

THIS DOCUMENT IS IMPORTANT



IONIC INDUSTRIES LIMITED

(ABN 30 168 143 324)

OFFER INFORMATION STATEMENT

FOR:

- A NON-RENOUNCEABLE ENTITLEMENTS OFFER TO MEMBERS ON THE BASIS THAT EACH ELIGIBLE MEMBER WILL BE ENTITLED TO APPLY FOR ONE (1) ORDINARY NEW SHARE AT AN ISSUE PRICE OF \$0.01 (1 CENT) FOR EVERY TWO (2) SHARES HELD AT THE RECORD DATE TO DETERMINE ENTITLEMENTS TO THE ISSUE TO RAISE UP TO A TOTAL OF \$2,299,761 (RIGHTS ISSUE OFFER).

AND FOR:

- A GENERAL OFFER TO INVESTORS OF UP TO A FURTHER 50,000,000 SHARES NEW SHARES AT AN ISSUE PRICE OF \$0.01 (1 CENT) TO RAISE UP TO A FURTHER \$500,000 (GENERAL OFFER).

ALL ALLOTTEES OF NEW SHARES WILL BE GRANTED (FREE OF FURTHER COST) AN OPTION TO SUBSCRIBE FOR A FURTHER NEW SHARE EXERCISABLE UP TO 30 JUNE 2020 AT AN EXERCISE PRICE OF \$0.02 (2 CENTS) FOR EVERY NEW SHARE ALLOTTED TO THEM.

UNDER THE TAX LAWS AMENDMENT (TAX INCENTIVES FOR INNOVATION) ACT 2016:

- YOU WILL BE ENTITLED TO A CARRY-FORWARD TAX OFFSET OF 20% OF THE VALUE OF YOUR INVESTMENT (SUBJECT TO CERTAIN RESTRICTIONS AND A MAXIMUM CAP ON THE OFFSET OF \$200,000 FOR ANY INVESTOR).
- YOU WILL NOT BE TAXED ON CAPITAL GAINS YOU REALISE ON YOUR NEW SHARES IF YOU HOLD THEM FOR BETWEEN ONE AND TEN YEARS. CONVERSELY IF YOU MAKE A LOSS ON DISPOSITION IN THAT PERIOD YOU WILL NOT BE ENTITLED TO CLAIM THAT LOSS.

FOR FURTHER DETAILS OF THESE TAX BENEFITS SEE SECTION 7 OF THIS OIS.

ANY INVESTMENT IN IONIC SHOULD BE CONSIDERED SPECULATIVE

THIS ISSUE IS NOT UNDERWRITTEN

This Offer Information Statement (OIS) was lodged with ASIC on 27 April 2017. No securities will be allotted or issued on the basis of this OIS later than 13 months after the date of this OIS. Neither ASIC nor any of its officers take any responsibility for the contents of this OIS.

This OIS is an important document and should be read in its entirety. You should be aware that this OIS is not a prospectus and that it has a lower level of disclosure requirements than a prospectus. If after reading this OIS you have any questions about the Shares (and Options) being offered for subscription under the OIS then you should consult your professional advisor.

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FORWARD LOOKING STATEMENTS

Various statements in this OIS constitute statements relating to intentions, future acts and events. Such statements are generally classified as forward looking statements and involve known and unknown risks, uncertainties and other important factors that could cause those future acts, events and circumstances to differ from the way or manner in which they are expressly or implicitly portrayed herein.

SUITABILITY OF INVESTMENT AND RISK FACTORS

Before deciding to invest in Ionic potential investors should read the entire OIS and in particular any technical information and the risk factors that could affect the future operations and activities of the Company. They should carefully consider these factors in the light of their personal circumstances (including matters related to their financial capacity and position, taxation affairs and their investment and risk profile) and should obtain professional investment advice from their accountant, stockbroker, lawyer or other professional advisor before deciding to accept any of the Offers made under this OIS or invest in any securities the subject of this OIS. They should understand that Ionic's business is both speculative and subject to a wide range of risks and that, at present, Ionic operates at a loss, is in a start-up mode and that, unless Ionic can establish profitable operations, they may lose the entire value of their investment.



27 April 2017

Dear Investor,

This Offer Information Statement (OIS) represents an opportunity for Eligible Members and Qualified Investors to invest in Ionic Industries Limited.

Ionic Industries has been funding significant research in collaboration with Monash University for the past 6 years. This extensive collaboration with one of the world's leading universities has led to the development of several exciting technological developments and Ionic is now in a unique position to act as a conduit for the commercialisation of those technologies. Ionic's focus is to bring these technologies from the laboratory to the real world in applications with far-reaching benefits in critical fields such as water treatment and energy storage.

Recently, Ionic has advanced its technologies and commercial potential in a number of ways:

- It has entered into a Commercialisation Agreement with Clean TeQ (ASX: CLQ) under which they plan to complete the development and commercialisation of Ionic's Membrane Technology and Sand Technology in the field of water and waste water treatment. This collaboration represents critical validation of Ionic's technology by a highly-successful, respected Australian company;
- Ionic has acquired Commercialisation Licences from Monash University for commercialisation of its Sand Technology, its Membrane Technology and its Super Micro Capacitor Technology with a fourth Commercialisation Licence for creation of Graphene pending;
- A patent having been granted in Australia on 19 January 2017 entitled "*Conductive portions in insulating materials*" which underlies Ionic's Super Micro Capacitor Technology.
- It has entered into a Memorandum of Understanding with Korean manufacturer Laminar Co Limited (Laminar) for the purpose of collaborating on manufacturing graphene and graphene oxide (GO) materials. Ionic has entered into this MOU because it can see the value in combining Ionic's technology (through Monash) with the high-volume production of graphene enabled by Laminar's unique capabilities.

Ionic and its Board are excited about the commercial potential of the Company.

Ionic has three immediate areas in which it is commercialising technologies. These are graphene and GO production, its SuperSand and nano-filtration technologies with CleanTeQ in the field of water and wastewater treatment (expected to generate revenue within 18 – 24 months) and its graphene micro planar supercapacitors which, if successfully developed, in your Director's opinion, have the capacity to have a major impact on the global energy storage market. Revenue from these supercapacitors will, it is estimated, take 3 to 5 years to derive.

As an example only, we ask you to consider the revenue potential to Ionic of water treatment market alone, which is described in Section 3 below, and Ionic's arrangements with Clean TeQ which are aimed at accessing that global market. A number of dynamics are driving the global market for water and wastewater treatment:

- Currently only 20% of globally produced waste water receives proper treatment.
- An estimated 90 per cent of all wastewater in developing countries is discharged untreated directly into rivers, lakes or the oceans.
- Water is being demanded at a compound annual growth rate (CAGR) of 7% in the next five years and the water industry is growing at a CAGR of 3.9 % for the next five years.
- The global wastewater market size is \$262 Billion as of 2014 and is expected to grow at a rate of 4.5% to reach \$313 Billion by 2018, municipal wastewater has the highest share of 92%, and industrial waste water has an 8% share.

The countries expected to see the fastest growth include the BRIC (Brazil, Russia, India, and China) countries and other countries with large, developing industrial bases and stressed local water resources.

Ionic and Clean TeQ seek, through the development of the SuperSand and nano-filtration technologies, to access that market. If they are successful in accessing even a modest portion of that market, they consider Ionic's future should be assured. It is Ionic's objective that this project generate revenues within 18 – 24 months.

In addition to the strength in Ionic's business, Eligible Members and Qualified Investors also have the opportunity to benefit significantly from the tax advantages offered under the Federal Government's Innovation Policies. Ionic is an Early Stage Investment Company (ESIC) under the Federal Government's Innovation policies, which carries unique taxation advantages.

These advantages include that you will obtain a tax offset (essentially a tax deduction) of up to 20% of any investment in Shares made under this Offer. If you are a sophisticated investor you can invest up to \$1,000,000 and obtain a tax offset of up to \$200,000 which can be applied against your liability to tax on your ordinary income. If you are not a sophisticated investor, you can obtain a tax offset against your assessable income of up to 20% of any investment in Shares made under this offer of up to \$50,000. In addition, any Shares you subscribe for under this Offer which are issued before 30 June 2017 will be tax free from capital gains tax for up to 10 years provided that you hold them for not less than 12 months.

Based on these achievements and benefits, I recommend that you consider an investment in Ionic on the terms set out herein. If you are already an Eligible Member, I recommend that you consider increasing your investment by taking up your Entitlement in full and, if you consider appropriate, by applying for additional Shares and Options.

Under this Offer Information Statement (OIS), Eligible Members and Qualified Investors are offered the capacity to invest in Ionic. All New Shares are being offered for subscription at an issue price of \$0.01 (1 cent) for each New Share on the basis that for each New Share subscribed for, they will be granted an Option to acquire a New Share at an exercise price of \$0.02 (2 cents) exercisable up to 30 June 2020.

Eligible Members are being offered one (1) New Share (and Option) for every two (2) Shares held at the Record Date to determine entitlements.

Eligible Members are also entitled to participate in the Shortfall Offer and seek to subscribe for New Shares (and Options) in excess of their Entitlements. A personalised Entitlement Form for use by Eligible Members accompanies this OIS. In addition, a General Offer is being made under which new investors who are Qualified Investors can subscribe for up to 50,000,000 New Shares (and Options) on the same terms to raise up to a further \$500,000. Qualified Investors are defined herein; essentially, they are potential investors resident within Australia who are not US citizens or residents or acquiring shares for US citizens or residents.

As Chairman, I commend this investment opportunity to you, but point out that before you make any decision to invest, you must read this OIS carefully and in full. You should ensure that your information needs are satisfied and that an investment in Ionic meets your investment parameters and risk profile.

Yours faithfully



Peter Armitage
Chairman

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Telephone: (03) 9692 7222 Facsimile: (03) 9077 9233

Section 1

IMPORTANT INFORMATION

Various statements in this OIS constitute statements relating to intentions, future acts and events. Such statements are generally classified as forward looking statements and involve known and unknown risks, uncertainties and other important factors that could cause those future acts, events and circumstances to differ from the way or manner in which they are expressly or implicitly portrayed herein. No guarantee or warranty is given that those future acts, events or circumstances will occur or arise in the manner in which they are portrayed herein.

This OIS contains an overview of Ionic Industries Limited (hereafter “**Ionic**” or “**the Company**”) and the background to the business activities of the Company. As previously disclosed to members, the Company’s business is to develop and commercialise graphene-related technologies in the fields of nano-filtration, supercapacitors and graphene materials production, which have been co-developed with Monash University (“**Monash**”) from research carried out in collaboration with Monash.

However, at this stage, the Company is in the process of establishing its business and has no performance or operating history. The purpose of the issue is to raise funds to enable the development of the current projects with Monash and maintain Ionic’s equity in Newco under the Clean TeQ Commercialisation Agreement with Clean TeQ as described in Sections 2 and 13.

It is Ionic’s aim that its next capital raising would be made at the time Ionic seeks a listing on the ASX or other Stock Exchange. It is anticipated that, at that time, any capital would be raised at a significant premium to the current issue price.

However, if this Issue is not fully subscribed, Ionic will likely need to raise further capital. The time frame for any such raising will depend on the amount of funds raised by this Issue and the level of expenditure by Ionic on development and exploitation of its projects. While current budgets are set out in the Source and Application of Funds table in Section 3, those budgets are subject to change depending on the outcomes achieved by that expenditure.

You should be aware that, regardless of the above, no guarantee or commitment to list Ionic can be given to you and you should also realise that any investment in Ionic is speculative and is subject to the risks set out in Section 8 to which all Applicants are referred.

DATE OF OIS

This date of this OIS is 27 April 2017. A copy of this OIS was lodged with the Australian Securities and Investments Commission on 27 April 2017. No securities will be issued or allotted on the basis of this OIS later than 13 months after 27 April 2017, being the date the OIS was lodged with ASIC.

IMPORTANT DATES

Date of OIS and date lodged at ASIC	27 April 2017
Record Date to determine Eligible Member’s entitlements to the Issue	8 May 2017
Opening Date and despatch of Offer to Eligible Members	By 18 May 2017
Closing Date for Rights Issue (including Shortfall Offer): Latest date for acceptance and payment in full for Entitlements under Rights Issue Offer and Shortfall Shares under Shortfall Offer	8 June 2017
Final date for allotment of New Shares and Options under Rights Issue Offer and Shortfall Offer (“Issue Date”)	13 June 2017
Final date for despatch of Holding Statements for New Shares and Options allotted under Rights Issue Offer and Shortfall Offer	15 June 2017
Close of General Offer (if not closed earlier) (“ General Offer Closing Date ”)	16 June 2017
Final date for allotment of New Shares and Options applied for under General Offer (“ General Offer Issue Date ”)	20 June 2017
Final date for placement of Shortfall under both Rights Issue and General Offer	20 June 2017
Final date for despatch of Holding Statements for New Shares and Options allotted under General Offer and on placement of Shortfall	23 June 2017

QUESTIONS AND ANSWERS

Information about the Offers is summarised below. For detailed information, refer to Sections of the OIS listed in the right hand column.

<p>What are the Offers?</p>	<p>There are a number of offers under the OIS. These are the Rights Issue Offer, the Shortfall Offer and the General Offer.</p>	<p>Section 3</p>
<p>Rights Issue Offer</p>	<p>The primary offer is the offer of approximately 233,389,092 New Shares by way of the Rights Issue on the basis of an entitlement to subscribe for one New Share for every two Shares held on the Record Date (Rights Issue Offer). The Rights Issue Offer is only being made to Eligible Members, as defined in Section 3 below. An Eligible Member is a member resident in Australia and who is not a US citizen or a person resident in the United States and who is not acting for the account or benefit of a US citizen or a person resident in the United States.</p> <p>For every New Share you subscribe for, and are allotted, under the Rights Issue Offer (including the Shortfall Offer), you will also be granted, free of further cost, one option to apply for an ordinary share in Ionic at an issue price of \$0.02 (the Exercise Price) with those options expiring on 30 June 2020 (the Options). The terms and conditions of the Options are set out in in Section 10 below.</p> <p>Entitlements (also called Rights) are non-renounceable.</p> <p>All Entitlements to New Shares will be rounded up to the next whole New Share.</p>	<p>Section 3</p>
<p>Shortfall Offer</p>	<p>Part of the Rights Issue Offer is your right, as an Eligible Member, to apply for New Shares in excess of your Entitlement under the Shortfall Offer. The New Shares available for subscription by you under the Shortfall Offer are those New Shares not subscribed for by Eligible Members in accordance with their respective Entitlements.</p> <p>If fully subscribed the Rights Issue Offer will raise approximately \$2,333,890. It is not underwritten.</p> <p>All allocations of Shortfall Shares under the Shortfall Offer are at the discretion of the Company but the Company will endeavour to allocate such shares to a spread of investors where possible and on the basis that no person (and their Associates) will be allocated Shortfall Shares if it would result in them acquiring a voting power of greater than 20% in the Company.</p>	<p>Section 3</p>
<p>General Offer</p>	<p>Separate from the Rights Issue Offer and the Shortfall Offer is the General Offer.</p> <p>The General Offer is being made to enable all Qualified Investors to enable those persons to be assured of being able to acquire New Shares in Ionic even if the Rights Issue Offer is fully subscribed. Qualified Investors are those persons resident in Australia who are not US citizens or persons resident in the United States and who are not acting for the account or benefit of a US citizen or a person resident in the United States.</p> <p>The minimum number of New Shares that will be offered for subscription under the General Offer is 50,000,000 New Shares which, if fully subscribed, would raise a further \$500,000.</p> <p>However, in addition, any New Shares which form part of the Rights Issue Offer and are not subscribed for by Eligible Members according to their Entitlements or the Shortfall Offer will form part of the General Offer.</p>	<p>Section 3</p>

	<p>For Example, say 60,000,000 New Shares were not taken up under the Rights Issue Offer or the Shortfall Offer, then the General Offer would comprise that 60,000,000 New Shares plus the 50,000,000 New Shares the subject of the General Offer as specified herein, increasing the number of New Shares subject to the General Offer to 110,000,000 New Shares.</p> <p>If the Rights Issue Offer was oversubscribed by Eligible Members applying for more New Shares than those available under the Shortfall Offer, then the excess applications for New Shares under the Shortfall Offers would not be treated as Applications under the General Offer but on the basis that all other applications under the General Offer would have priority over those applications. Only if, and to only the extent that the General Offer was not fully subscribed for by Qualified Investors, would those excess Shortfall Applications be accepted.</p> <p>All allocations of New Shares under the General Offer are at the discretion of the Company but the Company will endeavour to allocate such shares to a spread of investors where possible and on the basis that no person (and their Associates) will be allocated New Shares under the General Offer if it would result in them acquiring a voting power of greater than 20% in the Company.</p> <p>In like manner as under the Rights Issue Offer, Qualified Investors will be granted, free of further cost, an Option for every New Share allotted to them.</p>	
<p>What are the Tax benefits to which I may be entitled to under the <i>Tax Laws Amendment (Tax Incentives for Innovation) Act 2016</i></p>	<p>Under the <i>Tax Laws Amendment (Tax Incentives for Innovation) Act 2016</i> which is now contained in the ITAA 1997 as Subdivision 360-A — Tax incentives for early stage investors in innovation companies there are considerable tax benefits which are provided by the Federal Government to promote investment in any Early Stage Innovation Company (ESIC) as defined under that Act.</p> <p>These tax benefits include availability of tax offsets against your taxable income and that your New Shares being subscribed are free from Capital Gains Tax (CGT) as set out.</p> <p>In the opinion of the Board, Ionic qualifies as an ESIC. See Section 7 below where information relevant to Ionic as a qualifying ESIC and the provisions of the <i>Subdivision 360-A — Tax incentives for early stage investors in innovation companies</i> are both set out in detail.</p> <p>TAX OFFSETS</p> <p>If you invest in a qualifying ESIC you will receive a non-refundable carry-forward tax offset of 20% of the value of your investment subject to a maximum offset cap amount of \$200,000. This tax offset is, essentially, equivalent to being able to claim a tax deduction of 20% of your investment against your ordinary taxable income.</p> <p>By way of example, if you invest \$50,000 in an ESIC, you will be entitled to a tax offset of \$10,000 against your ordinary income.</p> <p>There are different rules for retail investors and for sophisticated, experienced and professional investors. These rules are explained in Section 7 below.</p> <p>For retail investors (and most members of Ionic will be retail investors) the tax offset of 20% is only available on a total annual investment limit of \$50,000 in one or more ESICs.</p>	<p>Section 7</p>

	<p>If you are a retail investor in Ionic and you do not subscribe for any shares in any other ESIC in the current tax year then you will be entitled to the 20% tax offset on your investment in Ionic which, on an investment of \$50,000, will be \$10,000. This does not restrict you from subscribing for more than \$50,000 in New Shares but the tax offset is subject to a cap of 20% of \$50,000 for retail investors. A subscription in excess of \$50,000 will not entitle you to any greater tax offset although you will be entitled to the modified CGT treatment on all New Shares you subscribe for, regardless of the limitation or cap on the tax offset. See below.</p> <p>For sophisticated, experienced and professional investors, your ability to invest is subject only to the terms of the Offers and to your not becoming in breach of section 606 of the Corporations Act. You may, subject to those constraints invest, such amount as you elect and be entitled to a tax offset at the rate of 20% of the amount invested up to a maximum cap of \$200,000 (which would be 20% of an investment of \$1,000,000).</p> <p>As with retail investors, any investment above \$1,000,000 will not attract any further tax offset but all New Shares you subscribe for will be subject to the modified CGT treatment referred to below.</p> <p>CAPITAL GAINS AND LOSSES</p> <p>In addition, all investors may disregard capital gains realised on shares in qualifying ESICs that have been held for between one and ten years.</p> <p>A capital profit on an investment in a qualifying ESIC made in the first year of investment will be taxed in the normal manner.</p> <p>A loss on an investment in a qualifying ESIC made in the first year of investment will <u>not</u> give rise to a capital gains (or other) loss for tax purposes.</p> <p>In the period between one and ten years, capital gains on an investment in an ESIC will be free from any capital gains tax. As a corollary, any losses realised on disposition of shares in a qualifying ESIC in that period must be ignored and are non-deductible.</p> <p>If an investor in an ESIC holds the shares for more than 10 years there is an adjustment mechanism at the end of the 10 year period that establishes the cost base for tax on capital gain which may accrue after the end of the 10 year period. See Section 7.</p>	
<p>What is the Rights Issue Offer?</p>	<p>Eligible Members who are registered holders as at 5:00 PM (AEST) on the Record Date (8 May 2017) and whose address on the register is in Australia will receive an Entitlement.</p> <p>If you are an Eligible Member, your Entitlement is to an allocation of 1 (one) Share (and 1 (one) Option) for every 2 (two) Shares you hold on the Record Date.</p> <p>Rights are non-renounceable.</p> <p>New Shares (and Options) not subscribed for under the Rights Issue will be made available under the Shortfall Offer and can be subscribed for by, among others, Eligible Members who wish to acquire more than their Entitlement, subject to applicable laws.</p> <p>Any Shortfall Shares not subscribed for by Eligible Members will be available for subscription under the General Offer.</p>	<p>See heading “<i>Member’s Entitlements</i>” in Section 3</p>
<p>Can Foreign Shareholders participate in the Rights Issue Offer?</p>	<p>No, only Eligible Members will receive an allocation under the Rights Issue Offer.</p>	<p>See heading “<i>Member’s Entitlements</i>” in Section 3</p>

<p>Can Eligible Members apply for more than their Entitlement?</p>	<p>Eligible Members wishing to acquire more New Shares (and Options) may apply for Shortfall Shares.</p>	<p>See heading “<i>Eligible Member’s ability to apply for Shortfall Shares</i>” in Section 3</p>
<p>What is the Shortfall Offer?</p>	<p>Shortfall means the number of New Shares (and Options) comprising the difference between that number of New Shares (and Options) the subject of the Rights Issue Offer and the number of New Shares (and Options) for which valid Entitlement and Acceptance Forms have been received and accepted by the Company by the Closing Date.</p> <p>The Shortfall Offer is the offer of the Shortfall to Eligible Members during the period of the Rights Issue Offer.</p>	<p>See heading “<i>Shortfall Offer</i>” in Section 3</p>
<p>What is the General Offer?</p>	<p>The General Offer is a separate offer independent from the Rights Issue Offer.</p> <p>The General Offer is open for Qualified Investors to subscribe for Shares and it closes subsequent to the close of the Rights Issue Offer. The General Offer closes on 16 June 2017 (or such other date as the Board determines).</p> <p>The issue price of Shares under the General Offer is the same as under the Rights Issue: being 1 cent (\$0.01) per Share.</p>	<p>See heading “<i>General Offer</i>” in Section 3</p>
<p>What rights attach to the New Shares?</p>	<p>All New Shares will have the same rights, including voting rights, as existing Shares.</p>	<p>Section 9</p>
<p>What are my legal obligations if I subscribe for Shares?</p>	<p>By subscribing for Shares, you are bound to pay the subscription monies for those Shares.</p> <p>Further you make the agreements, covenants, warranties and representations with, or in favour of, the Company as detailed in Section 11.</p> <p>In particular, to facilitate any future listing of the Company on ASX or another stock exchange you agree to execute any restriction and other agreements required by ASX or any other stock exchange and for that purpose you appoint the Company and each director of the Company (from time to time) as your attorneys and agents to execute such agreements on your behalf. See below under heading “<i>FUTURE APPLICATION FOR LISTING ON ASX</i>”.</p>	<p>Section 3</p>
<p>What rights attach to the Options</p>	<p>The Options are exercisable at \$0.02 up to 30 June 2020 on terms compliant with the Listing Rules of ASX Limited</p>	<p>Section 10</p>
<p>What are the risks associated with accepting or not accepting your Entitlement?</p>	<p>If do not take up your Entitlement in full your shareholding in the Company may be diluted.</p> <p>You should also be aware that subscribing for New Shares (and Options) involves a number of risks. Section 8 sets out the key risk factors you should consider in determining whether to take up your Entitlement. The Company is exposed to a variety of operational, technological, economic and sovereign risks.</p> <p>If any of the risks outlined in Section 8 (or elsewhere in this OIS) eventuate or the Company fails to raise sufficient funds to meet ongoing liabilities and obligations then the financial and operating position of the Company may be adversely impacted and, in addition, you may lose all or part of the value of your investment in the Company.</p> <p>Please carefully consider whether to subscribe for New Shares (and options) and, if you are in doubt as to whether to should, you should consult your independent professional advisor.</p>	<p>Section 8</p>

<p>How can I inspect documents referred to in this OIS?</p>	<p>If you are an Eligible Member or Qualified Investor you may inspect any of the following documents free of charge by appointment at the registered office of the Company:</p> <ul style="list-style-type: none"> • The Constitution of the Company. • The annual reports of the Company since incorporation, including for the year ended 30 June 2016. <p>To make an appointment please contact Ionic Industries Limited Address: Level 4, 100 Albert Road, South Melbourne Vic 3205, Telephone: +613 9692 7222 Facsimile: +613 9077 9233 Email: admin@leydinfreyer.com.au</p>	
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USE OF PROCEEDS OF THE ISSUE

Apart from providing ongoing funds for necessary administrative and corporate activities, the funds raised under the Offers made under this OIS will, subject to the level of funding achieved, be used for two main activities. These are to:

- Continue funding Ionic's research and development activities under:
- under its Collaboration Agreement with Monash and its exclusive global Intellectual Property Licences; and
- the recent grant under the Cooperative Research Centres (CRC) Programme for development of its SuperSand Technology in conjunction with CleanTeQ;
- Fund an application by Ionic for listing on ASX. See below.

A detailed breakdown of the proposed application of the funds raised under this OIS is set out in Section 2 under the sub-heading "*Source and Application of Funds*".

RISKS

The Company is subject to a wide range of risks including risks relating to technology, operational matters and the performance by third parties of their obligations under the various contractual arrangements by which the Company has rights to the technology which underlies its business activities and other risks more particularly summarised herein and as set out in Section 8. Applicants should carefully consider these factors in the light of their personal circumstances (including, financial and taxation issues) and seek professional advice from their accountant, stockbroker, lawyer or other professional advisor before deciding to invest in any securities the subject of this OIS.

Applicants should understand that:

- unless Ionic successfully establishes commercially viable operations, they may lose the entire value of their investment;
- Ionic is not yet profitable and has not yet derived revenue other than from receipt of R&D tax offsets for the years ended 30 June 2014, 2015 and 2016 and \$20,000 from Clean TeQ under the Clean TeQ Commercialisation Agreement described in Section 13.

All Applicants are referred to Ionic's audited Financial Statements for the 12 month period ended 31 December 2016 contained in Section 12 to enable them to understand Ionic's present financial position, and to the Pro Forma Financial Position and Historical Financial Information set out in Section 6 to understand the possible effect of the Offers on Ionic and the changes which have taken place in Ionic's financial position since 31 December 2016.

In due course, additional funds will need to be raised by Ionic to fund its ongoing operations. That future fundraising may be sought by a variety of methods, however no assurance can be given that any such funds will be able to be raised as and when needed, either at all, or on terms acceptable to Ionic and its Board and no representation, express or implied, is made or given that such further funding will be achieved or raised.

FUTURE APPLICATION FOR LISTING ON ASX

It is anticipated that the next capital raising by Ionic will be in support of an application for listing on ASX. However, the quantum of that funding and the terms on which it may become available are not presently known. While an application for listing on ASX is proposed in due course, and while funds raised hereunder are to be applied in meeting the costs associated with such an application, there can be no certainty that any such application will be made, or if it is made, that the New Shares (and Options) hereby offered for subscription will be quoted on any financial market at any time. There are a number of reasons, including reasons beyond Ionic's reasonable control why no application may be made or why, if made it might not be successful.

Accordingly, your Application for New Shares (and Options) is made expressly on the basis that no statement, representation or inference is made by or on behalf of Ionic that the New Shares (and Options) to be issued under this OIS will, at any time, be quoted on any financial market or that any application for listing will be made.

Further, in compliance with the requirements of the Corporations Act, you are advised that no statement, representation or inference can be made or given that the New Shares (and Options) you may apply for and be issued and allotted under any of the Offers made under this OIS “*are to be quoted on a financial market (whether in Australia or elsewhere)*”.

If such a statement, representation or inference were to be made or given herein, or if a statement or representation was made that an application for listing would be made and it was not made within 7 days after the date of OIS or if the Shares and Options offered for subscription were quoted on a financial market within 3 months after the date of this OIS then, in either case, Ionic would have to repay your Application Moneys or give you a supplementary or replacement OIS that changed the terms of the Offers (to remove that statement or inference) and then give you a month to withdraw your Application or otherwise issue the securities, give you the same supplementary or replacement OIS and then give you a month to withdraw your Application and require repayment of your Application Moneys.

Despite the above, subject to the level of funding achieved under the Offers, Ionic does intend, in due course, to make an application to list on ASX and funds raised hereunder are intended to be used for that purpose, that fact should not be interpreted by you as a statement, representation or inference that the New Shares and Options you may subscribe for and be allotted will be, “*are to be quoted on a financial market (whether in Australia or elsewhere)*” at any time.

By making Application for New Shares (and Options) you are acknowledging that your Application is on the basis that no such statement, representation or inference is made or given to you and that you are making your Application on the basis that the securities you are applying for will be, and may remain, unlisted.

INFORMATION

No person is authorised to give any information or to make any representation in connection with any offer of Shares to any proposed Applicant which is not contained in this OIS. Any information or representation not so contained may not be relied upon as having been authorised by the Company in connection with any such offer.

RIGHTS & LIABILITIES ATTACHING TO SHARES

The rights and liabilities attaching to Shares are detailed in Section 5 below in general terms.

TERMS AND CONDITIONS OF THE OPTIONS

The terms and conditions attaching to the Options are set out in Section 10.

SUITABILITY OF INVESTMENT, SPECULATIVE NATURE OF COMPANY, OPERATIONS AND RELEVANT RISK FACTORS

Before deciding to invest in Ionic, potential investors should read this entire OIS, and in particular the risk factors that could affect the future operations and activities of Ionic. Applicants should understand that the Company’s business is speculative and subject to a wide range of risks and that, unless the Company achieves commercial success, they may lose the entire value of their investment. Applicants must consider these matters in light of their own circumstances (including financial and taxation affairs), their own risk profiles and investment parameters and, as necessary, seek professional advice from their accountant, lawyer or other professional adviser before deciding whether to apply for Shares.

In particular, all Applicants should have regard to the audit report from Ionic’s auditor contained in the Audited Financial Statements set out in Section 12 and which discloses an Emphasis of Matter. For your convenience the following extracts from the auditor’s report are set out:

Auditor’s Opinion

In our opinion, the accompanying financial report of Ionic Industries Limited is in accordance with the Corporations Act 2001, including:

- (a) giving a true and fair view of the Company’s financial position as at 31 December 2016 and of its performance for the year ended on that date; and*
- (b) complying with Australian Accounting Standards and the Corporations Regulations 2001.*

Material Uncertainty related to going concern

We draw attention to Note 2 of the financial report, which notes net cash outflows from operating activities of \$36,127 and a closing cash balance of \$229,008 as at 31 December 2016. This condition, along with other matters set forth in note 2, indicate the existence of a material uncertainty which may cast significant doubt on the company’s ability to continue as a going concern and therefore, the company may be unable to realise its assets and discharge its liabilities in the normal course of business and at the amounts stated in the financial report. Our opinion is not modified in relation to this matter.

TAXATION AND TAX FILE NUMBERS

Section 7 contains an overview of the operation of *Subdivision 360-A — Tax incentives for early stage investors in innovation companies* in relation to funds subscribed for New Shares pursuant to the Offers made hereunder.

That overview is general in nature and does not constitute advice to any Applicant. Ionic is unable to give advice on taxation matters generally, as each Applicant's position will relate to their own specific circumstances. Applicants should seek their own independent advice in relation to taxation matters generally and as to the operation of taxation laws in Australia.

Applicants should satisfy themselves of possible taxation consequences of purchases and sales of securities by consulting their own professional tax advisers.

It is not necessary for Applicants to quote their tax file number at this stage. This will be needed as and when the Company pays dividends to avoid the Company being required to deduct tax, at the highest marginal rate, from any future dividends.

OVERSEAS SHAREHOLDERS

This OIS does not constitute an offer in any jurisdiction outside of Australia or to any person to whom it would not be lawful to issue this OIS.

NO APPLICATION FOR LISTING

No application will be made for the listing of any New Shares (or Options) offered under this OIS on any Stock Exchange within the foreseeable future or necessarily, at all.

EXPOSURE PERIOD

In accordance with Chapter 6D of the Corporations Act this OIS is subject to an Exposure Period of seven days from the date of lodgement with ASIC. This period may be extended by ASIC for a further period of up to seven days. The purpose of the Exposure Period is to enable this OIS to be examined by market participants prior to the raising of funds. If this OIS is found to be deficient, 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. No preference will be conferred on applications received during the exposure period and all applications received during the exposure period will be treated as if they were simultaneously received immediately after the expiry of the exposure period.

ELECTRONIC OIS

This OIS will be issued in paper form and as an Electronic OIS, which may be viewed online at the Company's website www.ionicindustries.com.au. The Offer is made to Eligible Members (as defined herein) and is available to Qualified Investors (as defined herein) receiving an electronic version of this OIS in Australia.

The Act prohibits any person from passing the Application Form on to another person, unless it is attached to, or accompanied by, a complete and unaltered version of this OIS, together with a complete and unaltered copy of any supplementary OIS, if any, which may be issued by the Company.

CONTACT DETAILS

During the Offer period, any person may obtain a hard copy of this OIS by contacting Ionic Industries Limited at Level 4, 100 Albert Road, South Melbourne Vic 3205, telephone +613 9692 7222, facsimile +613 9077 9233 or by email to admin@leydinfreyer.com.au.

Section 2

IONIC'S BUSINESS AND ACTIVITIES

BACKGROUND

Graphene is a two-dimensional material, consisting of sheets of carbon atoms bonded in a hexagonal pattern. Its existence was first hypothesised in the 1940s, but it was not until 2004 that researchers were able to exfoliate it from graphite and study its properties, for which they won a Nobel Prize in 2011.

Since then, graphene research has exploded with a vast number of patents taken out as markets and industries prepare for a disruptive “*graphene*” age.

Graphene's unique qualities and properties include the following:

- Graphene is the thinnest material available for use in commercial applications. It is only one carbon atom thick.
- Graphene is the strongest and hardest materials in the world. It is harder than diamonds and 200 times stronger than steel of the same thickness but, notwithstanding this, graphene is very flexible and will not break.
- Graphene has amazing optical properties. A one atom thick sheet will absorb only 2.3% of visible light, making it transparent. Graphene can also absorb up to 40% of light in the far infrared and microwave frequency ranges, confirming that it could be ideal for terahertz and photonics applications.
- Graphene is exceptionally light and stretchable. Graphene weighs only 0.77 milligrams per square metre and is stretchable up to 20% of its initial length. It has the largest volume-to-surface area ratio of any material.
- Graphene is completely impermeable. Even helium atoms cannot pass through it.
- Graphene has high thermal conductivity. It is a perfect thermal conductor (over 5,000 W/mK), being five times the conductivity of graphite. Graphene conducts heat in all directions, that is, it is an isotropic conductor.
- Graphene has amazing electronic properties. It has the highest electrical density of all materials (1,000,000 times that of copper) and conducts electricity close to the speed of light with virtually no resistance and also has the highest intrinsic mobility (100 times that of silicon). It has a lower resistivity than any other known material at room temperature.
- Graphene is chemically inert and does not readily react with other atoms. However, it can “absorb” different atoms and molecules, leading to changes in its properties. It can be functionalised by several different chemical groups, resulting in different materials such as graphene oxide and fluorinated graphene.
- Graphene is also capable of self-healing and repairing holes in its sheets when exposed to free molecules containing carbon.

Actual and potential applications of graphene continue to grow, limited only by current research, development and testing.

Current applications for graphene already in play include the infusion of electrical conductivity in plastics and glass and the production of composite materials such as carbon fibres, plastics, geo-fabrics, coatings and paints with impermeable and anti-corrosion qualities. Two applications, addressing some of the world's greatest challenges, with enormous market potential, and where Ionic is focused are water filtration and energy storage.

Over the past 6 years, Ionic has established itself as a leader in the field of graphene research through its relationship with the Nanoscale Science and Engineering Laboratory (NSEL) at Monash University. This relationship has been built on a formal Collaboration Agreement, details of which are set out in Section 13 under the heading “*Material Contracts*”.

Monash is one of Australia's key contributors to graphene research and, together with Ionic, they have established a series of research projects (Projects). These Projects have resulted in a number of applications for graphene, significant intellectual property (IP) and several key patent applications, one of which, Australian Patent 2013277941 entitled “*Conductive portions in insulating materials*” has been granted.

The patents and applications for patents from these Projects are tied to the Collaboration Agreement and other agreements with Ionic, and are detailed under the heading “*Monash Patents subject to Collaboration Agreement*” at the end of this Section.

The research to date has been funded by Ionic with significant financial support from two tranches of funding from the Australian Research Council (ARC) under the ARC Linkage grant system.

This Ionic/Monash alliance is unique as it marries high quality peer-reviewed scientific knowledge generated by Monash with Ionic’s focus on commercialisation of that knowledge by itself and through its contacts and relationships as set out herein (such as Clean TeQ) and as may evolve from time to time.

Ionic’s alliance with Monash has generated an existing portfolio of IP rights that Ionic is developing for commercialisation under licence. Summaries of the present intellectual property licenses held by Ionic are set out in Section 13.

Graphene can be applied in water purification technology, offering potentially significant cost savings over traditional forms of purification.

One of Ionic’s primary focusses is on water purification using its SuperSand technology and Ionic has entered into an agreement with Clean TeQ (ASX: CLQ) (Clean TeQ Commercialisation Agreement) to develop its technology in this field. Details of the Clean TeQ Commercialisation Agreement are summarised under the heading Material Contracts in Section 13 while the commercial aspects are discussed under the heading “SuperSand”.

The development of and potential uses by Ionic of its Membrane Technology outside the field of water purification and treatment are discussed below under the heading “Ionic’s Membrane Technology”, which it is also commercialising through collaboration with Clean TeQ. Further applications for Ionic’s Membrane Technology outside the field of water purification include the food and beverage markets, gas separation and capture, the pharmaceutical and medical markets and the other markets as discussed below.

Energy storage is one of the world’s greatest challenges and advance in this field will bring applications such as electric vehicles and renewable energy systems to economic reality. While existing energy storage technologies focus on traditional chemical batteries, particularly current lithium-ion technologies, the next generation of energy storage technologies will focus on supercapacitors. Applications for these graphene-based technologies will be vast including containment shields, fuel cells, membrane technology, medical and biomedical devices and electronics. Ionic’s micro planar super capacitors are at the forefront of this research globally which is discussed under the heading “Super Capacitors”.

An enduring benefit of the Collaboration Agreement is that Ionic has exclusive access to an ongoing pipeline of graphene research projects generated by Monash, which may result in the identification of new commercial products or the improvement (by iteration) of existing commercial products.

IONIC’S BUSINESS MODEL

Ionic’s business model is predicated on commercialising the graphene Projects arising from the Monash research. The Collaboration Agreement provides a flexible, long-term basis to explore and develop research projects, which are monitored closely by Ionic as they evolve under the research team led by Associate Professor Mainak Majumder. If Ionic considers these Projects as being capable of commercialisation (whether by Ionic directly or through third parties that Ionic considers suitable), Ionic funds the Project and acquires the right to take an exclusive worldwide Intellectual Property License (Licence) over the outcomes of that Project.

Ionic will commercialise its technologies by partnering with industry leaders who have the expertise to incorporate these technologies into new or improved products for application in their existing markets and new markets in related fields. Ionic will therefore not only benefit from licence revenue, but also from holding significant stakes in the joint venture vehicles established with its partners for the purposes of commercialising the technologies. This captures the value-add that the technologies create in addition to the pure licencing revenues.

This arrangement, demonstrated in the graphic below, is flexible because it provides Ionic with a continuous stream of graphene-based technologies which Ionic may, but is not compelled to, develop and commercialise.

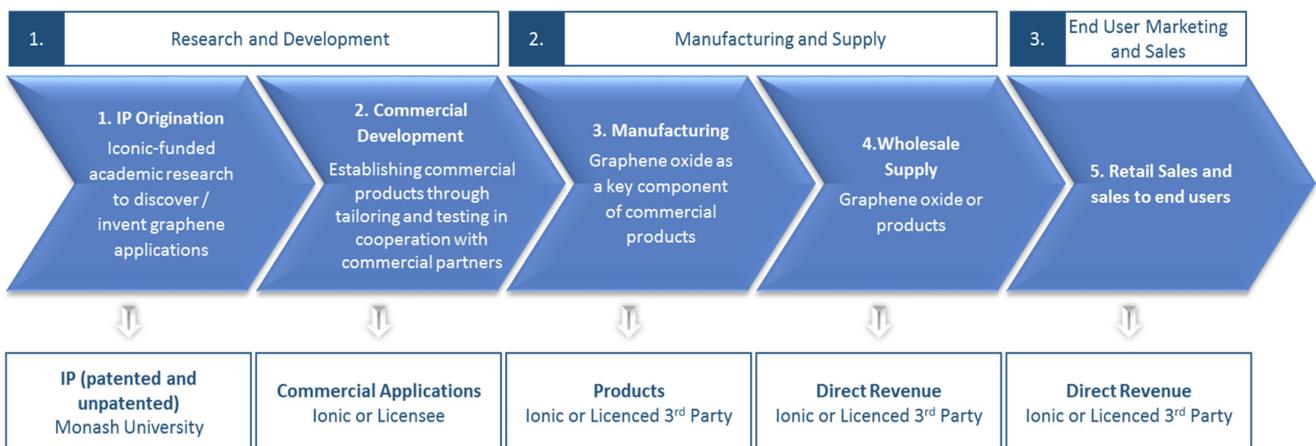


Figure 1: Research, Development and Revenue Chain

As at the date of this OIS, Ionic has entered into four Licenses as summarised in Section 13. These are for:

1. Sand Technology (for Monash's technology and know-how but in respect of which no patent application has yet been made: although this can be obtained in due course)
2. Membrane Technology (for which a patent application number 2014904644 titled "*Graphene oxide membranes and methods related thereto*" has been made);
3. Super Capacitors (for which Australian Patent 2013277941 entitled "*Conductive portions in insulating materials*" has been granted); and,
4. GO industrial production processes (for which patent application number PCT/AU2015/000698 entitled "*Shear-assisted electrochemical exfoliation of graphite to graphene and devices thereof*" has been lodged).

