospects for the Company. The Directors cannot provide forecasts or projections of potential earnings that could be relied upon, and the Company is not yet cash flow positive. The Company is unlikely to generate significant revenue until such time that it has commercialised its TESS technology following the completion of pilot trials. In addition, the Company may not generate a profit even after the Company commences generating revenue.

An investment in the Company is therefore speculative. Risks associated with investments in early stage companies are generally considered high.

In mitigation, the Company can call on the extensive operating and technical experience of its key personnel.

#### FAILURE TO BUILD AND COMMISSION TESS TECHNOLOGY

There is no assurance that the Company will be able to develop the TESS technology to meet the Company's operational objectives, and failure to meet such objectives may adversely impact the financial position and operating results of the Company. For example, there can be no guarantee that the Company will be successful in building and commissioning the pilot TESS units at the commercial sites.

The Company is in the process of commencing trials of the TESS technology in operating industries. These trials will be majority funded by the Company in accordance with the allocation of funds set out in Section 4 and supported by grant funding. There is a risk that the TESS technology may not perform in the same way outside of the Company's demonstration trials, which may further delay the development and commercialisation of the TESS technology and the Company's marketing and distribution of the TESS.

As part of the pilot projects, the TESS technology will need to be integrated into a customer's existing facilities at the site, including the use, extraction and application of the heat, which will differ for each customer installation.

The Company cannot and does not make any assurance, representation or warranty in relation to the way that the TESS technology may be integrated into a customer's site until such time as an engineering feasibility study has been completed and agreed between the relevant customer and the Company. In the short term, the failure to successfully integrate the TESS devices into customer sites may adversely affect the Company's ability to achieve its business strategy (in particular the ability to generate operating specifications required to support future sales of TESS devices), and as a result, its operational and financial performance.

To mitigate, the Company has contracted multiple sites such that the successful integration on any one would provide the necessary requirements to advance its business strategy. It has also developed specific quality and risk management systems for the development and integration of the TESS technology and wherever practicable and economic, the Company will utilise insurance to mitigate business risks. The Company has significant engineering expertise with detailed understanding of site integration.

### RELIANCE ON THIRD PARTIES

The Company has entered into several contracts, which are summarised in Section 11.

The loss or impairment of any of these key customer and business relationships could have a material adverse effect on the Company's operations, financial condition and prospects, at least until alternative arrangements can be implemented.

The Company has entered into initial binding agreements with two customers and a further non-binding Term Sheet to supply and commission the TESS technology at customer sites, and it has also entered into a non-exclusive sales/licensing agreement. Under these initial agreements with its customers, the Company is required to enter into more detailed and final implementation agreements with each of its customers for the supply and commission of the TESS technology. There is the risk that if the Company's relationships with its customers break down, including if the final project agreements as contemplated by the initial agreements are not agreed, or if the parties fail to perform their obligations under the initial agreements or the final project agreements, the Company's operational performance may be adversely affected.

Similarly, the Company will also procure equipment for the manufacture of the TESS technology from third party manufacturers under applicable purchase order contracts.

Whilst the Company will have various contractual rights in the event of a breach by the other party, no guarantee can be made that each contract agreed by the Company can be fully complied with by the other party. Furthermore, no guarantee can be made that if the other party does not comply with each contractual provision, the Company will be successful in enforcing compliance.

To mitigate, the Company has developed significant in-house technical and marketing expertise that it will draw upon in order to maintain business growth and relationships. It has also identified alternative suppliers for its equipment and manufacture and developed a quality and risk management system to support and maintain the Company's supply chain for the manufacture of the TESS technology and to manage compliance with third party contracts.

The other key risks specific to the Company's operations are:

### BUSINESS STRATEGY EXECUTION

The ability of 1414 Degrees to achieve growth of its business is dependent on the successful implementation of the Company's growth strategies, business plans and strategic initiatives outlined in this Prospectus (including the business model outlined in Section 2.9). An inability to successfully implement these plans and initiatives, whether wholly or partially, could adversely affect the Company's operating and financial performance.

Although a successful commissioning at any site will provide operational assurance, there is no certainty that the Company will be able to generate income or capital growth from the TESS units.

Furthermore, the complexity and uncertainty in the evolving energy systems could potentially render it more difficult than the Company expects to gain traction for its business model and to win new customers.

### SHORTAGE OF FUNDING

Based on the application of the funds set out in Section 4, the Company believes it will have sufficient funds after completion of the Offer to implement the Company's growth strategies, business plans and strategic initiatives outlined in this Prospectus (including the business model outlined in Section 2.9) for the near term.

The Company may seek to exploit other opportunities that will require it to raise additional capital from equity or debt markets. There can be no assurances that the Company will be able to raise such additional funding on favourable terms or at all. If the Company is unable to obtain such additional capital, it may be required to reduce the scope of its anticipated additional activities, which could adversely affect its business, financial condition and operations.

In addition, the Company's operating results may vary significantly from period to period, and it may not be able to sustain operating profitability.

If the Company incurs unexpected costs or is unable to generate sufficient operating income, further funding may be required. The Company may require additional funding to carry out further product development or product improvement. Any additional financing through share issues may dilute shareholdings acquired under this Prospectus. Debt financing may not be available to support the scope

and extent of proposed developments. If available, it may impose restrictions on operating activities or anticipated expansion of the Company's operations.

### INTELLECTUAL PROPERTY RISK

The Company's ability to leverage its inventions, innovations and know-how is contingent on its capacity to protect its intellectual property and any associated improvements and developments.

The Company has invested significant time and resources in protecting the intellectual property which is important to the Company, including (but not limited to) the patents for its thermal energy storage and retrieval systems, its trademarks and domain names.

The Company holds a patent (granted in several jurisdictions and pending in Europe and India) for its thermal energy storage and retrieval system, which is built on the concept of elongated canisters containing silicon metalloid and made of refractory material (First Patent). The First Patent was the precursor to the Company's current design for its GAS-TESS and TESS-IND. While the First Patent has been granted in Australia, New Zealand, China and USA, the application is still in process in the jurisdictions of Europe and India. The status of these pending applications is set out in the Intellectual Property Report in Section 10.

The Company has also filed a patent application (PCT) in respect of the current design of the Company's thermal energy storage and retrieval system for the TESS-IND which is also the platform technology for the GAS-TESS. The Company anticipates that the PCT patent application will be published in September 2018.

The exclusive right to commercialise the technology embodied in the First Patent and the PCT (and any additional patents) will constitute the key IP asset moving forward.

There is a risk to the Company if any of the pending applications in respect of the First Patent or the PCT are not granted to the Company. Notably, there are only two pending applications remaining in respect of the First Patent and these are expected to be granted in due course. In this circumstance, the Company would not be able to prevent third parties from infringing or misappropriating its intellectual property within the relevant jurisdictions. While this would not prevent the Company from exploiting its intellectual property in those applicable jurisdictions, it would allow potential competitors to enter the market although given the nature and scale of the technology a certain amount of engineering and fabrication effort would be required to develop competing systems.

Despite the Company having certain granted patents, there remains the risk that third parties may still breach the intellectual property rights held by the Company in relation to its products, including the risk that other parties may claim to have an interest in a patent or trade secret of the Company. Any of these actions would likely require

legal action by 1414 Degrees and may impact 1414 Degrees adversely.

Intellectual property lawsuits are subject to inherent uncertainties due to the complexity of the technical issues involved, and the Company cannot be certain that it would be successful in defending intellectual property claims. Further, many potential litigants have the capability to dedicate substantially greater resources than the Company to enforce their intellectual property rights and to defend claims that may be brought against them. In addition, a successful claimant could secure a judgement that requires the Company to pay substantial damages or prevent the Company from distributing products or performing certain business activities.

### RELIANCE ON KEY PERSONNEL RISK

The Company's operational success will substantially rely on the experience of its existing management team and directors. In particular the Company is dependent on the knowledge and expertise of its Executive Chairman, Dr Kevin Moriarty and its key engineers, Mr Matthew Johnson (Chief Technical Officer) and Mr Isaac Mathwin (Head of Engineering) to achieve its business plan, most significantly the installation and commissioning of the proposed pilot devices. There would be likely to be a detrimental impact on the achievement of the Company's business plan and therefore an adverse impact on its financial position and operating results if one or more of these persons were to leave the Company.

To mitigate, the Company has increased the number of its technical and management workforce by 50% since January 2018. The Company also seeks to directly mitigate the risk of attrition of key personnel by offering attractive remuneration packages, including the potential to participate in the Company's Performance Rights Plan, to attract and retain its staff. The Company is actively developing succession strategies for key positions, including the Executive Chairman. Following the completion of the Offer, the Company will also adopt applicable change management procedures and system to reflect organisational changes (system, processes and people) that may occur.

### COMPETITION RISK

1414 Degrees participates in the developing renewable energy storage market. As outlined in Section 2.6, while the Company is of the view that there are currently no identified technologies which directly compete with the 1414 Degrees products, there are a range of other technologies currently available and in development which offer alternatives to the Company's technology without competing directly with it (for example, battery technologies like lithium-ion or "thermal batteries" which are designed to discharge electricity only, and not heat). Despite this, in the future, this market may be entered by globally focused competitors with significantly more access to capital and resources. Should any of 1414 Degrees' competitors participate more aggressively on price,





product, innovation or other means then this could have a material adverse impact on 1414 Degrees performance and the future prospects of the business.

To mitigate, the Company intends to maintain its technological innovation by investing in R&D, and aggressively pursue cost reduction to preserve its lead.

### LITIGATION

Litigation brought against the Company by third parties, including (but not limited to) customers, partners, or suppliers could adversely affect the business whether the impact of the litigation is greater than or outside the scope of the Company's insurance.

The design, manufacture and commissioning of the TESS technology will be undertaken by the Company in accordance with applicable International Standards, the Australian Standards and applicable laws.

While the Company develops and manufactures the TESS technology in accordance with applicable International Standards, the Australian Standards, applicable laws and stringent safety standards, if any part of the TESS technology does not meet these applicable standards or manufacturing standards or is found to be faulty, defective or unsafe, the Company may face legal action brought by its customers for breach of contract or product liability claims from other contracting parties, licensees, regulators or members of the public. This may affect the Company's brand reputation, revenue-earning potential and operating results. The Company may not be able to successfully secure or renew product liability insurance or defend itself against product liability claims. Any product liability claims may disrupt the Company's business operations and financial performance.

The Company has developed specific quality and risk management systems for the development, supply and commissioning of the TESS technology to reflect these standards and requirements. Wherever it is practicable and economic, the Company will utilise insurance to mitigate business risks.

### REGULATORY RISK

Participation in the energy market in Australia is subject to laws and regulations, including complex tax laws and environmental laws and regulations, employment law and other laws. Existing laws or regulations, as currently interpreted or reinterpreted in the future, or future laws or regulations could adversely affect the Company's ability to implement its business strategy. Certain of these laws may have material fines for non-compliance.

Changes in government regulations and policies may also adversely affect the financial performance or the current and proposed operations generally of the Company. The ability to design, manufacture, supply and commission the TESS technology, can be affected by changes in government regulations policies or legislation in jurisdictions, that are beyond the control of the Company and may also adversely affect the financial performance or the current and proposed operations of the Company.

To mitigate, the TESS technology has been designed and will be manufactured and commissioned in accordance with applicable International Standards, Australian Standards and applicable laws. The quality and risk management systems developed by the Company for the development, supply and commissioning of the TESS technology reflect these standards and requirements.



## REPUTATION

The success of the Company is dependent on its reputation. The Company's inability to address adverse publicity or other issues including (but not limited to) concerns about non-performance of the TESS technology, safety or quality issues regarding the TESS technology, or similar matters, real or perceived, could negatively impact sentiments towards the Company and its TESS technology and brands. Any facts or events that diminish the Company's reputation, brand names or related trademarks may adversely affect the operating and financial performance of the Company.

## ECONOMIC RISKS

The performance of the Company is likely to be affected by changes in economic conditions. Profitability of the business may be affected by some of the matters listed below:

- future demand for renewable energy storage technology;
- general financial issues which may affect policies, exchange rates, inflation and interest rates;
- deterioration in economic conditions and business sentiment, possibly leading to reductions in spending and other potential revenues which could be expected to have a corresponding adverse impact on the Company's operating and financial performance;
- the strength of the equity and share markets in Australia and throughout the world;
- financial failure or default by any entity with which the Company may become involved in a contractual relationship;
- industrial disputes in Australia and overseas;
- changes in investor sentiment towards particular market sectors;
- the demand for, and supply of capital; and
- terrorism or other hostilities.

## 6.3 GENERAL COMPANY RISKS

### LIQUIDITY RISK

Prior to the Offers, there has been no public market in the Shares. Once the Shares are quoted on the ASX, there can be no guarantee that an active trading market for the Shares will develop or that the price of the Shares will increase. There may be relatively few potential buyers or sellers of the Shares on the ASX at any given time. This may increase the volatility of the market price of the Shares. It may also affect the prevailing market price at which Shareholders are able to sell their Shares. This may result in Shareholders receiving a market price for their Shares that is less or more than the price that Shareholders paid for their Shares under the Public Offer.

## PRICE OF SHARES

Once the Company becomes a publicly listed company on the ASX, the Company will become subject to general market risk that is inherent in all securities listed on a stock exchange. This may result in fluctuations in the Share price that are not explained by the Company's fundamental operations and activities.

The price at which Shares are quoted on the ASX may increase or decrease due to a number of factors. These factors may cause the Shares to trade at prices below the Offer Price. There is no assurance that the price of the Shares will increase following the quotation on the ASX, even if the Company's earnings increase.

Some of the factors which may adversely impact the price of the Shares include:

- fluctuations in the domestic and international market for listed securities;
- general economic conditions including interest rates, inflation rates, exchange rates, commodity and oil prices, changes to government fiscal, monetary or regulatory policies and settings;
- changes in legislation or regulation;
- inclusion in or removal from market indices;
- the nature of the markets in which the Company operates; and
- general operational and business risks.

## SHAREHOLDER DILUTION

In the future, the Company may elect to issue Shares or other securities. While the Company will be subject to the constraints of the ASX Listing Rules regarding the issue of Shares or other securities, Shareholders at the time may be diluted as a result of such issues of Shares or other securities.

## ACCOUNTING STANDARDS

Changes in the Australian Accounting Standards and subjective assumptions, estimates, and judgements by management related to complex accounting matters could significantly affect the Company's financial results or financial conditions.

There is also a risk that interpretations of existing Australian Accounting Standards, including those relating to the measurement and recognition of key income statement and balance sheet items, including revenue and receivables, may differ. Changes to Australian Accounting Standards or changes to the commonly held views on the application of those standards could materially adversely affect the financial performance and position reported in the Company's financial statements.

## GOVERNMENT POLICY

A change in the policy of a government may affect the rights and obligations of the Company, including having material adverse effect on its operating and financial performance.

The Company's business is subject to numerous laws and regulations and the policies of regulatory authorities (for example, ASX and ASIC). Changes in laws and regulations and policies that affect, or may in the future affect, the Company's business or services, including changes in accounting standards, tax laws and regulations, restrictions or requirements related to privacy and reporting could adversely affect the Company's financial results. Non-compliance may result in financial penalties being levied against the Company.