Our approach has a number of benefits:

- Enables Ionic to focus on multiple markets with a diversified suite of technology applications leveraging the numerous and diverse properties of graphene and graphene oxide (GO);
- Allows Ionic to capitalise on its strengths around research and development on graphene materials and leaves the applications to our partners who are experts in their respective markets with deep reach and relationships;
- Provides early validation of our technologies giving early investors and stakeholders greater assurance of reaching commercialisation objectives;
- Facilitates rapid progress through product development stages while incorporating advances in our technologies into each new generation of product;
- As set out in Section 13, the Collaboration Agreement permits each License to be sub-licensed to a third party or, transferred or sold. Following the completion of a License, Ionic has flexibility to realise revenue at any point in the value chain as follows:
- Sale of the License to a third party (prior to commercialisation) for an upfront fee/royalty stream;
- Develop a commercial application/product and then license a third party to manufacture/sell the product in exchange for upfront fee/royalty;
- develop a commercial application and manufacture via Ionic's own facilities and license a third party to wholesale/retail the products in exchange for upfront fee/royalty;
- develop, manufacture and wholesale products to a third party that will then sell to end users to generate direct sales revenue;
- be a vertically-integrated manufacturer and retailer of products to end users for direct revenue.

IONIC'S RELATIONSHIPS

Ionic's innovative business model represents a new approach to partnership between business, government and research institutions.

A key strength of Ionic is its network of relationships across industries and sectors. Ionic has forged a number of relationships that will be critical to our success in leveraging University-born research and technologies into real-world, industrial applications.



Figure 2: Ionic's Primary Relationships

Monash University

For the past six years, Ionic has worked closely with the research teams at Monash to ensure that their outstanding work in the laboratory is used to generate benefits that reach far beyond the laboratory. Ionic embodies this vision and will continue to work with Monash to bring the technologies to market.

The Monash research team in the Nanoscale Science and Engineering Laboratory changes from time to time as different researchers contribute to the research efforts at different stages of the programs. Associate Professor Mainak Majumder has led the team since its inception together with a number of key individuals who have contributed to the research over many years.

Dr. Mainak Majumder - One of the foremost worldwide authorities on the application of graphene. Dr Majumder is our research team leader. His expertise extends to experimental nanofluidics, desalination, drug delivery, electrochemical energy storage devices



Dr. Parama Chakraborty-Banerjee - Postdoctoral research fellow; experienced in development and electrochemical characterisation of, carbon-based energy storage devices



Abozar Akbarvakilabadi - PhD candidate with specialisation in advanced graphene-based membranes for water treatment and food processing



Associate Professor Adrian Neild - Expert in biomedical devices, microfluidics, sample handling and cell manipulation



This core team is further supported by a number of post-doctoral and PhD candidate researchers at any given time.

Clean TeQ

An example of Ionic's commercialisation strategy is its partnership with Clean TeQ (ASX: CLQ) for the development and commercialisation of Ionic's graphene-based water and wastewater treatment technologies. This is reflected in the Clean TeQ Commercialisation Agreement described in Section 13.

The aim of the Clean TeQ partnership is to:

- Incorporate Ionic's SuperSand technology into new low cost water treatment solutions and to substitute that technology and products derived from it for activated carbon in current markets; and
- Incorporate Ionic's GO membrane technology into nano-filtration membrane products for use in water and wastewater filtration applications in industrial and municipal markets.

For Ionic Industries, this partnership represents a significant validation of its graphene-based technologies.

For a large and successful technology-based company like Clean TeQ to co-invest in Ionic's technology and to explore ways of incorporating Ionic's technologies into new commercial products is a show of confidence in Ionic's selection of Projects over the past 6 years. It represents major progress toward commercialisation of one of Ionic's technologies.

Clean TeQ Founder and Executive Director, Peter Voigt has been key to establishing this commercialisation through his strategic focus on the introduction of new technologies which compliment Clean TeQ's unique Continuous Ionic Filtration (CIF®) technology (see <http://www.cleanteq.com/company/technology/>)

The Board perceives that Peter Voigt's expertise in directly relevant fields will deliver significant value to the collaboration. He is a biochemist with extensive experience in product development, technology commercialisation, and developing complete engineering solutions. Prior to founding Clean TeQ he held product and technology development roles with Arnotts and Uncle Bens. He has a Bachelor and Masters of Applied Science (Chemistry) from Royal Melbourne Institute of Technology.

As an indication of Clean TeQ's support for this technology, Peter stated that:

"We are excited by the potential to apply the Ionic graphene oxide-based technologies in the water markets in which we are active. The partnership with Ionic reflects our strategy to continuously improve and enhance our technology platform by partnering with groups who have developed complimentary technologies."

and it has consented to the publication by Ionic of that statement herein.

This partnership represents significant progress in Ionic's strategy of commercialising graphene technologies through partnerships with industry-leading companies who have extensive market reach. The progress marks an important milestone in the company's plans to raise further capital in order to commercialise these technologies along with other developments in energy storage technologies.

Laminar Co. Ltd

An MOU has been entered into with Korean manufacturer Laminar Co Limited (Laminar) for the purpose of collaborating on manufacturing of graphene and graphene oxide materials. Ionic has entered into this MOU because it can see the value in combining Ionic's technology (through Monash) with the high-volume production of graphene using Laminar's unique capabilities.

The MOU recognises the parties have areas of mutual interest in the field of manufacturing graphene and GO materials and a common interest in cooperation in relation thereto involving:

- Exchange of information about graphene and GO materials;
- Exchange of information about methods of manufacturing, handling and applying graphene and GO materials;
- Identifying further areas for collaboration around the scientific and engineering disciplines associated with graphene and GO manufacturing;
- Identification of commercialisation opportunities, including markets, customers and commercial partnerships;
- Development and protection of intellectual property in the field of graphene and GO production; and
- Opportunities around government programs that may be used to accelerate research and development.

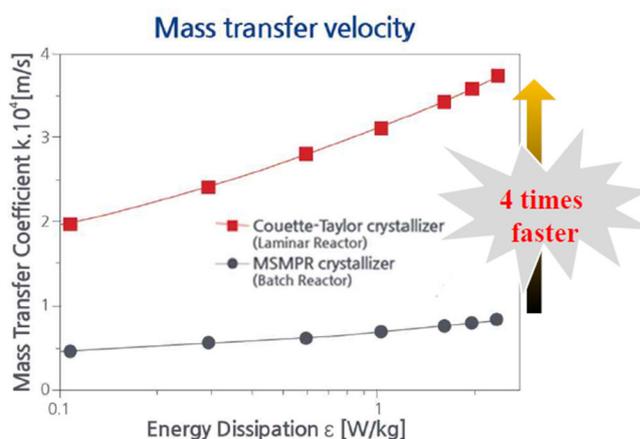
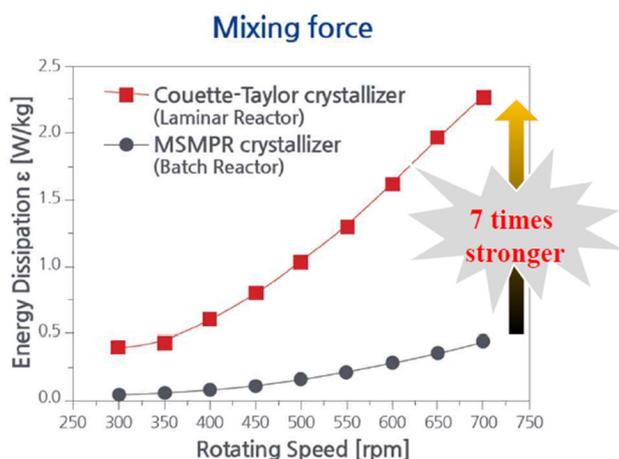
This MOU is the first step in establishing a relationship with Laminar that may lead to Ionic's first revenues through licencing of its intellectual property. This initiative represents collaboration with a dynamic, progressive manufacturer that is well-aligned with Ionic's goals and objectives as a technology platform built around expertise in graphene and GO materials.

Laminar is the world's only-manufacturer of Taylor flow reactors which deliver unsurpassed capabilities with more efficient and higher quality chemical reactions and improved industrial processing performance. Laminar clients understand the benefits of Taylor flow reactors in production of finely engineered chemicals and materials. Its clients include some of the world's largest companies: LG, Tanaka Chemicals, Nippon Mining and Metals, Sumitomo Chemicals and educational institutes such as MIT and Argonne National Laboratory.

Taylor flow reactors uniquely combines the advantage of a plug-flow reactor with micro-mixing capabilities which are known to improve reaction kinetics, reduce chemical consumption, improve product homogeneity and increase process safety. The Laminar reactor is ideal for processing graphene and GO using Ionic's processes to reduce the time required, increase the controllability of a continuous flow process design compared to batch reactor. Laminar has also developed a semi-continuous process to produce GO utilizing their reactor which represents a significant step toward commercialisation and provides Ionic the confidence to work on further improvements to the process and upscaling the production of GO.

The advantages of Laminar's proprietary reactor technology are illustrated below:

Contents	Batch	Laminar reactor
Diagram		
Production process	Non-continuous	Continuous
Process Temp. (C)	30	20
Recovery Rate (%)	70	95 ↑
Reaction Time (h)	Max 120	1 ↓
Production Cost (USD/g)	500	50



The commercial opportunity for Ionic lies in potential licensing arrangements or joint ventures to produce graphene and GO products by combining Ionic's proprietary processes with Laminar's IP, equipment and manufacturing know-how. Laminar's existing market access and client base will serve as the initial target market for these products.

This partnership represents significant progress in Ionic's strategy of commercialising graphene technologies through partnerships with industry-leading companies. The progress marks an important milestone in the company's plans to raise further capital to commercialise these technologies along with other developments in water treatment and graphene planar super-capacitors.

The project contemplated by the MOU is intended to design innovative processes for the production of GO from indigenous natural graphite. GO is composed of sheets of carbon, one atom thick, decorated with surface functional groups. It is soluble in a wide variety of solvents including water, producing stable colloids. Importantly, these colloidal fluids can be processed into various forms, such as films, fibres, membranes and bulk materials by industrially-adaptable methods, but the current process for the production of GO from graphite is inherently hazardous and environmentally hostile. Fundamental understanding of the reaction chemistry, reaction engineering, and GO purification is essential to make this process scalable, economic, reliable and safe to realize the vast potential of graphene-based materials.

Specifically, it is aimed to:

- Develop flow reaction approaches to oxidise graphite and minimise the required quantities of strong acids and oxidisers, delivering enormous improvements in safety, reduced chemical usage and excellent scalability.
- Develop a fluidised bed filtration method for desalting colloidal GO to dramatically reduce the equipment cost and amount of process water needed to produce GO.

The table below encapsulates in summary form the motivation behind the proposed research, the approach to be taken and the potential target outcomes.

Motivation	Approach	Outcome
<ul style="list-style-type: none"> • Graphite is a natural resource of Australia • Graphite-derived GO is a precursor for novel high performance products with huge commercial potential for partner organisations • 2 Critical processes: <ul style="list-style-type: none"> • Chemically intensive oxidative exfoliation • Desalting of colloidal particles of GO • There is an urgent requirement to make these processes safe, efficient, and reduce chemical and water consumption 	<ul style="list-style-type: none"> • Transition from batch to flow reactions for enhanced safety, smaller reaction times and reduced chemical usage • Fluidised-bed filtration approaches for minimising water, time and equipment requirements for desalting of GO colloids • Experiments guided by fluid dynamics modelling 	<ul style="list-style-type: none"> • An up-scalable, continuous flow process to produce GO with less chemicals, less time, less water and smaller equipment footprint • Process IP • Know-how to support Australian industry • Training of students and post-doctoral researchers in nanoscience and advanced manufacturing • Support and promote advanced manufacturing in Australia • Produce commercial quantities of tailored GO for product development and trials in other research programs

The work under the Ionic/Laminar agreement is expected to be worthy of an ARC grant, and an application is currently being prepared to secure further funding.

Australian Research Council and Department of Industry, Innovation and Science

Over the past 6 years, Ionic’s ongoing and extensive relationship with key government stakeholders has been critical to its success. Both Ionic’s Supercapacitor and Membranes Programs have received extensive financial support from multiple tranches of funding under the ARC Linkage Grants scheme. This support represents a clear endorsement that Ionic’s technologies demonstrate commercial focus on areas of greatest importance to the Australian economy and innovation initiatives.

The first program of research born of this relationship was titled *Nanotechnology enabled electrochemical energy storage materials from indigenous natural graphite* and received \$210,000 funding. Following the success of this program, the second tranche of funding, \$255,000, was awarded for the program titled *Green Manufacturing of Graphene from Indigenous Natural Graphite and Graphene-based Nanofiltration Membranes*.

Ionic’s strong relationship with key government scientific agencies has continued with the recent award of Cooperative Research Centres Program (CRC-P) funding for its water and wastewater treatment technologies (see below under “Commercialisation of Water and Wastewater Treatment Technologies”). This program will see over \$1.13 million spent on commercialising Ionic technologies.

Ionic will continue to maintain strong relations with government stakeholders and playing a leading role in building the nation’s ability to bring its wealth of University-born IP to commercial reality.

Commonwealth Scientific and Industrial Research Organisation (CSIRO)

CSIRO is the federal government agency for scientific research in Australia. Its chief role is to improve the economic and social performance of industry, for the benefit of the community.

Over the past 4 years, the Ionic/Monash team has collaborated on several projects with CSIRO focusing on GO production, Ionic's patented GO membranes and applications in energy storage including development of a lithium-sulphur battery. In the context of these projects both teams have contributed IP and resources to solving some of the more vexing problems that have arisen.

There is ongoing interaction between the CSIRO and Ionic/Monash teams and they will continue to collaborate on specific research programs as opportunities arise.

South Australian Department of State Development

Over the past 3 years, Ionic has developed a relationship with the South Australian Department of State Development (DSD) as a partner in the development, testing and commercialisation of its technologies.

The South Australian Government has been supportive of Ionic specifically, and of high-tech industry in general. The incubator environment being created at Tonsley Park will generate a range of opportunities as we move toward commercialisation of our technologies.

The State's rapidly growing defence-oriented investment and major infrastructure challenges will provide enormous potential for Ionic's technologies in water treatment and energy storage applications.

Ionic will continue to work with DSD to identify these opportunities, delivering value to the State of South Australia servicing markets there and elsewhere.

IONIC'S TECHNOLOGY PLATFORM

Ionic is a technology platform, built around the expertise and IP developed through Associate Professor Majumder's team in the Nano-scale Science and Engineering Laboratory (NSEL) at Monash in the field of graphene research and development.

More specifically, the team has had extensive success over the past 5 years working with GO. Compared to pure graphene, graphene oxide is much easier to manufacture, customise and handle. At the same time, it delivers many of the outstanding characteristics of pure graphene. As a result of these characteristics and the team's successful research on GO, Ionic's technologies are much closer to real commercial outcomes than many other graphene technologies currently under development elsewhere.

Water and Wastewater Treatment

Ionic has several technologies that can be applied in water and waste water markets globally to address some of the world's greatest challenges for clean drinking water and environmental de-contamination. The Company's adsorption and nano-filtration technologies will have extensive application in these markets, beginning with removal of organic materials from 'clean' water and waste water.

These technologies are currently in the product development phase and, in partnership with Clean TeQ, Ionic's intention is to commercialise them in the next 18 to 24 months. Ionic's technologies, once developed to a commercial stage, may provide complementary water treatment capabilities to Clean TeQ's existing suite of technologies. Both of Ionic's technologies will focus on removing organic materials from water whereas Clean TeQ's existing technologies are used for removal of ionised particles and desalting processes.

Of Ionic's technologies, SuperSand is an adsorbent material that can be tailored to attract and "adsorb" organic particles as water is passed through it, whereas nano-filtration GO membranes are designed to filter out particles allowing only treated water past. BOT technologies are complementary and can be used to target different compounds and particles at distinct stages in the water treatment process.

Extensive Australian Government funding has been secured through the CRC-P program, which greatly increases the likelihood of adoption in these endeavours and demonstrates wide-spread support for the technologies.

SuperSand

Sand has been used in water filtration for hundreds of years. Ionic's SuperSand technology takes this simple water filtration method to an advanced level by applying a coating of GO to sand particles. SuperSand will provide the benefits of the mechanical properties of sand in a continuous filtration application patented and commercialized by CleanTeQ. The adsorption of organics materials (COD) onto graphene oxide (GO) coated sand is the additional step in removing COD from micro-screened wastewater to meet the 80 – 90% COD reduction benchmark, a problem identified by the industry. The dried GO coating retains its chemical functionality on a massive surface area, which enables it to "adsorb" contaminants in the water. Most importantly, the chemical functionality can be tailored to target specific contaminants.

Ionic's initial analyses of SuperSand production costs, based on GO sourced from China at US\$600 per kg for a 10mg/L suspension of rGO, indicate that the SuperSand will compete with activated carbon products on cost while simultaneously delivering the numerous performance benefits outlined above and described in more detail below¹.

Ionic holds licences from Monash on the significant, but presently unpatented, IP that has been developed by Monash, and which underpins Ionic's SuperSand product.

¹ For further information on economic analysis conducted, see also "Proposed Pilot Plant: Commissioning Deferred" under "Technology Enabling Programs" below

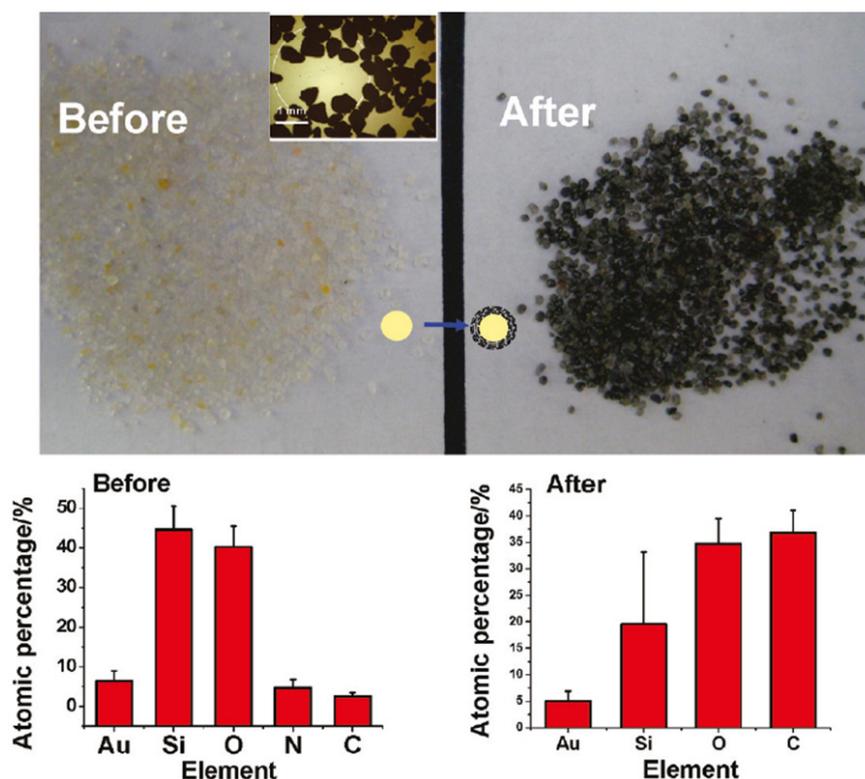


Figure 3: Photographic images and Energy-dispersive X-ray spectroscopy (EDAX) analysis of sand and SuperSand. EDAX analysis from the surface of the grains clearly showed a significant increase in carbon content which indicates much higher adsorptive capabilities.

Since Associate Professor Majumder’s original publication on GO coated sand in 2011, the research team has made a number of advances in the technology bringing it steadily closer to commercialisation.

Being the simplest and most researched of its technologies, the Company expects SuperSand to be the first commercial product to incorporate its graphene technologies.

In the SuperSand program, the Monash research team has achieved a series of milestones since the original work was first published on “*Super Sands*” in 2011² by Associate Professor Majumder and his team. These milestones include:

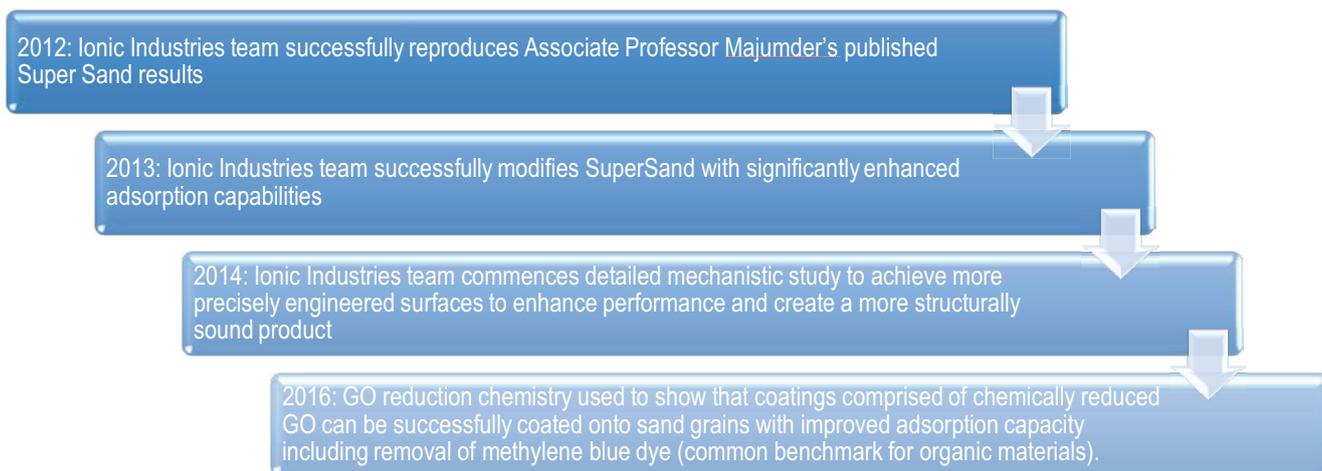


Figure 4: Milestones achieved to date in the SuperSand Program

² Wei Gao, Mainak Majumder, Lawrence B Alemany, Tharangattu N Narayanan, Miguel A Ibarra, Bhabendra K Pradhan, Pulickel M Ajayan, “Engineered graphite oxide materials for application in water purification”, *ACS Applied Materials and Interfaces*, 2011, 3(6), pp1821-26

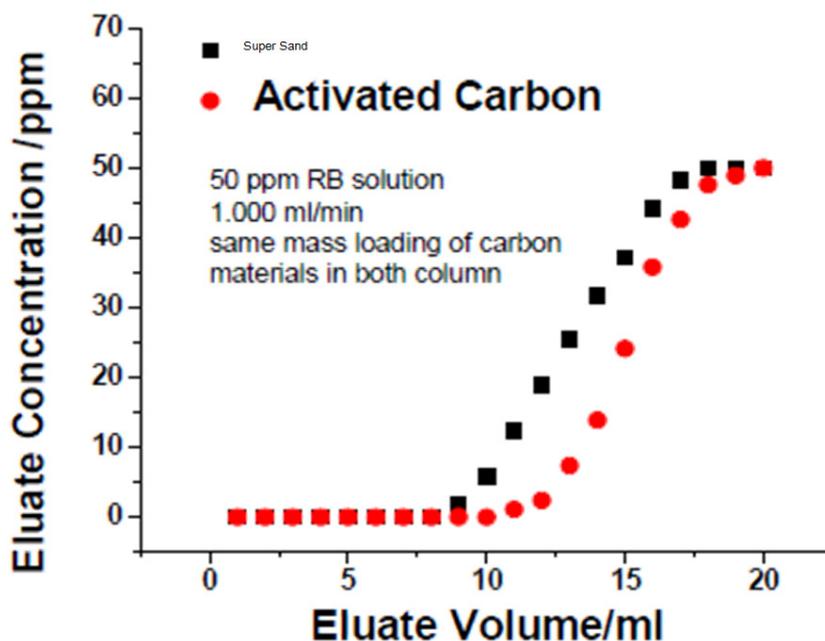


Figure 5 Column test results for Rhodamine B (a common probe molecule) removal with SuperSand and activated carbon show superior performance of SuperSand compared to activated carbon.(Flow rate: 1 ml/min. Column height: 400 mm; Column diameter: 6.6 mm.)

Based on the Technology Readiness Levels (TRL) system for estimating technology maturity, Ionic assesses that the SuperSand Technology is currently at a TRL of 5 out of 9: Results from the testing laboratory system are able to be integrated with other supporting elements in a simulated operational environment.

The next stages in the program, which Ionic aims to complete in the next 12 months are set out in the graphic below.

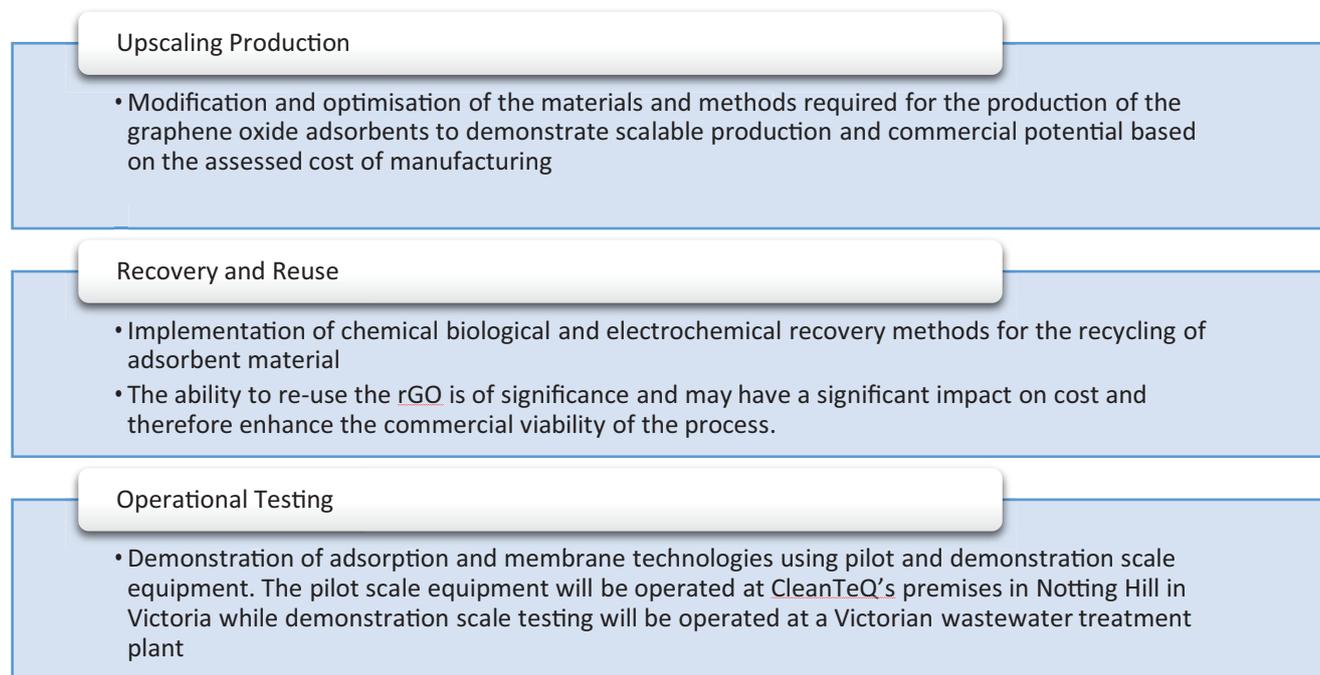


Figure 6: Development Program for SuperSand Project to achieve TRL 9 Status with Clean TeQ and with CRC-P Grant funding

GO Membranes for Nano-filtration

A logical extension of Ionic's expertise and IP in graphene-enabled water filtration is in the use of Reduced GO (rGO) as a membrane for nanofiltration of bacteria, viruses, organics and some salt species. The currently available membranes, usually produced using a vacuum filtration processes, generally have high energy requirements when used for tight filtration and the fouling characteristics are severe in many circumstances. The development and use of a rugged, non-fouling, low pressure membrane that removes dissolved organics will be an economic leader in the membrane industry. Ionic's rGO membranes can meet these requirements. GO, in contrast to impermeable pure graphene, is ideally suited to

filtration applications and Ionic's expertise in tailoring GO to create customised pore size and performance characteristics is critical in leveraging this market opportunity.

Work on Ionic's rGO membranes has been underway for 5 years, with the potential for this technology recognised with the award of a tranche of funding under the ARC linkage grant scheme.

The Project and underlying technology have recently received further endorsement with the award of over \$650,000 in Government funding under the CRC-P scheme.

The project, in collaboration with Ionic's partner, Clean TeQ will see over \$1.13 million spent on commercialising this technology over the next 18 months (see below under "Commercialisation Plans" for more detail).

Ionic holds an exclusive worldwide licence to commercialise the Intellectual Property on rGO shear-aligned membranes (SAMs) developed under the Collaboration Agreement and the Membrane Commercialisation Licence detailed in Section 13 under the Heading "Material Contracts".

Monash has made an application for a patent entitled "Graphene Oxide Membranes and Methods Related Thereto" the abstract for which, as published by WIPO describes the invention the subject thereof as "An improved method for concentrating dispersions of graphene oxide, coating a substrate with a layer of a graphene oxide solution, and producing a supported graphene membrane stabilised by controlled deoxygenation; and graphene-based membranes that demonstrate ultra-fast water transport, precise molecular sieving of gas and solvated molecules, and which show great promise as novel separation platforms"

Conventional polymeric nanofiltration membranes usually have limited chemical resistance, while ceramic membranes are not cost-efficient. Graphene is a one atom thick two-dimensional honeycomb carbon lattice, which is an exciting multifunctional material and possesses a combination of strong mechanical properties, chemical inertness and extremely large surface area^{3,4}. Membranes prepared from graphene possess the best of both worlds: they are chemically inert⁵ like ceramic membranes and can be made into films using graphene/GO oxide fluid phase dispersions like polymer membranes. Novel and exciting properties of graphene-based membranes such as high permeability and high selectivity for both liquids and gases have been reported⁶.

While these studies have unlocked potential applications of GO membranes, to bring them to commercial reality, there is critical need to produce these membranes in large-areas using high throughput manufacturing routes. The ideal structure of a filtration membrane has a defect-free, thin, dense separation film that acts as a functional sieve, while the mechanical strength is provided by a porous and more permeable support. To achieve this asymmetric structure, researchers have grown continuous graphene films by chemical vapour deposition and transferred them to substrates followed by etching pores on the film, however, the transfer process limits the scalability of membrane production⁷.

Others have attempted restacking GO flakes by filtration of GO dispersions on a backing filter support⁸. However, producing a membrane by this approach requires large volumes of liquid, significant time and arguably has both alignment (of the GO sheets) and scalability issues. Other liquid phase processes such as dip-coating or layer-by-layer assembly similarly have potential issues with rapid productivity⁹.

A major challenge in this field is to define robust, scalable, liquid film processing approaches to produce large-area graphene-based membranes that will bridge laboratory curiosity to industrial productivity. Ionic has a scalable and industrially adaptable method to fabricate large-area graphene-based membranes by shear-induced alignment of liquid crystals of GO. These SAMs have large in-plane stacking order of GO sheets and demonstrate outstanding water permeability while being able to sieve small organic molecules with performance metrics superior to well established and commercially available nanofiltration membranes.

Ionic's rGO membranes, created using our proprietary shear alignment process, can be tailored for the efficient and effective removal of a wide range of contaminants and materials from water or other liquids. These shear-aligned membranes (SAMs) have a range of extraordinary properties that will deliver superior performance to current polymer or ceramic-based technologies, for example:

- High chemical resistance making them safer and lower maintenance;

³Kim, J. E. et al. Graphene oxide liquid crystals. *Angew. Chem.* 50, 3043–3047 (2011).

⁴Joshi, R. K. et al. Precise and ultrafast molecular sieving through graphene oxide membranes. *Science* 343, 752–754 (2014).

⁵Bunch, J. S. et al. Impermeable atomic membranes from graphene sheets. *Nano Lett.* 8, 2458–2462 (2008).

⁶Cohen-Tanugi, D. & Grossman, J. C. Water desalination across nanoporous graphene. *Nano Lett.* 12, 3602–3608 (2012). Huang, K. et al. A graphene oxide membrane with highly selective molecular separation of aqueous organic solution. *Angew. Chem. Int. Ed. Engl.* 53, 6929–6932 (2014). Celebi, K. et al. Ultimate permeation across atomically thin porous graphene. *Science* 344, 289–292 (2014). Surwade, S. P. et al. Water desalination using nanoporous single-layer graphene. *Nat. Nanotechnol.* 10, 459–464 (2015). Kim, H. W. et al. Selective gas transport through few-layered graphene and graphene oxide membranes. *Science* 342, 91–95 (2013). Koenig, S. P., Wang, L., Pellegrino, J. & Bunch, J. S. Selective molecular sieving through porous graphene. *Nat. Nanotechnol.* 7, 728–732 (2012). Jiang, D.-e., Cooper, V. R. & Dai, S. Porous graphene as the ultimate membrane for gas separation. *Nano Lett.* 9, 4019–4024 (2009). Saliba, S., Mingotaud, C., Kahn, M. L. & Marty, J. D. Liquid crystalline thermotropic and lyotropic nanohybrids. *Nanoscale* 5, 6641–6661 (2013).

⁷Celebi, K. et al. Ultimate permeation across atomically thin porous graphene. *Science* 344, 289–292 (2014). Surwade, S. P. et al. Water desalination using nanoporous single-layer graphene. *Nat. Nanotechnol.* 10, 459–464 (2015).

⁸Yeh, C.-N., Raidongia, K., Shao, J., Yang, Q.-H. & Huang, J. On the origin of the stability of graphene oxide membranes in water. *Nat. Chem.* 7, 166–170 (2015). Han, Y., Xu, Z. & Gao, C. Ultrathin graphene nanofiltration membrane for water purification. *Adv. Funct. Mater.* 23, 3693–3700 (2013).

⁹Senyuk, B. et al. Three-dimensional patterning of solid microstructures through laser reduction of colloidal graphene oxide in liquid-crystalline dispersions. *Nat. Commun.* 6 (2015).

- 10 x higher flux than polymer membranes resulting in much greater efficiency;
- High mechanical strength for reduced maintenance and lifetime cost;
- Tuneable selectivity during manufacture for precise customisation.

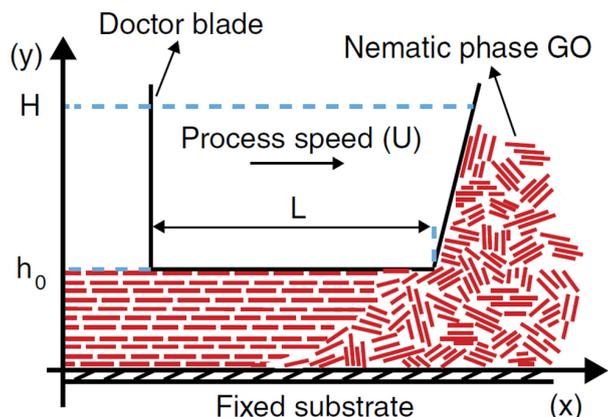


Figure 7: Ionic's proprietary process for producing SAMs involves a specially formulated rGO ink (nematic phase GO) that can withstand the shear forces required to align the GO sheets to form the SAMs)

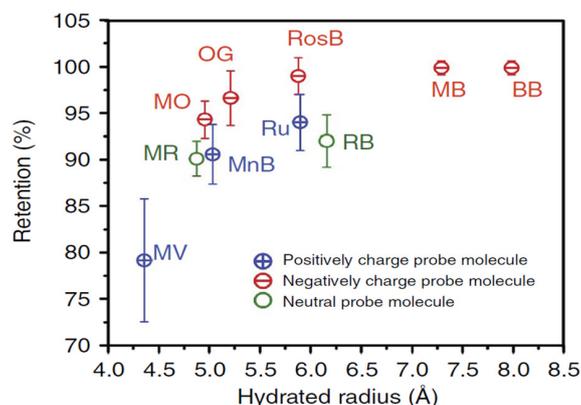


Figure 8: Ionic's SAMs show high retention of a wide range of probe molecules with different charges and sizes demonstrating excellent potential for nanofiltration applications. ((MV is methyl viologen, MR is methyl red, MnB is methylene blue, MO is methyl orange, OG is orange G, Ru is Tris (bipyridine) ruthenium (II) chloride, RB is Rhodamine B, RosB is Rose Bengal, MB is methylene blue, BB is brilliant blue. The green, red and blue symbols represent electroneutral, negatively and positively charged probe molecules, respectively.)

Compared to membranes manufactured using vacuum filtration methods, Ionic's membranes perform significantly better. They demonstrate much higher permeability and flux as well as higher retention of the common probe molecule, methyl red.

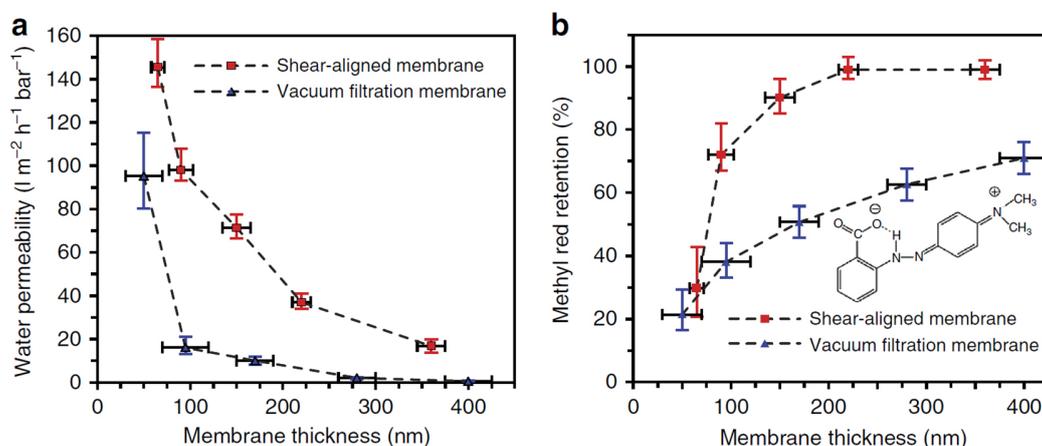


Figure 9: Comparison of SAM and vacuum filtration membrane performance. (a) Water permeability versus thickness, and (b) Retention of methyl red, an electroneutral probe molecule. Inset of b is the structure of the methyl red. Error bars in these figures are from five measurements showing the maximum and minimum values.

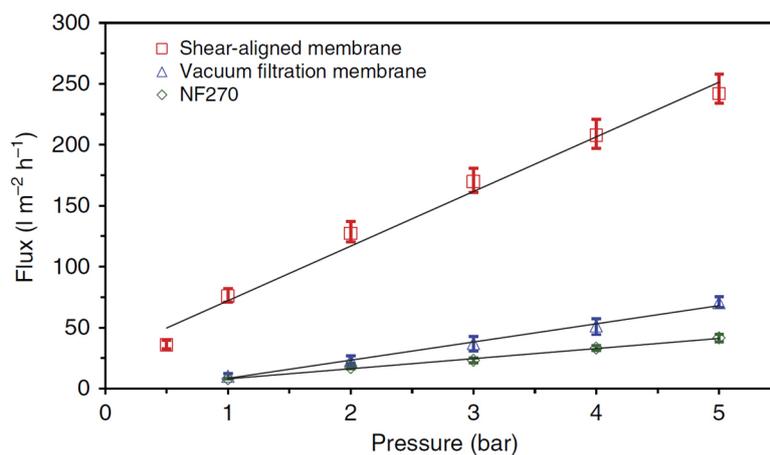


Figure 10: Water flux versus applied pressure for three different membranes: SAM (red) with a thickness of 150 ± 15 nm, vacuum filtration (blue) with a thickness of 170 ± 20 nm, and NF270, a commercial nanofiltration membrane (green). SAM showed a retention of $90 \pm 2\%$ for methyl red, while the vacuum filtration membrane and NF270 showed $50 \pm 5\%$ and $90 \pm 1.5\%$ retention, respectively.