At the date of this Prospectus, the Company is not aware of any proposed changes to any policy that may affect the Company.

## INSURANCE RISKS

The Company does, wherever practicable and economically advisable, utilise insurance to mitigate business risks. Such insurance may not always be available or claims against the Company may fall outside the scope of insurance cover. If realised, uninsured risks may adversely affect the financial position of the Company. In addition, there remains the risk that an insurer defaults in the payment of a legitimate claim by the Company.

## FORCE MAJEURE

Force majeure events, or events beyond the control of the Company, may occur within or outside Australia that could impact upon the world economy, the Company's operations and the price of the Shares. These events include but are not limited to war, acts of terrorism, an outbreak of international hostilities, fires, floods, earthquakes, labour strikes, civil wars, natural disasters, outbreaks of disease or other natural or man-made events or occurrences that can have an adverse effect on the demand for the Company's

products and its ability to conduct business. While the Company seeks to maintain insurance in accordance with industry practice to insure against the risks it considers appropriate, no assurance can be given as to the Company's ability to obtain such insurance coverage in the future at reasonable rates or that any coverage arranged will be adequate and available to cover any and all potential claims. The occurrence of an event that is not covered or fully covered by insurance could have a material adverse effect on the business, financial condition and results of the Company.

## OTHER GENERAL RISKS

Other general risks associated with investment in the Company may include price volatility of the Company's Shares in response to factors such as:

- additions or departures of key personnel;
- litigation and legislative change;
- press, newspaper or other media reports; and
- actual or anticipated variations in the Company's operating results.

## 6.4 SUMMARY

This investment is regarded as speculative. Neither the Company nor its Directors nor any other party to be associated with the preparation of the Prospectus warrants that any specific objective of the Company will be achieved or that any particular targets of the Company will be achieved.

## SECTION 7: FINANCIAL INFORMATION

### 7.1 INTRODUCTION

This Section sets out the Historical and Pro-Forma Financial Information. The basis for preparation and presentation of this information is also set out below.

The Historical and Pro-Forma Financial Information has been prepared by management and adopted by the Board. The Board is responsible for the inclusion of all financial information in the Prospectus. BDO Advisory (SA) Pty Ltd has prepared an Independent Limited Assurance Report in respect of the Historical and Pro-Forma Financial Information. A copy of the report is contained in Section 8.

The Historical and Pro-Forma Financial Information has been prepared in accordance with the recognition and measurement criteria of Australian Accounting Standards and the significant accounting policies set out in the Schedule. The Historical and Pro-Forma Financial Information comprises financial information of 1414 Degrees Limited (“1414 Degrees” or “the Company”). The Historical and Pro-Forma Financial Information is presented in an abbreviated form insofar as it does not include all the disclosures and notes required in an annual financial report prepared in accordance with Australian Accounting Standards and the Corporations Act.

This Section has been prepared on the basis of the Company successfully completing the Offer and raising \$30,000,000 to \$50,000,000 through the issue of 85,714,286 to 142,857,143 Shares at an issue price of \$0.35 per Share.

### 7.2 HISTORICAL FINANCIAL INFORMATION

The Historical Financial Information for 1414 Degrees set out below comprises:

- The reviewed Statement of Financial Position HYDec17;
- The audited Statements of Financial Position FY16 and FY17;
- The reviewed Statement of Profit or Loss and Other Comprehensive Income HYDec17;
- The audited Statements of Profit or Loss and Other Comprehensive Income FY16 and FY17;
- The reviewed Statement of Cash Flows HYDec17; and
- The audited Statements of Cash Flows FY16 and FY17

hereafter referred to as the **Historical Financial Information**.

The Historical Financial Information does not include a Statement of Changes in Equity.

The Company's financial statements for the year ended 30 June 2016 and 30 June 2017 have been subject to an audit by BDO Audit (SA) Pty Ltd who issued unqualified audit reports thereon.

The financial statements of the Company for the period ended 31 December 2017 have been subject to a review by BDO Audit (SA) Pty Ltd who issued an unqualified opinion thereon.

### 7.3 PRO-FORMA FINANCIAL INFORMATION

The **Pro-Forma Financial Information** set out below comprises the unaudited Pro-Forma Statement of Financial Position of the Company as at 31 December 2017 showing the impacts of post 31 December 2017 capital raising and the proposed capital raising and has been prepared solely for the purpose of inclusion in this Prospectus.

Statement of Financial Position of the Company as at 31 December 2017 adjusted for post 31 December 2017 capital raising (Subsequent Events) and for the following transactions as if they had occurred at 31 December 2017 (Pro-Forma Transactions):

- 1) the issue of between 85,714,286 and 142,857,143 Shares pursuant to a capital raising at an Offer Price of \$0.35 per Share to raise between \$30,000,000 and \$50,000,000 cash before expenses of the Offer. All Shares issued pursuant to this Prospectus will be issued as fully paid. The minimum and maximum subscription scenarios are included in the Pro-Forma Statement of Financial Position;
- 2) total costs expected to be incurred in connection with the Offer are estimated to be \$2,253,485 (being \$1,993,048 settled in cash and charged to equity and \$260,437 settled in cash and charged to the Profit or Loss) based on the maximum subscription and \$1,413,785 based on the minimum subscription (being \$1,139,616 settled in cash and charged to equity and \$274,169 settled in cash and charged to the Profit or Loss).

Investors should note that past results are not an indication of future performance.

## 7.4 HISTORICAL AND PRO-FORMA FINANCIAL INFORMATION

### 7.4.1 PRO-FORMA STATEMENT OF FINANCIAL POSITION OF 1414 DEGREES FOR HYDEC17

#### STATEMENT OF FINANCIAL POSITION

TABLE 15

\$'000s	Notes	Reviewed HYDec17	Subsequent events	Pro-forma adjustments		Pro-forma after offer	
				Min	Max	Min	Max
<b>CURRENT ASSETS</b>							
Cash and cash equivalents	1	1,613	3,536	28,586	47,747	33,735	52,896
Trade and other receivables		1,368	-	-	-	1,368	1,368
<b>TOTAL CURRENT ASSETS</b>		<b>2,981</b>	<b>3,536</b>	<b>28,586</b>	<b>47,747</b>	<b>35,104</b>	<b>54,264</b>
<b>NON-CURRENT ASSETS</b>							
Plant and equipment		141	-	-	-	141	141
Intangible assets		1,879	-	-	-	1,879	1,879
<b>TOTAL NON-CURRENT ASSETS</b>		<b>2,020</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2,020</b>	<b>2,020</b>
<b>TOTAL ASSETS</b>		<b>5,002</b>	<b>3,536</b>	<b>28,586</b>	<b>47,747</b>	<b>37,124</b>	<b>56,284</b>
<b>CURRENT LIABILITIES</b>							
Trade and other payables		294	-	-	-	294	294
Provision for employee benefits		6	-	-	-	6	6
<b>TOTAL CURRENT LIABILITIES</b>		<b>300</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>300</b>	<b>300</b>
<b>TOTAL LIABILITIES</b>		<b>300</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>300</b>	<b>300</b>
<b>NET ASSETS</b>		<b>4,702</b>	<b>3,536</b>	<b>28,586</b>	<b>47,747</b>	<b>36,824</b>	<b>55,984</b>
<b>EQUITY</b>							
Contributed equity	2	10,487	3,615	28,860	48,007	42,962	62,109
Reserves		20	-	-	-	20	20
Accumulated losses	3	(5,805)	(79)	(274)	(260)	(6,158)	(6,144)
<b>TOTAL EQUITY</b>		<b>4,702</b>	<b>3,536</b>	<b>28,586</b>	<b>47,747</b>	<b>36,824</b>	<b>55,984</b>

## 7.4 HISTORICAL AND PRO-FORMA FINANCIAL INFORMATION (CONTINUED)

## 7.4.2 STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME – 1414 DEGREES

## STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

TABLE 16

\$'000s	Audited FY16	Audited FY17	Reviewed HYDec17
Revenue	-	3	27
	-	3	27
Administration and professional expenses	(204)	(215)	(463)
Occupancy expenses	-	-	(216)
Marketing expenses	(1)	(158)	(74)
Depreciation and amortisation	-	-	(6)
Employee benefits expense	-	-	(207)
Share based payments (equity-settled)	-	(386)	(2,084)
Directors Fees	-	-	(42)
Other expenses	(15)	(198)	(202)
Finance costs	(75)	-	-
<b>(Loss) profit before income tax</b>	<b>(294)</b>	<b>(954)</b>	<b>(3,266)</b>
Income tax benefit	-	-	-
<b>(Loss) profit for the year</b>	<b>(294)</b>	<b>(954)</b>	<b>(3,266)</b>
<b>Other comprehensive income</b>			
<i>Items that may be reclassified to profit or loss</i>	-	-	-
<b>Other comprehensive income (loss) for the year</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Total comprehensive loss for the period, net of tax</b>	<b>(294)</b>	<b>(954)</b>	<b>(3,266)</b>



## 7.4 HISTORICAL AND PRO-FORMA FINANCIAL INFORMATION (CONTINUED)

### 7.4.3 STATEMENT OF FINANCIAL POSITION – 1414 DEGREES

#### STATEMENT OF FINANCIAL POSITION

TABLE 17

\$'000s	Audited FY16	Audited FY17	Reviewed HYDec17
<b>CURRENT ASSETS</b>			
Cash and cash equivalents	14	1,608	1,613
Trade and other receivables	242	483	1,368
<b>TOTAL CURRENT ASSETS</b>	<b>256</b>	<b>2,091</b>	<b>2,981</b>
<b>NON CURRENT ASSETS</b>			
Plant and equipment	-	-	141
Intangible assets	296	787	1,879
<b>TOTAL NON-CURRENT ASSETS</b>	<b>296</b>	<b>787</b>	<b>2,020</b>
<b>TOTAL ASSETS</b>	<b>552</b>	<b>2,879</b>	<b>5,002</b>
<b>CURRENT LIABILITIES</b>			
Trade and other payables	418	465	294
Provision for employee benefits	-	-	6
<b>TOTAL CURRENT LIABILITIES</b>	<b>418</b>	<b>465</b>	<b>300</b>
<b>NON-CURRENT LIABILITIES</b>			
Convertible notes	-	-	-
<b>TOTAL NON-CURRENT LIABILITIES</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>TOTAL LIABILITIES</b>	<b>418</b>	<b>465</b>	<b>300</b>
<b>NET ASSETS</b>	<b>133</b>	<b>2,413</b>	<b>4,702</b>
<b>EQUITY</b>			
Contributed equity	2,218	5,066	10,487
Share based payments reserve	-	386	20
Accumulated losses	(2,084)	(3,039)	(5,805)
<b>TOTAL EQUITY</b>	<b>133</b>	<b>2,413</b>	<b>4,702</b>

## 7.4 HISTORICAL AND PRO-FORMA FINANCIAL INFORMATION (CONTINUED)

## 7.4.4 STATEMENT OF CASH FLOWS – 1414 DEGREES

## STATEMENT OF CASH FLOWS

TABLE 18

\$'000s	Audited FY16	Audited FY17	Reviewed HYDec17
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>			
Cash received from customers	-	-	26
Payments to suppliers and employees	(230)	(406)	(1,443)
Research & Development tax offset received	75	100	-
Government grants	212	60	303
Interest received	-	3	4
<b>Net cash used in operating activities</b>	<b>57</b>	<b>(243)</b>	<b>(1,110)</b>
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>			
Purchase of property, plant and equipment	-	-	(147)
Payments for product development activities	(513)	(1,064)	(2,209)
<b>Net cash used in investing activities</b>	<b>(513)</b>	<b>(1,064)</b>	<b>(2,355)</b>
<b>CASH FLOWS FROM FINANCING ACTIVITIES</b>			
Proceeds from the issue of convertible notes	350	-	-
Proceeds from call on convertible notes	-	125	-
<i>Proceeds from the issue of shares</i>	-	2,777	3,470
<b>Net cash used in financing activities</b>	<b>350</b>	<b>2,902</b>	<b>3,470</b>
<b>NET (DECREASE) IN CASH</b>	<b>(106)</b>	<b>1,594</b>	<b>5</b>
Cash and cash equivalents at the beginning of the period	120	14	1,608
Cash and cash equivalents at the end of the period	14	1,608	1,613

## 7.5 NOTES TO AND FORMING PART OF THE PRO-FORMA FINANCIAL INFORMATION

The pro-forma adjustments to cash and cash equivalents (Note 1), issued capital (Note 2) and accumulated losses (Note 3) includes the following assumptions:

- 1) the issue of between 85,714,286 and 142,857,143 Shares pursuant to a capital raising at an Offer Price of \$0.35 per Share to raise between \$30,000,000 and \$50,000,000 cash before expenses of the Offer. All Shares issued pursuant to this Prospectus will be issued as fully paid. The minimum and maximum subscription scenarios are included in the Pro-Forma Statement of Financial Position;
- 2) total costs expected to be incurred in connection with the Offer are estimated to be \$2,253,485 (being \$1,993,048 settled in cash and charged to equity and \$260,437 settled in cash and charged to the Profit or Loss) based on the maximum subscription and \$1,413,785 based on the minimum subscription (being \$1,139,616 settled in cash and charged to equity and \$274,169 settled in cash and charged to the Profit or Loss).

### NOTE 1. CASH AND CASH EQUIVALENTS

TABLE 19

\$'000s	Reviewed HYDec17	Pro-forma \$30 million	Pro-forma \$50 million
Cash and cash equivalents	1,613	33,735	52,896
Reviewed balance of the Company at 31 December 2017		1,613	1,613
<b>SUBSEQUENT EVENTS:</b>			
Issue of shares post 31 December 2017		3,536	3,536
		3,536	3,536
<b>PRO-FORMA ADJUSTMENTS:</b>			
Proceeds from the Offer		30,000	50,000
Costs of the Offer		(1,414)	(2,253)
		28,586	47,747
<b>Pro-forma Balance</b>		<b>33,735</b>	<b>52,896</b>

No Pro-Forma adjustments have been made to reflect cash flow movements from operating activities between 1 January 2018 and the date of this document. As at 25 May 2018, the unaudited cash balance of the Company reduced by approximately \$392,000 to \$1,221,515.