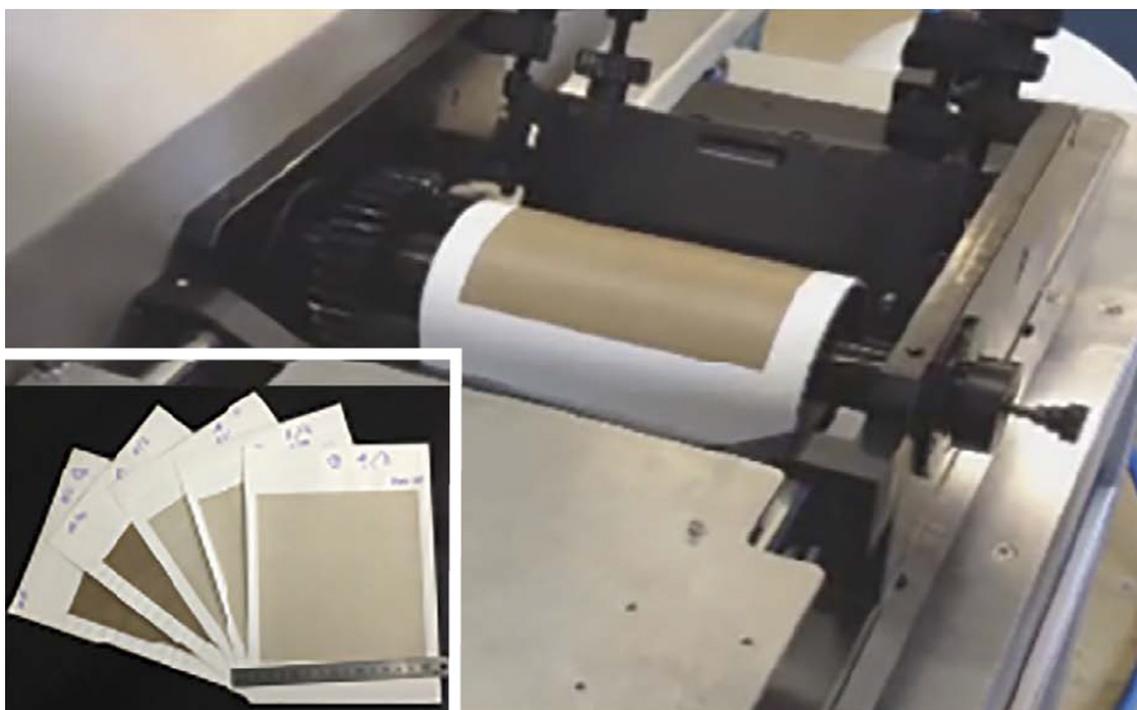


Figure 11: The gravure printing machine and (inset) images of 13×14 cm² GO membranes

The production of membranes is a scalable process and there are no identifiable reasons that the current production methods cannot be scaled to create large, commercial-scale GO membranes.

Ionic assesses that the membrane technology is now at Technology Readiness Level 4: Basic technological components are integrated to establish that they will work together and system concepts have been considered with results from testing laboratory-scale breadboard(s).

Next stages in the research and development of these membranes will involve:

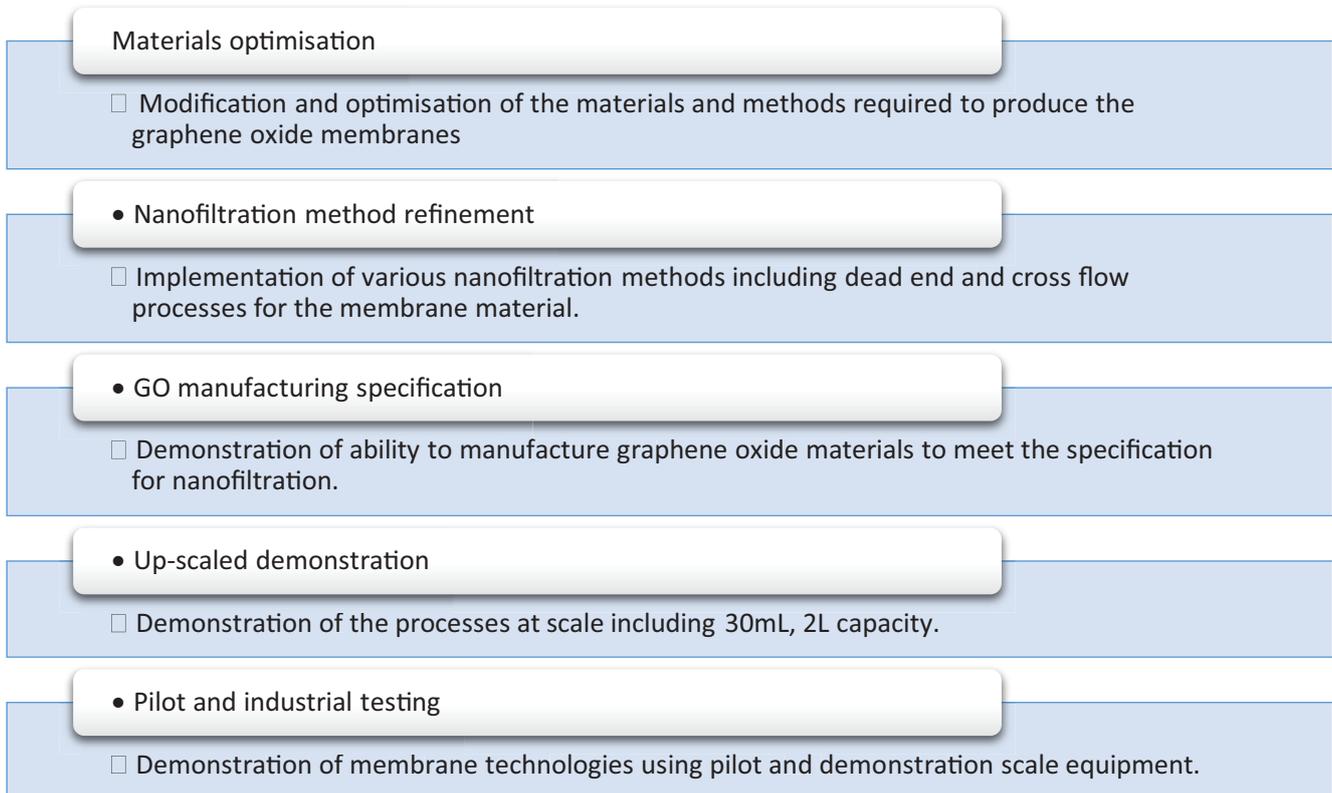


Figure 12: Development Program for Membrane Technology

The research team has received international acclaim for its work on GO membranes. In April 2015, Associate Professor Majumder presented his work on ‘Graphene-based fluidic systems: From compact micro/nano-fluidic devices to large area filtration membranes’ to the Royal Society London. The event, titled ‘Nanostructured carbon membranes for breakthrough filtration applications: advancing the science, engineering and design’, featured talks by the leading researchers on filtration from the UK, France, USA, Switzerland, Germany, South Korea and Australia.

Markets for Water and Wastewater Treatment Technologies

Municipal wastewater is a vast and underutilised source of fresh water but current treatments, using current biological and membrane processes, are energy intensive. Global population growth and urbanisation growth is placing severe demands on fresh water supplies and freshwater scarcity is driving the uptake of new technology in many developing areas around the world. Water is a critical input for power generation, and potable water is a critical input for food production and many industrial applications. Technology that can treat contaminated freshwater sources such as groundwater, surface water, municipal and industrial wastewater to a quality level for use at an affordable operating cost will be a game changer for the industry.

A number of dynamics are driving the global market for water and wastewater treatment¹⁰:

- Currently only 20% of globally produced waste water receives proper treatment.
- An estimated 90 per cent of all wastewater in developing countries is discharged untreated directly into rivers, lakes or the oceans.
- Water is being demanded at a CAGR of 7% in the next five years and water industry is growing at a CAGR of 3.9 % for the next five years.
- The global wastewater market size is USD 262 Billion as of 2014 and is expected to grow at a rate of 4.5% to reach USD 313 Billion by 2018, municipal wastewater has the highest share of 92%, and industrial waste water has an 8% share¹¹.

¹⁰ https://wikibizpedia.com/Global_Wastewater_Treatment_Market

¹¹ In the application for the CRC Grant, the participants estimated the commercial market for water and wastewater treatment to be USD54 Billion by 2020 and made the statement that a small market penetration can result in a large market value. That assessment is significantly smaller than the figure estimated by Wikibizpedia above. However, whether the market was USD 262 Billion in 2014 expanding or will be the lower figure of US\$54 Billion by 2020 is largely irrelevant as even the US\$54 Billion market size is enormous and a small market penetration, if made, could result in the Super Sand Technology and Ionics involvement therein through the joint venture with Clean TeQ a high value asset.

The countries expected to see the fastest growth include the BRIC (Brazil, Russia, India, and China) countries and other countries with large, developing industrial bases and stressed local water resources.

In developing countries, opportunities are likely to be based on the continued growth of water-intensive industries and rising investment in water and waste infrastructure, particularly in areas that need to tap brackish or otherwise poor quality water resources.

Wastewater contains the debris of our daily lives including faeces, fat, food scraps, detergents and pharmaceuticals.

In chemical terms, 1m³ of domestic wastewater contains 300 to 600 grams of carbon-rich organic matter (known as carbonaceous chemical oxygen demand, or COD), 40 to 60 grams of nitrogen (in the form of ammonium and organic compounds), 5 to 20 grams of phosphorus (in phosphates and organic compounds), 10 to 20 grams of sulphur (mainly as sulphate) and traces of heavy metal ions.

Historically, wastewater is screened and de-gritted before being held in retention tanks where organics and nutrients are biologically aerobically oxidised. The bio-solids are then removed in a clarifier to produce the treated effluent.

The process has a large energy and carbon footprint. A medium sized plant (e.g. 100,000 m³ of water per day) consumes as much electricity as a town of 5,000 people (around 0.6 kWh per m³ of wastewater) and emitting as much CO₂ as 6,000 cars per day. The technology also produces large volumes of bio-solids (sludge) which must be managed.

As increasingly stringent energy and environmental performance indicators are set by governments, there is a critical need for utility companies to implement low energy, low sludge wastewater treatment options. If suspended and dissolved COD in wastewater can be reduced by 80 – 90% in a low energy separation or filtration process, then the need for the energy intensive secondary processes would be significantly reduced.

A solution to these problems requires a low energy, continuous flow processes for the wastewater treatment market and the use of novel adsorbents and nanofiltration membranes to adsorb or filter out dissolved organics (COD) in a continuous flow process.

Current products for adsorption (such as activated carbon) and polymer membranes do not meet the criteria for continuous processing, low energy use and high water recovery. GO-based water treatment products have the potential to meet these requirements.

While polymer-based technologies currently dominate the market, graphene membranes represent the next wave of evolution in this market and have enormous disruptive potential.

Ionic's GO membranes will target the global market for filtration membranes.

To the extent those targets involve water purification, including mine remediation, waste water, drinking water, desalination, brackish water or any other contaminated or polluted waters, those targets and markets will be addressed under the Clean TeQ Commercialisation Agreement (Section 13).

The global membranes market is projected to grow at a CAGR of 9.47% from 2015 to reach a value of USD 32.14 Billion by 2020. While growth in ceramic membranes is projected to be highest, other types of membranes including that Ionic's GO membranes are projected to grow at a CAGR of 12.05% between 2015 and 2020¹².

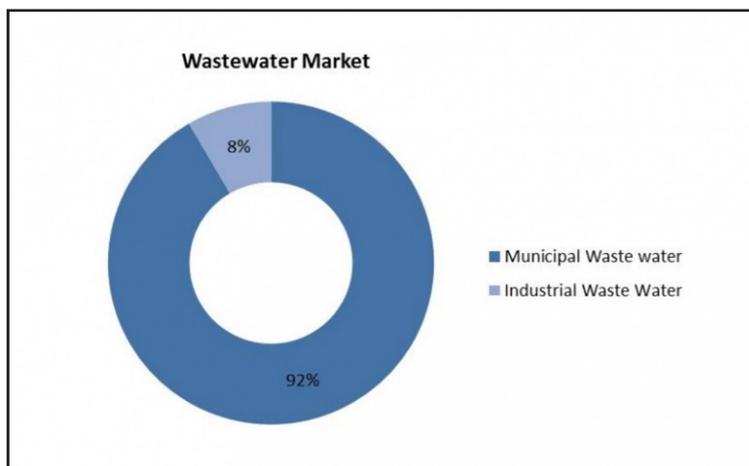


Figure 13: Global wastewater market
(https://wikibizpedia.com/Global_Wastewater_Treatment_Market)

¹² http://www.marketsandmarkets.com/Market-Reports/membranes-market-1176.html?gclid=Cj0KEQiAlsrfBRCAxcCB54XEiLEBEiQA_ei0DG-Zdq0eamDjKt2wUfy4cRwSr4TPP3OFXs7stPvqRTgaAuSK8P8HAQ

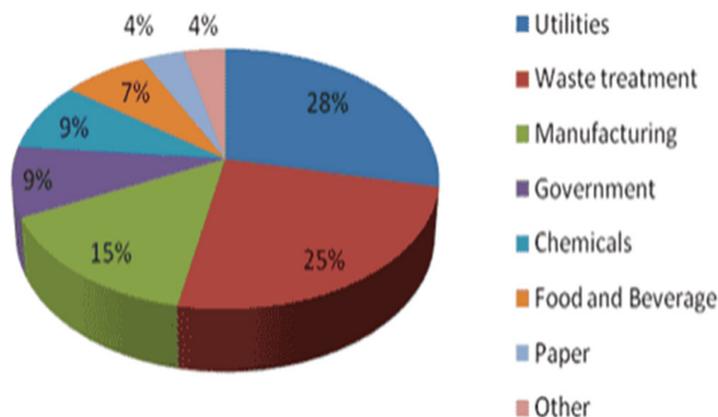


Figure 14: The market for wastewater treatment services addresses demand in a broad range of industries which means a large number of opportunities

<http://www.waterworld.com/articles/iww/print/volume-11/issue-1/feature-editorial/survey-examines-wastewater-treatment-costs.html>

industry is also supported by a wide variety of companies that design, build, and operate membrane-based systems.

Commercialisation of Water Treatment Technologies

Ionic's approach to commercialising its water treatment technologies is centred on its partnership with Clean TeQ. Ionic brings its advanced understanding of graphene and GO along with intellectual property to pair with Clean TeQ's established

Continuous Ionic Filtration technology and deep knowledge of water treatment applications in what will be a compelling service offering in global water and wastewater treatment markets.

This approach to commercialisation has recently borne excellent results and endorsement in the form of an Australian Government CRC-P grant awarded to the Ionic / Clean TeQ / Monash partnership, which will see in excess of \$1 million spent on water and wastewater treatment technologies over next 18 months.

The ability of Clean TeQ and Ionic to penetrate markets for use of their technologies in this area will depend on the commercialisation pathways chosen by them.

Water and wastewater treatment is the primary focus of the Clean TeQ Commercialisation Agreement. However it should be noted that there are a wide range of other purposes and areas that could be focussed on under the

Clean TeQ Commercialisation Agreement.

To the extent those targets, other than wastewater, involve water purification, they include mine remediation, drinking water, desalination and treatment of brackish water or any other contaminated or polluted waters. All these markets and applications may be addressed under the Clean TeQ Commercialisation Agreement.
Clean TeQ Commercialisation Agreement

The terms of the Clean TeQ Commercialisation Agreement are detailed in Section 13 under the heading Material Contracts.

Briefly, under the Clean TeQ Commercialisation Agreement, Clean TeQ has an option to acquire a 75% interest in the SuperSand Technology and Ionic's Membrane Technology both limited to the field of water purification (Field).

If Clean TeQ carries out the work and expenditure program to entitle it to exercise the option, a joint venture company (Newco) will be established and capitalised to finance the commercialisation of those technologies in the Field.

If the option is exercised and Newco is established, Newco will use Clean TeQ's existing marketing networks to access the markets in developing countries such as China, India and Africa. Licencing agreements may be made available to companies that have access to existing consumable markets in carbon and membranes.

Under the work programs to be carried out under the Clean TeQ Commercialisation Agreement and the CRC-P Grant terms, studies for the production of GO materials and their deployment into products will be up-scaled for use in 2L and 30L capacity filtration columns and membrane separation units.

The market in membranes specifically for nanofiltration is projected to witness an estimated growth rate of in excess of 12% between 2015 and 2020 with water & wastewater treatment applications accounting for the largest market share of approximately 39%. With increasing population, growing demand in chemical industries, and growing demand in the pharmaceutical & medical sector, Asia-Pacific is projected to generate a huge demand for membranes and witness an estimated growth rate of in excess of 12%, followed by Middle East and Africa with an estimated growth rate of in excess of 10.4% between 2015 and 2020 11.

Major players in the water and wastewater treatment market include: 3M Purification, Aquatech International, Calgon Carbon, Danaher, Degremont, GDF SUEZ, GE Water & Process Technologies, Seimens, Veolia Water Solutions & Technologies. Leading suppliers of membrane materials include EMD Millipore (Merck), Pall, Toray Industries, General Electric, Nitto Denko, Dow Chemical, and Asahi Kasei. Together, these seven firms accounted for 17 percent of global membrane sales in 2012. The

Upscaling GO-Sand will require a large stirred tank reactor for chemical reaction (available at Monash University) and an industrial pan coater to be purchased from the CRC budget. Upscaling membrane production will be determined by the coating technique but will most likely be done in contractor premises using commercially available equipment. Filtration and separation facilities of 2L and 30L capacity are available in Clean TeQ R&D facilities located at Notting Hill in Victoria.

The Technology will then go to demonstration scale for the adsorption material using an existing Clean TeQ demonstration plant. Additionally, a membrane demonstration plant will be constructed as part of the program of works. These demonstration plants will also be used as a marketing tool to provide proof of performance and secure the uptake of technology by end-users.

CRC-P Grant

In February 2017, Ionic, Clean TeQ and Monash were awarded a Cooperative Research Centres Project Grant of \$632,285 over two years (CRC-P Grant).

The studies and work program to be carried out under the grant will focus on further development of the SuperSand Technology to a Technology Readiness Level of 9 (the highest level of TRL), which involves using actual application of the technology in its final form and under mission conditions, such as those encountered in operational testing and subsequent evaluation.

By way of background to the making of the application for the CRC-P Grant, Clean TeQ has developed a water treatment process known as Continuous Ionic Filtration (CIF®) to treat high flow rates of water at low power consumption. In this process ion exchange resins are cycled through absorption and regeneration contactors to extract and concentrate charged species. The process separates and concentrates ionic species by a factor of 50 -100 and recovers clean water. Presently there is no adsorptive material that can be used in a similar way for Chemical Oxygen Demand (COD) removal. Currently available materials, such as activated carbon, do not have the physical attributes to be used in continuous processes.

The CRC-P Grant application recognised a number of facts, and the development of the SuperSand Technology seeks to address the issues raised by those matters.

The CRC-P Grant Application recognised that:

- Global population growth and urbanisation growth is placing severe demands on fresh water supplies.
- Municipal wastewater is a vast and underutilised source of fresh water but that current treatments, using current biological and membrane processes, are energy intensive.
- A solution to these problems requires a low energy, continuous flow processes for the wastewater treatment market and the use of novel adsorbents and nanofiltration membranes to adsorb or filter out dissolved organics (COD) in a continuous flow process to provide a solution.
- Current products for adsorption, such as activated carbon, and polymer membranes, such as nanofilters and reverse osmosis, do not meet the criteria for continuous processing, low energy use and high water recovery.

If these results can be demonstrated in the proposed pilot studies referred to in the Clean TeQ Commercialisation Agreement and by the work to be carried out under the CRC-P grant, then those tangible and successful outcomes will provide a significant first mover advantage to Clean TeQ and Ionic in commercialisation of those technologies in the field of water and wastewater treatment.

That first mover advantage will be protected, insofar as possible, by the patents applied for and granted to Monash and which Ionic has an exclusive global licence to commercialise.

The key activities under the CRC-P Grant include the development and optimisation of the required GO materials and intermediates in the laboratory to enhance the extraction and concentration of COD. The method of extracting and concentrating COD will be up-scaled to demonstration size adsorption and membrane filtration processes.

The project to be completed under the CRC-P Grant, utilising Ionic's SuperSand Technology and Membrane Technology, aligns closely with the industry priorities set out by the Advanced Manufacturing Growth Centre.

Success in commercialisation of the SuperSand Technology will position Clean TeQ and Ionic as technology leaders in the field, delivering high value, globally competitive products to the growing water treatment markets.

On completion of the SuperSand Project the resultant products will be manufactured and delivered by Clean TeQ and Ionic through a joint venture company (details in Section 13, Clause 8) and globally through licencing or other commercial agreements.

Under the CRC-P Grant the SuperSand Project will be under the control of Clean TeQ. The work to be carried out under the CRC-P Grant to enhance the extraction and concentration of COD involves a number of stages:

- Modification and optimisation of the materials and methods required to produce the GO adsorbents and graphene oxide membranes
- Implementation of chemical biological and electrochemical recovery methods for the recycling of adsorbent material.
- Implementation of various nanofiltration methods including dead end and cross flow processes for the membrane material.
- Demonstration of ability to manufacture GO materials to meet the specification for adsorption and nanofiltration.
- Demonstration of the processes at scale including 2L and 30L capacity.
- Demonstration of adsorption and membrane technologies using pilot and demonstration scale equipment. Pilot scale equipment will be operated at Clean TeQ's premises in Notting Hill in Victoria while demonstration scale testing will be operated at a local wastewater treatment plant.

As part of the process being undertaken, Clean TeQ's existing filtration facilities for scaling up the processes and pilot plant facilities will be used. Clean TeQ's executive director Mr Peter Voigt will lead the product and process development. Clean TeQ has proposed that, allied with the completion of the CRC-P Grant activities, market development for a completed product will take place in China.

Total expenditure to carry out the activities under the CRC-P Grant to achieve pilot plant stage testing (TRL Level 9) is approximately \$1,662,285 being the \$632,285 from the CRC-P Grant, approximately \$427,000 in cash contributed by the participants (Clean TeQ \$200,000, Ionic \$200,000 and Monash \$27,000) and approximately \$603,000 in kind, being employee's time, and cost of research, scale up and pilot scale facilities provided (Clean TeQ \$307,000, Ionic \$82,500 and Monash \$162,500).

Cash expenditure and contributions in kind by the each of the Participants under the CRC-P over the period of the grant are to be as follows.

Cash contributions	2016-2017	2017-18	2018-19	Total
CLEAN TEQ LIMITED	\$50,000	\$120,000	\$30,000	\$200,000
IONIC INDUSTRIES LTD	\$50,000	\$120,000	\$30,000	\$200,000
MONASH UNIVERSITY	\$17,328	\$64,369	\$18,302	\$100,000
CRC-P Grant	\$108,223	\$401,310	\$122,752	\$632,286
TOTAL	\$225,551	\$705,679	\$201,054	\$1,132,286

Aggregate FTE Value & Non-Staff-in Kind	2016-17	2017-18	2018-19	Total
CLEAN TEQ LIMITED	\$17,500	\$122,500	\$307,500	\$307,500
IONIC INDUSTRIES LTD	\$13,750	\$55,000	\$82,500	\$87,500
MONASH UNIVERSITY	\$42,500	\$142,500	\$212,500	\$202,500
TOTAL	\$73,750	\$320,000	\$602,500	\$597,500

The CRC-P Grant activities are estimated to take a maximum period of 18 – 24 months.

Potential Clients: SA Water

To provide some indication of who the potential customers may be for these water and waste water treatment technologies, Ionic has engaged SA Water with the object of develop tailoring SuperSand products for the removal of various contaminants in drinking water, ranging from natural organic matter to taste and odour compounds.

SA Water is owned by the South Australian Government. Its people embrace the challenge of delivering safe and affordable water services to more than 1.5 million South Australian customers. Once this water has been used, SA Water is responsible for removing the waste, then treating it to ensure the best outcomes for health and to reduce environmental impact. SA Water manages 42 water treatment plants to remove impurities, filter the water and disinfect it so it's safe to drink.

SA Water has a keen interest in Ionic's SuperSand and nano-filtration membranes for potential use in water treatment applications.

Ionic's technologies could be used to target a range of contaminants critical to SA Water and many other water utilities and environmental protection agencies around the world. These include;

- Natural Organic Matter: Humic acid, Hydrophobic and Hydrophilic fractions (these are of particular importance to SA Water);
- Anions: Bromide (considered the "holy grail" of water treatment objectives);
- Taste and Odour compounds: MIB (2-methylisoborneol) and geosmin;
- Algal toxins: Saxitoxin(s), Cylindrospermopsin, Microcystin-LR, Anatoxin-a;
- Metals: Manganese, iron, Arsenic.

Ionic understands from discussions with SA Water that the main drivers for SA Water working with Ionic are a desire to both reduce the cost of the large amounts of filtration products used in their facilities and achieve the performance required to meet the water quality standards residents demand, given the challenging nature of South Australia's natural water supply.

Ionic's focus is to manufacture SuperSand products that can outperform the current Activated Carbon products SA Water uses and, in particular, to selectively tailor SuperSand to remove those specific contaminants that are difficult and costly to treat with existing activated carbon products.

The successful development of a specialised product for SA Water and its successful application by SA Water would provide Ionic and Clean TeQ with an invaluable marketing tool to attack global Activated Carbon markets in the field of water purification generally, particularly in relation to drinking water.

Activated Carbon markets are addressed further below as the use of Activated Carbon is not limited to water treatment but encompasses a wide range of industrial applications.

Graphene Micro Planar Super-Capacitors for Energy Storage

While there is currently an enormous effort being poured into next generation chemical battery technology, including various forms of lithium ion batteries, supercapacitors represent the next wave of energy storage technology, promising vastly superior performance. Ionic's technology represents a solution to the problems that have inhibited the widespread adoption of supercapacitors as energy storage devices.

Batteries and capacitors seem similar as they both store and release electrical energy. However, there are crucial differences between them that impact their potential applications, due to their functional differences.

The potential energy in a capacitor is stored in an electric field, where a battery stores its potential energy in a chemical form.

The technology used in chemical storage batteries currently yields greater energy densities (capable of storing more energy per weight) than capacitors.

However, a battery typically discharges its energy more slowly than a capacitor because there is a lag associated with the chemical reaction necessary to transfer the chemical energy into electrical energy.

A capacitor on the other hand stores the electrical energy directly on the plates so the discharging rate for capacitors is directly related to the conduction capabilities of the capacitors plates.

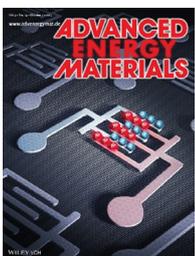
A capacitor can discharge and charge faster than a battery because of this energy storage method¹³.

The primary uses for supercapacitors to date have been in combination with batteries or for specialised applications where the specific characteristics of supercapacitors presented an advantage over batteries. The applications include:

- Transport in buses, light rail and cars used alongside batteries or traditional petrol / diesel engines
- Energy harvesting and grid electricity applications where they are used to buffer electricity supply in conjunction with other energy storage systems
- Electronics applications with fluctuating loads where supercapacitors are used to stabilise the power supply from batteries

So, to date, while supercapacitors offer many advantages, their low energy per weight has inhibited widespread application as an energy storage device.

Graphene Micro Planar Supercapacitors



Ionic's graphene micro planar supercapacitors can deliver all the benefits of supercapacitors in a much smaller, lighter device.

In 2015, the Ionic / Monash research team published ground-breaking research titled Miniaturized Supercapacitors: Focused Ion Beam Reduced GO Supercapacitors with Enhanced Performance Metrics¹⁴ in volume 5 of the Journal of Advanced Energy Materials (cover shown in graphic).

That research demonstrated how micro-supercapacitor architectures with planar geometry provide several advantages, such as the ability to control and reduce the distances ions travel between two electrodes, easy integration to microdevices and the potential of being extended into 3 dimensions without compromising the interelectrode distances.

Focused ion beam (FIB) technology was used to directly write miniaturized planar electrode systems of reduced GO (FIB-rGO) on films of GO. Using optimized ion beam irradiation, the research team created interdigitated FIB-rGO electrode designs with 40 μm long and 3.5 μm wide fingers with ultra-small interelectrode spacing of 1 μm .



Figure 15: Three packs of modern supercapacitors (in the blue package), consisting of six D-size cells, provide and store the same amount of electrical energy as the smaller pack of six AA-size TLI 1550 Li-ion rechargeable batteries. By contrast, graphene micro planar supercapacitors with the same electrical energy are minute in size compared with the AA-size TLI 1550 Li-ion rechargeable batteries.

¹³ <http://machinedesign.com/batteriespower-supplies/what-s-difference-between-batteries-and-capacitors>

¹⁴ Lobo D. E., Banerjee P. C., Easton C. D., Majumder M. (2015). Miniaturized Supercapacitors: Focused Ion Beam Reduced Graphene Oxide Supercapacitors with Enhanced Performance Metrics. *Adv. Energy Mater.*, 5: 1500665. doi: 10.1002/aenm.201500665

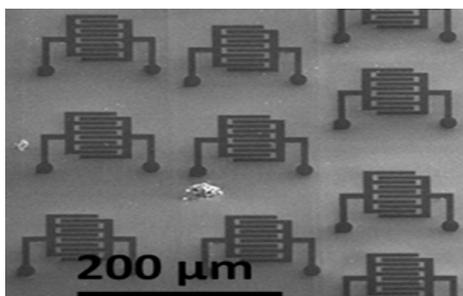


Figure 16: interdigitated electrode printed at a micro scale

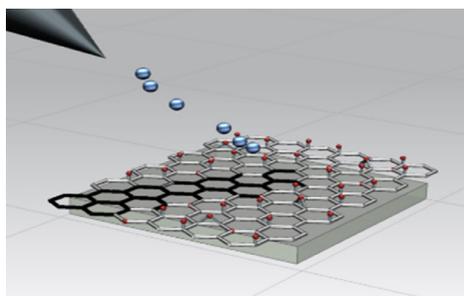


Figure 17: An FIB being used to “print” planar electrodes on the GO film.

These devices demonstrated a large capacitance (102 mF/cm^2), ultra-small time response (0.03 ms), low equivalent series resistance ($0.35 \text{ m}\Omega/\text{cm}^2$), and retain 95% of the capacitance after 1000 cycles at an ultrahigh current density of 45 mA/cm^2 . (See table below for comparison figures).

These performance metrics showed extraordinary improvements in a number of measures of supercapacitor performance compared to existing reports. The improvements were due to the miniaturized electrode dimensions and minimal damage to the graphene sheets.

These results were the first step toward largescale fabrication of arrayed, planar, high-performance micro-supercapacitors with a small environmental footprint.

While some competing micro-supercapacitors can provide high power densities, comparisons (see table below) demonstrate that Ionic’s miniaturised devices provide enhanced energy density while maintaining high power density.

This is the figurative Holy Grail in supercapacitor research.

The table below shows comparable performance against the best competing supercapacitors as presented in independent, peer-reviewed research from the University of California Los Angeles¹⁵:

Parameters	Ionic’s Technology	Best Competitors	What this means
Response time (ms)	0.033	19	Rapid power surge and faster charging
Energy density (Wh/cm ³)	0.173	.002	Sustain high power for longer life
Capacitance (mF/cm ²)	102	2.314	More energy in same volume
Equivalent series resistance (mΩ cm ²)	0.35	3600	Less losses

Based on this work, Monash was granted Australian Patent 2013277941 entitled “Conductive portions in insulating materials”. Ionic holds an exclusive global licence from Monash to commercialise this technology.

Since this early publication, Ionic has continuing research in the field and has made a number of advances over the past 18 months to bring this technology closer to market.

This has included:

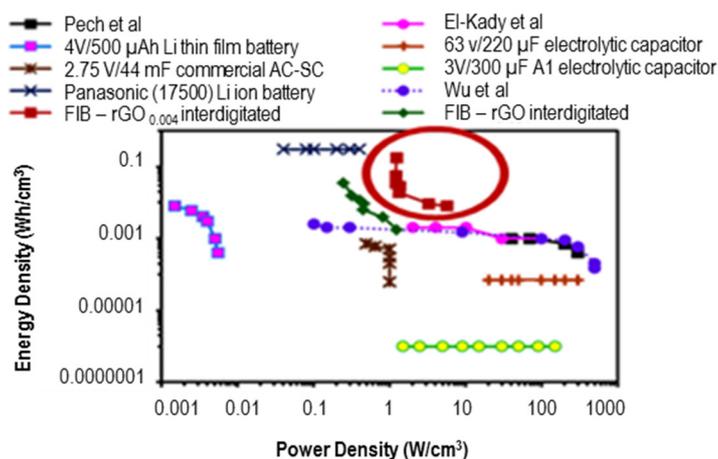


Figure18: Comparative analysis against a variety of competing supercapacitor devices shows excellent energy density of Ionic’s graphene, planar micro supercapacitors.

¹⁵ El Kady et al., Engineering three-dimensional hybrid supercapacitors and micro-supercapacitors for high-performance integrated energy storage. Nature Communications, 2013, 4, 1475

1. Understanding the dependence of energy storage capabilities on the electrode geometry, and identifying the geometries that provide high energy storage capabilities in the low-medium power range. These studies have enabled us to better design the micro supercapacitor electrodes. Many device electrode configurations were trialled and an optimal configuration was determined which is subject to patent pending.
2. Identified optimal substrates, and optimized the process parameters (including ink concentration, printer speed, blade angle and blade pressure) to print GO supercapacitor in a high-speed gravure printer.
3. Developed an optimal GO reduction method which provides an optimum balance between electrical conductivity and the extent of microstructural damage of the printed electrodes. The chemical-based method was chosen to generate proof-of-concept prototypes.
4. Developed the phase 1 device (operated in aqueous electrolyte).
5. Device configuration and current collector optimisation and development of alkaline gel electrolyte.
6. Verified that printed GO has better electrochemical charge storage capabilities than GO films prepared by conventional vacuum filtration method highlighting the critical advantages of our manufacturing method.
7. Explored incorporation of additives, such as black pearl in the GO ink to improve the electrical conductivity and confirmed that additives can be used although further work is required to optimise the additives
8. Developed phase 3 device, with the objective of stopping electrolyte seepage through the porous substrate to decrease electrolyte resistance.
9. Developed phase 4 device, where a new electrolyte composition was identified that doesn't react with the chosen substrate and contributes to the total resistive losses in the system. Phase 4 device is a 1 cm x 1cm prototype which can be handled easily.

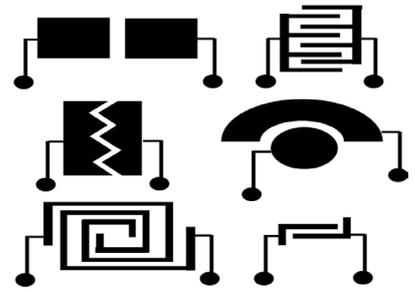


Figure 19: A sample of the configurations trialled

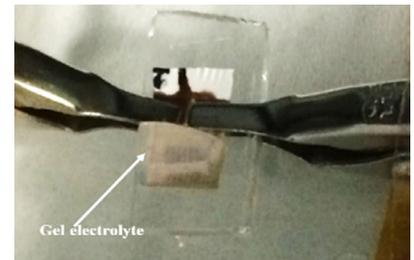


Figure 20: device in optimised gel electrolyte.

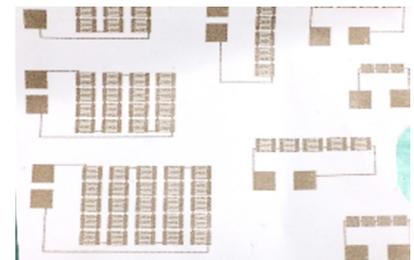


Figure 21: printed planar micro supercapacitor devices printed on optimised substrate

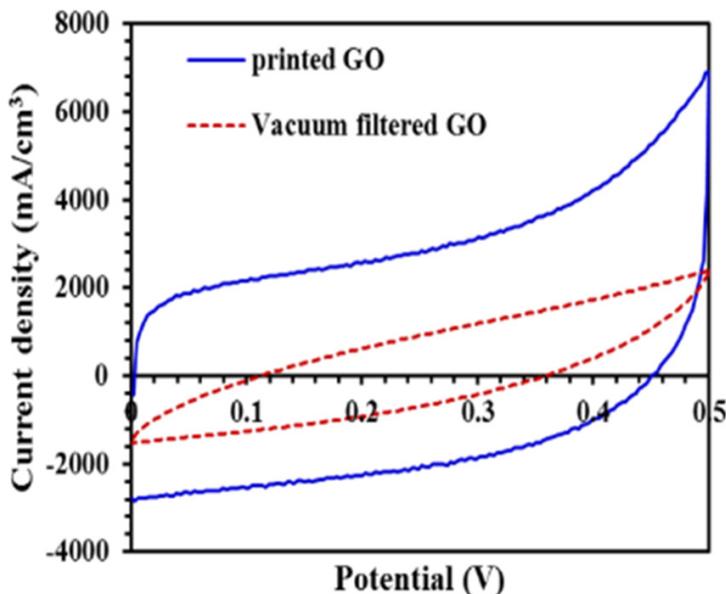


Figure 22: Verification of Ionic's proprietary GO film performance compared to competing vacuum filtration films

The Ionic / Monash Team's recent work has been highly acclaimed following presentation at several forums:

1. 229th Electrochemical Society Meeting, San Diego, June 2016;
2. International Workshop of Energy Materials 2016, Sydney, Nov 2016; and
3. Emerging Energy Technology Summit and Exhibition 2016, Melbourne, Dec 2016.

That work has received positive feedback from peers in the field, including from Prof. Christian Amatore (ENS, France) and Prof. Francesca Iacopi (University of Technology Sydney, Sydney), who are world leaders in this topic.

Over the next 18 months Ionic will continue this research program focusing on the following activities:

- Preparation of an application for a provisional patent to protect IP as developed.
- Development of new formulation involving GO and other additives to improve the energy storage capability of the microdevices.
- Development of new GO "ink" formulation and refinement of the printer processing parameters to print high resolution miniaturised electrodes (with dimensions less than 50 μm), as miniaturised electrodes provide significantly higher energy and power densities as compared to their larger counterparts.
- Refinement of manufacturing processes to ensure that device printing methods are compatible with large scale, roll-to-roll industrial processes
- Development of process for 3D stacking of the devices to achieve targeted energy and power capabilities. Benchmarking with similar products from world leading companies will also be undertaken.

If the current plans are achieved, within 12 months, Ionic will have a 3-dimensional "stacked" supercapacitor energy storage device that can provide tailorable energy and power densities.

This process will also involve evaluation of performance data of individual and stacked printed micro-supercapacitors, and benchmarking against state-of-the-art micro-supercapacitors.

Markets for Energy Storage and Super-Capacitors

In recent years, there has been an accelerating realisation by world leaders, international foundations and mega-funds that the world cannot continue to burn fossil fuels at the rate at which it is now doing.

The common consensus amongst all of these entities is that the process of decarbonisation of the economy must start and must start now. This has thrown the spotlight on renewable energy resources. The most efficient way of tapping into these renewable resources and supply the energy needs of the world is to convert them to electrical power.

This is easily done but the renewables are invariably intermittent. For example, sunshine is only effective during the day and when there is little cloud cover and some days are calm and some are windy. This problem of intermittency can be overcome with energy storage. However, to date energy storage has not been economically available.

With the push to decarbonise the economy, the race is on to find economical forms of energy storage propelling the global energy storage market to represent potentially USD 50 Billion in annual sales by the year 2020, according to Lux Research,¹⁶ at a predicted CAGR of 8%¹⁵

One of the sectors of the economy that consumes prodigious quantities of fossil fuels is the transportation sector. Energy storage for this sector is in the form of on-board car batteries that are charged via the electricity grid.

The displacement of fossil fuels in this sector with renewables fed from the electricity grid will generate much of the predicted growth, which will rise to represent USD 21 Billion in annual sales by 2020, according to Lux Research, thus narrowing the gap between the transportation sector and the consumer electronics¹⁷ sector, which is predicted to rise to USD 27 Billion in annual sales by 2020.

The remainder of the global market is forecast to be taken by in the home battery packs paired with photovoltaics mounted on roofs to smooth out the intermittency of renewables, which is expected to rise to USD 2.8 billion.

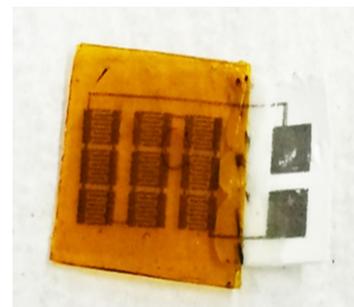


Figure 23: Phase 4 prototype; a series connected devices in gel electrolyte

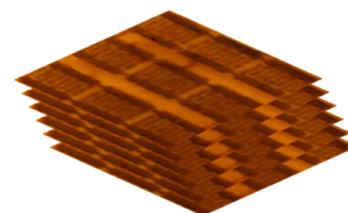


Figure 24: The next phase of research will see the development of a stacked, 3D device incorporating Ionic's micro planar supercapacitors

¹⁶ <http://www.luxresearchinc.com/news-and-events/press-releases/read/energy-storage-market-rises-50-billion-2020-amid-dramatic>

¹⁷ For example, batteries and recharging for your smart phone, TV, laptop and other appliances.

The transport sector is well on its way to displacing consumer electronics as the biggest user of energy storage. As that happens, it is likely to lead to further economies of scale and a new round of cost reductions, which will impact on the home applications as well.

Renewable Energy Applications

There is little argument that at the rate civilisation is consuming fossil fuels, it is only a matter of time before we run out of them or economic extraction becomes unviable.

The question is: how long do we have? Some of the more pessimistic scenarios indicate that it is only 30 to 40 years or just less than two generations. So how will we feed, clothe and supply energy to a projected 10 to 12 billion people?

Clearly the world needs to find an alternative source of energy.

In the electricity sector, wind and solar renewable energy sources, are already used in varying degrees around the world and are expected to account for an increasing share of the world's electricity output in the future. But these renewables are intermittent in that:

- solar photovoltaics (PV) do not generate electricity at night or when there is cloud cover; and
- when the wind does not blow, no wind turbine electricity is produced.

So, for these renewable sources to supply us with reliable and continuous power, surplus electricity that is generated has to be stored and released when these renewable devices are not generating.

With the transformation of electricity grids from centrally supplied legacy grids to smart-grids, this storage in the form of in-home battery banks and grid banks can now be deployed and activated in the networks.

Renewable energy generation systems, paired with advanced energy storage solutions such as super-capacitors may represent the next stage of evolution in this field, assuming that the storage facilities are sufficiently well developed and stable to supply base load electricity supply as necessary when production from renewables drops.

Adequate distributed storage overcomes the intermittency limitations of renewables, smoothing out the peaks and troughs of the load profiles, thus creating an efficient and reliable integrated energy system that could displace fossil fired base load plant. Storage also improves the distribution grids' stability, where the potential for regional balancing can be limited when storage is unavailable.

Given this fundamental role that distributed storage is likely to play in the emerging smart-grids, global demand for distributed storage is expected to soar over the next two decades as renewables become increasingly cost competitive and a larger component of the generating plant mix.

Much progress is being made in storage technologies, but they are still developing. Some of the best progress has been made with solar photo-voltaic cells (PV) paired with battery storage.

At the grass roots level, solar PV paired with battery storage has already reached the viability threshold in a number of countries. For some consumers, it is now less expensive to self-generate electricity using solar PV paired with storage and supplemented with embedded generation than it is to use electricity from the grid.

According to Navigant Research, there were 362.8 MW of energy storage projects announced worldwide in 2013-2014, an almost equal distribution between North America, Asia Pacific, and Western Europe. Navigant Research expects global installed energy storage for the grid and ancillary services power capacity to grow from 538 MW in 2014 to 21 GW in 2024.

Navigant predicts that worldwide revenue from energy storage will increase from USD 675 Million in 2014 to USD 15.6 Billion in 2024.

Three factors contribute to a compelling case for decentralised, stand alone, residential applications:

- where retail energy prices are high;
- where compensation for electricity fed into the grid is low; or
- where government support for solar PV paired with battery storage is available.

This is improving the economics of distributed storage to the point where cost reductions are beginning to track the profile of solar PVs experienced in the last five years, making off-grid storage the preferred option for many consumers and consequently reducing the reliance on fossil fuels.

If we are successful in executing our plans, we believe that Ionic's super-capacitor technology could place us at the forefront of technological innovation in this critical field of human endeavour.

Transportation and Electric Vehicles

Transportation is predicted to be the fastest growing application of energy storage technologies, rising to annual sales of \$US21 Billion by 2020; largely due to the increasing use of electric vehicles. The rapidly changing market for electric vehicles (EVs), which includes hybrid, plug-in hybrid, and battery electric vehicles (HEVs, PHEVs, and BEVs), is a small but important part of the global automotive industry. Many governments worldwide are keen to see increasing penetrations of EVs due to the environmental, economic, and energy security benefits they provide. Consequently, governments have both pushed automakers to develop EVs and have incentivised citizens to buy them¹⁸.

EVs – that is both hybrid and pure electric cars – will make up more than one-quarter of the global car market within just 10 years, their numbers growing from around 1 million today to around 25 million in 2025. Over the next 10 years, sales are forecast to increase by a compound annual growth rate of 26 per cent, expanding market share from 3 per cent today to 22 per cent in 2025¹⁹. Electric vehicles will be a \$US731 Billion market in 2027, profoundly changing society by 2037²⁰.

As always, favourable economics are the prime ingredient for market expansion. Gasoline prices are projected to increase at a CAGR of 7.2% between 2013 and 2020, while hybrid vehicle battery pack prices are expected to decrease by more than 20% by 2020 as advanced research unlocks battery innovations. Considering battery packs can represent up to half of EV prices, while the cost to recharge a car with electricity is a fraction of the cost compared to refuelling with gasoline, it's clear why lower EV operational costs are a major market driver²¹.

However, beyond better economics, electric-powered vehicles are becoming more mainstream, with more options available to consumers. From established models like the Chevy Volt, Nissan Leaf, and Tesla Model S to new options like the Chevy Spark EV and hybrids from most major automakers, EVs are available in almost every price and performance range.

Steady government policy support also has a role in the rise in EV adoption, with currently available tax incentives worldwide to remain steady and provide financial support for consumers. At the same time, stricter fuel economy and emissions regulations encourage automakers to continue expanding low-carbon options²².

So, for a range of reasons, Ionic expects that, if it is successful in product development, there will be a strong and growing transportation market to underpin demand for its graphene super-capacitors.

Consumer Electronics

Consumer electronics will continue to be a major market for energy storage applications.

Based on the experimental results obtained to date, Ionic assesses that its super-capacitors will enable devices to hold much more energy in the same or lesser volume, have higher peak power, be fully rechargeable within minutes, and live longer than current battery technologies. As with transportation applications, Ionic's work in this field will involve the introduction of exciting new technologies into markets that are already growing at a rapid pace.

The ever-growing popularity of smartphones, allied with a gradual increase in their battery capacity, is forecast to see this market segment growing sales at a 12% growth rate to \$8.4 billion in 2020. Tablet computers will follow with a 6% predicted growth rate to \$12 billion, the single largest energy storage consumption by a single application. Overall, the energy storage market for smart portable devices as laptops, smartphones, tablet PCs, digital cameras, wireless sensor networks and radio frequency identification, is forecast to be achieve combined annual sales of USD 86 Billion per annum by 2023.²³

Lithium-ion batteries are currently the dominant technology in the energy storage space; this is because of their superior energy density characteristics compared to other existing competitor products. The consumer electronics industry has pushed their production to the scale of billions, and consequently through economies of scale has enabled an optimisation of the supply chain and reduced price. However, lithium battery technology capabilities are being challenged by the modern multifunctional portable devices which are requiring increasingly higher performance in terms of power density. Whilst current research and development pathways aim for the emergence of a new generation of high energy density technologies, alternative energy storage technologies are challenging the dominance of lithium batteries. This is the case with super-capacitors, which have disruptive potential as an emerging energy storage technology whose characteristics make them strong candidates for satisfying those specific functions where lithium batteries underperform.²⁴

18 <http://www.luxresearchinc.com/news-and-events/press-releases/read/energy-storage-market-rises-50-billion-2020-amid-dramatic>

19 <http://reneweconomy.com.au/four-reasons-electric-vehicle-sales-will-surge-goldman-sachs-86958/>

20 <http://www.idtechex.com/research/reports/electric-vehicles-change-the-world-2017-2037-000494.asp>

21 <https://cleantechnica.com/2013/09/30/electric-vehicles-speeding-toward-7-global-sales-2020/>

22 https://www.iea.org/publications/freepublications/publication/Global_EV_Outlook_2016.pdf

23 <http://www.idtechex.com/research/reports/batteries-and-supercapacitors-in-consumer-electronics-2013-2023-forecasts-opportunities-innovation-000336.asp>

24 http://www.researchandmarkets.com/research/fgvgzj/batteries_and

So, with its super-capacitor technology, Ionic aims to launch a viable product into a rapidly growing market consumer electronics market where new technology is critical to both meeting existing customer requirements and also driving capacity for further innovation within the broader segment.

Commercialisation of Energy Storage Technology

In time, Ionic will seek to commercialise its energy storage technology in the same way as it has with the water treatment technologies.

Exploring partnerships with relevant companies in the renewables and electric vehicle markets will be a high priority for the Company during 2017 with a view to establishing key partnerships as a commercially viable prototype device is developed.

This approach will ensure that Ionic can deliver greatest possible benefit and acceptable levels of risk to its commercial partners with a well-developed technology that is close to commercialisation. This approach will also ensure that Ionic retains a greater portion of the value that has been developed in the Supercapacitor program; that it is not forced to sell an under-developed technology at a low price and thereby forfeiting the enormous potential gains that may be made from this revolutionary technology.

Ionic will seek to achieve a range of outcomes from its partnering arrangements:

- Understanding of industry requirements for energy storage devices and performance parameters that can be used to direct research and benchmark research outcomes;
- Joint research opportunities for specific applications, potentially leveraging government or grant funding;
- Insight into upscaling and manufacturing processes which can be factored into device design;
- Integration of Ionic supercapacitors into products, specifically in renewable and EV applications
- Access to markets and other relevant industry partners for manufacturing and sales.

TECHNOLOGY ENABLING PROGRAMS

Critical to the development of Ionic's various products are Ionic's enabling technology programs:

- Ionic's bench-scale GO facility enables the specialised tailoring of graphene materials for use in a range of applications.
- Ionic's GO membrane casting facility produces GO membranes which are the primary component in production of Ionic's nano-filtration products.

Bench-Scale Graphene Oxide Facility

Ionic has recently commissioned a bench-scale facility for the production of GO in collaboration with Monash.

The facility, under the supervision of Associate Professor Majumder, is assisting with the transition of graphene manufacturing expertise out of the laboratory and into commercial applications, allowing the development of expertise that is crucial to the supply of much larger quantities of tailored GO for our specific commercial goals in SuperSand, nano-filtration membranes and super-capacitors.

With initial batches of production in the range of 1kg to 2kg per day, the bench-scale facility is a vital tool to develop manufacturing intellectual property and a key step towards the goal of commercialising our technologies and enabling the manufacture of tailored graphene products for use across all our products and applications.

The ability to customise GO is important because, while graphene itself is a simple substance, the challenge of product development using graphene is developing the know-how to create novel complex structures that employ graphene's unique properties in a tailored manner for optimised combination with other materials.

Furthermore, Ionic and Monash are working on technologies that can be increased to multi-kilogram scales, when required, while optimising the process to make it significantly cheaper and greener.

Large-scale graphene production from graphite is a significant challenge which Ionic and Monash are seeking to overcome by using reaction engineering approaches. The scale of the reactor at the bench-scale facility is several times what has been demonstrated by others to date and the reactor technology we are developing is highly modular which suggests it will be scalable.

Graphene Membrane Casting Facility

In early 2015, Ionic acquired a membrane casting facility for our GO membrane technology.

This membrane casting facility is a very important step in the development of scalable GO membranes.

GO samples produced by Ionic's proprietary method of producing GO were tested with the membrane casting equipment manufacturer.

The facility enables us to tailor the number of sheets of graphene that can be applied to the membrane substrate for specific purposes and, more importantly, the chemistry of the GO can be altered to target whatever impurities or precious metals are sought to be filtered.

A key benefit of having this facility is the ability to maintain consistency between the batches of membranes produced: facilitating more effective substantiation of results during testing.

Proposed Pilot Plant: Commissioning Deferred

Until recently, Ionic had proposals to build a pilot plant as a significant step towards the commercialisation of the technologies developed in collaboration with Monash. For that purpose, Ionic commissioned and completed an engineering study, which combined with a marketing study on SuperSand, confirmed the viability of the proposal. Minnovo Pty Ltd, an independent engineering group, was commissioned to examine the feasibility of a pilot plant to produce GO and multiple SuperSand products using Ionic's technology.

The pilot plant was to be commissioned and built in the Tonsley high-tech industrial park in Adelaide. Highlights of the Minnovo scoping study indicated that:



Figure 25: Samples of Ionic's graphene thin film membranes: darker shades indicate greater number of layers of graphene

The pilot plant would have been capable of producing five kilograms of GO per day, which can be further processed into up to 2.5 tonnes a week of SuperSand.

- Preliminary production costs of SuperSand were expected to be \$2054 per tonne, of which the GO cost was expected to be \$1446.
- The pilot plant was estimated to take 26 weeks to build with a capital expenditure of \$1.275 million.

However, at this stage Ionic has postponed the commissioning of the pilot plant as sufficient supplies of commercial grade GO have become available at realistic prices and, to the extent that Ionic requires higher grade GO, it can be produced from Ionic's bench-scale facility at the rate of 1kg – 2kg per day.

Additionally, with the execution of the Clean TeQ Commercialisation Agreement and obtaining of the CRC-P Grant, the trialling and piloting of production and application of its SuperSand products will be carried out by Clean TeQ at its facilities in New South Wales.

MONASH PATENTS SUBJECT TO COLLABORATION AGREEMENT

At this stage, Monash has applied for three patents under the provisions of the Collaboration Agreement. These are as follows:

Conductive portions in insulating materials

This patent has been granted in Australia as Australian Patent 2013277941 and has also been granted in the USA as US Patent 14/408899. It has also been filed in each of Japan, Europe and Korea and its status in those jurisdictions is as set out in the table immediately below.

Country	Type	Application No.	Date of Filing	Status
Japan	National	2015-517557	21/06/2013	Under examination
Europe	National	13807539.5	21/06/2013	Under examination
South Korea	National	10-2014-7036385	21/06/2013	Filed

In relation to the European Patent Application, the European Patent Office (EPO) grants European patents for the Contracting States to the European Patent Convention (EPC). The EPO provides a single patent grant procedure, but not a single patent from the point of view of enforcement. Hence the patents granted will not be European Union patents or even Europe-wide patents as such, but be a series of national patents for each of the Contracting States to the EPO that the Applicant wishes to enter into. On grant, a European Union patent shall, in each of the Contracting States for which it is granted, have the effect of and be subject to the same conditions as a national patent granted by that State. Applicants should note that the Contracting States to the EPC include states outside the European Union and the United Kingdom's exit from the European Union following Brexit will not affect its status as a Contracting State under the EPC.

Monash have advised that, at this stage, there is no reason to believe the patent application will not be granted in Korea and as a European Patent. However, the grant of a patent at the National Phase is dependent upon the authorities of the particular Country in which registration of the Patent is being sought.

This patent, the "Super Capacitor Commercialisation Agreement" and the "Further Project: Micro-supercapacitor device" all described in Section 13 underlie all of Ionic's rights to Monash's intellectual property rights in relation to supercapacitors as described in this Section.

GO membranes and methods related thereto

This Patent Application was filed as a provisional patent application in Australia and has now progressed through to PCT Status as PCT/AU2015/000698 under the Patent Cooperation Treaty (PCT) which is an international patent application under the PCT which provides patent protection in each of the 151 contracting states who are parties to the PCT.

The PCT process involves a process of filing the PCT application in accordance with PCT requirements where it then undergoes extensive examination and review to determine whether the claimed invention is patentable followed by publication and, if considered patentable, the patent application enters the National Phase. In the National Phase the grant of patents proceeds directly before the national (or regional) patent Offices of the countries in which patents are sought to be obtained.

This patent application is at the PCT stage but, on progressing through the PCT process, it is Ionic's intention that it enters the National Phase in Australia, USA, Europe, South Korea, and Japan in like manner as for Australian Patent 2013277941.

Country	Type	Application No.	Date of Filing	Status
Australia	Provisional	2014904644	19/11/2014	Completed (moved to PCT Status)
Australia	PCT	PCT/AU2015/000698	19/11/2015	National Phase instructed
USA	National	Not yet advised	10/11/2015	Awaiting filing
South Korea	National	Not yet advised	11/11/2015	Awaiting filing
Europe	National	Not yet advised	12/11/2015	Awaiting filing
Japan	National	Not yet advised	13/11/2015	Awaiting filing
Australia	National	Not yet advised	14/11/2015	Awaiting filing

At this stage Monash is not aware of any reason why the PCT Application will not move through to the National Phase.

This patent and the “*Membrane Commercialisation Agreement*” together with the “sand Technology Commercialisation Licence” and Monash’s Sand Technology expertise in the field of water purification, underlie all of Ionic’s rights to Monash’s Membrane and Sand Technology IP described in this section, which, initially, are of most immediate importance in relation to the Clean TeQ Commercialisation Agreement described in this Section and summarised in Section 13.

Shear assisted electrochemical exfoliation of two dimensional materials

This Patent Application was first filed as a provisional patent application in the USA and has now progressed through to PCT Status as PCT/AU2015/000698 under the Patent Cooperation Treaty (PCT) which is an international patent application under the PCT which provides patent protection in each of the 151 contracting states who are parties to the PCT.

Subsequent to the PCT stage it will move to the National Phase in like manner as the other patent applications.

Country	Type	Application No.	Date of Filing	Status
USA	Provisional	62/313025	24/03/2016	Completed
Australia	PCT	PCT/AU2016/051002	24/10/2016	National Phase due 24 Sept 2018

This technology and IP the subject of this patent application underlie the proposed establishment of a pilot plant for the production of produce GO as referred to above: and which has now been deferred.

The need for Ionic to produce GO in commercial quantities is tied to the availability of commercial quantities of sufficiently high grade material from other sources.

Monash can presently produce sufficient high grade GO in its laboratories (using this technology) for Ionic’s present needs.

Section 3

THE OFFERS: RIGHTS ISSUE, SHORTFALL AND GENERAL OFFERS

RIGHTS ISSUE OFFER

Ionic invites all of its members who are registered at 7.00pm (AEST) on 8 May 2017 (“Record Date”) and who are Eligible Members to participate in this non-renounceable pro rata Rights Issue on the basis that Eligible Members shall be entitled to subscribe for one (1) new fully paid ordinary Share in the Company for every Share held on the Record Date and on the basis that for every New Share issued and allotted to them, they will be granted, free of further cost one (1) option to acquire an ordinary share in the capital of Ionic (Option) at an exercise price of \$0.02 (Exercise Price) which option shall be exercisable up to 5.00 pm (AEST) on 30 June 2020. This OIS will be sent to all Eligible Members as at the Record Date. This OIS will be available from the Company’s website: www.ionicindustries.com.au

The issue price of each New Share hereby offered for subscription shall be \$0.01 (one cent) (Issue Price). The terms and conditions of the Options to be granted to Eligible Members subscribing for New Shares are set out below under the Heading “*Option Terms and Conditions*”.

All New Shares to be issued under this OIS will be fully paid ordinary shares and will rank equally with all other fully paid ordinary shares on issue from the date of issue and allotment. Details of the rights and liabilities attaching to Shares in the Company are set out in Section 9.

A personalised Entitlement and Acceptance Form, which sets out each Eligible Member’s entitlement to New Shares and Options and the right to apply for Shortfall Shares, accompanies this OIS. See below for further information.

Restriction on right to subscribe for Entitlements or acquire Shares by virtue of section 606 of the Corporations Act.

The Rights Issue Offer, which is only made to Eligible Members is not a rights issue to enable the Offer to be a “*rights issue*” within the exception in item 10 of section 611 of the Corporations Act.

The Company proposes to apply for the approval of a nominee (Nominee) for the purposes of section 615 of the Corporations Act, which would bring the Rights Issue Offer within the Rights Issue exemption to any person (and their Associates) acquiring in excess of 20% of the voting power in a company. At this stage no appointment of a Nominee has been made. Any appointment would be subject to ASIC approval.

Within Ionic’s knowledge, at present the only member whose Application for New Shares would be subject to cut back on this basis would be Strategic Energy Resources Limited (SER) which holds 87,155,625 Shares being 18.67% of Ionic’s issued capital. No other Eligible Member (and their Associates) holds in excess of that percentage of Ionic’s issued capital. The next largest shareholders holds 5.07 % of Ionic’s issued capital. Therefore, as the Rights Issue Offer is on a one for two basis all Eligible Members other than SER may take up their Entitlements in full.

On the above basis, if ASIC approval is granted for the appointment of that Nominee, then SER would be able to rely on the exception in Item 10 of section 611 of the Corporations Act to take up or subscribe for its Entitlement in full even if such subscription would result in it acquiring a voting power of more than 20% in the Company.

If ASIC approval is not granted for the appointment of the Nominee, then:

- SER will not be able to rely on the exception in Item 10 of Section 611 of the Corporations Act; and
- the Company will not issue and allot any Shares to SER pursuant to its Entitlement if the result of any such issue and allotment would result in SER acquiring a relevant interest in more than 20% of the issued capital of the Company. This may result in the Company scaling back any Application from SER below its full Entitlement to ensure that it does not breach of section 606 of the Corporations Act.
- Equally, if any person other than SER acquired a shareholding in the Company before the Record Date which would mean they could not take up their Entitlement without breach of section 606 of the Corporations Act their Application would also be scaled back to avoid breach of section 606.

Without limiting the above, it is the responsibility of all Eligible Shareholders to ensure that their participation under the Offer does not result in them breaching section 606 of the Corporations Act. It is a term of the Offer that each Eligible Shareholder, by lodging an Application for Shares, acknowledges and accepts the right and obligation of the Company to not allot or issue Shares to it which would result in any possible breach by it of section 606 of the Corporations Act and each Eligible Shareholder directs the Company to so act.

If any Eligible Member applies for Shortfall Shares in such an amount that it would increase that Eligible Members holding to in excess of 20% of the issued capital of Ionic after close of the Rights Issue Offer (including the Shortfall Offer) any such Application would also be cut back to ensure that the Eligible Member did not breach the restrictions in section 606 of the Corporations Act by acquiring a voting power in Ionic’s shares in excess of 20% of the voting power attached to all of the shares then on issue.

SHORTFALL OFFER

All Eligible Members are entitled to apply for any New Shares (and Options) not taken up by other Eligible Members under the Rights Issue Offer in accordance with their respective Entitlements (“**Shortfall Shares**”) on the bases that;

- (a) no Eligible Member will be permitted to acquire New Shares (and Options) by subscription for Shortfall Shares if such acquisition would result in that Eligible Member (and his Associates within the meaning of the Corporations Act) acquiring a voting power in Ionic in excess of 20% of the total voting power attached to all Shares on issue subsequent to the close of the Rights Issue.
- (b) subject to the restriction under (a), the Directors have resolved, if there is an oversubscription for Shortfall Shares, allocations of Shortfall Shares (and Options) will be pro rata to each subscriber’s interest in Ionic.
- (c) The total number of Shortfall Shares comprises the “**Shortfall**”. Applications for Shortfall Shares (and Options) will only be accepted to the extent of the Shortfall. The Entitlement and Acceptance Form contains provisions for Eligible Members to apply for Shortfall Shares (and Options). Applications for Shortfall Shares (and Options) can only be made pursuant to the Entitlement and Acceptance Form.

ENTITLEMENTS NOT TAKEN UP BY ELIGIBLE MEMBERS

Entitlements to New Shares (and Options) not taken up or applied for by Eligible members under the Shortfall Offer being made to them will be available for subscription by general investors under the General Offer.

ELIGIBLE MEMBERS

Eligible Members

- (a) are those Members who are registered as a holder of Shares as at the Record Date, being 7.00pm (AEST) on the Record Date (8 May 2017);
- (b) have registered addresses on the Ionic Share Register in Australia; and
- (c) are not a US citizen or resident in the United States and who are not acting for the account or benefit of a US citizen or a person resident in the United States.

The Company reserves the right to determine whether a Member is an Eligible Member.

By returning a completed personalised Entitlement and Acceptance Form accompanied by the relevant Application Moneys or by making a payment by BPAY you will be taken to have represented and warranted that you satisfy each of the criteria listed above to be an Eligible Member. Nominees, trustees and custodians are therefore advised to seek independent professional advice as to how to proceed.

Where the Company does not make an Offer to any Member who has a registered address outside of Australia, the Company will send each holder to whom it will not offer the New Shares, details of the Rights Issue and an advice that the Company will not offer New Shares to those Members.

INELIGIBLE SHAREHOLDERS

Any Member who is not an Eligible Member is an Ineligible Shareholder.

REPRESENTATIONS BY ACCEPTANCE OF ANY OF THE OFFERS

By applying for New Shares (and Options) all Applicants shall be deemed to have agreed to be bound by Ionic’s Constitution in all respects.

By completing and returning your personalised Entitlement and Acceptance Form or making a payment by BPAY, Members will be deemed to have represented to the Company that they are Eligible Members.

By making Application for New Shares (and Options) all Applicants make those warranties and representations and give those acknowledgements set out in Section 11 and will have subscribed for the New Shares (and Options) applied for on the basis set out in that Section. In addition, each Applicant:

- (a) acknowledges reading and having understood this OIS and their personalised Entitlement and Acceptance Form or General Application Form in their entirety;
- (b) agrees to be bound by the terms of the Rights Issue Offer or the General Offer as relevant to them, the provisions of this OIS and Ionic’s constitution; and
- (c) if they are acting as a nominee or custodian, warrants to Ionic and each of its Directors that each beneficial holder on whose behalf the Applicant is submitting an Application is either an Eligible Member or Qualified Investor.

PAYMENT FOR SHARES

Application Moneys for the New Shares are payable in full on application.

For Eligible Members, the Entitlement and Acceptance Form allows you to pay for your New Shares by cheque, bank draft, money order or BPAY. There are notes on the reverse of that form to assist you with each method of payment. See the *“How to apply for Shares”* section of the form.

If you are an Eligible Member and you wish to subscribe for part or all of your Entitlement or apply for Shortfall Shares (and Options) in addition to your Entitlement and you are paying for your New Shares by cheque, bank draft or money order, you will need to complete the personalised Entitlement and Acceptance Form that accompanies this OIS in accordance with the instructions set out on that form and return the form with the appropriate Application Money, to the Company's share registry on or before the Closing Date of 5.00 pm (AEST) on 8 June 2017 or such later date as the Directors may, in their absolute discretion, determine.

If you are paying by cheque, bank draft or money order, these must all be payable in Australian currency, to *“Tonic Share Account”* and be crossed *“Not Negotiable”*.

If you wish to subscribe for part or all of your Entitlement or apply for Shortfall Shares (and Options) in addition to your Entitlement and you are paying for your New Shares by BPAY, you do not have to return the Entitlement and Acceptance Form but, in paying by BPAY, it is a term of this Offer that you will be deemed to have given the representations warranties and authorities set out herein and on the Entitlement and Acceptance Form including those set out in Section 11 hereof.

If you choose to take no action with respect to your Entitlement, you will continue to hold the same number of Shares you held on the Record Date. However, your interest in Ionic will be diluted.

ENTITLEMENT AND ACCEPTANCE FORMS

Accompanying this OIS is a personalised Entitlement and Acceptance Form that sets out your Entitlement. There is no minimum subscription and Eligible Members may take up their Entitlements in whole or in part. Additionally, Eligible Members may apply for Shortfall Shares under the Shortfall Offer in the manner provided by the Entitlement and Acceptance Form.

OPENING AND CLOSING OF THE OFFER

Offers under the Rights Issue (and the Shortfall Offer) will open at 9:00am (AEST) on 18 May 2017 (**“Opening Date”**) and, will close at 5:00pm (AEST) on 8 June 2017 (**“Closing Date”**). Subject to the requirements of the Corporations Act, the Directors reserve the right to extend the Closing Date for the Rights Issue without prior warning.

ACCEPTANCE OF APPLICATIONS FOR SHARES

If your Entitlement and Acceptance Form is not completed properly, or if the accompanying payment is for the wrong amount, it may still be treated as valid. The decision of the Directors as to whether to treat any application for New Shares as valid and how to construe, amend or complete it will be final. The Directors may complete any blanks or spaces left in any Entitlement and Acceptance Form and you, by lodging that form, appoint the Directors, and each of them, as your joint and several attorneys for such purpose and authorise all such amendments, insertions and alterations.

Notwithstanding the above, you will not be treated as having applied for any New Shares in excess of your Entitlement or such lesser number of New Shares than can be subscribed for by the amount of the Application Moneys paid.

A completed and lodged Entitlement and Acceptance Form, together with a cheque, bank draft or money order for the Application Moneys, or the payment of your Application Moneys by BPAY, constitutes a binding and irrevocable Application for the number of New Shares specified in the Entitlement and Acceptance Form or such lesser number of New Shares which could be subscribed for by the Application Moneys paid by you.

ALLOTMENT

Allotment of Shares in respect of Applications for Shortfall Shares from Members will be determined on the Close of the Rights Issue. Where no allotment or issue of New Shares is made or the number of New Shares allotted is less than that applied for as a result of any matter referred to in (a) or (b) under the heading *“Shortfall Offer”*, all surplus Application Moneys will be refunded in full without interest not later than 14 days after the close of the Rights Issue Offer.

All New Shares issued pursuant to any of the Rights Issue Offer, the Shortfall Offer or the General Offer will rank equally in all respects with each other and the existing issued shares and each New Share entitles the holder to one vote on a poll at the general meetings of the Company.

In accordance with the provisions of the Corporations Act, all Application Moneys shall, pending allotment and issue of the New Shares (and Options) the subject of such Application, be held by the Company in trust in a bank account established solely for the purpose of depositing Application Moneys received. Any interest earned on those moneys shall be to Ionic's account. Holding Statements will be despatched as soon as practical after allotment.

It is the responsibility of Applicants to determine their allocation of New Shares prior to dealing in those New Shares. Any Applicants who sell or otherwise deal in any New Shares before they receive their Holding Statements will do so at their own risk.

TERMS OF SALE OF INELIGIBLE MEMBERS SHARES BY NOMINEE (IF APPROVED BY ASIC)

If ASIC approves the appointment of a Nominee as discussed above then the following sale procedure will apply, with such amendments to such terms as ASIC may require.

- Ionic will issue to the Nominee the New Shares (and Options) that the Ineligible Shareholders would be entitled to if they were to participate in the Rights Issue Offer.
- The Nominee will sell the New Shares (and Options) at prices and otherwise in a manner determined by the Nominee in its sole discretion.
- The net proceeds of the sale of the New Shares (and Options) after deducting the aggregate subscription price of the New Shares and the reasonable costs of sale, if any, will be distributed to the Ineligible Shareholders for whose benefit the New Shares and Options are sold in proportion to their shareholdings as at the Record Date.
- If any such net proceeds of sale were less than such reasonable costs referred to above, such proceeds would be retained by Ionic. Accordingly, there is a possibility that any such Ineligible Shareholders will receive no net proceeds if the subscription price plus such costs were greater than such sale proceeds. Neither Ionic nor the Nominee will be liable for the sale of any of the New Shares (or Options) referable to such Ineligible Shareholders at any particular price or in respect of the timing of such a sale.
- The Nominee will not sell any of the New Shares (or Options) to any related party of the Company or to any associate of any such related party.
- The Nominee will not sell any of the New Shares (or Options) to any person where, as a result of such sale, the purchaser of any such Sale, the purchaser thereof, or any Associate of any such purchaser shall become in breach of any restriction on acquisition of shares under section 606 of the Act.
- The Nominee will, when disposing of the New Shares (and Options), use its best endeavours to distribute the New Shares (and Options) to a spread of holders. In this context it should be understood that the number of New Shares to be issued to the Nominee under these terms will be 1,300,000 New Shares (and an equal number of Options) which New Shares have an aggregate value at the Issue price of \$13,000.

GENERAL OFFER TO QUALIFIED INVESTORS

Any Shortfall Shares (and Options) not subscribed for by Eligible Members according to their respective Entitlements or pursuant to the Shortfall Offer are offered for subscription to investors generally under the General Offer at the same Issue Price and on the same terms.

QUALIFIED INVESTOR

A Qualified Investor is a person who is resident in Australia but does not include any person who is a US citizen or resident in the United States or who is acting for the account or benefit of a US citizen or a person resident in the United States. Ionic reserves the right to determine whether an Applicant is a Qualified Investor.

MINIMUM APPLICATION UNDER GENERAL OFFER

Applications from Qualified Investors under the General Offer must be for not less than 200,000 New Shares (and Options) having an aggregate issue price of A\$2,000.00 and thereafter applications for New Shares (and Options) must be in multiples of 50,000 New Shares (A\$500.00).

OPENING AND CLOSING OF THE GENERAL OFFER

The General Offer will open on the same day as the Rights Issue Offer (18 May 2017 (“**General Offer Opening Date**”)) and will close at 5.00pm (AEST) on 16 June 2017 (“**General Offer Closing Date**”) or such other date as the Directors may determine in their sole discretion.

REPRESENTATIONS BY APPLICATION FOR NEW SHARES UNDER THE GENERAL OFFER

By applying for New Shares all Applicants shall be deemed to have agreed to be bound by the Company’s Constitution.

By making Application for New Shares all Applicants make those warranties and representations and give those acknowledgements set out in Section 11 and will have subscribed for the New Shares applied for on the bases set out in that clause. In addition, each Applicant:

- (a) acknowledges reading and having understood this OIS and the General Application Form in their entirety;
- (b) agrees to be bound by the terms of the General Offer, the provisions of this OIS and Ionic’s constitution; and
- (c) if acting as a nominee or custodian, warrants that each beneficial holder on whose behalf the Applicant is submitting an Application is a Qualified Investor.

PAYMENT FOR SHARES

Application Moneys for the New Shares are payable in full on application. If you are paying by cheque, bank draft, money order or EFT, these must all be payable in Australian currency, to “**Ionic Share Account**” and, preferably, be crossed “**Not Negotiable**”.

GENERAL APPLICATIONS

Attached to and forming part of this OIS is a General Application Form for all persons other than Eligible Members taking up their Entitlements and applying for Shortfall. Directors have an unfettered right to accept or reject any General Application for New Shares (and Options).

If any Eligible Member applies for New Shares (and Options) under the General Offer (as opposed to merely applying for Shortfall Shares), such Applications will rank in priority for acceptance behind Applications from other Qualified Investors.

ACCEPTANCE OF GENERAL APPLICATIONS FORMS

If the General Application Form is not completed correctly, or the accompanying payment of the Application Money is for the wrong amount, it may still be treated as a valid Application. The Directors may complete any blanks or spaces left in any such Application Form and the Applicant, by lodging the General Application, appoints the Directors as its attorneys in this regard and authorises all such amendments. The Directors' decision whether to treat the Application as valid and how to construe, amend or complete the General Application Form is final. However an Applicant will not be treated as having applied for more New Shares (and Options) than can be subscribed for by the amount of the Application Moneys paid.

A completed and lodged Application Form, together with a cheque, bank draft or money order for the Application Money constitutes a binding and irrevocable Application for the number of New Shares (and Options) specified in the Application Form or such other number of New Shares (and Options) which could be subscribed for by the Application Moneys paid by you.

ACTION REQUIRED BY GENERAL APPLICANTS

General Applicants should lodge a completed General Application Form (together with a cheque, bank draft or EFT for the subscription moneys for the New Shares applied for made payable to “**Ionic Share Account**”) to reach:

Delivery By Hand		Postal Address
Link Market Services Limited Tower 4 727 Collins Street Docklands VIC 3008	or	Link Market Services Limited Locked Bag A14 Sydney South NSW 1235

by no later than 5:00pm (AEST) on the General Offer Closing Date (16 June 2017). For EFT payments please refer to the instructions on the General Application form.

PAYMENT FOR SHARES

The Issue Price of \$0.01 (one cent) per New Share (with no further consideration being payable for the accompanying Option) and is payable in full on Application.

All payments are to be made in Australian currency either by way of:

- a cheque drawn on and payable at any Australian bank or any bank operating in Australia;
- a bank cheque or draft drawn on and payable at any Australian bank or any bank operating in Australia;
- EFT in accordance with instructions on the General Application Form and where the details of the transferee of the Application Moneys is the same as the details of the Applicant to enable the payment to be identified by the Company and attributed to your Application as lodged.

Payment in other currencies or in cash will **not** be accepted. Other currency payments or cash payments will be returned and the acceptance will be deemed invalid.

ALLOTMENT

Allotment of New Shares (and Options) in respect of General Applications will be determined after the Close of the General Offer. The Directors reserve the right to reject any General Application and /or to allot a lesser number of New Shares (and Options) than applied for. Where no allotment or issue of New Shares (and Options) is made or the number of New Shares (and Options) allotted is less than that applied for, all surplus Application Moneys will be refunded in full without interest. Any surplus Application Moneys will be refunded not later than 14 days after the close of the General Offer.

All New Shares issued pursuant to the General Offer will rank equally in all respects with each other and the existing issued shares and each New Share entitles the holder to one vote on a poll at the general meetings of the Company.

The rights attaching to the New Shares are summarised in Section 9.

The rights attaching to the Options are summarised in Section 10.

All General Applications received during the exposure period will be treated as having been received after the expiration of the exposure period (normally 7 days but ASIC may extend that period for a further seven days to end no later than 14 days after the date of lodgement: s727(3)).

It is the responsibility of all Applicants to determine their allocation of New Shares prior to dealing in those New Shares. Any Applicants who sell or otherwise deal in any New Shares before they receive their Holding Statements for those New Shares will do so at their own risk.

PROVISIONS APPLICABLE TO ALL OFFERS

TAXATION IMPLICATIONS: GENERAL

Applicants should seek their own independent advice in relation to matters relating to the operation of taxation laws in Australia generally.

The Company is unable to give advice on taxation matters generally as each Applicant's position will relate to their own specific circumstances.

Applicants should satisfy themselves of possible taxation consequences of purchases and sales of securities by consulting their own professional tax advisers.

TAX BENEFITS ALLOWABLE FOR INVESTORS IN IONIC AS AN AUSTRALIAN EARLY STAGE INNOVATION COMPANY (AN ESIC)

Notwithstanding the above, any subscription for Shares pursuant to this OIS will, in Ionic's opinion, entitle the Applicant (whether an Eligible Member or Qualified Investor to certain taxation benefits allowable for investors in an Australian Early Stage Innovation Company (ESIC) by virtue of the *Tax Laws Amendment (Tax Incentives for Innovation) Act 2016 now Subdivision 360-A—Tax incentives for early stage investors in innovation companies*.

Subdivision 360-A essentially allows investors in an Australian Early Stage Innovation Company (ESIC) to receive a non-refundable carry-forward tax offset of 20 per cent of the value of their investment subject to a maximum offset cap amount of \$200,000.

In addition, investors in an ESIC may disregard capital gains realised on shares in qualifying ESICs that have been held for between one and ten years.

Section 7 contains a detailed overview of the operation of the *Subdivision 360-A* as it applies to Ionic and why it applies to New Shares subscribed for pursuant to these Offers.

However, that overview does not constitute taxation advice and you should satisfy yourself that you will be entitled to the taxation benefits allowable for investors in Ionic as an ESIC by virtue of *Subdivision 360-A* by consulting their own professional tax advisers.

Subsequent to the close of all of the Offers constituting the Issue, Ionic will provide successful Applicants with the requisite information to enable them to determine what level of taxation offset they may be entitled to as a consequence of subscribing for New Shares (and Options) pursuant to these Offers.

All Holding Statements for New Shares issued pursuant to these Offers will be denoted as having been issued pursuant *Subdivision 360-A— Tax incentives for early stage investors in innovation*.

Where an Option is exercised before 30 June 2017 and the resultant share is issued and allotted by that date, those shares will also qualify as investments in an ESIC and entitle the holder thereof to the same benefits as the New Shares issued pursuant to the Offers. However shares acquired on exercise of Options after 30 June 2017 will not entitle the holders thereof to the tax benefits available under Sub division 360A unless Ionic remains a qualifying ESIC at the time of their issue and allotment.

TAX FILE NUMBERS

It is not necessary for Applicants to quote their tax file number.

MINIMUM SUBSCRIPTION

There is no minimum subscription for the Issue (whether pursuant to the Rights Issue Offer of the General Offer).

SPECULATIVE NATURE OF OFFER AND PROJECTS AND RELEVANT RISK FACTORS

You should:

- note that Ionic's operations are speculative and subject to a high level of risk and that adverse outcomes from research and development activities or Ionics general operations could result in diminution of the value of your investment.
- read this OIS carefully and in its entirety, with particular focus on Ionic's activities and interests referred to in Section 2, the risk factors detailed in Section 8, and your required covenants and warranties in Section 11, before deciding to take up your Entitlements or, if you are not already a Member, make an investment in the Company.

OVERSEAS RESIDENTS AND APPLICANTS

This OIS has been prepared to comply with the requirements of the securities laws of Australia.

Other than that Ionic has 2 foreign shareholders who are Ineligible Shareholders. They hold 2,600,000 Shares representing a voting power of 0.557% in the Company. There are, within the knowledge of the Board, no other Members who are Ineligible Shareholders. If, unknown to the Board, you do hold Shares on behalf of another person resident outside Australia, it is your responsibility to ensure that any participation (including for your own account or when you hold Shares beneficially for another person) complies with all applicable foreign laws.

This OIS does not constitute an offer in any jurisdiction outside Australia or to any person to whom it would not be lawful to make such an offer.

No action has been taken to register or qualify the Rights Issue Offer, the Entitlements (or Rights), the General Offer, the New Shares or the Options, or otherwise permit the public offering of the New Shares (and Options), in any jurisdiction other than Australia.

This Offer of New Shares (and Options) is non-renounceable and therefore the right to acquire New Shares (and Options) through an Eligible Member's Entitlement cannot be acquired by or exercised by any person other than the Eligible Member to whom the Rights Issue Offer is made. However any person who is a Qualified Investor as herein defined may apply for New Shares (and Options) on the terms set out herein.

This OIS (including an electronic copy and including any Entitlement and Acceptance Form) will not be distributed by Ionic outside Australia. Its distribution outside Australia may be restricted by law. If you are not an Eligible Member resident in Australia you are not entitled to acquire the New Shares (or Options) being offered for subscription.

COSTS AND EXPENSES OF THE ISSUE

Costs and expenses of the Issue are estimated to be as set out below.

Costs of the Issue (exclusive of GST)	Amount \$
Printing	40,000
Share Registry, postage and sundry	15,000
Audit Fees	15,000
Legal Fees	35,000
Total	\$100,000

CAPITAL STRUCTURE

Assuming that the Issue is fully subscribed the capital structure of the Company will be as set out below:

CAPITAL STRUCTURE ON COMPLETION OF THE ISSUE (ASSUMING FULL SUBSCRIPTION OF ALL OFFERS)	
Amount to be raised: (rounded to nearest dollar) up to	\$2,833,891.00
Offer price per Share	\$0.01
Number of Existing Shares (immediately prior to the allotment of Shares under this Offer).	466,778,184
Number of Shares being offered under this OIS	283,389,092
Total number of Shares on issue immediately after allotment of New Shares under the Rights Issue Offer (assuming full subscription)	650,167,276
Total number of Shares on issue immediately after allotment of New Shares under the General Offer (assuming full subscription)	700,167,276
Total number of Options extant immediately after allotment of Options under the Rights Issue Offer (assuming full subscription)	233,389,092
Total number of Options extant immediately after allotment of Options under the General Offer (assuming full subscription)	283,389,092
Indicative market value at Issue Price (rounded to nearest dollar)	\$7,001,674

FURTHER FUNDRAISINGS

The Company will need to raise further capital. At the date hereof no further capital raising is under consideration.