## 7.5 NOTES TO AND FORMING PART OF THE PRO-FORMA FINANCIAL INFORMATION (CONTINUED)

## NOTE 2. ISSUED CAPITAL

TABLE 20

\$'000s		Reviewed HYDec17	Pro-forma after Offer	
			\$30 million	\$50 million
Issued capital		10,487	42,962	62,109
	<b>Number of shares (min)</b>	<b>Number of shares (max)</b>	<b>\$'000s</b>	<b>\$'000s</b>
Fully paid ordinary share capital of the Company at 31 December 2017	106,895,156	106,895,156	10,487	10,487
<b>SUBSEQUENT EVENTS:</b>				
Issue of shares post 31 December 2017	18,813,790	18,813,790	3,615	3,615
	18,813,790	18,813,790	3,615	3,615
<b>PRO-FORMA ADJUSTMENTS:</b>				
Proceeds from shares issued under this Prospectus	85,714,286	142,857,143	30,000	50,000
Costs of the Offer			(1,140)	(1,993)
	85,714,286	142,857,143	28,860	48,007
Pro-forma Balance	<b>211,423,232</b>	<b>268,566,089</b>	42,962	62,109

## NOTE 3. ACCUMULATED LOSSES

TABLE 21

\$'000s	Reviewed HYDec17	Pro-forma after Offer	
		\$30 million	\$50 million
Accumulated losses	(5,805)	(6,158)	(6,144)
Reviewed balance of the Company at 31 December 2017		(5,805)	(5,805)
<b>SUBSEQUENT EVENTS:</b>			
Issue of shares post 31 December 2017		(79)	(79)
		(79)	(79)
<b>PRO-FORMA ADJUSTMENTS:</b>			
Costs of the Offer		(274)	(260)
		(274)	(260)
		(6,158)	(6,144)

## 7.5 NOTES TO AND FORMING PART OF THE PRO-FORMA FINANCIAL INFORMATION (CONTINUED)

### NOTE 4

#### SIGNIFICANT ACCOUNTING POLICIES OF THE COMPANY

Included in the Schedule is a summary of the material accounting policies adopted by the Company in the preparation of the financial information. The accounting policies have been consistently applied unless otherwise stated. The financial information is in compliance with the recognition and measurement requirements of Australian Accounting Standards.

The financial information in this Section should be read in conjunction with all of the significant accounting policies outlined below. The significant accounting policies have been included to assist in a general understanding of the Historical Financial Information and Pro-Forma Historical Financial Information presented in Sections 7.4 and 7.5 of this Prospectus.

The functional and presentation currency of the Company is Australian dollars. All amounts disclosed in the tables are presented in Australian dollars.

### NOTE 5

#### SUBSEQUENT EVENTS

The Directors of both 1414 Degrees are not aware of any other significant changes in the state of affairs of the the Company, or events subsequent to 31 December 2017, that would have a material impact on the Historical or Pro-Forma Financial Information, except as otherwise disclosed in this Prospectus.

## 7.6 FINANCING FACILITIES, LIQUIDITY AND WORKING CAPITAL

As at the date of this Prospectus, 1414 Degrees does not have any financing facilities.

Following completion of the Offer, 1414 Degrees expects it will have sufficient cash to meet its operational requirements, other business needs and to meet its objectives, as stated in the Prospectus.

## 7.7 DIVIDEND POLICY

The Company does not expect to pay dividends in the near future as its focus will primarily be on using cash reserves to grow and develop the 1414 Degrees' Business.

Any future determination as to the payment of dividends by the Company will be at the discretion of the Directors and will depend upon matters such as the availability of distributable earnings, the operating results and financial condition of the Company, future capital requirements, general business and other factors considered relevant by the Directors. No assurances are given in relation to the payment of dividends, or that any dividends may attach franking credits.



## 7.8 SUMMARY OF KEY ACCOUNTING POLICIES ADOPTED BY 1414 DEGREES

A summary of key accounting policies of 1414 Degrees which have been adopted in the preparation of the Historical Financial Information are set out below. These policies have been consistently applied to all the years presented, unless otherwise stated.

Set out below are the accounting policies that are applicable to 1414 Degrees:

### 1. BASIS OF PREPARATION

Australian Accounting Standards set out accounting policies that the AASB has concluded would result in a financial report containing relevant and reliable information about transactions, events and conditions. Compliance with Australian Accounting Standards ensures that the financial statements and notes also comply with International Financial Reporting Standards.

The financial statements have been prepared on an accruals basis and are based on historical costs modified by the revaluation of selected non-current assets, financial assets and financial liabilities for which the fair value basis of accounting has been applied. Amounts have been rounded to whole dollars.

### 2. REVENUE RECOGNITION

Revenue is measured at the fair value of the consideration received or receivable after taking into account any trade discounts and volume rebates allowed.

All revenue is stated net of the amount of goods and services tax (GST).

#### Grant revenue

Grants from the government are recognised at their fair value where there is reasonable assurance that the grant will be received and the Company will comply with all the attached conditions. Government grants relating to costs are deferred and recognised in profit or loss over the period necessary to match them with the costs that they are intended

to compensate. Government grants relating to intangible assets are deducted from the cost of the asset.

#### Interest

Interest revenue is recognised as interest accrues using the effective interest method. The effective interest method uses the effective interest rate which is the rate that exactly discounts the estimated future cash receipts over the expected life of the financial asset.

### 3. GOODS AND SERVICES TAX (GST)

Revenues and expenses are recognised net of GST except where GST incurred on a purchase of goods and services is not recoverable from the taxation authority, in which case the GST is recognised as part of the cost of acquisition of the asset or as part of the expense item.

Receivables and payables are stated with the amount of GST included. The net amount of GST recoverable from, or payable to, the taxation authority is included as part of receivables or payables in the statement of financial position.

Cash flows are included in the statement of cash flows on a gross basis and the GST component of cash flows arising from investing and financing activities, which is recoverable from, or payable to, the taxation authority are classified as operating cash flows.

Commitments and contingencies are disclosed net of the amount of GST recoverable from, or payable to, the taxation authority.

### 4. INCOME TAX

The income tax expense for the period is the tax payable on the current period's taxable income based on the national income tax rate adjusted by changes in deferred tax assets and liabilities attributable to temporary differences between the tax base of assets and liabilities and their carrying amounts in the financial statements, and to unused tax losses.

Deferred tax assets and liabilities are recognised for all temporary differences, between carrying amounts of assets and liabilities for financial reporting purposes and their respective tax bases, at the tax rates expected to apply when the assets are recovered or liabilities settled. Exceptions are made for certain temporary differences arising on initial recognition of an asset or a liability if they arose in a transaction, other than a business combination, that at the time of the transaction did not affect either accounting profit or taxable profit.

Deferred tax assets are only recognised for deductible temporary differences and unused tax losses if it is probable that future taxable amounts will be available to utilise those temporary differences and losses.

Current and deferred tax balances relating to amounts recognised directly in other comprehensive income are also recognised in other comprehensive income.

## 5. IMPAIRMENT OF ASSETS

At the end of each reporting period, the Company assesses whether there is any indication that individual assets are impaired. Where impairment indicators exist, recoverable amount is determined and impairment losses are recognised in profit or loss where the asset's carrying value exceeds its recoverable amount. Recoverable amount is the higher of an asset's fair value less costs to sell and value in use. For the purpose of 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.

Where it is not possible to estimate recoverable amount for an individual asset, recoverable amount is determined for the cash-generating unit to which the asset belongs.

## 6. CASH AND CASH EQUIVALENTS

For the purposes of the Statement of Cash Flows, cash and cash equivalents includes cash

on hand and at bank, deposits held at call with financial institutions, other short term, highly liquid investments with maturities of three months or less, that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value and bank overdrafts.

## 7. INTANGIBLE ASSETS

### Product development

Expenditure during the research phase of a project is recognised as an expense when incurred. Development costs are capitalised only when technical feasibility studies identify that the project will deliver future economic benefits and these benefits can be measured reliably. Expenditure capitalised comprises costs of materials and services. The carrying value of development costs is reviewed annually when the asset is not yet available for use, or when events or circumstances indicate that the carrying value may be impaired. As the asset is not yet available for use, the useful life has not yet been determined.

## 8. LEASES

Leases of property, plant and equipment where the Company has substantially all the risks and rewards of ownership are classified as finance leases and capitalised at inception of the lease at the fair value of the leased property, or if lower, at the present value of the minimum lease payments. Lease payments are apportioned between the finance charges and reduction of the lease liability so as to achieve a constant rate of interest on the remaining balance of the liability. Finance charges are charged to profit or loss over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period.

Lease income from operating leases is recognised in profit or loss on a straight-line basis over the lease term.

## 9. TRADE AND OTHER PAYABLES

Trade and other payables represent liabilities for goods and services provided to the Company

prior to the year end and which are unpaid. These amounts are unsecured and are usually paid within 30 days of recognition.

All trade and other payables are non-interest bearing.

## 10. EQUITY SETTLED COMPENSATION

The Company provides benefits and incentives to employees and key contractors of the Company in the form of share-based payments, whereby employees and key contractors receive shares.

The cost of equity-settled transactions is recognised as an expense in the statement of profit or loss and other comprehensive income, together with a corresponding increase in the share based payments reserve. However, where shares have milestones and vesting terms attached, the cost of the transaction is amortised over the vesting period.

## 11. CONTRIBUTED EQUITY

Shares are classified as equity.

Costs directly attributable to the issue of new Shares or options are shown as a deduction from the equity proceeds, net of any income tax benefit.

## 12. FINANCIAL INSTRUMENTS

### Recognition

Financial instruments, incorporating financial assets and financial liabilities, are recognised when the company becomes a party to the contractual provisions of the instrument. Trade date accounting is adopted for financial assets that are delivered within timeframes established by marketplace convention.

Financial instruments are initially measured at fair value plus transactions costs where the instrument is not classified as at fair value through profit or loss. Transaction costs related to instruments classified as at fair value through profit or loss are expensed to profit or loss immediately. Financial instruments are classified and measured as set out below.

### Classification and subsequent measurement

#### › Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments

that are not quoted in an active market and are subsequently measured at amortised cost using the effective interest rate method.

#### › Available-for-sale financial assets

Available-for-sale financial assets are non-derivative financial assets that are either designated as such or that are not classified in any of the other categories. They comprise investments in the equity of other entities where there is neither a fixed maturity nor fixed or determinable payments.

#### › Financial Liabilities

The Company's financial liabilities are borrowings and compound instruments (convertible notes).

The component part of the convertible notes issued by the Company are classified separately as financial liabilities and equity in accordance with the substance of the contractual arrangements and the definitions of a financial liability and an equity instrument.

Conversion options that will be settled by the exchange of a fixed amount of the Company's own equity instruments under an option by the holders is an equity instrument, and if under an option by the Company is a liability instrument. The conversion option classified as a liability instrument's value is estimated at fair value on issue.

The liability component is determined by calculating the outflow of money required to repay the convertible notes in full. The liability is recognised until extinguished upon conversion or at the instrument's maturity date. The equity component of the convertible note is determined by deducting the liability component from the face value of the convertible note. Each component shall be classified separately as financial liability or equity instruments in accordance with AASB 132.

Where the convertible note includes a discount on conversion, the maximum costs of the discount is calculated based on the face value of the convertible note at inception. The cost is then accrued as additional interest applied using the effective interest method. In the event of the repayment, cancellation or amendment to the convertible note, any additional interest accrued will be reversed in the statement of profit or loss and other comprehensive income.

### 13. ACCOUNTING STANDARDS ISSUED BUT NOT YET EFFECTIVE

Certain new accounting standards and interpretations have been published that are not mandatory for reporting periods ending 30 June 2017.

At the date of authorisation of the financial statements, the Standards and Interpretations listed below were in issue but not yet effective or adopted.

TABLE 22

Standards and Interpretations in issue not yet adopted	Effective for annual reporting periods beginning on or after	Expected to be initially applied in the financial year ending
AASB 9 'Financial Instruments'	1 January 2018	30 June 2019
AASB 15 'Revenue from Contracts with Customers'	1 January 2018	30 June 2019
AASB 16 'Leases'	1 January 2019	30 June 2020

### 14. APPLICATION OF NEW AND REVISED ACCOUNTING STANDARDS

The Company has adopted all of the new, revised or amending Accounting Standards and Interpretations issued by the Australian Accounting Standards Board that are mandatory for the current reporting period.

The adoption of these Accounting Standards and Interpretations did not have any significant impact on the financial performance or position of the Company.

## SECTION 8: INDEPENDENT LIMITED ASSURANCE REPORT



Tel: +61 8 7324 6000  
Fax: +61 8 7324 6111  
www.bdo.com.au

BDO Centre  
Level 7, 420 King William Street  
Adelaide SA 5000  
GPO Box 2018 Adelaide SA 5001  
Australia

The Directors  
1414 Degrees Limited  
Level 4  
81 Flinders Street  
ADELAIDE SA 5000

28 May 2018

Dear Directors

### INDEPENDENT LIMITED ASSURANCE REPORT ON HISTORICAL FINANCIAL INFORMATION AND PRO FORMA HISTORICAL FINANCIAL INFORMATION

#### Introduction

BDO Advisory (SA) Pty Ltd (BDO) has been engaged by 1414 Degrees Limited (1414 Degrees or the Company) to report on the Historical and Pro-Forma Financial Information of 1414 Degrees for inclusion in the Replacement Prospectus dated on or about 28 May 2018 and relating to the offer by the Company of a minimum of 85,714,286 Shares at \$0.35 per Share to raise a minimum of \$30,000,000 and a maximum of 142,857,143 Shares to investors at \$0.35 per Share to raise a maximum of \$50,000,000 (Replacement Prospectus).

Unless stated otherwise in this Report, expressions defined in the Replacement Prospectus have the same meaning in this Report.

This Report has been prepared for inclusion in the Replacement Prospectus. We disclaim any assumption of responsibility for any reliance on this Report or on the Financial Information to which it relates for any purpose other than that for which it was prepared.

#### Scope

##### *Historical Financial Information*

You have requested BDO to review the following historical financial information included in section 7 of the Replacement Prospectus:

- the audited Consolidated Statement of Profit or Loss and Other Comprehensive Income for the financial years ended 30 June 2016 (FY16), 30 June 2017 (FY17) and reviewed for the period ended 31 December 2017 (HYDec17) of 1414 Degrees;
- the audited Consolidated Statement of Financial Position for FY16, FY17 and reviewed for HYDec17 of 1414 Degrees; and
- the audited Consolidated Statement of Cash Flow for FY16, FY17 and reviewed for HYDec17 of 1414 Degrees.

Hereafter referred to as “the Historical Financial Information”.





The Historical Financial Information has been prepared in accordance with the stated basis of preparation, being the recognition and measurement principles contained in Australian Accounting Standards and the company's adopted accounting policies.

The Historical Financial Information of 1414 Degrees has been extracted from the financial statements of 1414 Degrees for FY15, FY16 and HYDec17, which was audited or reviewed (HYDec17) by BDO Audit (SA) Pty Ltd in accordance with the Australian Auditing Standards. BDO Audit (SA) Pty Ltd issued an unmodified opinion on the financial reports.

The Historical Financial Information is presented in the Replacement Prospectus in an abbreviated form, insofar as it does not include all of the presentation and disclosures required by Australian Accounting Standards and other mandatory professional reporting requirements applicable to general purpose financial reports prepared in accordance with the Corporations Act 2001.

#### ***Pro Forma Historical Financial Information***

You have requested BDO to review the Pro Forma Consolidated Statement of Financial Position for HYDec17 of 1414 Degrees included in the Replacement Prospectus being the Pro-Forma Statement of Financial Position as at 31 December 2017 showing the impact of the pro-forma adjustments as if they had occurred at 31 December 2017.

Hereafter referred to as "the Pro-Forma Historical Financial Information".