COMMISSION

Ionic will pay commission of a total of 5% to stockbrokers or other persons holding appropriate Australian Financial Services Licences lodging General Applications for New Shares (and Options) by Qualified Investors under the General Offer where those Applications are accepted and New Shares (and Options) issued and allotted. The commission will be paid on the Issue Price of the New Shares actually issued to each such Qualified Investor whose Application is accepted.

UNDERWRITING

The Issue is not underwritten.

STATUS OF THE COMPANY AND UNLISTED STATUS OF SHARES OFFERED

The Company is a public unlisted company. Consequently the market for purchasing and selling Shares in the Company is limited.

Dilution

Eligible Members who take up their Entitlement in full will have their percentage holding in the Company diluted as a result of New Shares which may be issued under the General Offer unless they subscribe for, and are allotted, sufficient Shortfall Shares to avoid that consequence.

Assuming both the Rights Issue Offer and the General Offer are both fully subscribed, the dilution suffered by Eligible Members taking up their full Entitlements as a result of the General Offer being fully subscribed will be approximately 7.14%.

Eligible Members who do not take up their Entitlement or any part thereof will have their percentage holding in the Company diluted as a result of both the Rights Issue and the General Offer to the extent those Offers are fully subscribed.

All Ineligible Shareholders will have their percentage holdings in the Company diluted as a result of both the Rights Issue Offer and the General Offer to the extent those Offers are subscribed. Assuming both the Rights Issue Offer and the General Offer are both fully subscribed, the dilution suffered by Ineligible Members will be 33.333%.

All Eligible Members who do not take up their Entitlement or any part thereof and all Ineligible Shareholders will also have their percentage holdings in the Company further diluted by the exercise of any Options granted pursuant to any of the Offers

Although an Eligible Member can avoid substantial dilution of their interest by taking up their full Entitlement such Eligible Members will be diluted by subsequent capital raisings by the Company that are not made on a pro-rata basis.

The Directors are also unable to advise the identity of any prospective subscribers under the Shortfall Offer or the General Offer or level of subscription under any of the Offers.

It is not possible for the Directors to predict the final level of participation in any of the Offers or the identity of Eligible Members who will subscribe for their Entitlements or of Qualified Investors who will subscribe for New Shares and Options under the General Offer so the extent of any such dilution of any existing Member's holding is impossible to predict.

Assuming different levels of subscription under the Rights Issue Offer and the General Offer existing Members holdings will be subject to different levels of dilution as follows if they do not take up their full Entitlements. This assumes that any New Shares (and Options) not subscribed for pursuant to any of the Offers are not subsequently placed by the Directors and that the subscription rate for each of the Rights Issue Offer and the base General Offer of 50,000,000 New Shares (and Options) are the same percentage. The Offers may be more or less acceptable to either Eligible Members or Qualified Investors depending on their investment parameters and risk profiles.

Offer	Number of Shares on Issue	Number of Shares issued under Rights Issue Offer	Number of Shares issued under General Offer	Total number of Shares on issue post Offers	Dilution to existing Members
100% subscribed	466,778,184	233,389,092	50,000,000	700,167,276	33.333%
75% subscribed	466,778,184	175,041,819	37,500,000	679,320,003	31.287%
50% subscribed	466,778,184	116,694,546	25,000,000	608,472,730	23.287%
25% subscribed	466,778,184	58,347,273	12,500,000	537,625,457	13.178%
0% subscribed	466,778,184	0	0	466,778,184	0%

Control

The effect of the Offer on control of Ionic will depend upon a number of factors including:

1. The level of Eligible Member participation in the Offer and the identity of Eligible Members who do participate in the Offer. In this context, if no section 615 nominee is appointed and approved by ASIC, no existing Eligible Member can increase their shareholding in Ionic above 20% by taking up their Entitlements. The only Eligible Member to whom this restriction applies is SER so consequently SER would, in that circumstance, only be permitted to increase its voting power to a maximum of 20% by subscription for its Entitlement.
2. If all Eligible Members take up their full Entitlements, there would be no significant effect on the control of the Company;
3. The identity of Qualified Investors subscribing for New Shares (and Options) under the General Offer (including for any Shortfall Shares (and Options) falling within the General Offer and the level of such investor participation. However, as the General Offer is being made under the OIS as a disclosure document, subscription for the New Shares (and Options) including Shortfall is available to any investor who is a Qualified Investor. Because the General Offer is not a rights issue within the meaning of the exception to the restriction in section 606 of the Corporations Act, no Qualified Investor (and its Associates) can acquire voting power in excess of 20%.
4. The Shortfall Offer and General Offer allocation policy set out below.

Any control effects from the Offers are mitigated as any Shortfall Shares will first available made available to Eligible Members with any then unsubscribed for Shortfall Shares being available to a wide spread of Qualified Investors under the General Offer.

Shortfall Offer and General Offer Allocation Policy

The Directors will allocate Shortfall Shares according to the following policy:

In the event that applications are received for all the Shortfall Shares from Eligible Members, then, subject to no Eligible Member or their associates being issued and allotted Shortfall Shares so that it would acquire a voting power exceeding 20% from the acquisition of Shortfall Shares, the Shortfall Shares will be fully allocated to Eligible Members. In this event no Shortfall Shares will be issued pursuant to the General Offer.

1. If Applications are received from Eligible Members for more than the number of available Shortfall Shares, then each Application for Shortfall Shares will be scaled back pro-rata by the same percentage.
2. The Shortfall Shares remaining after allocation of any Shortfall Shares to Eligible Members in accordance with Applications for Shortfall Shares will then be available for allocation to Qualifying Investors lodging General Applications. In the event that there are insufficient Shortfall Shares to fully satisfy all General Applications then the number of Shortfall Shares to be issued to Qualified Investors will be scaled back pro-rata by the same percentage.
3. Applications for Shortfall Shares or New Shares (and Options) under the General Offer will, insofar as possible, be issued and allocated to as wide a range of persons as realistically possible subject to the need to maximise total subscriptions for new Shares.
4. Applications for Shortfall Shares and Applications for New Shares (and Options) received from parties other than Directors and their Associates will be accorded priority over any such Applications from Directors and their Associates
5. The Company reserves the right to accept or reject any Application for Shortfall Shares or to allot a lesser number of Shortfall Shares than applied for. Subscription Moneys received but not applied towards subscriptions for Shortfall Shares will be refunded as soon as practicable. No interest will be paid on Subscription Moneys held and returned. The Company will not issue Shortfall Shares where to do so would result in a breach of the Corporations Act.

Renunciation

The Offer is not renounceable.

ACTION REQUIRED BY SHAREHOLDERS

What you may do

The number of New Shares (and Options) to which you are entitled is shown on the accompanying Entitlement and Acceptance Form. You may do any one of the following:

1. take up your Entitlement in full;
2. take up part of your Entitlement and allow the balance to lapse;
3. allow your Entitlement to lapse in full.

If you wish to take up your Entitlement in full

If you wish to take up all of your Entitlement, complete the accompanying Entitlement and Acceptance Form in accordance with the instructions set out on the form. Send your completed Entitlement and Acceptance Form (together with your cheque, bank cheque or draft for the amount shown on the form made payable to **"Tonic Share Account"**) to one of the following addresses by no later than 5:00pm (AEST) on the Closing Date (8 June 2017).

Delivery By Hand		Postal Address
Link Market Services Limited Tower 4 727 Collins Street Docklands Vic 3008	or	Link Market Services Limited Locked Bag A14 Sydney South NSW 1235

If you wish to take up only part of your Entitlement and allow the balance to lapse

If you wish to take up part of Entitlement and allow the balance to lapse, complete the accompanying Entitlement and Acceptance Form in accordance with the instructions set out on the form, indicating the number of Shares you wish to accept (being less than your Entitlement as specified on the Entitlement and Acceptance Form).

If you do not wish to take up any of your Entitlement

If you decide not to take up any of your Entitlement you may do nothing and allow your Entitlement to lapse.

Section 4

PURPOSE OF THE ISSUE AND USE OF FUNDS RAISED

The primary purpose of the Issue is to fund ongoing research and development of the graphene related technologies that Ionic is entitled to in accordance with the Collaboration Agreement entered into with Monash as described in Section 13 and to meet ongoing operating costs. The proposed use of funds is provided on the basis that the Offers are fully subscribed and on the basis that the Offers are subscribed in aggregate for 50% of the total number of New Shares (and Options) offered for subscription.

However, given that neither of the Offers are underwritten and that there is no minimum subscription, the actual level of subscription could be significantly less than that set out in the table below and, in this case, the anticipated application of funds is discussed in the text below the table.

Funds available to Ionic will include the benefit of rebates of funds expended on Research and Development during the period. This will vary depending on the level of Research and Development for which tax offsets are available based on such research.

SOURCE AND APPLICATION OF FUNDS UP TO 31 DECEMBER 2017			
Item	Note	50% level of Subscription to Rights Issue Offer	Full Subscription to both Rights Issue Offer and General Offer
SOURCE OF FUNDS		\$	\$
Minimum Anticipated R&D Tax Refund	1	289,275	289,275
Cash on hand as at 31 March 2017	2	183,690	183,690
Trade and other receivables as at 31 March 2017		0	0
Proceeds of the Rights Issue Offer		1,166,945	2,333,890
Proceeds of the General Offer		250,000	500,000
TOTAL AVAILABLE FUNDS		1,889,910	3,306,855
APPLICATION OF FUNDS			
Research (Monash)	3		
1. Supercapacitor Research		\$ 250,000	\$ 390,000
2. Consultant Research		\$ 40,000	\$ 100,000
3. GO Membranes (research)		\$ 150,000	\$ 280,000
4. Patents	3	\$ 25,000	\$ 60,000
6. GO Production and Green Graphene		\$ 160,000	\$ 550,000
SUBTOTAL		\$ 625,000	\$ 1,606,000
Product Development			
7. GO Sand Technology	4	\$ 20,000	\$ 40,000
8. GO Membranes	4	\$ 40,000	\$ 60,000
9. Super-capacitor Commercial Partnerships	4	\$ 60,000	\$ 80,000
10. GO Production and Green Graphene	4	\$ 50,000	\$ 75,000
SUBTOTAL		\$ 170,000	\$ 255,000
Working Capital and Corporate			
Creditors as at 31 March 2017	5	\$ 315,412	\$ 315,412
Marketing and media	6	\$ 7,000	\$ 15,000
Travel, meetings, conferences	6	\$ 20,000	\$ 30,000
Market research	6	\$ 4,000	\$ 10,000
General and Admin	7	\$ 145,900	\$ 169,875
Cost of the Issue	8	\$ 100,000	\$ 100,000
5% Commission on capital raised (estimate)	9	\$ 40,000	\$ 80,000
SUBTOTAL		\$ 632,312	\$ 720,287
TOTAL		\$ 1,397,312	\$ 2,571,287
ADDITIONAL WORKING CAPITAL		\$ 462,598	\$ 725,568
Estimated amount of any possible Application for Listing on ASX (excluding commission payable from proceeds of issue)		\$ 310,000	\$ 310,000

NOTES:

NOTE	
1	Estimated tax refund from R&D Tax Offset based on current estimated level of R&D expenditure assuming the levels of subscription set out in the table enables the research specified in the Source of Funds Statement to be carried out. Tax rebate is 43.5% of the qualifying funds from 30 June 2016 on. The Estimated tax refund on full subscription would likely exceed the amount specified as full subscription would permit increased expenditure in the current financial year.
2	Cash as at 31 March 2017.
3	All research is carried out by Monash in accordance with the Collaboration Agreement entered into between Ionic and Monash. The figure of \$25,000 for patents is a contingency only and assumes that Monash will apply for additional patents or otherwise incur fees with Patent Attorneys which are required to be funded by Ionic.
4	These are contingencies based on circumstances arising requiring such works to be carried out. Sufficient to cover any anticipated development work under the CRC-P grant in the period.
5	<p>Creditors of Ionic as at 31 March 2017. Main creditors are Monash for past work and present activities (\$187,000), Ionic's Auditor (\$20,367.38), Ionic's previous solicitors (\$40,447) and Leyden Freyer providing external accounting and Company Secretarial Services (\$53,177.56). It includes fees due to Directors that have not been satisfied by the issue of Shares at an issue price of \$0.0291. At 30 April 2017 these amounts will be:</p> <ol style="list-style-type: none"> 1. Dr A-M Grisogone: - \$77,796. 2. Mr Simon Savage:- \$68,333. 3. Mr Andrew Peter Armitage: - \$35,166 4. Mr Merlin Allan: \$33,333. <p>It is proposed that, other than for fees due to Dr Grisogone, these fees and further fees accrued up to the Closing Date, will be satisfied by issue of Shares and Options on the same terms as those of the Offers. As the final amount of those fees is unable to be calculated at this date, it is not possible to specify the number of Shares or Options to be so issued. However see Matters not Adjusted in Section 6 below.</p>
6	These are estimates of expenditure based on prior expenditure levels but are not contracted obligations.
7	General Administration costs for maintenance and payment of corporate costs including salaries after appropriate apportionment of costs to Research and Product Development. Includes provisions for insurance, costs of lodging R&D tax claims, audit, AGM Associated expenses, legal fees, Company Secretarial fees and salaries not apportioned to research and product development (\$30,000).
8	Estimated costs of the Issue excluding Commission.
9	Assumes applications for a total of \$800,000 lodged by holders of an AFSL under the General Offer in 50% subscription case and for up to \$1,600,000 in full subscription case.
10	Anticipated costs of application to list on ASX when and if made. See Section 1 under heading " <i>FUTURE APPLICATION FOR LISTING ON ASX</i> " and the discussion in relation thereto on pages 10 and 11 above.

Section 5

DIRECTORS AND MANAGEMENT

The Company is managed by its Directors. Each of the Directors hold Shares as disclosed herein and in the Accounts. The current directors of the Company comprise:

Name	Mr Simon Savage
Title:	CEO and Executive Director (appointed 29 April 2016)
Experience and expertise:	Simon has been a key contributor at Ionic over a number of years, supporting the company's strategic planning and partnership initiatives. Simon's experience in business and project management, strategic planning and stakeholder engagement will be critical in focusing Ionic's research efforts, prioritising the commercialisation of our most advanced technologies and concluding partnership agreements.
Name	Mr Merlin Allan
Title:	Non-Executive Director (appointed 22 July 2016)
Experience and expertise:	Merlin has long experience with technology start-ups in the UK, USA and Australia, founding several himself and serving as executive and non-executive director on a number of listed and unlisted companies including SMS Management & Technology (ASX Code: SMX), Your Call Communications and UCMS (ASX Code: UMS). He has extensive experience commercialising early- stage technologies, working with universities, driving strategy and managing mergers and acquisitions.
Name	Mr A Peter Armitage
Title:	Non-Executive Director (appointed 20 June 2016)
Experience and expertise:	Peter Armitage began his professional career over 40 years ago with an international accounting firm, specialising in start-ups and work-outs. After qualification he was invited into partnership of a national firm that he maintained until he set up his own practice in 1978, of which he remains principal. Since the early 1980's he has been a Director of a number of listed exploration companies in both Australia and New Zealand concentrating on fiscal aspects of project modelling and procurement of capital. Recently he has been responsible for a number of successful IPOs supervising Due Diligence and Corporate Governance matters as well as attending to all compliance matters. Mr Armitage has also been involved in various consulting assignments in People's Republic of China, Canada, USA, Hong Kong, and UK for Fortune 500 companies. Mr Armitage also holds directorships in ASX listed entities including Strategic Energy Resources (ASX Code: SER) and Peako Limited (ASX Code: PKO)

Mr Justin Mouchacca, the Company Secretary provides administrative assistance to the Directors. His details are as follows

Name	Mr Justin Mouchacca (appointed 15 August 2015)
Title:	Company Secretary
Experience and expertise:	Mr Mouchacca holds a Bachelor of Business majoring in Accounting. He graduated from RMIT University in 2008, became a Chartered Accountant in 2011 and since July 2013 has been the principal of chartered accounting firm, Leydin Freyer Corp Pty Ltd. The practice provides outsourced company secretarial and accounting services to public and private companies specialising in the Resources, technology, bioscience and biotechnology sectors. Justin has over 10 years' experience in the accounting profession and has extensive experience in relation to public company responsibilities, including ASX and ASIC compliance, control and implementation of corporate governance, statutory financial reporting, reorganisation of Companies and shareholder relations.

Section 6

PRO FORMA FINANCIAL POSITION AND HISTORICAL FINANCIAL INFORMATION

Set out below is Ionics audited balance sheet as at 31 December 2016 extracted from the audited Financial Statements set out in Section 12 (“the Accounts”) together with, first, a pro forma balance sheet setting out the effect of the Issue assuming that it is fully subscribed and, secondly, a pro forma balance sheet if the Issue is subscribed as to an aggregate fifty percent.

Summary audited balance sheet and pro forma balance sheet as at 31 December 2016 based on those audited accounts and the assumptions set out below:

	Audited accounts as at 31 December 2016	Adjustments \$	Pro forma assuming Full subscription	Pro forma assuming 50%subscription
	\$		\$	\$
Current Assets				
Cash and cash equivalents	229,008	1	2,402,898	1,295,953
Trade and other receivables	<u>83,256</u>		<u>83,256</u>	<u>83,256</u>
Total Current Assets	<u>312,265</u>		<u>2,486,154</u>	<u>1,379,209</u>
Non-Current Assets				
Plant and equipment	<u>23,656</u>		<u>23,656</u>	<u>23,656</u>
Total Non-Current Assets	<u>23,656</u>		<u>23,656</u>	<u>23,656</u>
TOTAL ASSETS	<u>335,920</u>		<u>2,509,810</u>	<u>1,402,865</u>
Current Liabilities				
Trade and other payables	675,622	2	476,990	476,990
Borrowings	-			
Total Current Liabilities	<u>675,622</u>	2	<u>476,990</u>	<u>476,990</u>
Non-Current Liabilities				
	-		-	-
Total Non-Current Liabilities	-		-	-
TOTAL LIABILITIES	<u>675,622</u>	2	<u>476,990</u>	<u>476,990</u>
NET ASSETS	<u>(339,702)</u>		<u>2,032,820</u>	<u>925,875</u>
EQUITY	684,308	3	3,036,830	1,909,885
Issued capital				
Accumulated losses	<u>(1,024,010)</u>	4	<u>(1,004,010)</u>	<u>(1,004,010)</u>
TOTAL EQUITY	<u>(339,702)</u>		<u>2,032,820</u>	<u>905,875</u>

Adjustments: Full Subscription

- Adjustment 1: being:
 - Increase in cash of \$2,333,890 from the issue of 233,389,092 New Shares all at an issue price of \$0.01 per New Share, from receipt of \$20,000 from Clean TeQ under the Clean TeQ Commercialisation Agreement.
 - Decrease in cash from payment of the costs of the issue (\$100,000) and estimated commission of \$80,000 all payable out of the proceeds of the Issue.
- Adjustment 2:
 - All debt due to directors and past directors (other than for Dr Grisogone) accrued to 30 June 2016 having been settled by the issue and allotment of shares on 21 February 2017 on the basis that debt totalling \$198,631.62 was so satisfied by the issue and allotment of 6,825,829 Shares at an issue price of \$0.0291 (2.91 cents). The amount of \$77,796 due to Dr Grisogone will remain due and payable.
- Adjustment 3: being:
 - Increase in equity by \$2,333,890 from the issue of 233,389,092 New Shares all at an issue price of \$0.01 per New Share;
 - Reduction in equity by \$180,000 being costs of issue (including estimated commission of \$80,000).
- Adjustment 4: being:
 - Reduction in accumulated losses by recoupment of \$20,000 past expenditure from Clean TeQ.

Adjustments: 50% Subscription

- Adjustment 1: being:
 - Increase in cash of \$1,166,945 from the issue of 116,694,546 New Shares all at an issue price of \$0.01 per New Share and in both cases, increase in cash from receipt of \$20,000 from Clean TeQ under the Clean TeQ Commercialisation Agreement.
 - Decrease in cash from payment of the costs of the issue (\$100,000) and estimated commission \$40,000 all payable out of the proceeds of the Issue.
- Adjustment 2:
 - All debt due to directors and past directors (other than for Dr Grisogone) accrued to 30 June 2016 having been settled by the issue and allotment of shares on 21 February 2017 on the basis that debt totalling \$198,631.62 was so satisfied by the issue and allotment of 6,825,829 Shares at an issue price of \$0.0291 (2.91 cents). The amount of \$77,796 due to Dr Grisogone will remain due and payable.
- Adjustment 3: being:
 - Increase in equity by \$1,166,945 from the issue of 116,694,546 New Shares all at an issue price of \$0.01 per New Share;
 - Reduction in equity by \$140,000 being costs of issue (including estimated commission of \$40,000).
- Adjustment 4: being:
 - Reduction in accumulated losses by receipt of \$20,000 from Clean TeQ.

Matters not adjusted

Disclosed in the table below, but comprising an adjustment are further fees estimated to be accrued to Directors up to the Closing Date which are presently unquantifiable but not expected to exceed \$160,000 in total by the Closing Date and which have also been agreed to be satisfied by the issue and allotment of Shares and Options on the same terms as the Rights Issue Offer in the amounts specified below. On the above basis, current Directors and their Associates would be issued additional New Shares and Options as follows:

Director		Estimate of Fees to be converted	Estimate of New Shares to be issued	Estimate of Options to be granted
Mr Simon Savage	Estimated as at 30/04/2017	\$68,333.00	6,833,300	6,833,300
	1/05/2017 to Closing Date	\$12,500.00	1,250,000	1,250,000
ESTIMATED TOTAL		\$80,833.00	8,083,300	8,083,300

Mr Andrew Peter Armitage	Estimated as at 30/04/2017	\$33,334.00	3,333,400	3,333,400
	1/05/2017 to Closing Date	\$4,615.00	461,500	461,500
ESTIMATED TOTAL		\$37,949.00	3,794,900	3,794,900

Mr Merlin Allan	Estimated as at 30/04/2017	\$33,334.00	3,333,400	3,333,400
	1/05/2017 to Closing Date	\$4,615.00	461,500	461,500
ESTIMATED TOTAL		\$37,949.00	3,794,900	3,794,900

SHARE TRADING HISTORY

The Shares are not traded on any organised market, accordingly the Company cannot advise a market value for the Shares or provide any trading history. However, the following share issues and transfers have taken place in the past two years:

- On 30 December 2015, the company issued 5,218,214 fully paid ordinary shares at an issue price of \$0.0291 (2.91 cents) raising a total of \$151,850 before costs.
- On 24 March 2016, the company issued 9,408,249 fully paid ordinary shares at an issue price of \$0.0291 (2.91 cents) raising a total of \$273,780 before costs.
- On 5 April 2016, the company issued 9,547,766 fully paid ordinary shares at an issue price of \$0.0291 (2.91 cents) raising a total of \$277,840 before costs.

- On 21 February 2017 the company issued 6,825,829 fully paid ordinary shares to Directors and/or their Associates at an issue price of \$0.0291 (2.91 cents) in satisfaction of debt of \$198,631.62 recorded as a post balance day event in the Accounts.

Audited Historical Financial Information

The following historical financial information has been extracted from the audited Annual Financial Reports of Ionic since incorporation.

	<u>30/06/15</u> <u>\$</u>	<u>30/06/16</u> <u>\$</u>
<u>Assets</u>	73,021	431,434
<u>Liabilities</u>	407,856	578,347
NET ASSETS	(334,835)	(146,913)
<u>Income: Revenue</u> Research & development tax concession	33,000	428,235
<u>Expenses</u>	367,847	<u>926,609</u>
Total comprehensive income for the year	(334,847)	(496,374)

It can be seen that Ionic has, as a start-up entity incurred losses in each of the above financial years and the aggregate loss over the period is \$831,221.

Copies of the Annual Financial Reports of the Company for the above years may be obtained from ASIC. Copies are also available for inspection by intending Applicants at Ionic's registered office by appointment.

Section 7

TAX INCENTIVES FOR EARLY STAGE INVESTORS

TAX INCENTIVES FOR EARLY STAGE INVESTORS

Set out below is a detailed review of the effect of the Tax Laws Amendment (Tax Incentives for Innovation) Act 2016 which is now contained in the ITAA 1997 as Subdivision 360-A —Tax incentives for early stage investors in innovation companies as it applies to Ionic.

You should refer to Subdivision 360-A— Tax incentives for early stage investors in innovation companies to more fully understand the nature and extent of such tax incentives. If you do not understand same, you should seek advice from your tax advisor.

Sub division 360A essentially allows investors in an early stage innovation company (ESIC) to receive tax benefits as a result of their investment in that ESIC.

Subdivision 360-A contains two tax incentives:

- (a) a tax offset to the taxpayer if it is (or a trust or partnership of which the taxpayer is a member is) issued with specified equity interests in a small Australian company with high-growth potential engaged in innovative activities, and
- (b) a modified CGT treatment to those equity interests (s 360-5). These benefits include a non-refundable carry-forward tax offset of 20 per cent of the value of their investment subject to a maximum offset cap amount of \$200,000. This tax offset is an offset against tax on ordinary taxable income.

The tax incentives in Sub division 360-A of ITAA 1997 are available to all types of investors whether an investment is made directly (as by a corporation or individual) or indirectly (through a trust or partnership), excluding widely held companies or 100% subsidiaries of widely held companies.

REQUIREMENTS FOR THE INVESTOR TO MEET

Under Sub division 360-A there are a series of requirements. Section 360-15(1) sets out the general requirements for an investor to be entitled to the tax offset

An investor can be any entity within the meaning of s 960-100. Entities include individuals, bodies corporate, partnerships, any other unincorporated association or body of persons, trusts, superannuation funds and approved deposit funds. Section 360-15 spells out the three cases in which an investor can become entitled to the tax offset.

General Case

Generally, the tax offset is available if the following conditions are satisfied:

1. the entity seeking the tax offset is not a trust, a partnership, a “widely held company” or a 100% subsidiary of a widely-held company. (Special rules apply to trusts and partnerships. Specific rules in s 360-15(2) and (3) apply to ensure the value of the tax incentives flow through to beneficiaries and partners, where such an investment method is chosen);
2. a company issues the entity with shares at a particular time during the income year;
3. the company issuing the shares to the investor is an early stage innovation company (ESIC) under s 360-40 immediately after the company issues those shares to the investor;
4. the investor and the company are not affiliates at the time the shares are issued;
5. the shares issued are not “ESS interests” under an employee share scheme, and
6. immediately after the shares were issued, the investor subscribing for (and being issued) the shares does not hold more than 30% of the equity interests in the company issuing the shares or in an entity “connected with” that company.
7. If all of the above conditions are satisfied, offset is available. However, to ensure that the 20% tax offset is capped at a maximum \$200,000 for any investor in any income period, the amount of offset under s 360-25 is calculated using the total amount paid for all of those shares (note to s 360-25(1)).

An investor may invest in one or more ESIC's in any income period or tax year. Section 360-25 ensures that the total offset is reduced to a maximum of \$200,000 in any one any income period or tax year by reducing the amount to the extent necessary to ensure that the sum of the following does not exceed \$200,000:

- (a) the sum of the *tax offsets for the income year for which you and your *affiliates (if any) are entitled;
- (b) the sum of the tax offsets that you and your affiliates (if any) carry forward to the income year.

However, this reduction in the offset to \$200,000 is not taken into account in calculating the effect of the modified CGT treatment to which shares in ESICs issued to investors entitled to the tax offset. (See below).

Other characteristics of the tax offset

The tax offset is non-refundable, so it is of no immediate benefit to an entity without an income tax liability. However, the tax offset may be carried forward.

By making the tax offset carry-forward, it reduces the chance that the benefit of the offset will be lost to investors.

As a carry-forward tax offset, recipients should apply offsets that cannot be refunded or carried forward first and before refundable offsets, so the benefit of these offsets is not lost or deferred.

An investor entity may only carry forward so much of the tax offset that it would be eligible to claim if it had an income tax liability. This means that the amount an investor entity may carry forward is capped at \$200,000.

COMMENTS ON TEST REQUIREMENTS FOR INVESTORS

Applying the above conditions to the present issue of shares by Ionic, the following comments are made.

First, most Eligible Members or Qualified Investors will likely be individuals, companies, or trusts (including superannuation funds) or partnerships. If you are a trust or partnership you will need to have regard to 360-15(2) and (3) discussed below to understand how the benefit of the offset is passed to the beneficiaries of the trust or the partners in the partnership.

Secondly, Ionic is issuing ordinary shares which are *equity interests* and those shares are not *ESS Interests* under an employee share scheme.

Thirdly, “a widely-held company” is a company with at least 50 members excluding a company where the top 20 shareholders control 75% of the votes and receive or would receive 75% of the dividends. Most Eligible Members (other than, possibly, Strategic Energy Resources Limited (ASX Code SER) will be unlikely to be widely held companies. However, all corporate applicants (whether Eligible Members or Qualified Investors) need to satisfy themselves that they are not a widely held company or a 100% subsidiary of a widely held company.

Fourthly, under s 328-130 of the ITAA 1997 an individual or a company is an “affiliate” of another entity if the individual or company acts, or could reasonably be expected to act, in accordance with the entity’s directions or wishes, or in concert with the entity, in relation to the affairs of the business of the individual or company (s 328-130(1)). As an affiliate must be a company or individual, trusts, partnerships and superannuation funds are not capable of being affiliates.

Factors that may indicate that parties are acting in concert may include: family or close personal relationships; financial relationships or dependencies; relationships created through links such as common partners, directors or shareholders; degree of consultation; and whether there is an obligation to conduct business with the other. However, none of these is decisive in itself.

Given Ionic’s capital structure, it is unlikely that any of its members could be considered affiliates of Ionic.

Fifthly, s 328-125(1) provides;

“an entity is connected with another entity if:

- (a) either entity controls the other entity in a way described in this section; or
- (b) both entities are controlled in a way described in this section by the same third entity.”

328-125(2) of ITAA 1997 details how an entity controls another entity for the purpose of the section and revolves around control giving control of at least 40% of distributions of income and/or capital of the percentage of 40% and, in the case of a company, voting power of 40% of the voting power in that company. Based on substantial shareholder notices lodged, it is clear that no shareholder and their associates has any such voting power and it is unlikely that any Eligible Member is “connected with” Ionic in this manner so as to not be entitled to the offset.

Different tax offset amount for Sophisticated, Experienced and Professional Investors contrasted with Retail Investors

Sub division 360A differentiates between investors who are sophisticated investors and retail investors.

If you are not a Sophisticated Investor (708(8), Experienced Investor (708 (10) or Professional Investors (708 (11) then you are a retail investor and section 360-20(1) only entitles you to an offset of 20% of an investment made by you up to a maximum investment of \$50,000.

As a result of section 360-20(1) investors who, by virtue of subsections 708(8), (10) or (11) of the Corporations Act 2001 would be entitled to subscribe for, and be allotted shares in a company without the issuing company lodging a disclosure document may subscribe for sufficient shares in an ESIC so as to be entitled to receive the maximum tax offset of \$200,000 permitted to an investor (subject to s 360-25). Such an investor can thus subscribe for up to \$1,000,000 in value of shares in one or more ESICs in any one income period (tax year) and receive the full 20% tax offset on that amount (a tax offset of \$200,000). If such an investor subscribes for and acquires more than \$1,000,000 in value in shares in any one or more ESICs in any one income period the excess over \$1,000,000 does not entitle that investor to a greater offset. The offset for any investor is capped at a maximum of \$200,000 in any one income period regardless of the number or value of shares applied for.

Accordingly, if you establish to Ionic that you are a sophisticated or professional investor such that you would be entitled to subscribe for shares without this OIS being a disclosure document, you may subscribe for an unrestricted number of New Shares (whether as an Eligible Member under the Rights Issue - including the Shortfall Offer or under the General Offer) and you will be entitled to an offset on the total investment of 20% of the moneys invested by you subject to a cap of \$200,000 on the offset. The only qualification to this is that you (and your Associates) will not be entitled to be issued and allotted that number of shares which would result in your shareholding in Ionic exceeding 20% of the issued capital of Ionic subsequent to the close of the Offers. See Section 2 which sets out the restrictions on acquisition of shares in breach of the limits set out in section 606 of the Corporations Act. However, no matter how many shares you apply for (and are issued) the maximum amount of the tax offset to which you are entitled cannot exceed \$200,000 in any income period.

Sophisticated Investors

Section 708 (8) and the regulations made under the Corporations Act provides that an offer of a body's securities does not need disclosure to investors if:

- (a) the minimum amount payable for the securities on acceptance of the offer by the person to whom the offer is made is at least \$500,000; or
- (b) the amount payable for the securities on acceptance by the person to whom the offer is made and the amounts previously paid by the person for the body's securities of the same class that are held by the person add up to at least \$500,000; or
- (c) it appears from a certificate given by a qualified accountant no more than 6 months before the offer is made that the person to whom the offer is made:
 - (i) has net assets of at least \$2,500,000; or,
 - (ii) has had a gross income for each of the last 2 financial years of at least \$250,000, or
 - (iii) the offer is made to a company or trust controlled by a person who meets the requirements of subparagraph (c)(i) or (ii).

Section 708(9B) provides that, in determining your net assets for the purpose of sub paragraph (c)(i), you may include the net assets of any companies or trusts controlled by you. This would include a self-managed superannuation fund ("SMSF") controlled by you.

In determining whether your Application should be in the name of the trustee of any trust, you need to consider any restrictions on investment that trust is subject to and in the case of a SMSF, the SMSF's investment profile.

The combination of 708(8)(c),(d) and 708(9B) means that, if the aggregate of your net assets and the companies or trusts you control is at least \$2,500,000, then you are a "*sophisticated investor*" and you or any of those companies or trusts can make the proposed investment.

Consequently in deciding on your investment entity you should have consideration to other matters, such as tax planning.

If you are a "*Sophisticated Investor*", a form of certificate needed to be completed by your accountant is attached for your use. An appropriate form of certificate accompanies the General Application Form for your use as necessary.

ASIC has approved the following persons as a "*qualified accountant*" to provide such a certificate; namely

- any member of the CPA Australia who is entitled to use the post-nominals “CPA” or “FCPA”;
- any member of the Institute of Chartered Accountants in Australia who is entitled to use the post-nominals “CA”, “ACA” or “FCA”;
- any member of the National Institute of Accountants who is entitled to use the post-nominals “PNA”, “FPNA”, “MNIA” or “FNIA”; and
- any member of an eligible foreign professional body who has at least three years’ practical experience in accounting or auditing, and is providing a certificate for the purposes of s 708(8)(c) or s 761G(7)(c) of the Corporations Act to a person who is resident in the same foreign country as that member: Class Order 01/1256 (¶24-370.30).

who are subject to and comply with the relevant continuing professional education requirements of the society or institute.

Experienced Investors

You would be an “*Experienced Investor*” if you could satisfy the requirements of section 708(10) of the Corporations Act. However, section 708 (10) is predicated on the offer being received by you not being made under a disclosure document. This document is a disclosure document therefore, it is the Ionic’s view that Applicants cannot comply with section 708(10) to enable them to not be classified as retail investors to increase the amount invested on which the offset is calculated to in excess of \$50,000.

Professional Investors

You are, effectively, a Professional Investor if you are;

- a person defined as professional investor in section 9 of the Corporations Act (except a person mentioned in paragraph (e) of the definition); or
- a person who has or controls gross assets of at least \$10 million (including any assets held by an associate or under a trust that the person manages).

Professional investors defined in section 9 of the Corporations Act are defined as follows:

“*professional investor*” means a person in relation to whom one or more of the following paragraphs apply:

- the person is a financial services licensee;
- the person is a body regulated by APRA, other than a trustee of any of the following (within the meaning of the Superannuation Industry (Supervision) Act 1993):
 - a superannuation fund;
 - an approved deposit fund;
 - a pooled superannuation trust;
 - a public sector superannuation scheme;
- the person is a body registered under the Financial Corporations Act 1974 ;
- the person is the trustee of:
 - a superannuation fund; or
 - an approved deposit fund; or
 - a pooled superannuation trust; or
 - a public sector superannuation scheme;
 within the meaning of the Superannuation Industry (Supervision) Act 1993 and the fund, trust or scheme has net assets of at least \$10 million;
- the person controls at least \$10 million (including any amount held by an associate or under a trust that the person manages);
- the person is a listed entity, or a related body corporate of a listed entity;
- the person is an exempt public authority;
- the person is a body corporate, or an unincorporated body, that:
 - carries on a business of investment in financial products, interests in land or other investments; and
 - for those purposes, invests funds received (directly or indirectly) following an offer or invitation to the public, within the meaning of section 82, the terms of which provided for the funds subscribed to be invested for those purposes;
- the person is a foreign entity that, if established or incorporated in Australia, would be covered by one of the preceding paragraphs.

However it should be noted that any of the above which are widely held companies as defined (or 100% subsidiaries of widely held companies) are ineligible to receive the tax offset or a modified CGT treatment of any shares acquired in the ESIC (see below).

You should note that 708(11) permits any person who **controls gross assets** of at least \$10 million (including any assets held by an associate or under a trust that the person manages) may invest under section 708(11) without any restriction.

This is contrasted with 708(8) where the assets test refers to **net** assets. If you control at least \$10 million in assets you are entitled to invest under 708(11) even if those assets are fully or substantially encumbered.

You should also note you satisfy the requirement if you “control” the assets which does not require that you “own” gross assets to that value. If you consider you are a professional investor for any of the above reasons you should take appropriate professional advice as necessary.

If you are a professional Investor you will normally be cognisant of the requirements of that section and need no explanation from the Company.

Calculation of tax offset for Trusts and Partnerships and members of Trusts and Partnerships.

In reading the following you should note that under s **960-130(1)** for the purpose of defining who is a “member”:

- (a) each member of a partnership;
 - (b) beneficiary, unitholder or object of a trust (except in the case of a public trading trust);
 - (c) unitholder of a public trading case;
- is a “member” for the purposes of Sub division 360A.

These entitlements for tax offsets for trusts and partnerships and members of trusts and partnerships are governed by s 360-15 – 360-35.

Simplistically, under these sections the beneficiaries of trusts and partners in a partnership have a pro rata entitlement to the relevant tax offset provided the provisions of these sections are met and complied with. Where any investments contemplated to be made by a trust or a partnership, the trustee of such trust and the partners in such a partnership are recommended to seek specialist advice to ensure they comply so as to ensure their beneficiaries or partners do become entitled to the tax offset as contemplated by the sections.

The relevant sections are set out below for convenience of such persons as the rules for trusts and partnerships are more complex than those for individual investors.

A self-managed super fund (SMSF) may be eligible for the early stage investor tax incentives, however the usual rules about their investments will apply. This includes the restrictions on investing in a related company and arms-length terms if a limited recourse borrowing arrangement is used to fund the investment. Trustees of any SMSF which is an Eligible Member or a proposing Qualified Investor should seek professional tax advice as to whether the SMSF will be entitled to the offset.

SECTION 360-15 Entitlement to the tax offset

Members of trusts or partnerships

360-15(2) A *member of a trust or partnership at the end of an income year is entitled to a *tax offset for the income year if the trust or partnership would be entitled to a tax offset, under subsection (1), for the income year if the trust or partnership were an individual.

Trustees

360-15(3) A trustee of a trust is entitled to a *tax offset for an income year if:

- (a) the trustee would be entitled to a tax offset, under subsection (1), for the income year if the trustee were an individual; and
- (b) the trustee is liable to be assessed or has been assessed, and is liable to pay *tax, on a share of, or all or a part of, the trust’s *net income under section 98, 99 or 99A of the Income Tax Assessment Act 1936 for the income year.

SECTION 360-30 Amount of the tax offset — members of trusts or partnerships

360-30(1) If subsection 360-15(2) applies, the amount of the *member’s *tax offset for the income year is as follows:
Determined share of notional tax offset × Notional tax offset amount where:

- (a) determined share of notional tax offset is the percentage determined under subsection (2) for the *member.
- (b) notional tax offset amount is what would, under section 360-25, have been the amount of the trust’s or partnership’s *tax offset (the notional tax offset) if the trust or partnership had been an individual.

360-30(2) The trustee or partnership may determine the percentage of the notional tax offset that is the *member’s share of the notional tax offset.

360-30(3) If the *member would be entitled to a fixed proportion of any *capital gain from a *disposal were the disposal to happen in relation to the trust or partnership at the end of the income year, then:

- (a) the percentage determined under subsection (2) must be equivalent to that fixed proportion; and
- (b) a determination of any other percentage has no effect.

360-30(4) The trustee or partnership must give the *member written notice of the determination. The notice:

- (a) must enable the member to work out the amount of the member's *tax offset by including enough information to enable the member to work out the member's share of the notional tax offset; and
- (b) must be given to the member within 3 months after the end of the income year, or within such further time as the Commissioner allows.

360-30(5) The sum of all the percentages determined under subsection (2) in relation to the *members of the trust or partnership must not exceed 100%.

The “**determined share of notional tax offset**” is the member's share (expressed as a percentage) of the asset, as determined by the trustee or partnership (s 360-30(2)), and the “**notional tax offset amount**” is the amount of the offset that would be available to the trust or partnership were it an individual (s 360-30(1)).

If the member would be entitled to a fixed proportion of any capital gain from a disposal were such disposal to take place at the end of the income year, then the percentage under s 360-30(2) must be equivalent to that fixed proportion (s 360-30(3)). Whether a taxpayer has a fixed entitlement is based on the terms of the trust or partnership. For example, such a fixed entitlement may exist for the unitholders of unit trusts.

It is not relevant whether the trust has a capital gain or net income or is in a loss position in an income year. Nor is it relevant, for example, if a trustee of a discretionary trust may have distributed the income or capital of a trust in proportions different to the offset (para 1.54 to 1.55 of the explanatory memorandum to Act No 54 of 2016 (the Explanatory Memorandum)).