The Pro Forma Historical Financial Information has been derived from the historical financial information of 1414 Degrees, after adjusting for the effects of pro-forma adjustments described in section 7.3 of the Replacement Prospectus. The stated basis of preparation is the recognition and measurement principles contained in Australian Accounting Standards applied to the Historical Financial Information and the events or transactions to which the pro-forma adjustments relate, as described in section 7.1 of the Replacement Prospectus, as if those events or transactions had occurred as at the date of the Historical Financial Information. Due to its nature, the Pro-Forma Historical Financial Information does not represent the Company's actual or prospective financial position.

#### ***Directors' Responsibility***

The directors of 1414 Degrees are responsible for the preparation of the Historical Financial Information and the Pro-Forma Historical Financial Information, including the selection and determination of the Pro-Forma Adjustments made to the Historical Financial information and included in the Pro-Forma Historical Financial Information. This includes responsibility for such internal controls as the directors determine are necessary to enable the preparation of Historical Financial Information and Pro-Forma Historical Financial Information that are free from material misstatement, whether due to fraud or error.

#### ***Our Responsibility***

Our responsibility is to express a limited assurance conclusion on the Historical Financial Information and Pro Forma Historical Financial Information based on the procedures performed and the evidence we have obtained.

We have conducted our engagement in accordance with the Standard on Assurance Engagements ASAE 3450 *Assurance Engagements involving Corporate Fundraisings and/or Prospective Financial Information*.

## SECTION 8: INDEPENDENT LIMITED ASSURANCE REPORT CONTINUED



A review consists of making enquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with Australian Auditing Standards and consequently does not enable us to obtain reasonable assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

Our engagement did not involve updating or re-issuing any previously issued audit or review report on any financial information used as a source of the financial information.

### **Conclusion**

#### ***Historical Financial Information***

Based on our review, which is not an audit, nothing has come to our attention that causes us to believe that the Historical Financial Information, as described in section 7.4 of the Replacement Prospectus, and comprising:

- the audited Consolidated Statement of Profit or Loss and Other Comprehensive Income for the financial years ended 30 June 2016 (FY16), 30 June 2017 (FY17) and reviewed for the period ended 31 December 2017 (HYDec17) of 1414 Degrees;
- the audited Consolidated Statement of Financial Position for FY16, FY17 and reviewed for HYDec17 of 1414 Degrees; and
- the audited Consolidated Statement of Cash Flow for FY16, FY17 and reviewed for HYDec17 of 1414 Degrees.

are not presented fairly, in all material respects, in accordance with the stated basis of preparation, as described in section 7.1 of the Replacement Prospectus.

#### ***Pro Forma Historical Financial Information***

Based on our review, which is not an audit, nothing has come to our attention that causes us to believe that the Pro-Forma Historical Information, as described in section 7.4, 7.5 and 7.8 of the Replacement Prospectus, and comprising the Pro-Forma Statement of Financial Position as at 31 December 2017 showing the impact of Pro-Forma Adjustments as if they occurred at 31 December 2017, are not presented fairly in all material respects, in accordance with the stated basis of preparation as described in section 7.1 of the Replacement Prospectus.

### **Restrictions on Use**

Without modifying our conclusions, we draw attention to section 7.3 of the Replacement Prospectus, which describes the purpose of the financial information, being for inclusion in the Replacement Prospectus. As a result, the financial information may not be suitable for use for another purpose.

### **Consent**

BDO has consented to the inclusion of this independent limited assurance report in the Replacement Prospectus in the form and context in which it is included.

### **Liability**

The liability of BDO is limited to the inclusion of this report in the Replacement Prospectus. BDO makes no representation regarding, and takes no responsibility for, any other statements, or material in, or omissions from, the Replacement Prospectus.



### Subsequent Events

Apart from the matters dealt with in this Report, and having regard to the scope of this Report and the information provided by the Directors, to the best of our knowledge and belief no material transaction or event outside of the ordinary business of 1414 Degrees not described in the Replacement Prospectus, has come to our attention that would require comment on, or adjustment to, the information referred to in our Report or that would cause such information to be misleading or deceptive.

### General Advice Warning

This Report has been prepared, and included in the Replacement Prospectus, to provide investors with general information only and does not take into account the objectives, financial situation or needs of any specific investor. It is not intended to be a substitute for professional advice and potential investors should not make specific investment decisions in reliance on information contained in this Report. Before acting or relying on any information, an investor should consider whether it is appropriate for their circumstances having regard to their objectives, financial situation or needs.

### Independence or Disclosure of Interest

BDO is a member of BDO International Ltd. BDO does not have any interest in the outcome of the proposed listing, or any other interest that could reasonably be regarded as being capable of affecting its ability to give an unbiased conclusion in this matter. BDO will receive normal professional fees for the preparation of this report.

Signed for and on behalf of  
BDO Advisory (SA) Pty Ltd

**David Fechner**  
Director

## SECTION 9: TECHNICAL EXPERT'S REPORT



### Technology review for 1414 Degrees Ltd

11 May 2018

Prof Graham J. 'Gus' Nathan, B.E. (Hons), PhD, CPEng, FIEAust, FCI

The University of Adelaide, Adelaide, 5005

#### Background

The 1414 Degrees company is developing a high temperature thermal energy storage technology as a commercial product, based on the phase change of silicon. They have commissioned Professor Nathan to undertake an independent assessment of the performance of their technology based on technical reports and an interview of their technical staff. The report is an opinion based solely on the information provided to me, so that I have not conducted an independent analysis of the technology or that information. I have not carried out my own independent calculations to verify the technology or information provided to me. It should also be noted that the technology is in prototype form, such that any view expressed is an opinion based on prototype data.

The report is limited to cases in which electrical energy is to be used as the source of energy input to the device and for intended applications that require both heat (e.g. for raising steam) as the dominant energy output and electrical power, typically termed Combined Heat and Power. It does not address performance for other sources of heating or for other applications.

#### Reports Provided

Three commercial-in-confidence reports were provided.

#### Interview Date and Place

5<sup>th</sup> April, 2018 at 1414 Offices, Level 4, 81 Flinders Street, Adelaide.

May 2018



## Report

### Overview:

In my assessment, the 1414 technology represents an important technology development. I have reviewed the 1414 reports and they appear to be technically sound. Furthermore, to my knowledge, the commercial implementation of the 1414 Thermal Energy Storage (TES) technology appears to represent the first commercial application of a technology that will employ (i) latent heat TES technology and (ii) TES storage system for power generation that is charged electrically at temperatures  $> 600^{\circ}\text{C}$ . For example, while sensible heat storage at temperatures to approximately  $1200^{\circ}\text{C}$  is employed commercially in regenerative heaters in the glass industry, this is heated with hot combustion products and used to preheat the combustion air (Sardeshpande et al., 2011), rather than being charged electrically and used for combined heat and power (CHP). Similarly, while TES is used commercially for power generation by the concentrating solar thermal (CST) sector, this is performed at much lower temperature. The review by Kuvari et al. (2013) reports that all of the commercial concentrating solar thermal (CST) technologies in operation at that time employed only sensible heat storage with a maximum storage temperature of  $580^{\circ}\text{C}$  through the two-tank molten salt system. Lovegrove et al (2015) similarly report that the most commercially advanced TES technology for CST is the two-tank molten salt storage technology, which has since become the industry standard for CST. This is consistent with current practice, so that the planned Aurora plant to be supplied at Port Augusta by Solar Reserve also uses two-tank molten salt heat storage. Hence, while the thermal scale of the 1414 technology (hundreds of kilowatts) is presently very much smaller than the large-scale CST plants (hundreds of Megawatts), nevertheless, the development of a commercial system employing latent heat storage at approximately  $1400^{\circ}\text{C}$  will constitute an important technological step for TES.

Importantly, the 1414 company has identified a commercial niche for their technology through the supply of Combined Heat and Power (CHP) for small-to-mid sized industrial applications. CHP is a well-known approach for achieving high energetic efficiency (US DoE, 2011). The recent DoE report (2016) identifies CHP as an efficient and clean approach to generating both electric power and useful thermal energy from a single energy source. It estimates the technical potential for CHP in the USA to be 240 GW. The establishment of a commercial application for latent heat storage has potential to offer a spring board for further developments of the technology.

May 2018

## SECTION 9: TECHNICAL EXPERT'S REPORT CONTINUED



### Advantages of the Technology:

- The demonstrator achieved its aim of establishing that silicon could be contained in the liquid phase and heat could be recovered through a Stirling Engine.
- The prototype has the capability to store & regenerate electricity and heat with a high combined heat & power efficiency with a Stirling Engine and waste heat recovery system.
- The prototype has the capability to store electrical energy as heat in molten silicon in an insulated container, retrieve energy to supply heat and/or electricity when required.
- The TESS novelty is in using molten silicon at approximately 1414°C (US Patent US13390357).
- The TESS is well suited to providing stored heat and power to industry with very high efficiency.
- An additional competitive advantage of the TESS is simultaneous charge & discharge.
- The prototype has established that silicon could be contained in the liquid phase and heat could be recovered through a Stirling Cycle.

### Disadvantages of the Technology:

The technology, in its current form, is not efficient at storing only electricity. This is partly because of the inherent inefficiencies of converting heat to electricity through any power cycle and, in part, because the inlet temperature to the Stirling cycle is significantly lower than that of the storage temperature of the silicon.

### Commercial Status of the Technology:

The technology has been demonstrated as a prototype. However, further development is required to reach commercial status. This includes the need to demonstrate reliable operation over a large number of charge and discharge cycles and for multiple cycles of start-up and shut-down.

### Independence of the Assessor

Professor Nathan has not entered into any previous engagements or agreements with 1414 Degrees. The University of Adelaide has held contracts with 1414 Degrees Ltd to undertake final year student undergraduate projects, but Professor Nathan was not involved and did not participate in any of these projects.

May 2018





### References

Sarada Kuravi, Jamie Trahan, D. Yogi Goswami, Muhammad M. Rahman, Elias K. Stefanakos (2013) "Thermal energy storage technologies and systems for concentrating solar power plants", Prog. Energy and Combust. Sci. 2013: 1-35.

Keith Lovegrove, Muriel Watt, Robert Passey, Graeme Pollock, Joe Wyder, Josh Dowse (2015) "Realising the Potential of Concentrating Solar Power in Australia" ITP Report to ARENA, ISSN 9780-9873356-2-3.

"Combined Heat and Power (CHP) Technical Potential in the United States" (2016) US Department of Energy, Report number DOE/EE-1328.

Sardeshpande, V., Anthony, R., Gaitonde U.N. and Banerjee R. (2011) "Performance analysis for glass furnace regenerator" Applied Energy, 88, 4451-4458.

## SECTION 9: TECHNICAL EXPERT'S REPORT CONTINUED



### About the author

Professor Nathan is the founding Director of The University of Adelaide's Centre for Energy Technology and recipient of a Discovery Outstanding Researcher Award from the Australian Research Council. He is chartered professional engineer, a Fellow of Engineers Australia (The Institution of Engineers Australia) and a Fellow of the Combustion Institute. He specialises in the development of innovative technologies for process heat, power and fuels in partnership with industry. He leads the Solar Fuels program in the \$87m Australian Solar Thermal Research Initiative, which aims to lower the cost of solar fuels production by gasification of biomass residues, and leads the \$14m ARENA funded project to introduce concentrating solar thermal into the Bayer Alumina process. He has published more than 150 papers in leading international journals, 250 in peer-review conferences, 12 patents and 50 commissioned reports.

Professor Nathan has worked closely with industry throughout his career, holding an industrial lectureship for 13 years and undertaking more than 50 consultancies. His past technology developments include being principal leader of the Chief Design Team for the award winning fuel and combustion system for the Sydney 2000 Olympic Relay Torch and joint leadership of the development of low NOx combustion technology in rotary cement kilns. He is also recipient award of the inaugural AIE Energy Professional of the year (SA) and of the ATSE KL Sutherland Memorial Medal.

### Disclaimer

The report is my opinion based solely on the information provided to me, and I have not conducted an independent detailed analysis of the technology or that information. It should be noted that the technology is in prototype form, such that any view expressed is only speculative opinion based on prototype data

Signed:

G.J. Nathan, B.E. (Hons), PhD, CPEng, F.I.E.Aust, F.C.I.

Date: Friday, 11 May 2018

May 2018

## SECTION 10: INTELLECTUAL PROPERTY REPORT

Patent & Trade Mark Attorneys  
Level 4, 19 Gouger Street  
Adelaide SA 5000 Australia  
GPO Box 2752  
Adelaide SA 5001 Australia  
Phone: +61 8 8311 8311  
Fax: +61 8 8311 8300  
mail@madderns.com.au  
madderns.com.au  
ABN 98 056 210 140

25 May 2018



### Intellectual Property Report for 1414 Degrees Limited

Following is a report detailing the registrable intellectual property owned by 1414 Degrees Limited.

#### 1. Patents

Patents are directed to the protection of technological developments. A patent provides the patent owner with a monopoly right that may be enforced in court against another party that exploits the technology covered by the patent.

Patents are sought in each country where protection is required through an application and examination process. When a patent meets the relevant criteria it is then granted for that jurisdiction.

While there is no "world" patent, there is what is termed a Patent Cooperation Treaty (PCT) application which potentially reserves the applicant's patent rights throughout the 152 contracting states to the PCT (see [www.wipo.int/pct/en/pct\\_contracting\\_states.html](http://www.wipo.int/pct/en/pct_contracting_states.html)) for a time period before the applicant is required to indicate which jurisdictions patent protection will be sought based on the PCT application.

#### 1.1 Patent Title – "Thermal Energy Storage Apparatus, Arrangement and Method"

This patent family is directed to an earlier thermal energy storage and retrieval system developed by 1414 Degrees Limited for supplying stored thermal energy to a Stirling engine. The thermal energy storage apparatus includes a series of elongate canisters containing silicon metalloid and which are made of a refractory material. These canisters are interlaced with a thermal energy absorbing material in communication with a wicking material to which the Stirling engine is attached to.

Country	Date Filed	Official No.	Owner	Status
Unites States of America	13/08/2010	9,052,122	Latent Heat Storage Pty Ltd	Granted
New Zealand	13/08/2010	598126	Gnomon Technologies Pty Ltd	Granted
China	13/08/2010	102656364	Gnomon Technologies Pty Ltd	Granted
India	13/08/2010	506/MUMNP/2012	Gnomon Technologies Pty Ltd	Pending (see 1.1.3)
Europe	13/08/2010	10807805	Gnomon Technologies Pty Ltd	Pending (see 1.1.2)
Australia	13/08/2010	2010282232	Latent Heat Storage Pty Ltd	Granted

AAL:CB

## SECTION 10: INTELLECTUAL PROPERTY REPORT CONTINUED

It is noted that Latent Heat Storage Pty Ltd and Gnomon Technologies Pty Ltd are former company names of 1414 Degrees Limited. Changing the patent owner's name may be attended to as required and does not affect enforceability.

### 1.1.2 Europe

European Patent Application No 10807805 is still pending but a favourable extended European search report comprising the Supplementary European search report and written opinion was issued by the European Patent Office (EPO) on 27 October 2016. This stated that the claims being examined met the requirements of novelty and inventive step but required some formality issues to be addressed. 1414 Degrees Limited filed a response to the EPO on 18 April 2017 addressing these formality issues and now expects the EPO to in due course issue a notification that they intend to grant the European patent application.