The trustee or partnership must give the member a written **notice** of its determination as to a member's determined share within three months after the end of income year (or such further time as the Commissioner allows). Such notice must contain enough information so as to enable the member to work out its tax offset (s 360-30(4)).

SECTION 360-35 Amount of the tax offset —trustees

360-35 If subsection 360-15(3) applies, the amount of the *tax offset is the difference between:

- (a) what would, under section 360-25, have been the amount of the tax offset to which the trustee would have been entitled if the trustee had been an individual; and
- (b) if *members of the trust are entitled to tax offsets under subsection 360-15(2) arising from the same *shares to which the trustee's entitlement arises under subsection 360-15(3) — the sum of the amounts, under section 360-30, of those tax offsets.

Under 360-35, the only amount the trustee is entitled to is the portion of any capital gains the trustee is not entitled to distribute to the trust beneficiaries. If the trustee is required to distribute all capital gains (such as, eg unit trusts), then the trustee can never be entitled to any amount of the offset.

In other words, the only amount the trustee is entitled to is the portion of any capital gains the trustee is not entitled to distribute to the trust beneficiaries. If the trustee is required to distribute all capital gains (such as, eg unit trusts), then the trustee can never be entitled to any amount of the offset.

Importantly, If no determination is made or the determination does not allocate all of the available tax offset, then no member will be entitled to the tax offset to the extent of the shortfall in amounts or proportions determined by the trustee (para 1.53 of the Explanatory Memorandum).

CAPITAL GAINS AND LOSSES

In addition to the tax offset section 360-50 provides a modified CGT treatment for investors who are entitled to receive the tax offset.

In summary:

- A capital profit on an investment in a qualifying ESIC made in the first year of investment will be taxed in the normal manner.
- A loss on an investment in a qualifying ESIC made in the first year of investment will be not give rise to a capital gains (or other) loss for tax purposes.
- In the period between one and ten years, capital gains on an investment in an ESIC will be free from any capital gains tax. As a corollary any losses realised on disposition of shares in a qualifying ESIC in that period must be ignored and are non-deductible.

- If an investor in an ESIC holds the shares for more than 10 years there is an adjustment mechanism at the end of the 10 year period that establishes the cost base for tax on capital gain which may accrue after the end of the 10 year period.
- An investor that has continuously held a qualifying share in an ESIC for at least ten years will receive a market value, as determined on the ten year anniversary date, as the first element of the cost base and reduced cost base of the share. Providing a market value for the first element of the cost base and reduced cost base ensures that any incremental gains (or losses) in value after 10 years will be taxable.

Importantly, if the investor is entitled to receive a tax offset in relation to an investment in an ESIC, the modified CGT treatment set out above applies to all shares which the investor subscribes for in such an ESIC or (if the investor has subscribed for shares in more than one ESIC in any income period), all shares in all ESICs for which the investor has subscribed for in any such ESICs in that income period.

Accordingly, if you are a retail investor and subscribe for shares in Ionic having a subscription price of \$100,000 which only entitles you to a tax offset of 20% on \$50,000 (\$10,000), all the shares you subscribe for will be entitled to the modified CGT treatment as set out above.

IONIC IS A QUALIFYING ESIC

Generally, an Australian-incorporated company will qualify as an ESIC if it is at an early stage of its development (the early stage limb) and it is developing new or significantly improved innovations with the purpose of commercialisation to generate an economic return (the innovation limb). In Ionic's opinion, Ionic is a qualifying ESIC.

Specific, objective threshold tests apply to determine if the company is at an early stage of its development whereas a combination of tests may apply to determine if the company is developing a type of innovation.

These different tests recognise that whilst objective tests are easier to apply in Australia's self-assessment income tax system, companies may be innovating in a variety of different ways and so may need to apply a combination of different tests depending on their circumstances.

The early stage limb

A company must pass various tests to satisfy the early stage limb of the qualifying ESIC test. Each of these tests is discussed below.

Insofar as the requirements to satisfy the early stage limb apply to Ionic, those requirements are satisfied by Ionic:

- having been incorporated in Australia in February 2014 and having been registered in the Australian Business Register within the last 3 income years (the latest being the current year ending on 30 June 2017).
- having incurred total expenses of \$1 million or less in the 2016 income year. As recorded in Ionic's tax return for the tax year ended 30 June 2016, its total expenses incurred in the 2016 tax year were \$924,609.
- having had a total assessable income of \$200,000 or less in the 2016 income year. Ionic had exempt income of 428,235 but no assessable income in the 2016 tax year. This was a combination of the refund of \$254,668 as an R&D tax offset for the 2016 tax year (as referred to below) and an amount of \$173,567 on the same basis for the 2015 tax year.
- at the test time to determine if it qualifies as an ESIC, by Ionic not having any of its equity interests (shares) listed for quotation in the official list of any stock exchange in Australia or a foreign country; and
- at the test time to determine if it qualifies as an ESIC, Ionic having at least 100 points under section 360-45 (as detailed below).

The Innovation Limb

To be an ESIC, a company must satisfy an innovation test.

There are 2 basic concepts. There is a principles-based test under which proposing ESICs may self-assess: with all of the issues that creates.

There is also a separate objective set of tests under which a company scoring 100 points objectively qualifies as an ESIC for tax offset purposes.

Companies may choose to:

- apply their circumstances against the objective tests; or
- self-assess their circumstances against the principles-based test; or
- seek a ruling from the Commissioner about whether their circumstances satisfy the principles-based test.

Ionic has chosen to determine its innovation status by application of the objective tests set out in section 360-45. Under these objective tests Ionic requires to achieve at least 100 points for meeting certain objective innovation criteria.

Ionic considers that it satisfies the tests in 360-45 such that it is entitled to a total of 200 points under 360-45. The objective criteria which Ionic satisfies, and the manner in which Ionic considers it satisfies them are set out below. You should consider these matters carefully and, unless you are satisfied that Ionic does satisfy the requirements of 360-45 so as to have accrued at least 100 points so as to qualify as an ESIC, you should obtain specialist taxation advice from an appropriately qualified tax advisor.

Research and development claims above a certain threshold

A company will be awarded 75 points if it at least 50 per cent of its total expenses for the previous income year constituting expenses which are eligible for the tax offset for R&D activities provided under Division 355.

As set out below Ionic considers that it is entitled to 75 points under this head.

Subdivision 355-B defines R&D activities and R&D entities for the purposes of Division 355. Section 355-20 defines R&D activities in terms of “core R&D activities” and “supporting R&D activities”.

“Core R&D activities” (s 355-25) are experimental activities which apply scientific method to arrive at outcomes which could not be determined in advance on the basis of existing knowledge, information or experience. This includes activities that apply knowledge based on previous research or practical experience to develop new or improved materials, products, devices, processes or services (see s335-005 on the object of Div 355). The experimental activities must be undertaken with the purpose of acquiring new knowledge. Supporting R&D activities (s 355-30) are activities that have a direct, close and relatively immediate relationship to core R&D activities. This relationship is described in the explanatory memorandum to the Tax Laws Amendment (Research and Development) Bill 2010 as being activities that “will be usually required in order for the targeted ‘core R&D activities’ to take place”.

Sections 355-100 to 355-110 create the entitlement to the R&D offset at a rate of 45% in relation to assessments for income years commencing before 1 July 2016 (now reduced to 43.5%) for an R&D entity with an aggregated group turnover of less than \$20m.

That R&D offset creates a right to a refund of the specified percentage of the entities expenditure on R&D activities. In the 2016 tax year Ionic claimed a tax offset under Division 355 for R&D expenditure totalling \$565,927 of which \$266,741 was for core expenditure with \$299,186 being for supporting activities.

In Ionic’s 2016 tax return for the year ended 30 June 2016 it had total expenses of \$924,609. That claimed R&D expenditure \$565,927 represents 61.207% of Ionic’s total expenses incurred in the 2016 tax year.

As Ionic had no assessable income or liability to tax in the 2016 tax year that R&D claim resulted in a tax offset for the 2016 tax year of \$254,668 (\$565,927 x 45%) which was received as a tax refund.

Third parties have previously invested at least \$50,000 in shares

A company will be awarded 50 points if;

- (d) a total of at least \$50,000 has been paid for *equity interests that are *shares in the company; and
- (e) the company issued those shares to one or more entities that
 - (i) were not *associates of the company immediately before the issue of those shares;
 - (ii) did not *acquire those shares primarily to assist another entity become entitled to a *tax offset (or a modified CGT treatment) under this Subdivision; and
 - (iii) the company issued those shares at least one day before the test time.

These criteria recognise situations where a genuine third party investor has identified an innovative company and has been willing to invest a significant amount of their own money in support of the company. However, the points are not available if the third party investor has invested in the company primarily to assist the other investor (the investor seeking access to the tax offset) qualify for the tax offset.

Ionic is entitled to 50 points under this head because Ionic has made three issues of shares for cash with a total issue price of \$653,470 in the period since incorporation. As set out in Ionic’s Annual Report for the year ended 30 June 2016, on 30 December 2015, Ionic issued 5,218,214 fully paid ordinary shares at an issue price of \$0.0291 (2.91 cents) raising a total of \$151,850 before costs, on 24 March 2016, it issued 9,408,249 fully paid ordinary shares at an issue price of \$0.0291 (2.91 cents) raising a total of \$273,780 before costs and on 5 April 2016, it issued 9,547,766 fully paid ordinary shares at an issue price of \$0.0291 (2.91 cents) raising a total of \$277,840 before costs. The recent share issues to directors and past directors has been ignored in determining whether Ionic satisfied this test.

Holds certain enforceable intellectual property rights

A company will be awarded 50 points if it has one or more enforceable rights on an innovation through a standard patent or plant breeder's right that has been granted in Australia or an equivalent intellectual property right granted in another country. The property right must have been granted in the last 5 years.

Monash University has applied for and, on 19 January 2017, been granted Australian Patent 2013277941: *Conductive portions in insulating materials*.

Ionic is entitled to 50 points under this head because under the Collaboration Agreement Ionic has rights to a licence in relation in to this and other patents lodged by Monash within the scope of the Collaboration Agreement.

Specifically, under the Collaboration Agreement Monash has agreed to grant intellectual property licences to Ionic in the form annexed to the Collaboration Agreement in relation to each application for a patent ("Application") referred to in any Project Schedule entered into under the Collaboration Agreement. Each such Intellectual Property Licence Agreement ("Licence") entered into specifically provides in clause 3 thereof that from the date the Licence is executed Ionic is granted an exclusive, world-wide licence to exploit the Invention, and therefore the technology the subject of the Application within the Field described in the Licence in the Territory described in the Licence. Clause 3 provides that in the event that the Patent (being the patent granted in respect of the Application) is granted to Monash, in any part of the Territory during the Term, Monash agrees that, upon grant of the Patent Ionic also will be deemed to have an exclusive licence in that part of the Territory to which Patent relates, under that Patent, to exploit the subject matter of the Patent within the Field including a right to grant Sub-licences.

Collaborative agreement with research organisation or university to commercialise an innovation

A company will be awarded 25 points if it has a written agreement to "co-develop and commercialise an innovation" with either:

1. an institution or body listed in Schedule 1 to the *Higher Education Funding Act 1988*; or
2. an entity registered under section 29A of the *Industry Research and Development Act 1986*.

The list in Schedule 1 to the *Higher Education Funding Act 1988* captures institutions or bodies eligible for special research assistance under that Act. Monash is an institution or body listed in that Schedule.

Ionic considers that it is entitled to 25 points under this head because Ionic has entered into the Collaboration Agreement with Monash as summarised in clause 1 in Section 13 under the heading Material Contracts. Under the Collaboration Agreement Ionic is collaborating with Monash in developing the various technologies the subject thereof including but not limited to technologies the subject of patent applications.

By clause 3.1 of the Collaboration Agreement the parties agree to collaborate in good faith to identify and carry out Projects in accordance with the terms and conditions of the agreement (Purpose) and by clause 3 generally agree to pursue the Purpose by establishing a research committee with representatives of both Monash and Ionic. The Research Committee has representatives of both Monash and Ionic and can make recommendations etc in relation to each Project.

Clause 3 of the Collaboration Agreement sets out a procedure to develop Research Proposals and if a Research Proposal is developed Ionic has an exclusive option to elect whether the Research Proposal is to be undertaken as a Project on the terms of this agreement (Project Option). Where Ionic exercises a Project Option, the parties will complete and execute a Project Schedule in respect of that Project, and the Project will be carried out in accordance with the terms and conditions of the Collaboration Agreement and that project Schedule.

Clause 6 of the Collaboration Agreement provides that Monash has authority to manage each Project with the Research Committee reporting to both parties monthly. If on the recommendation of the Research Committee it appears the Project is not achieving the Project Objectives agreed by the parties and set out in a Project Schedule signed by both parties set for the Project either party may terminate the Project. The Project Schedule sets out the obligations of each of the parties in the carrying out of the Project.

Ionic considers that the structure of the collaborative approach under the Collaboration Agreement and each Project Schedule satisfies the requirement that the parties "*co-develop and commercialise*" innovations the subject of each Project entered into. As described in Section 2 relating to Ionic's business and activities, those technologies involve significant innovation and have the capacity, on development to substantially impact on the industries in which they may be employed.

Section 8

RISK FACTORS

The business operations of the Company are subject to risks which may impact adversely on its future performance. These risks may adversely affect the value of the Company's assets and this may affect the value of any shares in the Company. Throughout this OIS various risks are referred to. In many instances, they arise because the Company is raising limited capital at this stage and will require to raise additional capital as disclosed in this OIS. Various risks exist because Projects are at the research stage or are not yet able to be commercialised because further developmental research or activity needs to be carried out to enable actual production of products and services capable of application in a commercial or industrial environment. Examples of that are the Sand Technology and the Intellectual Property relating to membranes which will be further developed under the Clean TeQ Commercialisation Agreement with a view to development of a water purification treatment, as discussed in Section 2 and Section 13. Further, for example, the research on micro super capacitors is being further advanced under the current "Project Schedule: Micro-supercapacitor device" as set out under the heading "Material Contracts" so as to, among other things, enable the micro super-capacitors to be able to be stacked to facilitate the creation of high capacity batteries.

Once products have been more fully developed, other risks that Ionic and its collaborators will face include development of the capacity to manufacture such products for commercial production, compliance with all regulatory requirements to enable such products to be used and the need to establish markets for those products. The potential markets for many of Ionic's products are extremely large. A detailed analysis of this OIS will reveal many risks and the context in which they arise.

Sufficiency of Funding.

The primary risk that members of the Company are subject to is that the Company is raising limited funds, which are sufficient only for limited purposes. The proposed application of funds is set out in Section 4 under the heading "Source and Application of Funds" to which you are referred.

Insofar as moneys due to current directors are concerned, each of the present or past directors (other than Dr Grisogono) have converted the amount of the fees due to them which accrued prior to 30 June 2016 into Shares at an issue price of \$0.0291 (2.91 cents) per share, being the issue price at which the last three placements of shares were made. The directors (other than Dr Grisogono) have agreed that debts due to them and accrued subsequent to 30 June 2016 up to the Closing Date will also be converted into equity on the same terms as the Offers. On that basis such debts will be satisfied by issue of Shares at an issue price of \$0.01 (1 cent) and on the basis that, for each share issued, the director will be granted free of further cost one Option on the same terms as the Options to be granted pursuant to the terms of the Offers.

The present financial position of the Company has resulted in the auditor including in his audit report an "Emphasis of Matter"

Set out below is an extract from the auditor's report which includes that Emphasis of Matter relating to the Company's "ability to continue as a going concern" and its ability to "realise its assets and discharge its liabilities in the normal course of business" is set out in full.

Auditor's Opinion

In our opinion, the accompanying financial report of Ionic Industries Limited is in accordance with the Corporations Act 2001, including:

- (a) giving a true and fair view of the Company's financial position as at 31 December 2016 and of its performance for the year ended on that date; and*
- (b) complying with Australian Accounting Standards and the Corporations Regulations 2001.*

Material Uncertainty related to going concern

We draw attention to Note 2 of the financial report, which notes net cash outflows from operating activities of \$36,127 and a closing cash balance of \$229,008 as at 31 December 2016. This condition, along with other matters set forth in note 2, indicate the existence of a material uncertainty which may cast significant doubt on the company's ability to continue as a going concern and therefore, the company may be unable to realise its assets and discharge its liabilities in the normal course of business and at the amounts stated in the financial report. Our opinion is not modified in relation to this matter.

The matters raised by the auditor in his *Emphasis of Matter* statement and the financial position of the Company as disclosed in the Financial Statements for the 12 month period ended 31 December 2016 reflect that the Company has limited financial resources. Depending on the success or otherwise of the Offers and the level of subscription achieved Ionic will need to raise further funds to enable it to engage in additional Projects and to operate and, as necessary, to

fund commercialisation of the intellectual property which it has the right to commercialise under present or future Intellectual Proprietary Licences to be granted under that agreement. Further, and regardless of the outcome of the Offers, Ionic proposes that it will seek to raise further funds in association with a future proposed application for listing on ASX or other appropriate stock exchange. Any application for listing on ASX will require that Ionic's capital structure and operations are compliant with ASX Listing Rules.

When Ionic needs to raise additional capital, this would have potential consequences for shareholders.

First, raising additional capital may result in their shareholding in Ionic being diluted unless any such raising is by way of a pro rata rights issue and shareholders take up their entitlements (in the case of shareholders who are then Ineligible Shareholders, their holdings will be diluted as no such offers will be extended to them).

Secondly, if additional funds are not raised when needed, regardless of any application for listing being made, Ionic may not be able to fund ongoing operations including meeting its funding obligations under the Collaboration Agreement and the various Project Schedules entered into thereunder from time to time. Further, lack of funds would adversely impact Ionic's ability to meet its obligations under any Intellectual Property Licences held under the Collaboration Agreement and failure to meet those obligations could result in those Intellectual Property Licences being terminated. Any of such outcomes from lack of adequate funding could result in your investment decreasing significantly in value and, in extreme circumstances, in Ionic being wound up. In such a circumstance, the value received for Ionic's assets could be minimal and shareholders may, lose all or some of their investment.

Relevant in this context of adequacy of funding are Ionic's expenditure requirements agreed to by Ionic under the terms of its arrangements with Monash, agreed under the terms of CRC-P Grant as set out in Section 13 and as agreed under the Clean TeQ Commercialisation Agreement.

Under the in principle terms of proposed shareholders' agreement scheduled to the Clean TeQ Commercialisation Agreement, Ionic must meet its 25% share of budgets approved by the Board of Newco subsequent to its incorporation. In this context those terms propose an obligation by each of Clean TeQ and Ionic to fund Newco by loans adequate to meet Newco's working capital requirements until such time as initial working capital is obtained from a Bank or other institution. While the proposed shareholders' agreement has yet to be negotiated and entered into, when it is entered into, it will, if it accords with the draft terms, impose that obligation on Ionic. The draft terms include that:

- (a) Loans will be repaid as soon as cash flow permits but no later than 3 years of the date of first advance;
- (b) The Loans will be secured by equal ranking, first registered securities over the assets and undertakings of Newco
- (c) Interest on the Loans will be payable monthly in arrears at the Interest Rate (to be determined) or at such other rate as is determined by majority decision of the Shareholders;
- (d) Upon the repayment of all monies outstanding on the Loans the registered securities over the assets and undertakings of the Company must be discharged Shareholders;
- (e) At any time, the Loans may be paid in part or full by lump sum payment, and the balance outstanding from which interest is calculated is reduced from the date of such lump sum payment.

While approval of the Business Plan and Budgets for Newco, which will primarily set out Newco's financial requirements, will be a "Major Decision" which will require to be passed by a super-majority of 85% of Newco's Directors, there is a provision in the draft terms that if agreement on a Major Decision to be put to the Board is not agreed within a 30 day period, the matter will be determined by a dispute resolution process not yet agreed.

Likewise, capital raisings by Newco by pro rata issue of shares is a Major Decision requiring a super majority of Newco's Board to be implemented. Failure to agree on a proposed pro rata issue of shares in Newco would be subject to dispute resolution.

In any such case the outcome from any such dispute resolution process could be adverse to Ionic, resulting in it becoming in breach of the shareholders' agreement enabling any default provisions therein to be triggered with potentially adverse consequences for Ionic.

Share Market Risks generally

Liquidity

Perhaps the next greatest risk which current shareholders and all proposing Applicants face is that the company is an unlisted public company with no recognised or readily available market on which its shares may be traded.

Notwithstanding that one of those primary purposes of the Offers is to fund Ionic so that it may subsequently make an application for listing on ASX (or other appropriate stock exchange) no guarantee or assurance can or will be given that any such listing will be achieved. By making application for securities under the Offers each Applicant acknowledges and agrees as set out in Section 11 that no representation is made or given by or on behalf of Ionic that:

- (a) the securities offered for subscription under the Offers will become tradeable on any stock exchange;
- (b) Ionic will be admitted to the Official List of ASX or any stock exchange;

and each Applicant applies for the securities offered under this OIS on the basis that all such securities are, and may remain, unlisted.

That Ionic proposes that part of the funds raised under the Offers will be used to pay the costs associated with such a listing (subject to sufficient funds being raised) does not represent or warrant that Ionic will be listed or that its securities (including the New Shares and Options offered for subscription under the Offers) will be admitted to quotation on any stock exchange).

As a consequence, there is presently, and may never be, a readily available exit mechanism if any current shareholder or Applicant subsequently wishes to dispose of any securities which may be applied for pursuant to this OIS.

Essentially, each Applicant may become a locked in minority shareholder with no ability to influence the Company's business operations or strategy and no way of realising any value from his or her Shares.

This is the nature of any investment in any unlisted Company.

Consequently, Applicants should acknowledge that they may be forced by circumstances to hold their Shares for a considerable time.

Price

Applicants should recognise that the prices of shares fall as well as rise. Many factors affect the price of shares including local and international stock markets, movements in interest rates, economic and political conditions and investor and consumer sentiment.

In the case of Ionic, these risks are increased as there is minimal market for Ionic's securities prior to any listing of Ionic and its securities on ASX or any other stock exchange. Because no sufficient or adequate market for sale of shares in Ionic presently exists, the price which any shareholder might be offered for their securities, in the event that they find a willing buyer, will reflect the fact that the proposing buyer will, likewise, on acquiring the securities proposed to be purchased, also become a locked in minority holder. As a consequence, the price offered by such a person would generally tend to be lower than if the securities were listed on a recognised stock market where an established market might exist for them.

No market for Ionic's securities will necessarily exist until and unless the Company's securities are admitted to trading on the stock market conducted by ASX or other stock exchange. To list on ASX this would require that the Company raise sufficient monies to justify listing and generally comply with the Listing Rules of ASX and, in particular, Chapters 1 and 2 thereof which are available from the ASX's website: <http://www.asx.com.au>.

Profitability

Applicants should understand that Ionic is not profitable and may never be profitable. Ionic is an Early Stage Innovation Company and is in start-up mode and needs to establish a viable business before it can generate significant revenue from commercialising and exploiting the intellectual property and technologies to which it is entitled.

Whether Ionic will, at any time become profitable and be in a position to pay dividends will depend on whether it can exploit and commercialise the Intellectual Property in which it has, and may, in future, acquire rights, so as to generate revenue and then derive sufficient after-tax profits to be able to do so.

Save that Ionic has received \$20,000 from Clean TeQ under the Clean TeQ Commercialisation Agreement, and save that it receives non-taxable exempt income from tax offsets as a result of its R&D Activities (as discussed in Section 7 and as recorded in the Accounts), at present Ionic does not generate revenue. Neither is it presently profitable and it may not at any time be so.

Other risks associated with investment in the Company include the following matters.

No Valuation: Applicants should note that no formal or informal valuation has yet been carried out on Ionic's assets or the value of the Intellectual Property to which it is entitled.

Intellectual Property Risks. Ionic has rights to patents applied for and granted in Monash's name. Those rights are derivative. The Patents and Patent Applications are as referred to herein. While these patents have been applied for (and, in the case of Patent 2013277941 entitled "*Conductive portions in insulating materials*", has been granted in Australia) there is no certainty that they will become granted in each jurisdiction applied for. In those jurisdictions in which the patents have not yet been granted, they may also be granted in whole or in part: in that all of the claims may be accepted by the relevant granting authorities or only some of the claims in any application may be accepted. If none of the claims are accepted, then no patent will be granted.

If an application is granted as to some claims, but not others, then it may still protect Intellectual property but it may be that the patent rights granted cannot be exercised without a licence from another patent holder: for example, a patent application may contain a series of primary claims which are already the subject of another valid and subsisting patent (or prior application) which means the patent being cannot be granted in relation to those claims. However, the application may be granted in relation to further claims which deal with matters not covered by the prior patent (or prior application). Notwithstanding this, it may not be possible to use the newly patented process because it relies on the process which is already patented (or subject to the prior application).

Further, the National authorities in different jurisdictions may take differing views as to the patentability or otherwise of an “invention” the subject of a patent application or whether prior art is such that the application should be granted as to all or any, and if so, what claims. If a patent application is not granted it may be because the subject matter of the patent application is in the public domain (and therefore not patentable) or it may be that it is because there are prior patent applications or patents which, in the National examiners opinion, cover the same area and result in the “invention” the subject of the patent application being considered as not inventive or novel: in which case the patent will not be granted.

Where a patent is not granted because of the existence of prior patent rights, the use of the alleged invention may breach those rights leaving the applicant for the patent in a position where it has no capacity to operate unless it obtains a licence from the other patent holder or is able to successfully attack the validity and enforceability of the blocking patent. That is an expensive and time consuming process.

To the extent that any Intellectual Property to which Ionic has rights under the Collaboration Agreement or otherwise comprises know-how developed by Monash, Ionic or other parties and reliance is placed on non-disclosure of that know-how to protect that intellectual property, there can be no assurance that the know-how may not fall into the public domain or be disclosed by Monash or Ionic or their respective employees, executives or consultants (whether inadvertently or deliberately).

Litigation may be necessary from time to time to establish, enforce or protect Monash’s rights in relation to such know-how or patents as are granted. Such litigation, however, can be costly and, while the primary obligation is on Monash to protect such litigation, a failure by Monash to succeed in protecting its stated rights may have a materially adverse effect on Ionic’s activities, business, operating results and financial position.

It is possible that other parties may assert that any Intellectual Property rights asserted by Monash or Ionic as being in the public domain or owned by Monash (or Ionic) constitute infringement of their intellectual property rights or that Monash’s patents are not valid or enforceable. They may assert unfair competition or like claims against Ionic or Monash under copyright, trade secret, patent or other laws. While Ionic is not aware of any claims of this nature in relation to any of the intellectual property rights in which Ionic has interests or claims interests through the Collaboration Agreement, such claims, if made, may harm, directly and indirectly, Ionic’s business. As a result of such disputes, Ionic or Monash may have to develop non-infringing technology or enter into royalty or licensing agreements. Such agreements, if necessary, may be unavailable on terms acceptable to Monash or Ionic, or at all. If there is a successful claim of intellectual property infringement or unfair competition against Monash or Ionic and it is unable to develop non-infringing technology or license the infringed or similar technology or content on a timely basis, it could harm Ionic’s businesses, operations and financial condition.

In addition, once a patent is granted there are ongoing costs to maintain and keep the patent in good standing. These costs include patent attorney fees and maintenance fees paid to the intellectual property authority in the jurisdiction where the patent is granted. If these costs are not met, then the relevant patent may be forfeited and the protection granted by the patent in the relevant jurisdiction would cease to have effect.

Investment Risks Generally. There are risks of a general nature relating to investment in shares and securities generally: especially where Ionic in which the investment is made has a small market capitalisation. The risks associated with investment in Ionic are increased by the nature and status of Ionic, the restrictions on transfer of shares and issue of shares referred to herein and the nature of the business of Ionic and the level of development which that business is at: namely that Ionic is in start-up mode and has no operating history or substantial asset base. These risks are further increased by issues associated with sovereign risk given that exploitation and commercialisation of the Projects may involve international transactions, either on the part of Ionic or through any joint ventures or structures which may be established to commercialise and exploit them.

Risks Related to Investment in Start-up Companies. Investing in start-up or commercially unproven businesses is generally subject to high levels of risk and companies involved in technology often have increased levels of risk because of the nature of risks specific to technology companies.

Technology Risks. Whilst the research undertaken by Monash and the subject of the Intellectual Property Licences referred to herein establishes that the underlying technology the subject of those licences is substantially proven, the further development of working prototypes of products and the scale up of any Project to the level of commercial production will involve technology risks and engineering and other risks. These are new technologies. No assurance can be given that all technological risks have been dealt with and that no further technological risks will not arise.

Fiscal Risks. These involve the imposition of additional taxes, imposts and other charges by government from time to time relating to revenue or cash flow. Industry profitability can be affected by changes in tax policies, the interpretation and application thereof.

Currency Exchange and Other Risks. Revenue or expenditure in overseas jurisdictions (if any) will be subject to the risk of fluctuations of international currency exchange markets. Foreign taxes, limitation on repatriation of earnings, compliance with foreign accounting and business laws, and cultural differences, carry a certain amount of risk. Fluctuations in exchange rates may adversely affect Ionic.

Macro-Economic and Political Factors. Apart from exchange risks, a wide range of macro-economic and political factors beyond the control of Ionic may affect Ionic's operations including consequences of terrorist and other activities which may impact adversely on the global economy, demand for and supply of commodities and share market conditions and share prices generally. These issues may affect the capacity of Ionic to raise capital or debt equity on an ongoing basis which would impact on the viability of their operations generally.

Management Competency. The future success of Ionic will be dependent on the competency of Ionic's board and, primarily, its managing director, employees and chosen consultants. It will also be dependent on the competence and performance of each Project team which is established to carry out research on Projects. When commercialisation of a Project commences, such as under the Clean TeQ Commercialisation Agreement, it will be dependent on the competence of the parties responsible for the commercialisation process. In each case, the maintenance, establishment and carrying-on of a Project will require competent staff that will have to be recruited.

Contract Risks Generally. Ionic operates through a series of contractual relationships with various parties. The contracts which are currently material are summarised in Section 13 under the heading "*Material Contracts*". All contracts carry risks associated with the performance by the parties thereto of their obligations both as to financial performance and technical capacity and as to the time frames in which operations are carried out and in relation to the quality of work performed.

Litigation. Ionic is not presently involved in litigation and the Directors are not aware of any basis on which any litigation against Ionic may arise.

Regulatory Risks. Commercialisation of Projects will likely require approvals from regulatory authorities in the jurisdictions in which those which may not be forthcoming or which may not be able to be obtained on terms acceptable to Ionic. The nature and extent of any regulatory approvals which might be required for the commercialisation of any Project will be Project specific and cannot be determined at this time.

Competition. Ionic's competitors include companies with significantly greater resources who have significantly greater experience in the areas of Ionic's Projects. The best technology may not be the ultimately successful technology for a wide range of reasons including financial capacity, marketing skills, comparative costs, etc. There are evolving technologies for the production of graphene and products which may be manufactured from graphene. Other technologies involving the use of graphene or other materials may provide substitute or alternatives to the products which may be produced by exploitation of the Intellectual Property underlying each of the projects and Intellectual Property Licences in which Ionic has an interest and these may be as effective or more effective than products able to be created using the intellectual property in which Ionic has an interest. Ionic's competitors and potential competitors may have significantly more financial resources, research and development facilities, and manufacturing and marketing experience than Ionic.

Generally. The possibility that, for a wide range of reasons, Ionic's present strategies, plans, policies, intentions and expectations may not be able to be implemented.

These risks are not necessarily exhaustive and Applicants should realise that any company involved in the research and development of technology is subject to a wide range of risks.

Section 9

SHARES: RIGHTS AND LIABILITIES

A summary of the more significant rights attaching to the Company's shares is set out below. This summary is not exhaustive nor does it constitute a definite statement of the rights and liabilities of the Company's members. To obtain such a statement, Applicants should seek independent legal advice.

Ranking: The New Shares to be issued to Applicants will be fully paid ordinary shares and will rank equally in all respects with the existing fully paid ordinary shares in the Company.

Partly Paid Shares and Liability for Calls: No partly paid shares are presently on issue.

Reports and Notices: Members are entitled to receive all notices, reports, accounts and other documents required to be furnished to members under the Constitution of the Company and the Corporations Act.

General Meetings: Members are entitled to be present in person, or by proxy, attorney or representative to speak and to vote at general meetings of the Company. Members may requisition general meetings in accordance with the Corporations Act and the Constitution of the Company.

Voting: At a general meeting of the Company every ordinary member present in person, or by proxy, attorney or representative shall on a show of hands have one vote and upon a poll every member present in person or by proxy, attorney or representative has one vote for every share held. A qualification to the above is that where a person is present at a meeting as proxy or representative for more than one member then on a show of hands that person shall have only one vote and not one vote for each person represented by him. Where a Share is not fully paid up, the holder is entitled to a fraction of a vote equal to the proportion that the amount paid-up bears to the total issue price of the Share.

Dividends: The Directors may declare and authorise the distribution, from the profits of the Company, of dividends to be distributed to members according to their rights and interests. At present there is no likelihood of a dividend being declared in the foreseeable future. The Company is not presently profitable and may not at any time become so.

Reduction of Capital: The Company may only reduce its capital in such manner as may be permitted by the provisions of the Corporations Act from time to time.

Borrowing and Lending Powers: The Company may borrow and lend in such manner as may be permitted by the provisions of the Corporations Act from time to time.

Winding Up: Members will be entitled in a winding up to share in any surplus assets of the Company in proportion to the shares held by them respectively, less any amount which remains unpaid on their shares at the time of distribution.

Future Increases in Capital: The allotment and issue of shares is under the control of the Directors of the Company. Subject to restrictions on the allotment of shares to Directors or their Associates contained in the Constitution of the Company and the Corporations Act, the Directors may allot or otherwise dispose of shares on such terms and conditions as they see fit.

Variation of Rights: The rights, privileges and restrictions attaching to ordinary shares can be altered with the approval of a resolution passed at a separate general meeting of the holders of ordinary shares by a three-quarters majority of those holders who, being entitled to do so, vote at that meeting or with the written consent of the holders of at least three-quarters of the ordinary shares on issue, within two months of that general meeting.

Directors: The Constitution of the Company contains provisions relating to the rotation of Directors (other than managing directors and alternate directors).

A copy of the Company's constitution is available for inspection by intending Applicants at the registered office of the Company by appointment.

Section 10

TERMS AND CONDITIONS OF OPTIONS

The following terms and conditions apply to all Options granted to any Applicant subscribing for New Shares under any of the Offers hereby made.

Those terms and conditions are that:

The holder of an option to acquire an ordinary share in the capital of Ionic Industries Limited (ACN 168 143 324) ("Ionic") will be entitled to subscribe for and be allotted an ordinary share in the capital of Ionic on the following terms:

- (a) The option shall expire at 5.00pm (AEST) on 30 June 2020 ("Expiry Date").
- (b) The option shall entitle the Optionholder to subscribe for an ordinary share in the capital of Ionic. A Share issued on the exercise of the options will rank equally in all respects with the then existing issued ordinary fully paid shares in the capital of Ionic from the date of issue and will be subject to the provisions of the Constitution of Ionic.
- (c) The option may be transferred at any time in accordance with the Corporations Act 2001, the provisions of Ionic's constitution and, if Ionic shall at any time become admitted to the Official List of Companies ("Official List") maintained by ASX Limited ("ASX"), through ASX Clear as maintained by ASX.
- (d) The option shall be exercisable at \$0.02 (2 cents) per option ("Exercise Price").
- (e) Options may be exercisable at any time prior to the Expiry Date by notice of exercise in or to the effect of the form to be endorsed on the option Certificate or as otherwise provided to the Optionholder by Ionic accompanied by payment of the Exercise Price for the number of options exercised.
- (f) An Optionholder has no right to a change in the Exercise Price or to any change to the number of underlying securities over which the option can be exercised save as may be expressly permitted in accordance with the Listing Rules of ASX as in force from time to time.
- (g) An Optionholder shall not be entitled to participate in new issues of ordinary shares offered to members of Ionic during the currency of the option.
- (h) In the event of any reorganisation of the capital of Ionic the options shall be treated in the manner which would, if Ionic was admitted to the Official List, be required by the Listing Rules of ASX as in force as at the date of any such reorganisation and as appropriate to the type of reorganisation proposed.
- (i) In the event ASX requires a change to be made to these terms and conditions, other than the Expiry Date or the Exercise Price so that these terms comply with the Listing Rules of ASX, then the Optionholder consents to such change being made.

Section 11

APPLICANT'S COVENANTS AND WARRANTIES

Each Applicant or Member subscribing for Shares pursuant to the terms of the Offer herein contained acknowledges that such subscription for New Shares and Options is made on the bases set out in the Application Form or the Entitlement and Acceptance Form and on the following bases:

The Member or other Applicant covenants, represents and warrants and acknowledges to Ionic as a term of the subscription for the New Shares (and Options) that; ;

- (a) the execution, delivery and performance of the obligations set out herein by the Applicant have been duly and validly authorised by any necessary action on the part of the Applicant and the obligations and restrictions set out herein constitute a valid and binding agreement of the Applicant and is enforceable in accordance with its terms.
- (b) he has satisfied itself as to his information needs prior to making any investment in the capital of Ionic and the investment is made within the Applicant's personal risk profile and investment parameters.
- (c) he has had sufficient opportunity to seek independent professional advice before subscribing for any New Shares (and Options) in the event he is uncertain of the meaning of any matter set out herein or as to his rights or the meaning of the declarations to be given as a term of subscription for New Shares (and Options) hereunder.
- (d) he acknowledges the risks inherent in an investment in the capital of Ionic and that any investment by it in Ionic is speculative and that, and that no person is authorised to make any representation (express or implied) or give any warranty on behalf of Ionic or its directors and officers as to the merits of an investment in Ionic or as to the assets and liabilities, financial position and performance, profits and losses and prospects of Ionic and that any investment in Ionic is made solely at the Applicant's risk and on the basis that, save for any liability on the part of Ionic or its directors or officers which may arise under Chapter 6D of the Corporations Act for any misstatement in, or omission from, this OIS or otherwise (which liability is not hereby excluded), to the maximum extent permitted at law, the Applicant releases and discharges each of Ionic and its directors and officers from any action or claim for any other loss or damage which the Applicant may suffer as a result of making any such investment.
- (e) he acknowledges that, in due course, Ionic will raise further capital and that its investment in Ionic will be diluted by any such further capital raising unless it is made by way of pro rata entitlements issue and the Applicant pays and subscribes for any entitlement it may receive pursuant to any such offer but that no representation is made that any such future capital raising by Ionic will be made, or if made, that it will be made by way of a pro rata entitlements issue.
- (f) If the attached Application Form is made by a Company and signed by only one person, then that person warrants and declares to Ionic that that person is either the sole director and sole company secretary or, in the case of a company with a sole director and no company secretary as permitted by the provisions of the Corporations Act, that person is that sole director and that the Applicant has no company secretary and that the application is a valid application constituting a binding obligation of the Applicant.
- (g) he is either an Eligible Member or, in the case of an Applicant for New Shares (and Options) under the General Offer, a Qualified Investor.
- (h) while Ionic may, at a future time, apply for quotation of its securities on the stock market conducted by ASX or other stock exchange no such application ("Application for Listing") has presently been made or will be necessarily be made. Accordingly, no representation as to listing is given by or on behalf of Ionic that the New Shares (or Options) the subject of any Application are to be quoted on ASX or on any other financial market (whether in Australia or elsewhere) or that they will become the subject of any Application for Listing.
- (i) when, and if, Ionic shall make an Application for Listing, Ionic's capital structure will require to comply with the requirements of ASX and that, in such case it will be necessary for Ionic to convene a meeting of its members to pass resolutions for the consolidation of its shares then on issue (including all New Shares issued pursuant to or under this OIS) and that as a consequence thereof all such New Shares (and Options) shall become reconstructed as such meeting may resolve or as may, in the case of the Options, be required by the terms and conditions of the grant thereof.
- (j) in the event that Ionic may seek listing on ASX or any other stock exchange, the New Shares (and Options) are issued subject to such escrow or other restrictions as ASX or other stock exchange may impose under its Listing Rules: either on the issue thereof or at such time as Ionic may make application for admission to the Official List of any such exchange; and
- (k) the Applicant agrees with Ionic to execute all such restriction and other agreements required by ASX or other stock exchange under its Listing Rules and for this purpose the Applicant hereby appoints Ionic and each director of Ionic from time to time as its lawful attorneys and agents to execute such agreements on behalf of the Applicant.

Section 12

AUDITED FINANCIAL STATEMENTS

Ionic Industries Limited

ACN 168 143 324

Financial Statements - 31 December 2016

Ionic Industries Limited
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31 December 2016

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Ionic Industries Limited
Corporate directory
31 December 2016

Directors	Mr Simon Savage (CEO and Executive Director) Mr Merlin Allan (Non-Executive Director) Mr Peter Armitage (Non-Executive Director)
Company secretary	Mr Justin Mouchacca
Registered office	Level 4, 100 Albert Road South Melbourne VIC 3205
Auditor	Grant Thornton The Rialto Level 30, 525 Collins Street Melbourne VIC 3000
Share register	Link Market Services Limited Tower 4 727 Collins Street Docklands, VIC 3008 Ph: 1300 554 474

Ionic Industries Limited
Directors' report
31 December 2016

The directors present their report, together with the financial statements, on the company for the year ended 31 December 2016.