### 1.1.3 India

Indian Patent Application No 506/MUMNP/2012 is still pending with a first Examination Report only issuing from Intellectual Property India on 24 April 2018. This Examination Report found all claims to be novel but has raised an inventive step objection against all claims relying on the same documents cited during prosecution of the counterpart European patent application referred to above.

In raising the inventive step objection, the Examiner has combined all of the cited documents on an unspecified basis. In the first instance, the inventive step objection is contestable for failing to provide sufficient reasons to support the objection. In any event, narrowing amendments to the claims along the lines adopted in the US would address the inventive step objection even on this unsupported basis. In conclusion, it is highly likely that current objections to the Indian patent application would be overcome.

The issuance of a first Examination Report some eight years after the filing of the respective PCT Application is not an unusual occurrence in India.

### 1.2 Patent Title - "Energy Storage and Retrieval System"

This PCT Application is directed to the current thermal energy storage and retrieval system under development by 1414 Degrees Limited.

Country	Date Filed	Official No.	Owner	Status
PCT Application	23/03/2018	PCT/AU2018/000043	1414 Degrees Limited	Pending


In accordance with standard PCT procedures, the PCT Application will become open for public inspection on or about 23 September 2018, ie 18 months from the priority date of the PCT Application.

### 2. Trade Marks


A registered trade mark is an enforceable intellectual property right which prevents other traders from using a word or logo in connection with the provision of goods and/or services that the trade mark registration covers.

Similar to patents, a registered trade mark is registered for a particular jurisdiction following an application and examination process. As can be seen below, individual trade mark registrations are directed to particular goods and/or services that are of concern to the trade mark owner.


**2.1 Australian Trade Mark Registration No 1817151**

Trade Mark	Class	Goods and Services	Date Filed	Owner
	9	Thermal storage apparatus for electricity generation	04/01/2017	1414 Degrees Limited
	40	Electricity generation		
	42	Energy use and conservation consultancy, Engineering consultancy		

**2.2 Australian Trade Mark Registration No 1844598**

Trade Mark	Class	Goods and Services	Date Filed	Owner
	36	Commodities and futures trading in relation to energy, financial transactions and security transactions in relation to energy, bulk electricity brokerage services	12/05/2017	1414 Degrees Limited

**2.3 Australian Trade Mark Registration No 1844594**

Trade Mark	Class	Goods and Services	Date Filed	Owner
	9	Thermal storage apparatus for electricity generation	24/05/2017	1414 Degrees Limited
	40	Electricity generation		
	42	Energy use and conservation consultancy; Engineering consultancy		

**2.4 Australian Trade Mark Application No 1902293 (Accepted)**

Trade Mark	Class	Goods and Services	Date Filed	Owner
SIBOX	9	Thermal storage apparatus for electricity generation	31/01/2018	1414 Degrees Limited
	40	Electricity generation		

SECTION 10: INTELLECTUAL PROPERTY REPORT  
CONTINUED

**3. Domain Names**

A domain name is a human readable electronic address for finding and identifying an entity on the Internet. A domain name is typically also the name of an entity's website which may be accessed by Internet users. Domain names are registered with a regulatory authority responsible for the particular type of domain name.

Domain Name	Date Filed	Owner	Status
1414degrees.com.au	07/10/2016	Latent Heat Storage Pty Ltd	Registered

Yours faithfully  
MADDERNS



/AnthonyALee/

ANTHONY A LEE  
*Partner*



# SECTION 11: MATERIAL CONTRACTS

## 11.1 MATERIAL CONTRACTS

This section contains a brief summary of material contracts entered into by the Company, which may be relevant and of interest to potential investors and their advisers. Please also refer to Section 5 of this Prospectus for details of contracts between the Company and its Directors, management or related parties.

### NON-BINDING TERM SHEET – SA WATER

The Company entered into a Non-Binding Term Sheet with SA Water dated 23 August 2017 (Term Sheet).

Under the Term Sheet, SA Water agrees to develop a Project Development Agreement for the development of a pilot project for the GAS-TESS technology (which will convert raw waste gas from the wastewater treatment plant into heat energy) at an SA Water site (SA Water Project). The parties intend to pilot the GAS-TESS technology at SA Water's Glenelg Wastewater Treatment Plant.

The Term Sheet is not intended to be binding on either party.

The Term Sheet contemplates that the Company will undertake a feasibility study for the SA Water Project, which will include details of:

- the proposed site, size and scope of the GAS-TESS technology;
- the required interfaces between the GAS-TESS technology and the SA Water site (including any required participation of third parties);
- the commissioning activities for the GAS-TESS technology; and
- the decommissioning strategy and remediation plan for the removal of the GAS-TESS technology at the end of the SA Water Project.

The Project Development Agreement will contain details of the operational start date of the SA Water Project, however the parties have included a notional operational start date of 1 July 2018.

Either party may terminate the Term Sheet at any time, however the Term Sheet will automatically terminate on the execution of the Project Development Agreement by the Company and SA Water.

The Term Sheet includes the following key terms (which are intended to be included in the Project Development Agreement ultimately entered into by the parties):

- the Company will bear the costs of all design,

construction, operation and maintenance associated with the SA Water Project (including the integration of the GAS-TESS technology);

- the Company will bear all site remediation costs related to the SA Water Project;
- SA Water will pass through to the Company any additional electricity revenue created from biogas. It is contemplated that the additional electricity revenue will be calculated for each 30 minutes trading interval by determining the difference between the electricity able to be produced by the existing engines and the electricity produced by the GAS-TESS technology in that interval, and multiplying that amount by the spot electricity price for that interval;
- the Company will hold Public Liability insurance of \$20m and other insurances as required for operation of its day to day business; and
- SA Water and the Company will work together to optimise the TESS technology and heat recovery system sizing to minimise the long run marginal cost of the GAS-TESS technology.

### RENEWABLE TECHNOLOGY FUND GRANT DEED – THE MINISTER FOR MINERAL RESOURCES AND ENERGY

The Company entered into the Renewable Technology Fund Grant Deed with the Minister for Mineral Resources and Energy for and on behalf of the Crown in right of the State of South Australia acting through the Department of Premier and Cabinet (Minister) dated 15 January 2018 (Grant Deed). The Grant Deed is binding on the parties.

Under the Grant Deed, the Minister has agreed to pay the Company a grant of \$1.6 million for the purposes of the development and commissioning of the GAS-TESS technology for the SA Water Project. Subject to the Company complying with the terms and the Grant Deed, the State is required to pay the grant to the Company in eight separate instalments that are linked to the Company achieving a performance milestone (for example, the completion of a detailed design) at the time assigned to that performance milestone in the Grant Deed. The Company is only permitted to use the grant received under the Grant Deed for the purposes of the SA Water Project.

Under the Grant Deed, the Company is required to commission the GAS-TESS technology by 1 December 2018. The Grant Deed contemplates that the operational period for the initial trial period of the GAS-TESS technology for the SA Water Project will be 1.5 years, however the system lifetime is expected to be 20 years.

There are certain reporting obligations imposed on the Company under the Grant Deed, including that the Company must provide management plans, monthly performance reports, and annual reports on the performance of the GAS-TESS technology and the Company's compliance with the Grant Deed.

In the event that the Company breaches the Grant Deed or the Company is, or threatens to become, insolvent, the Minister may require repayment of all amounts paid by the Minister to the Company under the Grant Deed.

#### HEADS OF AGREEMENT – ENERGY & CARBON SOLUTIONS PTY LTD

The Company entered into a Heads of Agreement with Energy & Carbon Solutions Pty Ltd (ECS) and Burwood Family Investments Pty Ltd as trustee for the Burwood Family Investment Trust (EB Trust) dated 16 April 2018 (ECS HoA).

Under the ECS HoA, the Company and ECS have agreed to work collaboratively to progress the development and distribution of the TESS technology to third party sites. The ECS HoA is intended to be binding, however it contemplates that the parties will negotiate the terms of a detailed sales or agency agreement in due course and in a timely manner, which agreement must include the terms as agreed in the ECS HoA.

Under this arrangement, ECS is granted a non-exclusive licence to market and distribute the TESS technology to its industrial and business customers within Australia. ECS is required to meet certain sales and marketing targets in respect of the TESS technology and the failure to do so will allow the Company to terminate the ECS HoA upon 40 business days' notice. ECS also undertakes to develop, for the benefit of its customers, suitable finance packages for each proposed installation of the TESS technology and to implement and integrate those finance packages so as to achieve any qualifying funding for each relevant installation with applicable financial institutions.

The Company will engineer, construct, deliver and commission the TESS technology at the ECS customer sites, and will provide ongoing maintenance services to the customer in respect of the TESS technology.

Pursuant to the terms of the ECS HoA, the Company has agreed to issue to EB Trust:

- 330,000 Shares on the date that the Company executes the relevant contracts for the delivery and commissioning of the TESS technology to the site of one customer, provided that the relevant contract must be executed on or before 6 April 2018. The Company issued 330,000 Shares to EB Trust in satisfaction of this obligation on 27 April 2018 as a result of the entry into of the PD Letter (as to which see further detail below); and
- 330,000 Shares on the date that the Company commissions the TESS technology on the site of a second customer.

The ECS HoA does not contemplate the payment of any other amounts to ECS or EB Trust in relation to the performance by ECS of its obligations under the ECS HoA.

The ECS HoA takes effect on and from its date of execution (being 16 April 2018 and will automatically terminate on the earlier of:

- the date that the parties enter into the more detailed sales or agency agreement, as contemplated by the ECS HoA;
- the 2nd year anniversary of the commencement date of the ECS HoA; and
- the date that the ECS HoA is terminated by:
  - › either party following a material breach of the ECS HoA by the other party which has not been remedied within a reasonable time period; or
  - › the Company, if ECS has not met the sales and marketing targets set in the ECS HoA, subject to the Company giving 40 business days' notice to ECS.

Each of the Company and ECS must effect and maintain public liability and professional indemnity insurance policies with a claims limit of \$10M each (per claim or in the aggregate).

The ECS HoA provides that each party's liability to the other arising out of, or in any way in connection with the ECS HoA is limited to \$1.00, save and except to the extent of:

- liability arising under the indemnity granted by each of ECS and the Company in favour of the other for loss arising as a result of a breach of the ECS HoA or any act or omission of a party's officers, employees or agents in connection with the performance of the party's obligations under the ECS HoA;
- the abandonment of all or a substantial part of a party's obligations under the ECS HoA; or
- fraud, criminal offer, wilful default or wilful misconduct of a party.

#### OFFER LETTER – PEPE'S DUCKS AND ENERGY & CARBON SOLUTIONS – POWER SYSTEMS PTY LTD

The Company entered into an Offer Letter with Pepe's Ducks and Energy & Carbon Solutions – Power Systems Pty Ltd (ECS-PS) dated 6 April 2018 (PD Letter).

Under the PD Letter, the Company has offered, and Pepe's Ducks has agreed, to the supply and commission by the Company of TESS-IND technology at Pepe's Ducks' poultry processing plant located in South Windsor, New South Wales (PD Site).

The PD Letter contemplates that the TESS-IND will be leased to Pepe's Ducks and the Company will retain full legal title and ownership of the TESS-IND while it is at the PD Site.

Under the terms of the PD Letter, the Company and Pepe's Ducks agree to enter into a formal lease agreement under which the Company will lease the TESS-IND technology to Pepe's Ducks which will include the following terms:

- the lease term will end on the earlier of:
  - › three years after its commencement date; or
  - › the date on which the PD Site is decommissioned, mothballed or has ceased to carry on operations; and
- the Company will charge Pepe's Ducks a lease fee of \$1.00 per year during the term of the lease.

The Company and Pepe's Ducks will also enter into a maintenance contract for the term of the lease agreement for the provision of maintenance services relating to the TESS-IND technology by the Company to Pepe's Ducks for a fee of \$1.00 per year.

The parties must commence negotiations in relation to the lease agreement and maintenance contract within 10 business days of execution of the PD Letter.

Upon the expiration of the lease agreement and maintenance contract, the parties may negotiate a renewal of the lease agreement and the maintenance contract in respect of the TESS-IND, either at the PD Site, or at an alternative location operated by Pepe's Ducks. The terms of any further agreement must be negotiated and agreed in good faith by the parties.

The parties will negotiate the details regarding the specifications and technical capacities of the TESS-IND within 20 business days after the entry into final contracts for the development of the TESS-IND technology as contemplated by the PD Letter. The PD Letter provides that any rights or obligations between the parties in relation to the completion of the supply and commission of the TESS-IND at the PD Site will only exist if and when the parties have successfully negotiated and entered into final contracts.

The Company will be responsible for undertaking all works associated with the supply, commissioning and maintenance of the TESS-IND unit and any other associated infrastructure which is located within the area on the PD Site to be designated as the "1414 Degree Area".

Pepe's Ducks will be responsible for undertaking the works associated with the connection and/or integration of the TESS-IND technology to its existing infrastructure at the PD Site and obtaining any approvals, licences or permits required in relation to work undertaken by the Company. Pepe's Ducks will engage ECS-PS to undertake these works for and on behalf of Pepe's Ducks.

The PD Letter takes effect from the date that the last of the parties signs the PD Letter and will automatically terminate upon the earliest to occur of:

- the date that parties enter into final lease and maintenance agreements; or

- 30 June 2018, or such other date as agreed by the parties in writing.

#### OFFER TO ISSUE SHARES - REACTIVE ENGINEERING PTY LTD

Reactive Engineering Pty Ltd has worked co-operatively with ECS and the Company to secure the execution of the PD Letter. In recognition of this assistance, the Company has issued a Letter of Offer to Reactive Engineering Pty Ltd dated 23 March 2018 (RE Letter), pursuant to which it has offered to issue a total of 500,000 Shares (RE Shares) to Reactive Engineering Pty Ltd (or its nominee) on the date that the TESS technology to be installed at the PD Site becomes energised. As at the date of this Prospectus, the Company has not received an executed counterpart of the RE Letter from Reactive Engineering Pty Ltd.

If executed by Reactive Engineering Pty Ltd, the RE Letter will terminate automatically upon the earlier to occur of the date on which the RE Shares are issued to Reactive Engineering Pty Ltd or the date on which the PD Letter (or any further contracts between the parties to the PD Letter in relation to that project) is terminated. If the RE Letter terminates as a result of the termination of the PD Letter (or any associated contracts), the Company will cease to have any obligation to issue Shares to Reactive Engineering Pty Ltd.

#### OFFER LETTER- AUSTCOR PACKAGING AND ENERGY & CARBON SOLUTIONS - POWER SYSTEMS PTY LTD

The Company entered into an Offer Letter with Austcor Packaging and ECS-PS dated 13 April 2018 (AP Letter).

Under the AP Letter, the Company has offered, and Austcor Packaging has agreed, to the supply and commission by the Company of TESS-IND technology at Austcor Packaging's paper manufacturing plant located in Wetherill Park, New South Wales (AP Site).

The AP Letter contemplates that the TESS-IND will be leased to Austcor Packaging and the Company will retain full legal title and ownership of the TESS-IND while it is at the AP Site.

Under the terms of the AP Letter, the Company and Austcor Packaging agree to enter into a formal lease agreement under which the Company will lease the TESS-IND technology to Austcor Packaging which will include the following terms:

- the lease term will be five years, with an option to extend to 10 years;
- the Company will charge Austcor Packaging the following lease fees:
  - › \$1.00 per year in respect of year one and year two;
  - › \$2,000 per year in respect of year three to year five, inclusive; and

- › if the lease is extended to 10 years, \$5,000 per year in respect of years six to 10 inclusive.

The Company and Austcor Packaging will also enter into a maintenance contract for the provision of maintenance services relating to the TESS-IND technology by the Company to Austcor Packaging for a fee of \$19,200 per year (as increased for Consumer Price Index changes each year). The maintenance services provided under the maintenance contract will commence on the date of energisation of the TESS-IND unit until the later to occur of:

- the date that is 24 months after the date of energisation of the TESS-IND; and
- the date on which relevant commissioning activities have been agreed by Austcor Packaging and the Company, such agreement not to be unreasonably withheld.

Upon the expiration of the lease agreement and maintenance contract, the parties may negotiate a renewal of the lease agreement and the maintenance contract in respect of the TESS-IND, either at the AP Site, or at an alternative location operated by Austcor Packaging. The terms of any further agreement must be negotiated and agreed in good faith by the parties.

The parties will negotiate the details regarding the specifications and technical capacities of the TESS-IND as a part of an engineering/feasibility review in respect of the project (Feasibility Review). The Feasibility Review must be completed by the parties within 60 business days after the commencement date of the AP Letter (being the date the last party signed it, which was 16 April 2018), or such later date as may be agreed by the parties. If:

- Austcor Packaging determines based on the results of the Feasibility Review that the project will not meet, achieve or produce the relevant energy efficiencies/ financial returns or technical objectives of the AP Site; or
- any approval, consent, authorisation, licence or permit required to be obtained by Austcor Packaging from the lessor of the AP Site for the project and/or the associated solar installation has been refused, declined or rejected by the lessor,

Austcor Packaging may by written notice to the Company terminate the AP Letter by giving 20 business days' notice (Withdrawal Notice).

The parties must commence negotiations in relation to the lease agreement and maintenance contract within 10 business days following completion of the Feasibility Review. The AP Letter provides that any rights or obligations between the parties in relation to the completion of the supply and commission of the TESS-IND at the AP Site will only exist if and when the parties have successfully negotiated and entered into final contracts.

The Company will be responsible for undertaking all works associated with the supply, commissioning and maintenance of the TESS-IND unit and any other associated infrastructure which is located within the area on the AP Site to be designated as the "1414 Degree Area".

Austcor Packaging will be responsible for undertaking the works associated with the connection and/or integration of the TESS-IND technology to its existing infrastructure at the AP Site and obtaining any approvals, licences or permits required in relation to work undertaken by the Company. Austcor Packaging will engage ECS-PS to undertake these works for and on behalf of Austcor Packaging.

The AP Letter takes effect from the date that the last of the parties signs the AP Letter and will automatically terminate upon the earliest to occur of:

- the date that parties enter into final lease and maintenance agreements;
- 30 October 2018, or such other date as agreed by the parties in writing; or
- the date Austcor Packaging provides a Withdrawal Notice.

#### MEMORANDUM OF UNDERSTANDING – SUNKONNECT PTE LTD AND RESOURTIUM INTERNATIONAL SDN BHD

The Company entered into a Memorandum of Understanding with SunKconnect Pte Ltd and Resourtiium International Sdn Bhd (Resourtiium) dated 19 January 2018 (MOU). SunKconnect is in the business of providing renewable energy solutions, including R&D, consulting and associated activities. Resourtiium is in the business of marketing renewable energy solutions in ASEAN countries and is actively assessing the market for TESS in ASEAN countries. Other than specific clauses relating to confidentiality and the retention of intellectual property rights, the MOU is not intended to be legally binding.

Under the MOU, the Company has agreed to work collaboratively with SunKconnect and Resourtiium to develop and test a large scale energy storage solution using the Company's technology integrated with solar PV (which is referred to as Solar PV-TESS) in Singapore.

The MOU requires SunKconnect to seek grant funding from the Singapore Government for at least 75% of total project costs and the MOU is only intended to apply where such funding is obtained. The Company must disclose certain information to SunKconnect regarding the TESS technology to the extent such information is critical to the required grant application, noting that all such disclosures will be made by SunKconnect to the relevant government agency on a confidential basis.

The Company is required to provide reasonable technical advice as required by SunKconnect to integrate the TESS with solar PV technology. Resourtiium will facilitate all transactions between the parties and be the key party for all communications.



Following the successful completion of the pilot project, the parties intend to enter into a good faith negotiations to establish a commercialisation joint venture for the Solar PV-TESS in the ASEAN market. Under the proposed commercialisation arrangement, SunKonnct and Resourtium will have the exclusive right to market the Solar PV-TESS in ASEAN member countries. The Company will retain the exclusive right to market the Solar PV-TESS in all other regions and territories around the world.

The MOU will terminate if the parties have not entered into formal binding agreements regarding the proposed commercialisation activities within one year of the date of the MOU (being 18 January 2019).

### COMMONWEALTH FUNDING AGREEMENT

The Company and the Commonwealth of Australia (as represented by the Department of Industry, Innovation and Science (ABN 74 599 608 295)) are parties to a Funding Agreement dated 23 August 2017 (Funding Agreement).

Pursuant to the terms of the Funding Agreement, the Commonwealth of Australia has agreed to provide the Company with funding of up to a maximum of \$560,000 for the purposes of undertaking work associated with constructing a commercial demonstrator for the TESS technology. The Company has an obligation to contribute an equivalent amount of funding to the project.

The Funding Agreement continues until 30 June 2024, however the Company is required to complete the construction of the commercial demonstrator of the TESS technology by 30 June 2019.

The Funding Agreement imposes certain ongoing obligations on the Company, including attending progress meetings, notifying the Commonwealth of Australia of certain matters and providing reports to the Commonwealth of Australia, and keeping adequate books and records. In certain circumstances, the Commonwealth of Australia may be entitled to recover from the Company funds previously paid (for example, in the event of a breach of the Funding Agreement by the Company which has not been waived by the Commonwealth of Australia).

The Commonwealth of Australia has the right to terminate the Funding Agreement:

- without cause (subject to giving notice);
- as a result of a breach by the Company which is unable to be remedied, or is not remedied within 21 days of notice to do so;
- where the Commonwealth of Australia forms the opinion that the Company is affected by a conflict of interest which would prevent the Company from performing its obligations under the Funding Agreement;
- if the Company is unable to make its own financial contributions to the project as required by the Funding Agreement;
- where the Commonwealth of Australia is satisfied that a statement in the Company's funding application is incorrect, incomplete, false or misleading in a way that would have affected its decision to approve provision of funds under the Funding Agreement; or
- upon the occurrence of certain insolvency type events in relation to the Company.

### TAYLOR COLLISON LEAD MANAGER APPOINTMENT LETTER

Pursuant to a Lead Manager Appointment Letter dated 18 April 2018 (Mandate Letter), Taylor Collison has agreed to act as the Lead Manager for the Offer. Taylor Collison agrees to provide certain services in connection with its role as Lead Manager, including assisting with the marketing, distribution and allocation of the Shares.

Under the terms of the Mandate Letter, the Directors have the authority to allocate up to \$20 million in Shares under the Offer to Applicants from its list of investors that have pre-registered to receive a copy of this Prospectus (Pre-Registered List). Taylor Collison will be entitled to allocate (in consultation with the Company) the remaining Shares to Applicants. Taylor Collison must disclose the identity of the beneficial owners of Applicants who apply for more than \$500,000 in Shares and allocation to these Applicants will be at the Directors' discretion (acting reasonably).

Taylor Collison's agreement to act as Lead Manager is subject to certain conditions, including the design and implementation of a due diligence program for the Offer to the satisfaction of Taylor Collison, general market conditions being conducive to the Offer, and there not being any material adverse change to the Company's prospects during the course of Taylor Collison's engagement as Lead Manager.

The Company is required to pay Taylor Collison:

- an offer management fee of 1.5% of the total funds raised under the Offer; and
- a selling fee of 4.5% of the funds raised under the Offer other than those funds raised from investors on the Pre-Registered List (unless such persons on the Pre-Registered List were clients of Taylor Collison as at 18 April 2018).

The fees payable to Taylor Collison are exclusive of GST and required to be paid to Taylor Collison within three days after the allotment of the Shares under the Offer.

The Lead Manager will be responsible for any selling fees which are payable to brokers or other securities licensees that successfully place Shares under the Offer.

The Company is required to pay all costs, charges and expenses relating to the Offer. In addition, the Company is

required to pay Taylor Collison's legal fees up to an amount of \$20,000, and to reimburse Taylor Collison for its reasonable costs and expenses incurred (even if the Offer does not proceed).

The Company provides an indemnity in favour of Taylor Collison in relation to the contents and issue of this Prospectus.

#### OFFER OF CONTRACTUAL ENGAGEMENT - PITSTOP MARKETING PTY LTD

The Company has entered into an undated Offer of Contractual Engagement with Pitstop Marketing Pty Ltd (Pitstop Letter).

Pursuant to the Pitstop Letter, the Company agreed to pay Pitstop a fee of \$5,000 per month for marketing services up to the successful implementation of an initial public offer by the Company, and thereafter at negotiated contract rates.

The Company agreed to issue up to 2,000,000 Shares to Pitstop as follows:

- 1,000,000 Shares subject to the Company obtaining up to 5,000 subscribers or 2,000 registrants for the Prospectus via the Company's website, whichever is achieved first. The Company issued 1,000,000 Shares to Pitstop in satisfaction of this obligation on 3 April 2017; and
- 1,000,000 Shares at the end of the first three month period during which the volume weighted average price for the Company's shares is 100% more than the Offer Price.

The term of the Pitstop Letter is three years.

#### HEAD OFFICE UNDERLEASE

The Company has entered into an Underlease with BSA Flinders Pty Ltd dated 29 August 2017 (Underlease) under which the Company has agreed to sub-lease a portion of Level 4, 81 Flinders Street, Adelaide, South Australia 5000, which is the location of the Company's head office.

The term of the Underlease commenced on 1 July 2017 and will expire on 29 February 2020. The Company does not have a right of renewal at the expiration of the Underlease.

The following rent is payable under the Underlease:

- for the period commencing on 1 July 2017 and expiring 31 December 2017, \$103,250 (excluding GST);
- for the period commencing on 1 January 2018 and expiring 31 December 2018, \$277,300 (excluding GST);
- for the period commencing on 1 January 2019 and expiring 31 December 2019, \$286,312 (excluding GST); and
- for the period commencing on 1 January 2020 and expiring 29 February 2020, \$49,270 (excluding GST).

The Underlease is otherwise on ordinary commercial terms.

#### SOUTHLINK LEASE

The Company and Lonsdale Developments Pty Ltd are parties to a lease dated 14 March 2018 (Southlink Lease) pursuant to which the Company has agreed to lease a portion of the land at Southlink Industrial Park in Lonsdale which is the site of the Company's TESS prototype.

The term of the Southlink Lease commenced on 1 September 2017 and expires on 31 August 2020. The Company does not have a right of renewal at the expiration of the Southlink Lease.

The Company is required to pay \$113,640 (excluding GST) per annum in rent under the Southlink Lease.

The Southlink Lease is otherwise on ordinary commercial terms.



## SECTION 12: ADDITIONAL INFORMATION

### 12.1 RIGHTS ATTACHING TO SHARES

The Shares to be issued under this Prospectus will rank equally with the issued fully paid ordinary shares in the Company. The rights attaching to the Shares are set out in the Company's Constitution and, in certain circumstances, are regulated by the Corporations Act, the ASX Listing Rules and general law.

The following is a summary of the more significant rights of the holders of Shares. This summary is not exhaustive nor does it constitute a definitive statement of the rights and liabilities of the Company's members.

#### (A) GENERAL MEETING

Subject to certain restrictions contained in the Constitution, the Corporations Act and the ASX Listing Rules, each member is entitled to receive notice of, and to attend and vote at general meetings of the Company and to receive all notices, accounts and other documents required to be sent to members under the Constitution, the Corporations Act and the ASX Listing Rules.

#### (B) VOTING

Subject to any rights or restrictions for the time being attached to the Shares (whether as a result of the terms of their issue, the Constitution, the Corporations Act or the Listing Rules), at a general meeting of the Company every holder of Shares present in person or by a representative, proxy or attorney is entitled to one vote on a show of hands. On a poll, every holder of Shares present in person or by a representative, proxy or attorney is entitled to one vote per fully paid Share, or in the case of partly paid Shares a fraction of a vote equal to the proportion which the amount paid bears to the total issue price of the Share.

A member is not entitled to vote unless all calls and other sums presently payable by the member in respect of Shares have been paid. Where there are two or more joint holders of the Share and more than one of them is present at a meeting and tenders a vote in respect of the Share, whether in person or by proxy or attorney, the Company will count only the vote cast by the member whose name appears before the other(s) in the Company's register of members.

#### (C) ISSUES OF FURTHER SHARES

The Directors may, on behalf of the Company, issue, grant options over or otherwise dispose of unissued shares in the Company to any person on the terms, with the rights, and at the times that the Directors decide. However, the Directors must act in accordance with the restrictions imposed by the Constitution, the ASX Listing Rules, the Corporations Act

and any rights for the time being attached to special classes of shares in the Company.

#### (D) VARIATION OF RIGHTS

At present, the Company has on issue one class of shares only, namely the Shares. The rights attached to the shares in any class may be altered only if authorised by a special resolution passed at a separate meeting of the holders of the issued shares in the Company of the affected class, or with the written consent of the holders of at least three quarters of the issued shares of the affected class of shares in the Company.

#### (E) TRANSFER OF SHARES

Subject to the Constitution, the Corporations Act, the ASX Settlement Operating Rules and the ASX Listing Rules, the Shares are freely transferable.

Shares may be transferred by a proper transfer effected in accordance with the ASX Settlement Operating Rules, by any other method of transferring or dealing introduced by the ASX and as otherwise permitted by the Corporations Act or by a written instrument of transfer in any usual form or in any other form approved by the directors that is permitted by the Corporations Act.

The Board may refuse to register a transfer of Shares in the circumstances described in the Constitution and where permitted to do so under the ASX Listing Rules. If the Board refuses to register a transfer, the Company must, within five business days after the transfer was delivered to the Company, give the lodging party written notice of the refusal and the reasons for refusal. The Board must refuse to register a transfer of shares when required by law, including the Corporations Act, by the ASX Listing Rules or by the ASX Settlement Operating Rules.

#### (F) PARTLY PAID SHARES

The Directors may, subject to compliance with the Constitution, the Corporations Act and the ASX Listing Rules, issue partly-paid shares in the Company upon which amounts are or may become payable at a future time in satisfaction of all or part of the unpaid issue price.

#### (G) DIVIDENDS

The Directors may from time to time resolve to pay a dividend if:

- the Company's assets exceed its liabilities immediately before the dividend is declared and the excess is sufficient for the payment of the dividend; and

- the payment of the dividend is fair and reasonable to the Company's members as a whole; and
- the payment of the dividend does not materially prejudice the Company's ability to pay its creditors.