Directors

The following persons were directors of the company during the whole of the year and up to the date of this report, unless otherwise stated: Mr Simon Savage (CEO and Executive Director) (appointed 29 April 2016)

Mr Merlin Allan (Non-Executive Director) (appointed 22 July 2016)
Mr Peter Armitage (Non-Executive Director) (appointed 20 June 2016)
Mr Mark Muzzin (CEO and Managing Director) (resigned 15 July 2016)
Dr Anne-Marie Grisogono (Non-Executive Director) (resigned 13 July 2016)
Dr Mainak Majumder (Non-Executive Director) (resigned 29 April 2016)

Principal activities

During the year the principal continuing activities of the company consisted of Graphene research and development, with SuperSand as an optional process stream. The company also carried out a review of other potential graphene technologies with its research partners.

Review of operations

The loss for the company after providing for income tax amounted to \$552,854 (31 December 2015: \$471,156).

The net liabilities of the company increased by \$20,408 to \$339,702 as at 31 December 2016 (2015: \$319,294)

Working capital, being current assets less current liabilities, which is in deficit decreased by \$18,139 to \$363,358 (31 December 2015: \$345,219). The company had negative cash flows from operating activities for the period of \$36,127. The total net cash increase during the year amounted to \$196,319 following the receipt of R&D tax concession refund. Significant changes in the state of affairs There were no significant changes in the state of affairs of the company during the year.

Matters subsequent to the end of the year

On 21 February 2017, the Company issued a total of 6,825,829 fully paid ordinary shares at a deemed issue price of \$0.0291 (2.91 cents) in lieu of outstanding Directors Fees.

Subsequent to year end it was announced that grant funding had been awarded to Clean TeQ Holdings Limited (ASX: CLQ) (The Company's research partner) as part of the Cooperative Research Centre's Project Program (CRC-P) for the development of clean waste water technology.

No other matter or circumstance has arisen since 31 December 2016 that has significantly affected, or may significantly affect the company's operations, the results of those operations, or the company's state of affairs in future years.

Likely developments and expected results of operations

The company will continue to pursue its Graphene research and development through its ongoing relationship with Monash University, and through joint venture arrangements to commercialise the technologies with external industry partnerships.

The company's focus for the coming year will be to complete a capital raising and to consider an Initial Price Offering (IPO) and list on ASX.

Environmental regulation

The company is not subject to any significant environmental regulation under Australian Commonwealth or State law.

Information on directors

Name: Mr Simon Savage
Title: CEO and Executive Director (appointed 29 April 2016)
Experience and expertise: Simon has been a key contributor at Ionic over a number of years, supporting the company's strategic planning and partnership initiatives. Simon's experience in business and project management, strategic planning and stakeholder engagement will be critical in focusing Ionic's research efforts, prioritising the commercialisation of our most advanced technologies and concluding partnership agreements.

Ionic Industries Limited
Directors' report
31 December 2016

Name: Mr Merlin Allan
Title: Non-Executive Director (appointed 22 July 2016)
Experience and expertise: Merlin has long experience with technology start-ups, founding several himself and serving as executive and non-executive director in a number of listed and unlisted companies including SMS Management & Technology (ASX:SMX), YourCall Communications and UCMS. He has extensive experience commercialising earlystage technologies, working with universities, driving strategy and managing mergers and acquisitions.

Name: Mr Peter Armitage
Title: Non-Executive Director (appointed 20 June 2016)
Qualifications: FCA FAICD
Experience and expertise: Peter Armitage began his professional career over 40 years ago with an international accounting firm, specialising in start-ups and work-outs. After qualification he was invited into partnership of a national firm that he maintained until he set up his own practice in 1978, of which he remains principal. Since the early 1980's he has been a Director of a number of listed exploration companies in both Australia and New Zealand concentrating on fiscal aspects of project modelling and procurement of capital. Recently he has been responsible for a number of successful IPOs supervising Due Diligence and Corporate Governance matters as well as attending to all compliance matters. Mr Armitage has also been involved in various consulting assignments in Peoples Republic of China, Canada, USA, Hong Kong, and UK for Fortune 500 companies. Mr Armitage also holds directorships in ASX listed entities including Strategic Energy Resources (ASX: SER) and Peako Limited (ASX: PKO).

Name: Mr Mark Muzzin
Title: CEO and Managing Director (resigned 15 July 2016)
Experience and expertise: Mr Mark Muzzin has had more than 20 years of commercial experience working with both Australian and international public and private companies. After obtaining a Bachelor of Arts degree from La Trobe University in Melbourne, Australia, he began his career in a London stockbroking firm. Mr Muzzin has consulted for two of the big four Australian banks in the share custodian area, and has been involved in numerous capital raisings for resource companies. He has also acted as consultant to many junior and mid cap energy and minerals companies. Mr Muzzin has served as General Manager for a number of public companies and has held the position of CEO for ASXlisted company Strategic Energy Resources (SER) since December 2008.

Name: Dr Anne-Marie Grisogono
Title: Non-Executive Director (resigned 13 July 2016)
Experience and expertise: Dr Anne-Marie Grisogono is a physicist with over 30 years of experience in applied research and development and research management, including 15 years as a Research Leader in the Defence Science and Technology Organisation (DSTO). She has led scientific support for the Army's acquisition of the Tiger armed reconnaissance helicopter, worked with Army Headquarters to reframe the Army's approach to strategic planning and R&D prioritisation and management, and has held national and international leadership roles within DSTO in the fields of simulation, systems engineering and systems science, human sciences and complexity science. She is currently a member of the Australian Research Council's College of Experts, and now holds a visiting research position in the Melbourne Business School at Melbourne University and an adjunct professorial appointment in the Faculty of Computer Science, Engineering and Mathematics at Flinders University.

Ionic Industries Limited
Directors' report
31 December 2016

Name: Associate Professor Mainak Majumder
Title: Non-Executive Director (resigned 29 April 2016)
Experience and expertise: Associate Professor Mainak Majumder is a Senior Lecturer at the Department of Mechanical and Aerospace Engineering at Monash University and is the Group Leader of the Nanoscale Science and Engineering Laboratory (NSEL). He holds a Master's degree from Institute of Technology-Banaras Hindu University and was a staff scientist at CSIR, India from 2001-03. He obtained his PhD in 2007 from the University of Kentucky, USA and obtained postdoctoral training at Rice University, Texas USA on carbon nanomaterials.

Company secretary

Ms Melanie Leydin (resigned 6 October 2016)

Ms Leydin holds a Bachelor of Business majoring in Accounting and Corporate Law. She is a member of the Institute of Chartered Accountants and is a Registered Company Auditor. She graduated from Swinburne University in 1997, became a Chartered Accountant in 1999 and since February 2000 has been the principal of chartered accounting firm, Leydin Freyer.

The practice provides outsourced company secretarial and accounting services to public and private companies specialising in the Resources, technology, bio science and biotechnology sector.

Melanie has over 23 years' experience in the accounting profession and has extensive experience in relation to public company responsibilities, including ASX and ASIC compliance, control and implementation of corporate governance, statutory financial reporting, reorganisation of Companies and shareholder relations.

Mr Justin Mouchacca

Mr Mouchacca holds a Bachelor of Business majoring in Accounting. He graduated from RMIT University in 2008, became a Chartered Accountant in 2011 and since July 2013 has been the principal of chartered accounting firm, Leydin Freyer Corp Pty Ltd.

The practice provides outsourced company secretarial and accounting services to public and private companies specialising in the Resources, technology, bioscience and biotechnology sectors.

Justin has over 8 years' experience in the accounting profession and has extensive experience in relation to public company responsibilities, including ASX and ASIC compliance, control and implementation of corporate governance, statutory financial reporting, reorganisation of Companies and shareholder relations.

Meetings of directors

The number of meetings of the company's Board of Directors ('the Board') held during the year ended 31 December 2016, and the number of meetings attended by each director were:

	Full Board	
	Attended	Held
Mr Mark Muzzin	3	3
Ms Anne-Marie Grisogono	2	2
Mr Simon Savage	8	8
Mr Peter Armitage	8	8
Mr Merlin Allan	5	5
Mr Mainak Majumder	-	-

Held: represents the number of meetings held during the time the director held office.

Shares under option

There were no unissued ordinary shares of Ionic Industries Limited under option outstanding at the date of this report.

Indemnity and insurance of officers

The company has indemnified the directors and executives of the company for costs incurred, in their capacity as a director or executive, for which they may be held personally liable, except where there is a lack of good faith.

Ionic Industries Limited
Directors' report
31 December 2016

During the year, the company paid a premium in respect of a contract to insure the directors and executives of the company against a liability to the extent permitted by the Corporations Act 2001. The contract of insurance prohibits disclosure of the nature of the liability and the amount of the premium.

Indemnity and insurance of auditor

The company has not, during or since the end of the year, indemnified or agreed to indemnify the auditor of the company or any related entity against a liability incurred by the auditor.

During the year, the company has not paid a premium in respect of a contract to insure the auditor of the company or any related entity.

Proceedings on behalf of the company

No person has applied to the Court under section 237 of the Corporations Act 2001 for leave to bring proceedings on behalf of the company, or to intervene in any proceedings to which the company is a party for the purpose of taking responsibility on behalf of the company for all or part of those proceedings.

Auditor's independence declaration

A copy of the auditor's independence declaration as required under section 307C of the Corporations Act 2001 is set out immediately after this directors' report.

Auditor

Grant Thornton Audit Pty Ltd continues in office in accordance with section 327 of the Corporations Act 2001.

Rounding of amounts

Ionic Industries Limited is a type of Company that is referred to in ASIC Corporations (Rounding in Financial/Directors' Reports) Instrument 2016/191 and therefore the amounts contained in this report and in the financial report have been rounded to the nearest dollar.

This report is made in accordance with a resolution of directors, pursuant to section 298(2)(a) of the Corporations Act 2001.

On behalf of the directors



Mr Simon Savage
CEO & Executive Director
30 March 2017

The Rialto, Level 30
525 Collins St
Melbourne Victoria 3000

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AUDITOR'S INDEPENDENCE DECLARATION TO THE DIRECTORS OF IONIC INDUSTRIES LIMITED

In accordance with the requirements of section 307C of the Corporations Act 2001, as lead auditor for the audit of Ionic Industries Limited for the year ended 31 December 2016, I declare that, to the best of my knowledge and belief, there have been:

- a no contraventions of the auditor independence requirements of the Corporations Act 2001 in relation to the audit; and
- b no contraventions of any applicable code of professional conduct in relation to the audit.



GRANT THORNTON AUDIT PTY LTD
Chartered Accountants



Adrian Nathanielsz
Partner - Audit & Assurance

Melbourne, 30 March 2017

Grant Thornton Audit Pty Ltd ACN 130 913 594
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Ionic Industries Limited
Statement of profit or loss and other comprehensive income
For the year ended 31 December 2016

	Note	31 December 2016 \$	31 December 2015 \$
Other income			
Research & development tax concession		223,200	307,206
Expenses			
Corporate expenses		(235,392)	(200,839)
Employee benefits expense		(279,369)	(230,239)
Depreciation expense		(2,269)	(282)
Other expenses		(39,575)	(63,408)
Finance costs		(772)	(21,713)
Research and development costs		<u>(218,677)</u>	<u>(261,881)</u>
Loss before income tax expense		(552,854)	(471,156)
Income tax expense	4	-	-
Loss after income tax expense for the year attributable to the owners of Ionic Industries Limited		(552,854)	(471,156)
Other comprehensive income for the year, net of tax		-	-
Total comprehensive income for the year attributable to the owners of Ionic Industries Limited		<u>(552,854)</u>	<u>(471,156)</u>

The above statement of profit or loss and other comprehensive income should be read in conjunction with the accompanying notes

Ionic Industries Limited
Statement of financial position
As at 31 December 2016

	Note	31 December 2016 \$	31 December 2015 \$
Assets			
Current assets			
Cash and cash equivalents	5	229,008	32,689
Trade and other receivables	6	<u>83,256</u>	<u>324,381</u>
Total current assets		<u>312,264</u>	<u>357,070</u>
Non-current assets			
Property, plant and equipment	7	<u>23,656</u>	<u>25,925</u>
Total non-current assets		<u>23,656</u>	<u>25,925</u>
Total assets		<u>335,920</u>	<u>382,995</u>
Liabilities			
Current liabilities			
Trade and other payables	8	675,622	402,289
Borrowings	9	–	<u>300,000</u>
Total current liabilities		<u>675,622</u>	<u>702,289</u>
Total liabilities		<u>675,622</u>	<u>702,289</u>
Net liabilities		<u>(339,702)</u>	<u>(319,294)</u>
Equity			
Issued capital	10	684,308	151,862
Accumulated losses		<u>(1,024,010)</u>	<u>(471,156)</u>
Total deficiency in equity		<u>(339,702)</u>	<u>(319,294)</u>

The above statement of financial position should be read in conjunction with the accompanying notes.

Ionic Industries Limited
Statement of changes in equity
For the year ended 31 December 2016

	Issued capital \$	Accumulated losses \$	Total deficiency in equity \$
Balance at 1 January 2015	12	-	12
Loss after income tax expense for the year	-	(471,156)	(471,156)
Other comprehensive income for the year, net of tax	-	-	-
Total comprehensive income for the year	-	(471,156)	(471,156)
<i>Transactions with owners in their capacity as owners:</i>			
Contributions of equity, net of transaction costs (note 10)	151,850	-	151,850
Balance at 31 December 2015	<u>151,862</u>	<u>(471,156)</u>	<u>(319,294)</u>

	Issued capital \$	Accumulated losses \$	Total deficiency in equity \$
Balance at 1 January 2016	151,862	(471,156)	(319,294)
Loss after income tax expense for the year	-	(552,854)	(552,854)
Other comprehensive income for the year, net of tax	-	-	-
Total comprehensive income for the year	-	(552,854)	(552,854)
<i>Transactions with owners in their capacity as owners:</i>			
Contributions of equity, net of transaction costs (note 10)	532,446	-	532,446
Balance at 31 December 2015	<u>684,308</u>	<u>(1,024,010)</u>	<u>(339,702)</u>

The above statement of changes in equity should be read in conjunction with the accompanying notes

Ionic Industries Limited
Statement of cash flows
For the year ended 31 December 2016

	Note	31 December 2016 \$	31 December 2015 \$
Cash flows from operating activities			
Receipts from R&D refund		461,259	-
Payments to suppliers and employees (inclusive of GST)		<u>(497,386)</u>	<u>(217,966)</u>
Net cash used in operating activities		<u>(36,127)</u>	<u>(217,966)</u>
Cash flows from investing activities			
Payments for property, plant and equipment		<u>-</u>	<u>(26,207)</u>
Net cash used in investing activities		<u>-</u>	<u>(26,207)</u>
Cash flows from financing activities			
Proceeds from issue of shares	10	551,620	151,850
Capital raising costs	10	(19,174)	-
Proceeds from borrowings		-	425,000
Repayment of borrowings		(278,155)	(300,000)
Interest charges		<u>(21,845)</u>	<u>-</u>
Net cash from financing activities		<u>232,446</u>	<u>276,850</u>
Net increase in cash and cash equivalents		196,319	32,677
Cash and cash equivalents at the beginning of the year		<u>32,689</u>	<u>12</u>
Cash and cash equivalents at the end of the year	5	<u>229,008</u>	<u>32,689</u>

The above statement of cash flows should be read in conjunction with the accompanying notes

Ionic Industries Limited
Notes to the financial statements
31 December 2016

Note 1. General information

Ionic Industries Limited is an unlisted public company limited by shares, incorporated and domiciled in Australia. Its registered office and principal place of business is:

Level 4, 100 Albert Road
South Melbourne
VIC 3205

A description of the nature of the company's operations and its principal activities are included in the directors' report, which is not part of the financial statements.

The financial statements were authorised for issue, in accordance with a resolution of directors, on 30 March 2017. The directors have the power to amend and reissue the financial statements.

Note 2. Significant accounting policies

The principal accounting policies adopted in the preparation of the financial statements are set out below. These policies have been consistently applied to all the years presented, unless otherwise stated.

New or amended Accounting Standards and Interpretations adopted

The company has adopted all of the new or amended Accounting Standards and Interpretations issued by the Australian Accounting Standards Board ('AASB') that are mandatory for the current reporting period.

Any new, revised or amending Accounting Standards or Interpretations that are not yet mandatory have not been adopted early.

Going concern

The financial report has been prepared on the going concern basis, which contemplates the continuity of normal business activities and the realisation of assets and settlement of liabilities in the ordinary course of business.

During the year ended 31 December 2016, the company incurred a loss after tax of \$552,854 (2015: \$471,156) and had net cash outflows from operating activities of \$36,127 (2015: \$217,966). At 31 December 2016 the company had net liabilities of \$339,702 (31 December 2015: \$319,294). The cash balance as at 31 December 2016 was \$229,008 (31 December 2015: \$32,689).

The company currently does not have a source of income and in order to continue as a going concern is therefore reliant on achieving a combination of the following:

- Securing additional funding through capital or debt raisings; and
- Completing an Initial Price Offering (IPO).
- Development of proprietary technology into commercialisation

The ability of the company to continue as a going concern is dependent upon the continuing financial support of the creditors (including present and former directors), until such time as the company derives sufficient revenue or successfully raises sufficient capital to discharge the amounts owed. As at the date of signing the financial report, no letter of demand has been received from these creditors.

The directors believe that the company will be able to continue as a going concern on the basis that there is a plan to raise capital through further interim capital raisings in conjunction with the directors agreeing not to request cash payments of the amounts owing to them for directors' fees. Subsequent to year end on 21 February 2017 the Company issued a total of 6,825,829 fully paid ordinary shares to current and former directors settling a total of \$198,632 in accrued fees owed as at 31 December 2016. These initiatives will be adequate to ensure enough cash resources are available to continue to fund operating costs.

Subsequent to the end of the financial period, grant funding has been awarded to Clean TeQ Holdings Limited (ASX: CLQ) (The Company's research partner) as part of the Cooperative Research Centre's Project Program (CRC-P) for the development of clean waste water technology. Along with this partnership and other recent advanced discussions with other companies in relation to the utilisation of the company's patented graphene oxide technologies, the directors currently have no reason to believe that the company will not be successful in commercialisation of the company's patented technologies. Therefore, the directors believe that the company will be able to continue as a going concern.

Ionic Industries Limited
Notes to the financial statements
31 December 2016

Note 2. Significant accounting policies (continued)

Basis of preparation

These general purpose financial statements have been prepared in accordance with Australian Accounting Standards and Interpretations issued by the Australian Accounting Standards Board ('AASB') and the Corporations Act 2001, as appropriate for for-profit oriented entities. These financial statements also comply with International Financial Reporting Standards as issued by the International Accounting Standards Board ('IASB').

Historical cost convention

The financial statements have been prepared under the historical cost convention, except for, where applicable, the revaluation of available-for-sale financial assets, financial assets and liabilities at fair value through profit or loss, investment properties, certain classes of property, plant and equipment and derivative financial instruments.

Critical accounting estimates

The preparation of the financial statements requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the company's accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the financial statements, are disclosed in note 3.

Revenue recognition

Revenue is recognised when it is probable that the economic benefit will flow to the company and the revenue can be reliably measured. Revenue is measured at the fair value of the consideration received or receivable.

Sale of goods

Sale of goods revenue is recognised at the point of sale, which is where the customer has taken delivery of the goods, the risks and rewards are transferred to the customer and there is a valid sales contract. Amounts disclosed as revenue are net of sales returns and trade discounts.

Interest

Interest revenue is recognised as interest accrues using the effective interest method. This is a method of calculating the amortised cost of a financial asset and allocating the interest income over the relevant period using the effective interest rate, which is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to the net carrying amount of the financial asset.

Government subsidies

Subsidies from the government including R&D tax incentive income, are recognised as revenue at their fair value where there is reasonable assurance that the grant will be received, the Company will comply with attached conditions and the R&D incentive is readily measurable. As the estimate is reliably measurable, the R&D tax incentive has measured on an accruals basis.

Income tax

The income tax expense or benefit for the period is the tax payable on that period's taxable income based on the applicable income tax rate for each jurisdiction, adjusted by the changes in deferred tax assets and liabilities attributable to temporary differences, unused tax losses and the adjustment recognised for prior periods, where applicable.

Deferred tax assets and liabilities are recognised for temporary differences at the tax rates expected to be applied when the assets are recovered or liabilities are settled, based on those tax rates that are enacted or substantively enacted, except for:

- When the deferred income tax asset or liability arises from the initial recognition of goodwill or an asset or liability in a transaction that is not a business combination and that, at the time of the transaction, affects neither the accounting nor taxable profits; or
- When the taxable temporary difference is associated with interests in subsidiaries, associates or joint ventures, and the timing of the reversal can be controlled and it is probable that the temporary difference will not reverse in the foreseeable future.

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

Ionic Industries Limited
Notes to the financial statements
31 December 2016

Note 2. Significant accounting policies (continued)

The carrying amount of recognised and unrecognised deferred tax assets are reviewed at each reporting date. Deferred tax assets recognised are reduced to the extent that it is no longer probable that future taxable profits will be available for the carrying amount to be recovered. Previously unrecognised deferred tax assets are recognised to the extent that it is probable that there are future taxable profits available to recover the asset.

Deferred tax assets and liabilities are offset only where there is a legally enforceable right to offset current tax assets against current tax liabilities and deferred tax assets against deferred tax liabilities; and they relate to the same taxable authority on either the same taxable entity or different taxable entities which intend to settle simultaneously.

Current and non-current classification

Assets and liabilities are presented in the statement of financial position based on current and non-current classification.

An asset is classified as current when: it is either expected to be realised or intended to be sold or consumed in the company's normal operating cycle; it is held primarily for the purpose of trading; it is expected to be realised within 12 months after the reporting period; or the asset is cash or cash equivalent unless restricted from being exchanged or used to settle a liability for at least 12 months after the reporting period. All other assets are classified as non-current.

A liability is classified as current when: it is either expected to be settled in the company's normal operating cycle; it is held primarily for the purpose of trading; it is due to be settled within 12 months after the reporting period; or there is no unconditional right to defer the settlement of the liability for at least 12 months after the reporting period. All other liabilities are classified as non-current.

Deferred tax assets and liabilities are always classified as non-current.

Cash and cash equivalents

Cash and cash equivalents includes cash on hand, deposits held at call with financial institutions, other short-term, highly liquid investments with original 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.

Trade and other receivables

Other receivables are recognised at amortised cost, less any provision for impairment.

Property, plant and equipment

Plant and equipment is stated at historical cost less accumulated depreciation and impairment. Historical cost includes expenditure that is directly attributable to the acquisition of the items.

Depreciation is calculated on a straight-line basis to write off the net cost of each item of property, plant and equipment (excluding land) over their expected useful lives as follows:

Plant and equipment	3-7 years
Office and computer equipment	3-7 years

The residual values, useful lives and depreciation methods are reviewed, and adjusted if appropriate, at each reporting date.

An item of property, plant and equipment is derecognised upon disposal or when there is no future economic benefit to the company. Gains and losses between the carrying amount and the disposal proceeds are taken to profit or loss. Any revaluation surplus reserve relating to the item disposed of is transferred directly to retained profits.

Intangible assets

Intangible assets acquired as part of a business combination, other than goodwill, are initially measured at their fair value at the date of the acquisition. Intangible assets acquired separately are initially recognised at cost. Indefinite life intangible assets are not amortised and are subsequently measured at cost less any impairment. Finite life intangible assets are subsequently measured at cost less amortisation and any impairment. The gains or losses recognised in profit or loss arising from the derecognition of intangible assets are measured as the difference between net disposal proceeds and the carrying amount of the intangible asset. The method and useful lives of finite life intangible assets are reviewed annually. Changes in the expected pattern of consumption or useful life are accounted for prospectively by changing the amortisation method or period.

Ionic Industries Limited
Notes to the financial statements
31 December 2016

Note 2. Significant accounting policies (continued)

Research and development

Expenditure on research activities undertaken with the prospect of gaining new scientific or technical knowledge and understanding, is recognised in profit or loss as an expense as incurred.

Expenditure on any development activities, whereby research findings are applied to a plan or design for the production of new or substantially improved products and processes, is capitalised if the product is technically feasible and the Group has sufficient resources to complete development. The expenditure capitalised includes the cost of materials, direct labour and overhead costs that are directly attributable to preparing the asset for its intended use.

Other development expenditure is recognised in the profit or loss as an expense as incurred. Capitalised development expenditure is stated at cost less accumulated amortisation and impairment losses.

Trade and other payables

These amounts represent liabilities for goods and services provided to the company prior to the end of the financial year and which are unpaid. Due to their short-term nature they are measured at amortised cost and are not discounted. The amounts are unsecured and are usually paid within 30 days of recognition.

Borrowings

Loans and borrowings are initially recognised at the fair value of the consideration received, net of transaction costs. They are subsequently measured at amortised cost using the effective interest method.

Where there is an unconditional right to defer settlement of the liability for at least 12 months after the reporting date, the loans or borrowings are classified as non-current.

Finance costs

Finance costs attributable to qualifying assets are capitalised as part of the asset. All other finance costs are expensed in the period in which they are incurred.

Fair value measurement

When an asset or liability, financial or non-financial, is measured at fair value for recognition or disclosure purposes, the fair value is based on the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date; and assumes that the transaction will take place either: in the principal market; or in the absence of a principal market, in the most advantageous market.

Fair value is measured using the assumptions that market participants would use when pricing the asset or liability, assuming they act in their economic best interests. For non-financial assets, the fair value measurement is based on its highest and best use. Valuation techniques that are appropriate in the circumstances and for which sufficient data are available to measure fair value, are used, maximising the use of relevant observable inputs and minimising the use of unobservable inputs.

Issued capital

Ordinary shares are classified as equity.

Incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction, net of tax, from the proceeds.

Dividends

Dividends are recognised when declared during the financial year and no longer at the discretion of the company.

Goods and Services Tax ('GST') and other similar taxes

Revenues, expenses and assets are recognised net of the amount of associated GST, unless the GST incurred is not recoverable from the tax authority. In this case it is recognised as part of the cost of the acquisition of the asset or as part of the expense.

Receivables and payables are stated inclusive of the amount of GST receivable or payable. The net amount of GST recoverable from, or payable to, the tax authority is included in other receivables or other payables in the statement of financial position.

Ionic Industries Limited
Notes to the financial statements
31 December 2016

Note 2. Significant accounting policies (continued)

Cash flows are presented on a gross basis. The GST components of cash flows arising from investing or financing activities which are recoverable from, or payable to the tax authority, are presented as operating cash flows.

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

New Accounting Standards and Interpretations not yet mandatory or early adopted

Australian Accounting Standards and Interpretations that have recently been issued or amended but are not yet mandatory, have not been early adopted by the company for the annual reporting period ended 31 December 2016. The company has not yet assessed the impact of these new or amended Accounting Standards and Interpretations.

Note 3. Critical accounting judgements, estimates and assumptions

The preparation of the financial statements requires management to make judgements, estimates and assumptions that affect the reported amounts in the financial statements. Management continually evaluates its judgements and estimates in relation to assets, liabilities, contingent liabilities, revenue and expenses. Management bases its judgements, estimates and assumptions on historical experience and on other various factors, including expectations of future events, management believes to be reasonable under the circumstances. The resulting accounting judgements and estimates will seldom equal the related actual results. The judgements, estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities (refer to the respective notes) within the next financial year are discussed below.

Provision for impairment of receivables

The provision for impairment of receivables assessment requires a degree of estimation and judgement. The level of provision is assessed by taking into account the recent sales experience, the ageing of receivables, historical collection rates and specific knowledge of the individual debtor's financial position.

Estimation of useful lives of assets

The company determines the estimated useful lives and related depreciation and amortisation charges for its property, plant and equipment and finite life intangible assets. The useful lives could change significantly as a result of technical innovations or some other event. The depreciation and amortisation charge will increase where the useful lives are less than previously estimated lives, or technically obsolete or non-strategic assets that have been abandoned or sold will be written off or written down.

Income tax

The company is subject to income taxes in the jurisdictions in which it operates. Significant judgement is required in determining the provision for income tax. There are many transactions and calculations undertaken during the ordinary course of business for which the ultimate tax determination is uncertain. The company recognises liabilities for anticipated tax audit issues based on the company's current understanding of the tax law. Where the final tax outcome of these matters is different from the carrying amounts, such differences will impact the current and deferred tax provisions in the period in which such determination is made.

Research & Development refund recognition

The company is entitled to a research & development refund and has taken the approach of accruing the expected refund based off what management expects to receive when the claim is submitted at a later date.

Ionic Industries Limited
Notes to the financial statements
31 December 2016

Note 4. Income tax expense

	31 December 2016	31 December 2015
	\$	\$
<i>Numerical reconciliation of income tax expense and tax at the statutory rate</i>		
Loss before income tax expense	<u>(552,854)</u>	<u>(471,156)</u>
Tax at the statutory tax rate of 28.5%	(157,563)	(134,279)
Tax effect amounts which are not deductible/(taxable) in calculating taxable income:		
Current year temporary differences not recognised	97,906	55,090
Net tax impact from non-deductible R&D expenses and non-assessable R&D rebate	20,362	28,025
Other non-assessable items	4,372	-
Tax losses not recognised	<u>34,923</u>	<u>51,164</u>
Income tax expense	-	-
	31 December 2016	31 December 2015
	\$	\$
<i>Tax losses not recognised</i>		
Unused tax losses for which no deferred tax asset has been recognised	<u>122,541</u>	<u>179,526</u>
Potential tax benefit @ 28.5%	<u>34,924</u>	<u>51,165</u>

The company has elected to apply the small business concessional income tax rate of 28.5% in determining the amount of deferred tax assets not recognised.

The above potential tax benefit for tax losses has not been recognised in the statement of financial position. These tax losses can only be utilised in the future if the continuity of ownership test is passed, or failing that, the same business test is passed.

The taxation benefits of tax losses and timing differences not brought to account will only be obtained if:

- (i) the entity derives future assessable income of a nature and of an amount sufficient to enable the benefit from the deductions for the losses to be realised;
- (ii) the consolidated entity continues to comply with the conditions for deductibility imposed by law; and
- (iii) no changes in tax legislation adversely affect the entity in realising the benefit from the deductions for the losses.

Note 5. Current assets - cash and cash equivalents

	31 December 2016	31 December 2015
	\$	\$
Unused tax losses for which no deferred tax asset has been recognised	<u>229,008</u>	<u>32,689</u>

Ionic Industries Limited
Notes to the financial statements
31 December 2016

Note 6. Current assets - trade and other receivables

	31 December 2016	31 December 2015
	\$	\$
R&D tax incentive receivable	69,148	307,206
Prepayments	3,517	-
GST receivable	<u>10,591</u>	<u>17,175</u>
	<u>83,256</u>	<u>324,381</u>

Due to the short term nature of the receivables, their carrying value is assumed to be approximately their fair value. No collateral or security is held. The consolidated entity has financial risk management policies in place to ensure that all receivable are received within the credit time frame.

Note 7. Non-current assets - property, plant and equipment 31 December

	31 December 2016	31 December 2015
	\$	\$
Plant and equipment - at cost	25,000	25,000
Less: Accumulated depreciation	<u>(1,786)</u>	<u>-</u>
	<u>23,214</u>	<u>25,000</u>
Computer equipment - at cost	1,207	1,207
Less: Accumulated depreciation	<u>(765)</u>	<u>(282)</u>
	<u>442</u>	<u>925</u>
	<u>23,656</u>	<u>25,925</u>

Reconciliations

Reconciliations of the written down values at the beginning and end of the current and previous year are set out below:

	Property & equipment	Computer equipment	Total
	\$	\$	\$
Balance at 1 January 2015	25,000	1,207	26,207
Depreciation expense	<u>-</u>	<u>(282)</u>	<u>(282)</u>
Balance at 31 December 2015	25,000	925	25,925
Depreciation expense	<u>(1,786)</u>	<u>(483)</u>	<u>(2,269)</u>
Balance at 31 December 2016	<u>23,214</u>	<u>442</u>	<u>23,656</u>

Ionic Industries Limited
Notes to the financial statements
31 December 2016

Note 8. Current liabilities - trade and other payables

	31 December 2016	31 December 2015
	\$	\$
Trade payables	252,257	208,992
Other payables	<u>423,365</u>	<u>193,297</u>
	<u>675,622</u>	<u>402,289</u>

Refer to note 12 for further information on financial instruments.

Included in other payables is \$366,427 owing to current and previous Directors of the company accrued Directors fees to 31 December 2016. The company will not pay these fees until such time where sufficient funds become available or if agreed and approved the company may issue shares in consideration for accrued fees.

On 21 February 2017, the company agreed to issue shares in consideration for accrued fees. Refer to Note 17 for details.

Note 9. Current liabilities - borrowings

	31 December 2016	31 December 2015
	\$	\$
Borrowings	<u>-</u>	<u>300,000</u>

Refer to note 12 for further information on financial instruments.

The company had in place a Bridging Loan Agreement with Strategic Energy Resources Limited, of which it demerged from on 22 June 2015. The terms of the Bridging Loan Agreement state that the loan is to repaid in full by Ionic Industries Limited on or before 31 December 2015 or such other date as agreed by the two companies and stipulates an interest rate of 7%. This loan was subsequently repaid during the year.

Note 10. Equity - issued capital

Property	31 December 2016	31 December 2015	31 December 2016	31 December 2015
	Shares	Shares	\$	\$
Ordinary shares - fully paid	<u>459,952,355</u>	<u>440,996,340</u>	<u>684,308</u>	<u>151,862</u>

Movements in ordinary share capital

Details	Date	Shares	Issue price	\$
Balance	1 January 2015	435,778,126		12
Fully paid ordinary shares	30 December 2015	<u>5,218,214</u>	\$0.0291	<u>151,850</u>
Balance	31 December 2015	440,996,340		151,862
Fully paid ordinary shares	24 March 2016	9,408,249	\$0.0291	273,780
Fully paid ordinary shares	5 April 2016	9,547,766	\$0.0291	277,840
Capital raising costs		<u>-</u>	<u>-</u>	<u>(19,174)</u>
Balance	31 December 2016	<u>459,952,355</u>		<u>684,308</u>

Ionic Industries Limited
Notes to the financial statements
31 December 2016

Note 10. Equity - issued capital (continued)

Ordinary shares

Ordinary shares entitle the holder to participate in dividends and the proceeds on the winding up of the company in proportion to the number of and amounts paid on the shares held. The fully paid ordinary shares have no par value and the company does not have a limited amount of authorised capital.

On a show of hands every member present at a meeting in person or by proxy shall have one vote and upon a poll each share shall have one vote.

Capital risk management

The company's objectives when managing capital is to safeguard its ability to continue as a going concern, so that it can provide returns for shareholders and benefits for other stakeholders and to maintain an optimum capital structure to reduce the cost of capital.

Capital is regarded as total equity, as recognised in the statement of financial position, plus net debt. Net debt is calculated as total borrowings less cash and cash equivalents.

In order to maintain or adjust the capital structure, the company may adjust the amount of dividends paid to shareholders, return capital to shareholders, issue new shares or sell assets to reduce debt.

The company is subject to certain financing arrangements covenants and meeting these is given priority in all capital risk management decisions. There have been no events of default on the financing arrangements during the financial year.

Note 11. Equity - dividends

There were no dividends paid, recommended or declared during the current or previous year. Note 12. Financial instruments

Financial risk management objectives

The company's activities expose it to a number of financial risks: market risk (including interest rate risk) and liquidity risk.

The company's overall risk management program focuses on the unpredictability of financial markets and seeks to minimise potential adverse effects on the financial performance of the company. The company uses different methods to measure different types of risk to which it is exposed. These methods include sensitivity analysis in the case of interest rate risk, ageing analysis for credit risk.

Risk management is carried out by the board of directors as a whole ('the Board'). The Board identifies and analyses the risk exposure of the company and appropriate procedures, controls and risk limits. The Board also identifies, evaluates and hedges financial risks within the company's operating units. Finance reports to the Board on a monthly basis.

Market risk

Foreign currency risk

The consolidated entity is not exposed to foreign currency risk.

Price risk

The company is not exposed to any significant price risk.

Interest rate risk

The consolidated entity is not exposed to any significant interest rate risk.

Liquidity risk

Vigilant liquidity risk management requires the company to maintain sufficient liquid assets (mainly cash and cash equivalents) and available borrowing facilities to be able to pay debts as and when they become due and payable.

The company manages liquidity risk by maintaining adequate cash reserves and available borrowing facilities by continuously monitoring actual and forecast cash flows and matching the maturity profiles of financial assets and liabilities.

Ionic Industries Limited
Notes to the financial statements
31 December 2016

Note 12. Financial instruments (continued)

Remaining contractual maturities

The following tables detail the company's remaining contractual maturity for its financial instrument liabilities. The tables have been drawn up based on the undiscounted cash flows of financial liabilities based on the earliest date on which the financial liabilities are required to be paid. The tables include both interest and principal cash flows disclosed as remaining contractual maturities and therefore these totals may differ from their carrying amount in the statement of financial position.

31 December 2016	Weighted average interest rate %	1 year or less \$	Between 1 and 2 years \$	Between 2 and 5 years \$	Over 5 years \$	Remaining contractual Over 5 years \$
Non-derivatives						
<i>Non-interest bearing</i>						
Trade payables and other payables	-	402,289	-	-	-	402,289
Total non-derivatives		675,622	-	-	-	675,622
31 December 2015	Weighted average interest rate %	1 year or less \$	Between 1 and 2 years \$	Between 2 and 5 years \$	Over 5 years \$	Remaining contractual Over 5 years \$
Non-derivatives						
<i>Non-interest bearing</i>						
Trade payables and other payables	-	402,289	-	-	-	402,289
<i>Interest-bearing</i>						
Borrowings	7.00%	300,000	-	-	-	300,000
Total non-derivatives		702,289	-	-	-	702,289

The cash flows in the maturity analysis above are not expected to occur significantly earlier than contractually disclosed above.

Fair value of financial instruments

Unless otherwise stated, the carrying amounts of financial instruments reflect their fair value. Note 13. Key management personnel disclosures

Directors

The following persons were directors of Ionic Industries Limited during the year:

Non-Executive Directors

Mr Merlin Allan	(Appointed 22 July 2016)
Mr Peter Armitage	(Appointed 20 June 2016)
Dr Anne-Marie Grisogono	(Resigned 13 July 2016)
Dr Mainak Majumder	(Resigned 29 April 2016)

Executive Directors

Mr Simon Savage	(Appointed 29 April 2016)
Mr Mark Muzzin	(Resigned 15 July 2016)

Ionic Industries Limited
Notes to the financial statements
31 December 2016

Note 13. Key management personnel disclosures (continued)

Compensation

The compensation made to directors and other members of key management personnel of the company is set out below:

	31 December 2016	31 December 2015
	\$	\$
Short-term employee benefits	262,725	219,591
Post-employment benefits	16,644	10,648
	<u>279,369</u>	<u>230,239</u>

The majority of the amounts listed above have been accrued at balance dates. Subsequent to year end on 21 February 2017 the Company issued a total of 6,825,829 fully paid ordinary shares to current and former directors settling a total of \$198,632 in accrued fees owed as at 31 December 2016.

Note 14. Remuneration of auditors

During the year the following fees were paid or payable for services provided by Grant Thornton Audit Pty Ltd , the auditor of the company:

	31 December 2016	31 December 2015
	\$	\$
<i>Audit services - Grant Thornton Audit Pty Ltd</i>		
Audit or review of the financial statements	<u>15,000</u>	<u>10,000</u>

Note 15. Contingent liabilities

There were no contingent liabilities at 31 December 2015 and 31 December 2016. Note 16. Related party transactions

Parent entity

Ionic Industries Limited is the parent entity.

Key management personnel

Disclosures relating to key management personnel are set out in note 13.

Transactions with related parties

There were no transactions with related parties during the current and previous year.

Receivable from and payable to related parties

At 31 December 2016 a total of \$366,427 of accrued fees for current and former directors has been included in other payables. The directors have agreed the company will not pay these fees until such time where sufficient funds become available. The company has subsequent to year end settled a total of \$198,632 of accrued directors' fees to current and former directors through the issue of 6,825,829 fully paid ordinary shares.

Loans to/from related parties

The company had in place a Bridging Loan Agreement with Strategic Energy Resources Limited, of which it demerged from on 22 June 2015. At 31 December 2015 the company had been advanced \$300,000 inclusive of accrued interest. The terms of the Bridging Loan Agreement state that the loan is to repaid in full by Ionic Industries Limited on or before 31 December 2015 or such other date as agreed by the two companies and stipulates an interest rate of 7%. This loan was subsequently repaid during the year.

Ionic Industries Limited
Notes to the financial statements
31 December 2016

Note 16. Related party transactions (continued)

Terms and conditions

All transactions were made on normal commercial terms and conditions and at market rates.

Note 17. Events after the reporting period

On 21 February 2017, the Company issued a total of 6,825,829 fully paid ordinary shares at a deemed issue price of \$0.0291 (2.91 cents) in lieu of outstanding Directors Fees.

Subsequent to year end it was announced that grant funding had been awarded to Clean TeQ Holdings Limited (ASX: CLQ) (The Company's research partner) as part of the Cooperative Research Centre's Project Program (CRC-P) for the development of clean waste water technology.

No other matter or circumstance has arisen since 31 December 2016 that has significantly affected, or may significantly affect the company's operations, the results of those operations, or the company's state of affairs in future years.

Ionic Industries Limited
Directors' declaration
31 December 2016

In the directors' opinion:

- the attached financial statements and notes comply with the Corporations Act 2001, the Accounting Standards, the Corporations Regulations 2001 and other mandatory professional reporting requirements;
- the attached financial statements and notes comply with International Financial Reporting Standards as issued by the International Accounting Standards Board as described in note 2 to the financial statements;
- the attached financial statements and notes give a true and fair view of the company's financial position as at 31 December 2016 and of its performance for the year ended on that date; and
- there are reasonable grounds to believe that the company will be able to pay its debts as and when they become due and payable.

Signed in accordance with a resolution of directors made pursuant to section 295(5)(a) of the Corporations Act 2001.