Subject to the rights of members entitled to shares in the Company with special rights as to dividends, if any, all dividends in respect of shares in the Company, including the Shares, are to be declared and paid proportionally to the amount paid up, not credited as paid up, on the shares in the Company.

#### (H) WINDING UP

If the Company is wound up, the liquidator may, with the sanction of a special resolution of the Company, divide among the shareholders in kind the whole or any part of the property of the Company and may for that purpose set such value as the liquidator considers fair on any property to be so divided and may determine how the division is to be carried out as between the shareholders or different classes of shareholders.

Subject to the rights of holders of shares in the Company with special rights in a winding up, the Constitution and the terms of issue of shares in the Company, if the Company is wound up, members, including holders of Shares will be entitled to participate in any surplus assets of the Company remaining after payment of its debts, in proportion to the shares in the Company held by them respectively irrespective of the amount paid up or credited as paid up on the shares in the Company.

#### (I) DIVIDEND PLANS

The Directors may adopt and implement a dividend plan under which, among other things, a member may elect that dividends payable by the Company be reinvested by way of subscription for shares in the Company.

#### (J) DIRECTORS

The Constitution states that the minimum number of Directors is three.

#### (K) POWERS OF THE BOARD

The Directors have the power to manage the business of the Company and may exercise that power to the exclusion of the members, except as otherwise required by the Corporations Act, any other law, the ASX Listing Rules or the Constitution.

#### (L) LISTING RULES

If the ASX Listing Rules require the Constitution to contain a provision or not to contain a provision the Constitution is deemed to contain that provision or not to contain that provision (as the case may be). If any provision of the Constitution is or becomes inconsistent with the Listing Rules, the Constitution is deemed not to contain that provision to the extent of the inconsistency.

#### (M) ALTERATION TO THE CONSTITUTION

The Constitution can only be amended by special resolution passed by at least 75% of the votes cast by holders of shares in the Company entitled to vote on the resolution. At least 28 days' written notice, specifying the intention to propose the resolution as a special resolution, is required.

### 12.2 PERFORMANCE RIGHTS PLAN

1414 Degrees adopted the Performance Rights Plan on 10 April 2018.

A summary of the Performance Rights Plan is set out below for the information of potential investors in the Company. The detailed terms and conditions of the Performance Rights Plan may be obtained free of charge by contacting the Company on +61 (0)8 8357 8273 or by email at [info@1414degrees.com.au](mailto:info@1414degrees.com.au).

#### ELIGIBILITY CRITERIA

Subject to the rules of the Performance Rights Plan, the Performance Rights Plan will be open to eligible participants being full time and part time employees and Directors of 1414 Degrees or any of its related bodies corporate who the Board designates as being eligible. It is proposed that the Directors will participate in the Performance Rights Plan.

#### INVITATION AND OFFER OF PERFORMANCE RIGHTS

Under the Performance Rights Plan, the Directors may invite eligible participants to participate in the Performance Rights Plan and make an offer to acquire performance rights for no consideration. The invitation must be in writing and specify, amongst other things, the number of performance rights that eligible participants may accept, the date on which the performance rights vest and any conditions to be satisfied before vesting, and any other terms attaching to the rights.

Following receipt by an eligible participant of an invitation, the eligible participant may make an offer by delivering a duly completed and signed application form to 1414 Degrees within the closing time specified in the invitation. The Directors may decide to accept or reject an offer and an offer is accepted by the grant of performance rights to the participant.

#### VESTING OF PERFORMANCE RIGHTS

The performances right vest upon the satisfaction of any vesting conditions or any other conditions contained in the offer, following which 1414 Degrees will allocate to the participant the number of Shares to which the participant is entitled under the terms of the offer.

#### LAPSE

Unvested performance rights shall lapse upon the earlier of the date specified by the Board, the events contained in the offer or the rules of the Performance Rights Plan.

## QUOTATION

Performance rights will not be quoted on the ASX. 1414 Degrees will apply for official quotation of any Shares issued under the Performance Rights Plan in accordance with the Listing Rules and having regard to any disposal restrictions.

## ASSIGNMENT

Performance rights are not transferable or assignable without the prior written approval of the Board.

## ADMINISTRATION

The Performance Rights Plan will be administered by the Board, or its delegates, in accordance with the rules of the Performance Rights Plan. The Board may make regulations and policies for operating and administering the Performance Rights Plan provided that any such regulations and policies are consistent with the rules of the Performance Rights Plan.

## TERMINATION AND AMENDMENT

The Performance Rights Plan may be terminated or suspended at any time by the Board. To the extent permitted by the Corporations Act and the Listing Rules, the Board may vary the rules of the Performance Rights Plan except where the amendment would have the effect of materially adversely affecting or prejudicing the rights of any participant holding performance rights.

## OUTSTANDING PERFORMANCE RIGHTS

As at the date of this Prospectus, no performance rights have been granted by 1414 Degrees under the Performance Rights Plan, but the Board reserves the right to grant such performance rights from time to time (subject to obtaining any required approvals).

## 12.3 INTERESTS OF NAMED PERSONS

Except as disclosed in this Prospectus, no promoter, expert or any other person named in this Prospectus as performing a function in a professional, advisory or other capacity in connection with the preparation or distribution of this Prospectus, nor any firm in which any of those persons is or was a partner nor any company in which any of those persons is or was associated with, has now, or has had, in the two year period ending on the date of this Prospectus, any interest in:

- the formation or promotion of the Company; or
- property acquired or proposed to be acquired by the Company in connection with its formation or promotion or the Offer; or
- the Offer.

Except as disclosed in this Prospectus, no amounts of any kind, whether in cash, shares, options or otherwise have been paid or given or agreed to be paid or given to

any promoter, expert or any other person named in this Prospectus as performing a function in a professional, advisory or other capacity in connection with the preparation or distribution of this Prospectus, or to any firm in which any of those persons is or was a partner or to any company in which any of those persons is or was associated with, for services rendered by that person in connection with the formation or promotion of the Company or the Offer under this Prospectus.

Taylor Collison has acted as Lead Manager to the Offer. Details of the terms of appointment of the Lead Manager, including fees payable, are set out in Sections 11 and 12 of this Prospectus. In respect of this work, the Company has agreed to pay Taylor Collison:

- an offer management fee of 1.5% of the total funds raised under the Offer; and
- a selling fee of 4.5% of the funds raised under the Offer but excluding those funds raised from pre-registered names (unless such pre-registered persons are clients of Taylor Collison as at the date of the Mandate Letter).

The fees above which are payable to Taylor Collison in connection with the Offer are exclusive of GST. The Company has incurred professional fees in the sum of \$20,000 (exclusive of GST) with respect to capital raising services provided by Taylor Collison during the last 24 months. Taylor Collison was issued 200,000 Shares at \$0.10 per Share on 17 March 2017 in lieu of cash payment of \$20,000.

BDO Advisory (SA) Pty Ltd has acted as the investigating accountant in relation to the Offer. As investigating accountant, BDO Advisory (SA) Pty Ltd has prepared the Independent Limited Assurance Report, which has been included in this Prospectus at Section 8. In respect of this work the Company has agreed to pay BDO Advisory (SA) Pty Ltd a total of \$27,000 (exclusive of GST) for these services. The Company has incurred professional fees in the sum of \$30,443 (inclusive of GST) in respect of audit services provided by BDO Audit (SA) Pty Ltd during the last 12 months.

HWL Ebsworth Lawyers has acted as the solicitors to the Company in relation to the Offer, and in that capacity, and otherwise assisting the Company with the preparation of this Prospectus, HWL Ebsworth Lawyers have been involved in undertaking certain due diligence enquiries in relation to legal matters and providing legal advice to the Company in relation to the Offer. HWL Ebsworth's fees in respect of this work up to the date of this Prospectus are expected to be \$155,000 (exclusive of GST and disbursements). The Company has also agreed to pay HWL Ebsworth Lawyers a further \$20,000 (exclusive of GST and disbursements) subject to commencement of trading of the Shares on the ASX. HWL Ebsworth Lawyers has been paid \$157,482 (inclusive of GST) for professional fees from the Company during the last 24 months.

Madderns has acted as the Patent & Trade Mark Attorneys to the Company. As Patent & Trade Mark Attorneys to the Company, Madderns has prepared the Intellectual Property Report, which has been included in this Prospectus at Section 10. In respect of this work, the Company has agreed to pay Madderns \$3,547 (exclusive of GST) for these services. Madderns has been paid \$86,814 (exclusive of GST) for professional fees from the Company during the last 24 months.

Professor Graham J Nathan from the University of Adelaide, South Australia has acted as the Independent Technical Expert to the Company. As Independent Technical Expert to the Company, Professor Nathan has prepared the Technical Expert's Report, which has been included in this Prospectus at Section 9. In respect of this work, the Company has agreed to pay Professor Nathan \$2,000 (exclusive of GST) for these services.

Computershare Investor Services Pty Limited has agreed to provide share registry services to the Company in accordance with a detailed schedule of fees listed in its proposal to 1414 Degrees for share registry services for the Offer, dated April 2017.

## 12.4 CONSENTS

Chapter 6D of the Corporations Act imposes a liability regime on the Company, as offeror of the Shares, the Directors, persons named in the Prospectus with their consent as proposed directors of the Company, any underwriters, persons named in this Prospectus with their consent as having made a statement in this Prospectus and persons involved in a contravention in relation to this Prospectus, with regard to misleading or deceptive statements made in this Prospectus. Although the Company bears primary responsibility for this Prospectus, other parties involved in the preparation of this Prospectus can also be responsible for certain statements made in it.

In light of the above, each of the parties referred to below:

- does not make, or purport to make, any statement in this Prospectus, or on which a statement made in the Prospectus is based other than as specified in this section;
- to the maximum extent permitted by law, expressly disclaims all liabilities and takes no responsibility for any statements in or omissions from this Prospectus, other than the reference to its name in the form and context in which it is named and a statement or report included in this Prospectus with its consent as specified below; and
- has not caused or authorised the issue of the Prospectus.

BDO Advisory (SA) Pty Ltd has given its written consent to the inclusion in Section 8 of this Prospectus of its Independent Limited Assurance Report and to all statements referring to that report in the form and context in which they appear and to being named as Investigating Accountant and has not withdrawn such consent before lodgement of this Prospectus with ASIC.

BDO Audit (SA) Pty Ltd has given its written consent to being named as Auditor to the Company and has not withdrawn such consent before lodgement of this Prospectus with ASIC.

HWL Ebsworth Lawyers has given its written consent to being named as the Solicitor to the Company and has not withdrawn such consent before lodgement of this Prospectus with ASIC.

Madderns has given its written consent to being named as the Patent & Trade Mark Attorneys to the Company and has not withdrawn such consent before lodgement of this Prospectus with ASIC.

The University of Adelaide, South Australia, on behalf of Professor Nathan, has given written consent to Professor Nathan being named as the Independent Technical Expert to the Company and has not withdrawn such consent before lodgement of this Prospectus with ASIC.

Taylor Collison has given its written consent to being named as Lead Manager to the Offer and has not withdrawn such consent before lodgement of this Prospectus with ASIC.

Computershare Investor Services Pty Limited has given and, as at the date hereof, has not withdrawn its written consent to be named as Share Registrar in the form and context in which it is named. Computershare Investor Services Pty Limited has had no involvement in the preparation of any part of this Prospectus other than being named as the Share Registrar to the Company. Computershare Investor Services Pty Limited has not authorised or caused the issue of, and expressly disclaims and takes no responsibility for, any part of this Prospectus.

There are a number of other persons referred to in this Prospectus who are not experts and who have not made statements included in this Prospectus nor are there any statements made in this Prospectus on the basis of any statements made by those persons. These persons did not consent to being named in this Prospectus and did not authorise or cause the issue of this Prospectus.

## 12.5 EXPENSES OF THE OFFER

The estimated cash expenses connected with the Offer, which are payable by the Company, based on the Minimum Subscription and Maximum Subscription amounting to \$1,413,785 and \$2,253,485 respectively are as follows:

TABLE 23

Expense Item	Minimum Subscription (A\$)	Maximum Subscription (A\$)
Independent Limited Assurance Report	27,000	27,000
Legal expenses	180,746	180,746
Independent Technical Expert Report	2,000	2,000
Lead Manager fees	990,000	1,815,000
ASX and ASIC fees	135,539	150,239
Printing, marketing and distribution	78,500	78,500
Total	1,413,785	2,253,485

The Lead Manager's Fees have been estimated and may vary depending on the subscription rate from investors other than persons on the Pre-Registered List, in accordance with the terms of the Taylor Collison Mandate Letter, a summary of which is set out in Section 11.

The above tables together with the business strategy outlined in Section 2 of this Prospectus are statements of current intentions at the date of the lodgement of this Prospectus with ASIC. As with any budget, intervening events (including market success or failure) and new circumstances have the potential to affect the ultimate way funds will be applied. The Board reserves the right to alter the way funds are applied in these circumstances.

## 12.6 TAX STATUS AND FINANCIAL YEAR

The Company is taxed in Australia as a public company. The financial year of the Company ends on 30 June annually.

## 12.7 LEGAL PROCEEDINGS

As at the date of this Prospectus, other than the matter described in the paragraph below, the Company is not involved in any legal proceedings and the Directors are not aware of any legal proceedings pending or threatened against the Company.

1414 Degrees was successful in their challenge of Climate Change Technologies Pty Ltd's ownership of Australian Patent Application No 2012292959 (959 Patent), with a recent decision from IP Australia finding that 1414 Degrees was entitled to be named as a joint applicant (see 1414 Degrees Limited v Climate Change Technologies Pty Ltd [2018] APO 28 dated 1 May 2018). A notice of appeal was lodged by Climate Change Technologies Pty Ltd on 18 May 2018.

The 959 Patent is directed to a precursor TESS arising from development work carried out prior to June 2011 by 1414 Degrees. Although the TESS design covered by the 959 Patent has been superseded by the current designs and methodologies, 1414 Degrees was concerned to establish ownership rights to this precursor technology given contractual arrangements entered into between the inventors of the 959 Patent and 1414 Degrees at the relevant time. As such, ownership or otherwise of the 959 Patent does not affect the ability of 1414 Degrees to develop its current technologies and should the decision by IP Australia in favour of 1414 Degrees be overturned on appeal to the Australian Federal Court, this would not have an effect on current developments.

## 12.8 ELECTRONIC PROSPECTUS

If you have received this Prospectus as an electronic prospectus or in paper form, please ensure that you have received the entire Prospectus accompanied by the Application Form. If you have not, please email the Company at [info@1414degrees.com.au](mailto:info@1414degrees.com.au) and the Company will send to you, for free, either a hard copy or a further electronic copy of this Prospectus or both.

The Company reserves the right not to accept an Application Form from a person if it has reason to believe that when that person was given access to the electronic Application Form, it was not provided together with this Prospectus and any relevant Supplementary or Replacement Prospectus or any of those documents were incomplete or altered. In such case, the Application Monies received will be dealt with in accordance with section 722 of the Corporations Act.

## 12.9 DOCUMENTS AVAILABLE FOR INSPECTION

Copies of the following documents may be inspected free of charge at the registered office of the Company during normal business hours:

- the Constitution; and
- the consents referred to in this Section 12.

## 12.10 DIRECTORS' RESPONSIBILITY STATEMENT

Each of the Directors has consented in writing to the lodgement of this Prospectus with ASIC and has not withdrawn that consent.

Dated: 28 May 2018

Signed for and on behalf of the Company

A handwritten signature in black ink, appearing to read "Kevin Moriarty", with a long horizontal flourish extending to the right.

**DR KEVIN MORIARTY**  
CHAIRMAN





## SECTION 13: DEFINITIONS

### 13.1 IN THIS PROSPECTUS UNLESS THE CONTEXT OTHERWISE REQUIRES:

**\$** or **A\$** means the lawful currency of Australia.

**AER** means Australian Energy Regulator

**AEST** means Australian Eastern Standard Time as observed in Sydney, New South Wales.

**ammjohn** means ammjohn Pty Ltd (ACN 124 945 679).

**Applicant** means a person who submits an Application Form under this Prospectus.

**Application Form** means the Application Form accompanying or attached to this Prospectus by which a person may apply for Shares.

**Application Monies** means the number of Shares applied for multiplied by the Offer Price.

**Application** means a valid application to subscribe for Shares made under this Prospectus.

**ASIC** means the Australian Securities and Investments Commission.

**ASX** means ASX Limited (ACN 008 624 691) or, as the context requires, the financial market conducted by it.

**ASX Corporate Governance Principles** means the ASX Corporate Governance Principles and Recommendations (Third Edition) as issued by the ASX Corporate Governance Council.

**ASX Listing Rules** or **Listing Rules** means the official Listing Rules of ASX.

**ASX Operating Rules** means the operating rules of the ASX (covering access to trading facilities and the conduct of market participants) as amended or replaced from time to time, except to the extent of any express written waiver by the ASX.

**ASX Settlement** means ASX Settlement Pty Ltd (ACN 008 504 532).

**Austcor Packaging** means Wellen Pty Ltd (ABN 93 125 187 724).

**Board of Directors** or **Board** means the board of directors of the Company as constituted from time to time.

**Business Day** means a business day as defined in the ASX Listing Rules.

**CHESS** means the Clearing House Electronic Subregister System operated by ASX Settlement.

**CHP** means combined heat and power efficiency, a measure of the level of efficiency of a system that produces both electrical and thermal (heat) energy).

**Closing Date** means the date on which the Offer closes.

**Company** or **1414 Degrees** means 1414 Degrees Limited (ACN 138 803 620).

**Constitution** means the constitution of the Company.

**Corporations Act** means the Corporations Act 2001 (Cth).

**Director** or **Directors** means a director of the Company or all of the directors of the Company.

**ECS** means Energy & Carbon Solutions Pty Ltd (ABN 23 154 477 415).

**ERS** means energy recovery system.

**Exposure Period** means the period of seven days, or longer as ASIC may direct, from the date of lodgement of the Original Prospectus with ASIC.

**FFR** means fast response to frequency change of electricity supply.

**GWh** means gigawatt hours.

**HRS** means high recovery steam generator.

**Maximum Subscription** means \$50,000,000 or 142,857,143 Shares.

**Minimum Subscription** means \$30,000,000 or 85,714,286 Shares.

**NEM** means National Electricity Market.

**Offer** means the invitation to apply for Shares pursuant to this Prospectus.

**Offer Period** means the period commencing on the Opening Date and ending on the Closing Date.

**Offer Price** means \$0.35 per Share.

**Official List** means the Official List of the ASX.

**Opening Date** means 28 May 2018.

**O&M Agreement** means operating and maintenance agreements whereby the TESS devices are to be maintained and operated by 1414 Degrees.

**Original Prospectus** means the prospectus dated 30 April 2018 and lodged with ASIC on that date, which this Prospectus replaced.

**PCM** means phase change material.

**Pepe's Ducks** means Pepe's Ducks Ltd (ABN 11 001 531 497).

**Performance Rights Plan** means the 1414 Degrees Performance Rights Plan.

**Pre-Registered List** has the meaning given to that term in Section 11.1.

**Prospectus** means this prospectus dated 28 May 2018.

**PV** means photovoltaic technology, which generates electricity from light sources.

**R&D** means research and development.

**SA Water** means South Australian Water Corporation (ABN 69 336 525 019).

**SA Water Project** has the meaning given to that term in Section 11.1.

**Share Registrar** means Computershare Investor Services Pty Limited.

**Share** means a fully paid ordinary share in the capital of the Company.

**Shareholder** means a holder of a Share.

**SPV** means a special purpose vehicle.

**Taylor Collison** means Taylor Collison Limited (ABN 53 008 172 450).

**TESS** means thermal energy storage systems.

**WWTP** a wastewater treatment plant.

# 1414 DEGREES LIMITED

ACN 138 803 620

## PRE-REGISTRATION CODE

The Directors of 1414 Degrees Limited have the authority to allocate \$20 million of the Offer Shares to people that pre-registered for a copy of the Prospectus. If you were one of these people, you will have received a code via email. Please enter it here.

## APPLICATION FORM

This Application Form is important. If you are in doubt as to how to deal with it, please contact your stockbroker or professional advisor without delay. You should read the 1414 Degrees Limited Prospectus dated 28 May 2018 (which replaced the prospectus dated 30 April 2018) (Prospectus) and any relevant Supplementary Prospectus (if applicable), carefully before completing this Application Form. The Corporations Act 2001 (Cth) prohibits any person from passing on this Application Form (whether in paper or electronic form) unless it is attached to or accompanies a complete and unaltered copy of the Prospectus and any relevant Supplementary Prospectus (whether in paper or electronic form).

For all enquiries:

(within Australia) 1300 556 161

(outside Australia) +61 3 9415 4000

**Offer closes at 5.00pm (AEST) on Friday, 15 June 2018**

### A I/we apply for

Number of Fully Paid Ordinary Shares in 1414 Degrees Limited (Shares) at A\$0.35 per Share or such lesser number of Shares which may be allocated to me/us.

### B I/we lodge the full Application Money

A\$

### C Individual/Joint applications - refer to naming standards overleaf for correct forms of registrable title(s)

Title or Company Name Given Name(s)

Surname

Joint Applicant 2 or Account Designation

Joint Applicant 3 or Account Designation

### D Enter the postal address - include State and Postcode

Unit Street Number Street Name or PO Box/Other information

City/Suburb/Town

State

Postcode

### E Enter your contact details

Contact Name

Telephone Number - Business Hours

()

### F CHESSE Participant

Holder Identification Number (HIN)

X

**Please note** that if you supply a CHESSE HIN but the name and address details on your form do not correspond exactly with the registration details held at CHESSE, your application will be deemed to be made without the CHESSE HIN, and any Shares issued as a result of the Offer will be held on the Issuer Sponsored subregister.

### G Payment details - Please note that funds are unable to be directly debited from your bank account

Drawer

Cheque Number

BSB Number

Account Number

Amount of cheque

A\$

**Make your cheque, money order or bank draft payable to '1414 Degrees Limited Application Account' and crossed 'Not Negotiable'.**

### By submitting this Application Form:

- I/we declare that this Application is complete and lodged according to the Prospectus, and any relevant Supplementary Prospectus, and the declarations/statements on the reverse of this Application Form,
- I/we declare that all details and statements made by me/us (including the declaration on the reverse of this Application Form) are complete and accurate, and
- I/we agree to be bound by the Constitution of 1414 Degrees Limited.

See overleaf for completion guidelines →

## HOW TO COMPLETE THIS FORM

### A NUMBER OF SHARES APPLIED FOR

Enter the number of Shares you wish to apply for. The Application must be for a minimum of 6,000 Shares (\$2,100).

### B APPLICATION MONIES

Enter the amount of Application Monies. To calculate the amount, multiply the number of Shares applied for in Step A by the issue price of \$A0.35 per Share.

### C APPLICANT NAME(S)

Enter the full name you wish to appear on the statement of shareholding. This must be either your own name or the name of a company. Up to 3 joint Applicants may register. You should refer to the table below for the correct forms of registrable title. Applications using the wrong form of names may be rejected. Clearing House Electronic Subregister System (CHES) participants should complete their name identically to that presently registered in the CHES system.

### D POSTAL ADDRESS

Enter your postal address for all correspondence. All communications to you from Computershare Investor Services Pty Limited (CIS) will be mailed to the person(s) and address as shown. For joint Applicants, only one address can be entered.

### E CONTACT DETAILS

Enter your contact details. These are not compulsory but will assist us if we need to contact you regarding this application.

### F CHES

1414 Degrees Limited participates in CHES. If you are a CHES participant (or are sponsored by a CHES participant) and you wish to hold Shares allotted to you under this Application on the CHES Subregister, enter your CHES HIN. Otherwise, leave this section blank and on allotment, you will be sponsored by 1414 Degrees Limited and allocated a Securityholder Reference Number (SRN).

### G PAYMENT

Make your cheque, money order or bank draft payable to '1414 Degrees Limited Application Account' in Australian currency and cross it 'Not Negotiable'. Your cheque, money order or bank draft must be drawn on an Australian Bank. Complete the cheque details in the boxes provided. The total amount must be the same as the amount shown in box B. **Please note that funds are unable to be directly debited from your bank account. Cheques will be processed on the day of receipt and as such, sufficient cleared funds must be held in your account as cheques returned unpaid may not be re-presented and may result in your Application being rejected. Paperclip (do not staple) your cheque(s) to the Application Form. Cash will not be accepted. Receipt for payment will not be forwarded.**

Before completing the Application Form the Applicant(s) should read the Prospectus to which this Application relates. By lodging the Application Form, the Applicant agrees that this Application for Shares in 1414 Degrees Limited is upon and subject to the terms of the Prospectus and the Constitution of 1414 Degrees Limited, agrees to take any number of Shares that may be allotted to the Applicant(s) pursuant to the Prospectus and declares that all details and statements made are complete and accurate. It is not necessary to sign the Application Form.

#### Lodgement of Application

Application Forms must be received by CIS by no later than 5.00pm AEST on Friday, 15 June 2018. You should allow sufficient time for this to occur. Return the Application Form with cheque, money order or bank draft attached to:

1414 Degrees Share Issue  
Computershare Investor Services Pty Limited  
GPO Box 1326  
Adelaide SA 5001

Neither CIS nor 1414 Degrees Limited accepts any responsibility if you lodge the Application Form at any other address or by any other means. If you have any enquiries concerning your application, please contact the Offer Information Line on 1300 556 161 (within Australia) or +61 3 9415 4000 (outside Australia).

#### Privacy Statement

The personal information you provide on this form is collected by CIS, as registrar for the securities issuers (the issuer), for the purpose of maintaining registers of securityholders, facilitating distribution payments and other corporate actions and communications. In addition, the issuer may authorise us on their behalf to send you marketing material or include such material in a corporate communication. You may elect not to receive marketing material by contacting CIS using the details provided above or emailing [privacy@computershare.com.au](mailto:privacy@computershare.com.au). We may be required to collect your personal information under the Corporations Act 2001 (Cth) and ASX Settlement Operating Rules. We may disclose your personal information to our related bodies corporate and to other individuals or companies who assist us in supplying our services or who perform functions on our behalf, to the issuer for whom we maintain securities registers or to third parties upon direction by the issuer where related to the issuer's administration of your securityholding, or as otherwise required or authorised by law. Some of these recipients may be located outside Australia, including in the following countries: Canada, India, New Zealand, the Philippines, the United Kingdom and the United States of America. For further details, including how to access and correct your personal information, and information on our privacy complaints handling procedure, please contact our Privacy Officer at [privacy@computershare.com.au](mailto:privacy@computershare.com.au) or see our Privacy Policy at <http://www.computershare.com/au>.

#### Correct forms of registrable title(s)

Note that ONLY legal entities are allowed to hold Shares. Applications must be in the name(s) of a natural person(s), companies or other legal entities acceptable to 1414 Degrees Limited. At least one full given name and the surname is required for each natural person. Application Forms cannot be completed by persons less than 18 years of age. Examples of the correct form of registrable title are set out below.

Type of Investor	Correct Form of Registration	Incorrect Form of Registration
Individual: use given names in full, not initials	Mr John Alfred Smith	JA Smith
Company: use the company's full title, not abbreviations	ABC Pty Limited	ABC P/L or ABC Co
Joint Holdings: use full and complete names	Mr Peter Robert Williams & Ms Louise Susan Williams	Peter Robert & Louise S Williams
Trusts: use the trustee(s) personal name(s)	Mrs Susan Jane Smith <Sue Smith Family A/C>	Sue Smith Family Trust
Deceased Estates: use the executor(s) personal name(s)	Ms Jane Mary Smith & Mr Frank William Smith <Est John Smith A/C>	Estate of late John Smith or John Smith Deceased
Minor (a person under the age of 18): use the name of a responsible adult with an appropriate designation	Mr John Alfred Smith <Peter Smith A/C>	Master Peter Smith
Partnerships: use the partners personal names	Mr John Robert Smith & Mr Michael John Smith <John Smith and Son A/C>	John Smith and Son
Long Names	Mr John William Alexander Robertson-Smith	Mr John W A Robertson-Smith
Clubs/Unincorporated Bodies/Business Names: use office bearer(s) personal name(s)	Mr Michael Peter Smith <ABC Tennis Association A/C>	ABC Tennis Association
Superannuation Funds: use the name of the trustee of the fund	Jane Smith Pty Ltd <Super Fund A/C>	Jane Smith Pty Ltd Superannuation Fund





## **CORPORATE DIRECTORY**

---

### **CURRENT DIRECTORS**

Kevin Moriarty- Executive Chairman  
Robert Shepherd – Non Executive Director  
Dana Larson – Non Executive Director

### **COMPANY SECRETARY**

Richard Willson

### **REGISTERED OFFICE**

Level 4, 81 Flinders Street  
Adelaide SA 5000

### **PRINCIPAL OFFICE**

Level 4, 81 Flinders Street  
Adelaide SA 5000

### **SHARE REGISTRAR**

Computershare Investor Services Pty Limited  
Level 5, 115 Grenfell Street  
Adelaide SA 5000  
Website: [www.computershare.com.au](http://www.computershare.com.au)

### **SOLICITORS TO THE COMPANY**

HWL Ebsworth Lawyers  
Level 21, 91 King William Street  
Adelaide SA 5001

### **PATENT & TRADE MARK ATTORNEYS**

Madderns  
Level 4, 19 Gouger Street  
Adelaide SA 5000

### **INVESTIGATING ACCOUNTANT**

BDO Advisory (SA) Pty Ltd  
Level 7, 420 King William Street  
Adelaide SA 5000

### **AUDITOR**

BDO Audit (SA) Pty Ltd  
Level 7, 420 King William Street  
Adelaide SA 5000

### **LEAD MANAGER**

Taylor Collison Limited  
Level 16, 211 Victoria Square  
Adelaide SA 5000



[WWW.1414DEGREES.COM.AU](http://WWW.1414DEGREES.COM.AU)