On behalf of the directors

A handwritten signature in blue ink, appearing to read 'Simon Savage', with a large, stylized flourish extending to the right.

Mr Simon Savage
CEO & Executive Director
30 March 2017

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525 Collins St
Melbourne Victoria 3000

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INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF IONIC INDUSTRIES LIMITED

We have audited the financial report of Ionic Industries Limited (the Company), which comprises the statement of financial position as at 31 December 2016, the statement of profit or loss and other comprehensive income, statement of changes in equity and statement of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies, and the directors' declaration.

In our opinion, the accompanying financial report of Ionic Industries Limited is in accordance with the *Corporations Act 2001*, including:

- a giving a true and fair view of the Company's financial position as at 31 December 2016 and of its performance for the year ended on that date; and
- b complying with Australian Accounting Standards and the *Corporations Regulations 2001*.

Basis for Opinion

We conducted our audit in accordance with Australian Auditing Standards. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the *Audit of the Financial Report section of our report*. We are independent of the Company in accordance with the *Corporations Act 2001* and the ethical requirements of the Accounting Professional and Ethical Standards Board's APES 110 *Code of Ethics for Professional Accountants* (the Code) that are relevant to our audit of the financial report in Australia.

We have also fulfilled our other ethical responsibilities in accordance with the Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Grant Thornton Audit Pty Ltd ACN 130 913 594 a subsidiary or related entity of Grant Thornton Australia Ltd ABN 41 127 556 389

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Material Uncertainty related to going concern

We draw attention to Note 2 of the financial report, which notes net cash outflows from operating activities of \$36,127 and a closing cash balance of \$229,008 as at 31 December 2016. This condition, along with other matters set forth in note 2, indicate the existence of a material uncertainty which may cast significant doubt on the company's ability to continue as a going concern and therefore, the company may be unable to realise its assets and discharge its liabilities in the normal course of business and at the amounts stated in the financial report. Our opinion is not modified in relation to this matter.

Responsibilities of the Directors for the Financial Report

The Directors of the Company are responsible for the preparation of the financial report that gives a true and fair view in accordance with Australian Accounting Standards and the *Corporations Act 2001*. The Directors responsibility also includes such internal control as the Directors determine is necessary to enable the preparation of the financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error.

In preparing the financial report, the Directors are responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Financial Report

Our objectives are to obtain reasonable assurance about whether the financial report as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the Australian Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of this financial report. A further description of our responsibilities for the audit of the financial report is located at the Auditing and Assurance Standards Board website at: http://www.auasb.gov.au/auditors_files/ar3.pdf. This description forms part of our auditor's report.



GRANT THORNTON AUDIT PTY LTD
Chartered Accountants



Adrian Nathanielsz
Partner - Audit & Assurance

Melbourne, 30 March 2017

Section 13

GENERAL MATTERS

Set out in this Section are details of material contracts and additional information which is provided for information of Applicants generally and in accordance with the requirements of the Corporations Act.

MATERIAL CONTRACTS

1. Collaboration Agreement

Ionic has entered into a Collaboration Agreement with Monash dated 17 October 2014.

Under the Collaboration Agreement between Monash and Ionic, they agreed to collaboratively research, and develop for commercialisation, various technologies with the aim of developing products or applications based on the use of graphene (the “Field”).

The Collaboration Agreement has a term of five (5) years from execution but is capable of extension by mutual agreement. The structure of the Collaboration Agreement is comparatively simple.

Under the Collaboration Agreement the parties have established a research committee comprising the Supervising Researcher (a Monash nominee), an Ionic representative and such other representatives of Monash and Ionic as agreed from time to time. This meets regularly (at least quarterly) to discuss any potential new research projects within the Field and to discuss ongoing research projects (“Projects”) which have been established.

The Research Committee is tasked with generating research proposals within the Field (“Research Proposals”) for presentation to Ionic with a presentation in sufficient detail to enable Ionic to decide whether to progress and fund a Project based on the Research Proposal. When a Research Proposal has been created Ionic has an exclusive option to undertake a Project on the terms of the Collaboration Agreement (**Project Option**). Where Ionic exercises a Project Option, a Project Schedule is entered into setting out the terms of the Project. Each Project Schedule forms a contract in relation to the Project it relates to and has a commencement date and expiry date and sets out the obligations of the parties. Monash’s is responsible for management of all Projects under each Project Schedule primary duty is to carry out the required research and Ionic’s obligation is to fund same.

The Research Committee has oversight of each Project and the Research Committee provides quarterly reports to the parties in relation to each Project reporting on milestones achieved and other matters.

At completion or termination of a Project, Monash provides Ionic with a final report on the results of the Project and grants Ionic a perpetual, non-exclusive, royalty-free, transferable licence to use and distribute the reports as it sees fit.

Ionic must comply with its responsibilities under each Project Schedule. This is primarily to meet payment obligations and provide any materials and information Ionic agrees to provide in relation to each Project under each Project Schedule executed.

To the extent that Monash or Ionic contribute their intellectual property (Background IP) to a Project they continue to retain exclusive ownership of their Background IP but each Party grants the other Party a non-exclusive, royalty-free licence for the use of any Background IP made available by the granting Party for the purpose of carrying out a Project. All Intellectual Property in Improvements to either party’s Background IP arising out of the conduct of the Project shall be vested in that party.

All title to, and all Intellectual Property Rights in, the Project IP are owned by Monash and, to the extent that any Intellectual Property Rights in the Project IP might vest in Ionic on their creation, Ionic agrees that title to, and all Intellectual Property Rights (including future copyright) in, the Project IP will automatically be transferred and assigned to Monash, encumbrance free, such transfer and assignment to be effective on the date of creation of such Intellectual Property Rights without any further requirement.

Under the Collaboration Agreement Ionic obtains commercialisation and IP rights including that Monash grants Ionic an option (Option) to acquire an exclusive licence to use the Project IP (together with any Monash Background IP that Ionic needs to use to effectively Commercialise the Project IP) for commercial purposes in a form and reflecting the commercial terms (including as to royalties, field and territory) attached to the Collaboration Agreement (Commercial Licence).

The Collaboration Agreement contains detailed termination clauses. Expiry or termination of the Collaboration Agreement or termination of any contract arising from execution of a Project Schedule for any reason shall not affect the rights and obligations of the parties accrued prior to the effective date of termination or expiry of the Collaboration Agreement or termination of such contract (as the case may be).

The Collaboration Agreement contains standard provisions relating to confidentiality, dispute resolution, the effect of force majeure, notice, governing law (law of Victoria), amendment (only in writing signed by the parties), restrictions on assignment and the relationship between the parties (the latter providing each is an independent contractor negating partnership and other relationships such as principal and agent).

2. Exclusive Commercialisation Licences

The Collaboration Agreement provides for the entering into of an intellectual property licence agreement (Licence) between Monash as licensor and Ionic as the licensee ("Licence"). The form of Licence agreement annexed to the Collaboration Agreement is predicated on Monash having made an Australian patent application ("the Application") in relation to an invention arising from a Project under the Collaboration Agreement and Ionic as the Licensee seeking a licence for specific purposes' in respect of the invention described in the Application ("Invention").

Within 30 days of the Commencement Date, Monash must disclose all Technical Information to Ionic. Technical Information is "all specifications, technical and scientific information and any commercially valuable information or know how relating to the Invention and specifically regarding its use within the Field which is in the free possession or control of Monash having been developed by or under the supervision of the Researchers specified in the schedule" (to the Licence: who will normally be the inventors).

Ionic acknowledges that certain parts of the Technical Information may be confidential to Monash.

Further under clause 3.1 to 3.3 of the Licence, except as expressly provided in the Licence, Ionic undertakes not to disclose any part of the Technical Information to any third party without the prior consent in writing of Monash, which consent may only be withheld by Monash acting reasonably. Notwithstanding this restriction, Monash agrees under clause 3.3 that Ionic may disclose the Technical Information to its employees to the extent that such disclosure is reasonably necessary to enable Ionic to Exploit the Invention in the Field and to representatives of potential or actual sub-Ionics, assignees or investors after execution by each said representative of a confidentiality agreement acceptable to Monash.

Under clause 3.4 of the Licence, from the commencement date and subject to clauses 5.1(iii), 5.1(iv) and 5.6 of the Licence, Monash grants Ionic an exclusive, world-wide licence to:

- (a) Exploit the Invention ("Exploit" meaning "use, make, hire, sell or otherwise dispose of to a third party, or offer to make, hire, sell or otherwise dispose of to a third party")
- (b) use the Technical Information (as defined above);
- (c) grant Sub-Licences (including right for the Sub-Ionics to grant sublicences but without a further right of sub licence) and disclose the Technical Information for the purpose of Exploiting the Invention,

within the Field in the Territory. The Field is as described in the Schedule to the Licence and generally relates to the scope of the Application (i.e. the description of the invention the subject of the Application).

The confidentiality obligations imposed by clause 3.2 of the Licence will not apply to any Technical Information, which:

- at the commencement date is or thereafter becomes, through no act or failure to act on the part of Licensee, generally known or available to the public; or
 - is disclosed to Ionic by a third party without any obligation of confidence to Licensee; or
 - is required to be disclosed by law (including under the rules of a recognised stock exchange); or
 - is disclosed pursuant to the provisions of the Collaboration Agreement; or
 - is reasonably necessary to be disclosed by Licensee for the Exploitation of the Invention within the Field.
- Monash retains the right to use the Invention and any part of the Technical Information for education, teaching or research purposes both within and outside the Field, publishing rights and confirms that Monash may grant licences (for the invention) outside the Field.

By clause 4, if Improvements are made to the Invention, the parties agree they will discuss ownership of the Improvements in good faith and enter into a separate agreement in relation thereto.

Clause 5 sets out Ionic's obligations as Licensee including in relation to means "*any product, service, article or thing produced for use within the Field which incorporates the Invention*" ("Products") and provides that Ionic shall:

- (a) undertake the development of Products in a safe, efficient and responsible manner;
- (b) not Exploit or seek to Exploit the Invention, the Technical Information or the Patent outside the Field: ("Patent" being the patent granted on the Application or on a corresponding application for a patent

under the Patent Cooperation Treaty (PCT) or under a national phase in any other jurisdiction);

- (c) use all reasonable endeavours to develop, promote, offer for sale, sell and otherwise commercialise Products and to create and satisfy the demand for Products throughout the Territory (normally worldwide unless specifically agreed otherwise);
- (d) conduct its business in relation to the Products in any orderly and businesslike manner;
- (e) in each part of the Territory, observe and comply with all applicable laws, bylaws and regulations applicable to the manufacture, use, storage and sale of the Products;
- (f) pay all expenses of and incidental to the carrying on of its business relating to the Products;
- (g) meet all costs relating to establishment and maintenance of distribution arrangements; and
- (h) actively manage the Sub-Licensees and the Sub Sub-Licensees (which Ionic may grant) with the objective of ensuring compliance with relevant conditions and the timely collection and remittance of appropriate Fees and Royalties (being the fees and royalties payable to Monash as specified in the Schedule to the Licence).

Ionic must not describe itself or act as agent or representative of Monash except as expressly authorised by the Agreement.

Ionic acknowledges generally that Monash is reliant on Ionic for the successful exploitation of the Invention and the Products within the Field in the Territory and agrees to use all reasonable endeavours to develop, promote and maximize sales of the Products and to exercise good faith in its dealings with Monash. However the standard licence has no specific performance criteria or minimum royalties.

Ionic must at least once during each calendar year during the Term and otherwise when requested by Monash attend a meeting for the purpose of reviewing the Exploitation of Products.

In consideration of the disclosure of the Technical Information to Ionic and the grant of Licence rights, Ionic as Licensee agrees to pay Monash the Fees and Royalties set out in the Schedule to the Licence. Monash is to be paid 3% (plus GST) of Gross Sales received by Licensee and its Affiliates and 15% (plus GST) of Licensing Income received by Licensee and its Affiliates. No additional royalties shall be payable in the event that the Product, or the manufacture or use thereof, are or shall be covered by more than one Patent. "*Gross Sales*" and "*Licensing Income*" are defined in the agreement.

The parties must consult and co-operate in good faith with respect to protection of the Intellectual Property associated with the Invention and any Patent and provides that Monash will be responsible for procuring, maintaining, and enforcing (including litigation) registered Intellectual Property rights, as reasonably appropriate for the Invention, within the Field and in the Territory, in the name of Monash. The Licence provides regulation for conduct of litigation.

Monash limits its liability to third parties under the agreement and, Ionic indemnifies Monash against all loss, costs, expenses, demands, claims or liabilities ("liabilities") of any kind including in respect of property damage, economic loss, personal injury or other loss arising, resulting directly or indirectly from the exploitation of the rights and licences granted under the Licence and against liabilities arising from the manufacture, marketing, sale or use of a Product whether such liability arises in tort, contract, under statute or otherwise.

By clause 13 Monash requires Ionic to take out public liability, product liability and professional indemnity insurances

While Ionic may terminate a Licence on 90 days' notice, Monash's rights to terminate are limited to situations where:

- (a) the Licensee is in arrears in any payments due under the Licence and fails to make the required payment within 60 days after delivery of written notice from Monash;
- (b) the Licensee is in breach of any material non-payment provision of the Agreement, and does not cure such breach within 60 days after delivery of written notice from Monash;
- (c) the Licensee has an order made or resolution passed for its winding up or enters into liquidation, has a receiver or manager of all or substantially all of its assets or undertakings appointed, or is placed under official management, has an inspector or inspectors appointed to investigate its affairs, or ceases to carry on business, or if ;
- (d) distress or execution is levied upon or against or in relation to the whole or substantially the whole of the assets or undertakings of Licensee or any encumbrancer takes possession of the whole or substantially the whole of its assets or undertakings.

On termination or expiry of the Licence for any reason then, subject to clause 14.4:

- (a) all rights and licences granted to Licensee hereunder shall, immediately cease, including any Sub-Licences granted by the Licensee and Sub Sub-Licences granted by the Sub-Licensees;
- (b) Subject to certain exceptions, the Licensee shall immediately cease to manufacture and sell any Products;
- (c) Each Party must immediately cease using the other Party's Confidential Information and immediately return to the other Party all Confidential Information of the other Party or, if it is not capable of return, destroy it; and
- (d) The expiry or termination of this Agreement shall be without prejudice to the rights of either Party which have accrued up to the date of such expiry or termination.

The Licence contains standard clauses dealing with dispute resolution, force majeure, governing law, assignment (restricted without the consent of the other party not to be unreasonably withheld unless to an Affiliate entering into an agreement to become a party to the Licence and be bound by it.) notice and other standard matters.

3. Membrane Commercialisation Licence

On 2 June 2016 Ionic and Monash entered into an exclusive Licence agreement in relation to the commercialisation of the Invention described in Patent application number 2014904644 titled "*Graphene oxide membranes and methods related thereto*" in the Field described as "*Membrane for separation*".

That Licence agreement was on the terms described in clause 2 above with the fees and royalties payable to Monash being as provided therein. There were no specific performance criteria or minimum royalties.

4. Sand Technology Commercialisation Licence

On 20 February 2017 Ionic and Monash entered into an exclusive Licence agreement in relation to the commercialisation of Intellectual Property consists of know-how in relation to the use of graphene coated sand for use in filtration applications ("Sand Technology") as detailed in the Field.

The parties acknowledge that, although no patent is applicable for the IP that is the subject of the Licence agreement, the IP the subject of the Licence may form the basis of future patent applications following further research and experimentation.

GO derived adsorbents have been shown to have exceptional adsorption capabilities for a range of target pollutants.

To enable industrial scale applications of graphene adsorbents, GO has been coated onto sand grains for packing into an adsorption column. The IP and Project relates to improving adsorption qualities and to tailoring the surface character of graphene derived adsorbents.

That Licence agreement was on the terms described in clause 2 above with the fees and royalties payable to Monash being as provided therein. There were no specific performance criteria or minimum royalties.

The Sand Technology is the subject of the Clean TeQ Commercialisation Agreement referred to below.

5. Super Capacitor Commercialisation Licence

On 14 October 2014, Ionic and Monash entered into an exclusive Licence agreement in relation to the commercialisation of the Invention described in Patent Application No PCT/AU2013/000668 (W02013-188924) titled: "Conductive portions in insulating materials" in the Field of "*Energy storage and capacitor materials and devices from indigenous natural graphite*". That application was granted in Australia on 19 January 2017 as Patent 2013277941.

That Licence agreement was on the terms described in clause 2 above with the fees and royalties payable to Monash being as provided therein. There were no specific performance criteria or minimum royalties.

The purpose of the Licence is the Invention described in the patent application being the commercial exploitation of graphene planar micro super-capacitors ("super-capacitors") as a next generation energy storage technology that aim to replace today's battery-based systems. Commercialisation possibilities of that Invention are described in Section 2 dealing with Ionic's activities and operations.

To enhance that Invention and expand the prospect of commercialisation of the Invention Monash and Ionic have entered into a further contract under a further Project Schedule as described immediately below.

6. Proposed Commercialisation Licence for Production of Graphene by Shear Exfoliation

Monash has applied for PCT/AU2016/051002 entitled “*Shear assisted electrochemical exfoliation of two dimensional materials*” which relates to a to a method of exfoliating layers from a layered van der Waals solid, for example exfoliating graphene layers from graphite.

This is a method of creating graphene.

Under the Collaboration Agreement Ionic is entitled to a commercialisation licence on the terms described in clause 2 above with the fees and royalties payable to Monash being as provided therein. The proposed commercialisation licence is expected to be executed in the near future but execution is effectively a formality as the terms on which the licence will be granted are defined by the Collaboration Agreement.

It is not expected that there will be any specific performance criteria or minimum royalties.

The Licence, when granted, will be the subject matter of the MOU with Laminar Co. Ltd referred to in item 9 below.

7. Further Project Schedule: Micro-supercapacitor device

Ionic and Monash have entered into a further contract, constituted by a further Project Schedule, for continued research into the super-capacitors focussed on upgrading their performance and facilitating their commercialisation.

The objectives of the Project are:

- Optimise GO ink rheology to print miniaturised (< 50 µm) supercapacitor designs
- Develop new GO based ink formulations to improve capacitance, cycle life, energy and power densities as well as the frequency response time of the printed micro-supercapacitors.
- Use industrially adaptable fabrication techniques and inexpensive materials
- Develop industrially adaptable and efficient reduction methods to fabricate printed rGO electrodes for high performance supercapacitor devices.
- Develop a 1 cm x 1 cm x 0.5 mm printed supercapacitor prototype
- Benchmark with industry standards including CAPXX GW134T at an operating voltage of 2.3 V.

The purpose of the current Project Schedule is, essentially, to develop the capacity to functionally stack and combine the micro super capacitors the subject of the Patent into a 3 dimensional stack which be more readily developed into products capable of manufacture and sale. The scope of works to be carried out under this Further Project Schedule is set out in the description of Ionics’s super capacitors in Section 2.

8. Clean TeQ Commercialisation Agreement

On 30 March 2017, Ionic and Associated Water Pty Ltd (ACN 155 261 500) entered into an agreement (Clean TeQ Commercialisation Agreement) in relation to water purification. The commercial terms of the agreement are more generally referred to in Section 2.

The Clean TeQ Commercialisation Agreement grants Clean TeQ an option (Option) to enter into an agreement to jointly progress the development and commercialisation of the Ionics Membrane Technology and its Sand Technology for application in the field of water purification (Field) subject to Clean TeQ completing a program of work to test and develop the Intellectual Property and Sand Technology Under the Option Clean TeQ has paid Ionic \$20,000 on account of partial re-imburement of past expenditure.

The term of the Option (Term) is until 30 September 2018 which is eighteen months after execution (Expiry Date). In order to exercise the Option, Clean TeQ must, prior to the Expiry Date, at its cost, carry out a program of work, including the program of work described (a) to (e) below, to test and develop both the Membrane IP and the Sand IP in the field of water purification (Field) and that. Clean TeQ must spend a minimum of \$200,000, exclusive of GST, to progress the development and Commercialisation of the Membrane IP and the Sand IP in the Field. The required expenditure is to include the cost of works to be undertaken by Clean TeQ is to include but not be limited to:

- (a) the cost of further research and development of the Membrane IP and the Sand IP;
- (b) the cost of Testwork, trials and piloting of production and application of products developed for use in the Field based on or utilising each of the Membrane IP and the Sand IP in the Field;
- (c) the cost of Product marketing, travel and accommodation expenses related to the development and commercialisation of each of the Membrane IP and the Sand IP in the Field;

- (d) the Labour cost of Clean TeQ employees, contractors and consultants engaged in any of the above; and,
- (e) any other cost reasonably incurred in relation to the development and commercialisation of products or services derived from the Membrane IP and Sand IP for use in the Field.

The expenditure is to exclude any indirect costs or overheads.

Under the Option, but subject to the terms of the Commercialisation Licences from Monash Ionic undertakes that, during the currency of the Option, it will:

- (a) provide Clean TeQ with full access to all records and information relating to the Intellectual Property and the Sand Technology;
- (b) not grant any other option in relation to the Intellectual Property or its rights in respect of the Sand Technology in the Field;
- (c) not sell, agree to sell or in any other way dispose of its interest in the Intellectual Property or its rights in respect of the Sand Technology in the Field in whole or in part other than in favour of Clean TeQ;
- (d) not create any mortgage, charge, easement, restriction on user or other encumbrance affecting the Intellectual Property or its rights in respect of the Sand Technology in the Field in whole or part;
- (e) maintain its rights in respect of the Intellectual Property and the Sand Technology in the Field, including defending claims made by third parties or prosecuting third parties who infringe its rights in any way; and,
- (f) not do any act, matter or thing which has the effect of prejudicing in a material manner Clean TeQ's rights under this agreement.

If Clean TeQ fulfils its obligations detailed in the agreement, on or before the Expiry Date, Clean TeQ may notify Ionic that it is exercising the Option. Upon Clean TeQ providing such notice, the Parties will promptly establish Newco as the vehicle through which Clean TeQ and Ionic shall exclusively pursue the development and commercialisation of the Intellectual Property and the Sand Technology in the Field and neither party shall have any rights to the Intellectual Property or the Sand Technology in the Field other than as represented by their shareholding in Newco.

Attached to the Option are a copy of each of the Collaboration Agreement and each of the Membrane and Sand Technology Licences as well as summary of the primary terms proposed for a Shareholder Agreement proposed to be entered into pursuant to the Option.

The terms of the proposed shareholders' agreement (SHA) as contained in annexure C to the Option are set out below. Under the Option the parties have an obligation to negotiate the SHA in good faith and also to negotiate a service agreement between Ionic and Clean TeQ under which Clean TeQ will provide services to Newco.

Newco's capital will, on incorporation, be held as to 75% by Clean TeQ and 25% by Ionic. Initial funding to Newco is to be by pro rata loans from Ionic and Clean TeQ.

The draft Shareholders Agreement terms provide for matters to be reserved to shareholders for decision as "Major Decisions". Major Decisions are to require a super-majority of 85% of Directors on the Board to be carried or approved... Major Decisions are to include the following:

- (a) capitalisation of Loans outstanding (or part of them) by issue of additional Shares
- (b) raising capital through issue of further Shares to the Shareholders, in proportion to their current Shareholding, or to a third party if a Shareholder declines to accept an issue of Shares
- (c) any sub-licensing or disposal of intellectual property rights owned by Newco; and
- (d) approval of the Business Plan and Budget, as developed through the Clean TeQ annual process.

If a super-majority cannot be established on any Major Decision for a period of 30 days, a dispute resolution process which will be incorporated in the SHA will be triggered.

By its wording, what will fall within the definition of what is a Major Decision is not conclusively agreed.

The proposed Shareholders Agreement remains to be negotiated as does the proposed services agreement with Clean TeQ.

9. MOU and Confidentiality Agreement with Laminar Co. Ltd

Ionic has entered into a MOU with Laminar Co. Ltd dated 23 March 2017 to collaborate on manufacturing of graphene and graphene oxide materials (the "Field"). The MOU recognises the parties have areas of mutual interest in the field of manufacturing graphene and graphene oxide materials and a common interest in cooperation in relation thereto involving:

- (a) Exchange of information about graphene and graphene oxide materials;

- (b) Exchange of information about methods of manufacturing, handling and applying graphene and GO materials;
- (c) Identifying further areas for collaboration around the scientific and engineering disciplines associated with graphene and GO manufacturing;
- (d) Identification of commercialization opportunities, including markets, customers and commercial partnerships;
- (e) Development and protection of intellectual property in the field of graphene and GO production;
- (f) Opportunities around government programs that may be used to accelerate research and development in the Field.

The Confidentiality Agreement is in standard terms to protect disclosure of each party's confidential information.

At this stage no steps have been taken to formulate definitive agreements or commercial arrangements to implement the concepts and underlying purposes of the MOU.

10. Consulting Agreement with Mater Consultants and Dr Mainak Majumder

This consulting agreement is intended to cover services required by Ionic outside the sphere of those provided by Monash. Amitra Majumder (trading as Mater Consultants ABN ABN 38 308 531 221) (Mater Consultants).

Dr Majumder is the Chief Research Officer in charge of each of the Research Committees involved in each of Ionic's Projects with Monash. However, there are areas outside the scope of services provided where Ionic requires his assistance and expertise and this consultancy agreement extends to those areas as opposed to areas where his services are provided to Ionic as a representative of Monash under the Collaboration Agreement and the various agreements entered into between Ionic and Monash as detailed herein.

Under the Agreement, Mater Consulting employs Dr Majumder to provide services and perform duties in satisfaction of Mater Consulting's obligations to Ionic. Neither Mater Consultants nor Dr Majumder are authorised to bind Ionic or act as an agent or enter into any contract or other agreement on behalf of Ionic.

Under the agreement the scope of projects (Project Scope) that Mater Consultants and Dr Majumder will be involved in includes:

- Commercialisation of Lithium-Sulfur battery technology utilising GO membranes.
- Commercialisation and development of graphene-based capacitors.
- Development and commercialisation of GO nano-filtration membranes as contained in patent application number 2014904644 and described in Majumder et al Large-Area Graphene-based Nanofiltration Membranes by Shear Alignment of Discotic Nematic Liquid Crystals of GO.
- Development and commercialisation of graphene-based adsorptive technologies.
- Development and commercialisation of GO production technologies.

These areas are not covered by Ionic's agreements with Monash to the extent they relate to commercialisation. Under those agreements it is Ionic's obligation to commercialise all intellectual property. Thus these areas start where Monash's obligations end under the Ionic Monash agreements.

Under the agreement the duties to be performed by Dr Majumder's on Mater Consultants behalf will be to;

- assist the Company in relation to preparing and delivering presentations to stakeholders (including shareholder, investor and collaboration partner) and potential stakeholders.
- use his reasonable endeavours to review and critically analyse any commercialisation proposals that the Company may be considering that are brought to his attention (Commercialisation Proposals);
- use his reasonable endeavours to make recommendations to the Board so as to assist the Board in deciding whether the Company should proceed with, reject, or further develop Commercialisation Proposals;
- in respect of any recommendation, provide reasons to the Board for that recommendation;
- participate in Board meetings by invitation to present written or oral reports;
- use his reasonable endeavours to assist the Company (when so requested) in further developing any plans for commercialising technologies within Project Scope.

Again, and importantly, to avoid conflict, these specific duties are entirely outside the scope of Monash's obligations to Ionic under the various agreements entered into between Ionic and Monash.

Under the agreement, if at any time in the course of discharging those duties Dr Majumder invents or participates in the invention of any Intellectual Property he must immediately disclose full details of such Intellectual Property to Ionic and, at the request and expense of Ionic, Mater Consultants and Dr Majumder must do all things which may be necessary or desirable for obtaining appropriate forms of protection for the Intellectual Property in such parts of the world as may be specified by Ionic and for vesting all rights in the same in Ionic or its nominee. The agreement provides for assignment of all such intellectual property to Ionic and until assigned Mater Consulting and Dr Majumder hold same in trust for Ionic.

Under the agreement, Mater Consulting and Dr Majumder each irrevocably appoint Ionic and each of its directors to be their attorneys to sign or execute any instrument or do anything and generally to assure Ionic of the full benefit of the provisions of the agreement relating to Intellectual Property.

Under the agreement, Dr Majumder waives all of his moral rights in respect of any acts of Ionic or any acts of third parties done with Ionic's authority in relation to any Intellectual Property that is the property of Ionic.

However, to avoid conflict with Monash, the provisions of the agreement relating to Intellectual Property applies only to intellectual property developed in the context of the projects set out in the Project Scope. It does not apply to any Intellectual Property that Dr Majumder may be involved in developing pursuant to his duties under Ionic's separate agreements with Monash University or other parties. In those circumstances, Ionic's right to such Intellectual Property would be governed by its agreements with Monash.

Under the agreement, Mater Consulting will be paid a total of \$40,000 per annum (exclusive of GST). 40% of this consulting fee is to be satisfied by the issue of shares in Ionic with each tranche being issued at an issue price equal to the last issue price of any shares issued to Directors. The issue price of the shares to be issued and allotted to Mater Consultants will be the same as the last issue price of shares made to Directors immediately before the issue of such shares to Mater Consultants from time to time. Mater Consultant's entitlement to shares to be accrued monthly and the shares are to be issued annually provided that, at the election of Mater Consultants by notice to the Company, if any issue of shares is made at any time to a director, all shares accrued on a monthly basis prior to that issue to such director, shall be issued to Mater Consultants at the same time as the issue of shares is made to that director.

11. Directors and Past Directors Debt Conversion Agreements

All debts due to past and present directors (other than Dr A-M Grisogono) have been satisfied by issue of Shares at an issue price of \$0.0291 (2.91 cents) per Share. The debt of \$77,796 due to Dr A-M Grisogono remains outstanding and unpaid to her.

All debts to present directors accrued after 30 June 2016 up to the Closing Date have been agreed to be satisfied by the issue of ordinary shares and options to acquire ordinary shares on the on the same terms as New Shares (and Options) being offered for subscription under this OIS: namely an issue price of \$0.01 for each such shares on the basis that, for every such share issued, the allottee is granted an option to acquire an ordinary share in Ionic on the same terms and conditions (including exercise price) as the Options offered for subscription under this OIS.

Ionic considers that the above arrangements fall within the exception to the related party provisions of the Corporations Act provided by section 210 thereof on the basis that the financial benefits, if any, thereby given are on terms that are at arm's length being the same terms as the terms on which Eligible Members and Qualified Investors may apply for New Shares (and Options) hereunder or on terms less favourable to the related party than those terms insofar as shares have been issued in satisfaction of debt at an issue price per share of \$0.0291 (2.91 cents).

Director/Past Director	Quantum of Debt satisfied	No of Shares issued at \$0.0291
Mr Simon Savage *	\$10,000	343,643
Mr Andrew P Armitage	\$1,833	63,001
Mr Mark Muzzin	\$133,464	4,586,424
Dr Mainak Majumder	\$30,000	1,030,928
Mr Robert Riebolge	\$23,333	801,833
TOTALS	\$198,630	6,825,829

* Issued to IF AQ PTY LTD (an Associate of Mr Savage)

12. Directors' Interests

Except as otherwise set out herein, or in the Accounts, no Director named herein now has or during the last two years has had any interest in the promotion of the Company, or any property proposed to be acquired by the Company in connection with its formation or promotion and no Director is (or was during the last two years) a partner of or has (or during the last two years had) any beneficial interest in, a firm which has (or during the last two years had) any interest in the promotion of or any property proposed to be acquired by the Company in connection with its formation or promotion. Further, no sums have been paid or agreed to be paid to a Director or to such firm in cash or shares or otherwise by any person (in the case of a Director) either to induce him to become, or to qualify him as, a Director or otherwise for services rendered by him or the firm in connection with the promotion of the Company.

Security Holdings of Directors

Directors are not required under Ionic's constitution to hold any securities in Ionic. The current Directors and their Associates have relevant interests in the Shares as follows:

Name of Director	Mr S Savage	Mr A P Armitage	Mr M Allan
Relevant Interest: Direct holding	110,000	263,561	0
Relevant Interest: Indirect holding	343,643	0	0
Total No of Shares in which Relevant Interest held	453,643	263,561	0
Total Voting power	0.00097%	0.00056%	0%

Director's and Officer's Fees, Remuneration and Other Entitlements

These are as set out in the Accounts for the calendar year ended 31 December 2016. Director's fees and remuneration continue to accrue on the terms set out in the Accounts.

Related Party Transactions

These are as set out in the Accounts for the calendar year ended 31 December 2016. Save for the issue of Shares to Directors and Past Directors as set out above there are no other Related Party transactions that have been entered into between 31 December 2016 and the date hereof.

13. Dividends and Dividend Policy

The Company has not paid dividends and will not pay dividends in the foreseeable future.

14. Top 20 Shareholders

The top shareholders in Ionic as at 20 April 2017 were as follows:

Rank	Name	A/C designation	20 APRIL 2017	%
1	Strategic Energy Resources Limited		87,155,625	18.67
2	E E R C Australasia Pty Ltd	<Super Fund A/C>	23,650,000	5.07
3	Avatar Energy Pty Ltd		22,541,993	4.83
4	Mr Mark Anthony Muzzin		16,586,424	3.55
5	J P Morgan Nominees Australia Limited		10,366,116	2.22
6	Mr Mark Andrew Tkocz		6,800,000	1.46
7	Mr Nicolas Terranova		6,400,000	1.37
8	Gregory Young Pty Ltd	<Young Family Disc A/C>	5,178,694	1.11
9	Pacific Custodians Pty Ltd		4,611,822	0.99
10	F Terranova Investments Pty Ltd	<Terranova Super Fund A/C>	4,000,000	0.86
11	Talfain Pty Ltd	Talfain Superannuation Fund	3,500,000	0.75
11	Peter Anthony Buttigieg & Mrs Jennifer Lynn Buttigieg	Buttigieg Super Fund	3,500,000	0.75
11	Guy Banducci		3,500,000	0.75
12	Mr Alister John Forsyth		3,300,000	0.71
13	Mr John Andrew Mackay & Mrs Patricia Anne Mackay	<Mackay Family A/C>	3,100,000	0.66
14	Troost Holdings Pty Ltd	<Troost Super Fund A/C>	3,095,288	0.66
15	Mr Allan Smith & Mrs Karen Smith	<Clayjessem Super Fund A/C>	3,080,436	0.66
16	Mrs Xiao Yun Wang		2,850,000	0.61
17	Mr John Andrew Mackay		2,800,000	0.60
17	Whitesman Investments Pty Ltd	<Whitesman S/F A/C>	2,800,000	0.60
18	Hsbc Custody Nominees (Australia) Limited		2,662,312	0.57
19	Guthrie Cad/Gis Software Pty Ltd		2,280,000	0.49
20	Fletcher Family Super Pty Ltd	<Ian Fletcher P/L S/F 2 A/C>	2,000,000	0.43
20	Tradcorp Pty Ltd		2,000,000	0.43
Total			227,758,710	48.79
Balance of Register			239,019,474	51.21
Grand total			466,778,184	100.00

15. Impact of the Offers on the Voting Power of Substantial Shareholders

As at the date of this OIS the Company has two shareholders who have lodged substantial shareholder notices. The table below examine the impact of the Offers on Strategic Energy Resources Limited (SER) on based on the following assumption that SER takes up its Entitlement in full if a nominee is appointed and approved by ASIC and on the basis that, if no Nominee is approved, it takes up its Entitlement to the maximum level permitted without breach of section 606.

There is no need to detail the effect of the offer on E E R C Australasia Pty Ltd (the other substantial shareholder), as it is not possible for E E R C Australasia Pty Ltd to breach the restriction on acquisition voting power under section 606 even if it was the sole shareholder to take up its Entitlement and no New shares (or Options) were issued pursuant to the General Offer.

The table below sets out the effect of the Offer on SER which is the only substantial shareholder which would be affected by the restriction on acquisition of voting power under section 606 of the Corporations Act if no Nominee was approved by ASIC. The table below shows the effect of the issue on SER on the basis that it takes up 100% of its Entitlement in the circumstance that a Nominee is so approved and, separately on the basis that no Nominee is appointed. Even if no Nominee is appointed with a 50% subscription to both the Rights Issue Offer and the basic General Offer, SER could still subscribe for the greater part of its Entitlement.

Strategic Energy Resources Limited: Current holding 87,155,625 Shares: Voting Power 18.67%: Entitlement 43,577,812 New Shares and Options

	Column A	Column B	Column C	Column D	Column E
After Offer based on following % subscription by other Eligible Members:	Shares held by SER assuming Nominee Approved by ASIC and Entitlement taken up in full	Voting power of SER assuming Nominee Approved by ASIC and Entitlement taken up in full	Shares held by SER assuming Nominee not Approved and holding restricted to maximum 20% Voting Power Post Issue	Shares Permitted to be subscribed by SER assuming Nominee not Approved by ASIC	Voting power of SER assuming Nominee not Approved by ASIC and Entitlement restricted to maximum 20% Voting Power
100%	130,733,437	17.43%	130,733,437	Full Entitlement: 43,577,812 New shares	18.67%
75%	130,733,437	19.24%	130,733,437	Full Entitlement: 43,577,812 New shares	19.24%
50%	130,733,437	21.49%	121,694,546	34,538,921 New Shares	20.00%
25%	130,733,437	24.32%	107,525,091	20,369,466 New Shares	20.00%
0% subscribed	130,733,437	25.62%	93,355,636	6,200,011 New Shares	20.00%

16. Interests of Named Persons

Except as otherwise set out herein or in the Accounts, no Director, expert or professional adviser named herein now has or during the last two years has had any interest in the promotion of the Company, or any property proposed to be acquired by the Company in connection with its formation or promotion or the Offer. Further, save as set out herein, no sums have been paid or agreed to be paid to a Director, expert or professional adviser in cash or shares or otherwise by any person (in the case of a Director) either to induce him to become, or to qualify him as, a Director or otherwise for services rendered by him in connection with the promotion or formation of the Company or the Offer or (in the case of an expert or professional adviser) for services rendered by the expert or professional adviser in connection with the promotion or formation of the Company or the Offer other than as set out below or elsewhere in this OIS, no person named in this OIS as performing a function in a professional, advisory or other capacity in connection with the preparation or distribution of this OIS, promoter or stockbroker to the Company has, or had within 2 years before lodgement of this OIS with ASIC, any interest in:

- the formation or promotion of the Company;
- any property acquired or proposed to be acquired by the Company in connection with its formation or promotion or in connection with the any Offer or issue of securities under this OIS; or

and no amounts have been paid or agreed to be paid and no benefits have been given or agreed to be given to any of those persons for services rendered by him in connection with the formation or promotion of the Company or any Offer or issue of securities under this OIS.

17. Governing Law

This OIS and the contracts which arise on acceptance by Ionic of Applications for Shares are governed by the law applicable in Victoria and each Shareholder and Applicant for Shares submits to the exclusive jurisdiction of the courts of Victoria.

18. Consents

- (a) **Grant Thornton Audit Pty Ltd (Grant Thornton)** has given and has not, at the date of this OIS, withdrawn its consent to being named in this OIS as auditor to Ionic in the form and context in which it is so named and to the issue of the OIS with references to Grant Thornton's Audit Report for the 12 Month period ended 31 December 2016 in the form and context in which those references are so included: either expressly or by inference.

Grant Thornton had no involvement in the preparation of this OIS other than the inclusion of its Audit Report and such references to their Audit Report for the 12 Month period ended 31 December 2016 and have not given any professional or other advice in respect of any other part of this OIS. Grant Thornton does not accept any liability to any person in respect of any false or misleading statement in, or omission from, any other part of this OIS. Save for its audit report as contained herein, Grant Thornton was not involved in the preparation of any part of this OIS and has not authorised or caused the issue of any part of this OIS.

Grant Thornton has acted as auditors to the Company for the financial periods ending 30 June 2015 and 30 June 2016 and for the 12 Month period ended 31 December 2016 and has received fees for audit services carried out for the year for the years ended 30 June 2015 (\$8,000 (plus GST)) and 30 June 2016 (\$10,000 (plus GST)) and will receive fees for provision of audit services for the 12 Month period ended 31 December 2016 of approximately \$15,000 (plus GST).

- (b) **Associated Water Pty Ltd (ACN 155 261 500) (Clean TeQ) and Clean TeQ Holdings Limited (ACN 127 457 916)** (ASX Code: CLQ) (Clean TeQ Holdings) have each given their written consent, and neither has, as at the date of this OIS, withdrawn their consent to all information set out in this OIS in relation to each of them in the form and context in which it is so included. Each of them has reviewed all such information and, to the best of their knowledge, information and belief, such information and each statement made herein based on or purported to be based on statements by each of them or information provided by each of them and states that, in each of their opinions, such statements are not misleading or deceptive in the form and context in which they are set out in herein or otherwise. In particular they have given their consent to the publication of the quotation "*We are excited by the potential to apply the Ionic graphene oxide-based technologies in the water markets in which we are active. The partnership with Ionic reflects our strategy to continuously improve and enhance our technology platform by partnering with groups who have developed complimentary technologies.*" by Mr Voigt on behalf of CleanTeQ at page 15 above in the form and context in which it has been given.

Neither Clean TeQ nor Clean TeQ Holdings have been involved in the preparation of the OIS and each of them only authorises the publication of the information and statement referred to above contained herein as so contained herein in the form and context in which they occur and does not authorise the publication of any other part of this OIS.

- (c) **Mr Peter Voigt** has given his written consent, and has not, as at the date of this OIS, withdrawn his consent to all information set out in this OIS in relation to him in the form and context in which it is so included. He has reviewed all such information and, to the best of his knowledge, information and belief, all such information and each statement made herein based on or purported to be based on statements by him or information provided by him and states that, in his opinion, such statements are not misleading or deceptive in the form and context in which they are set out in herein or otherwise. Mr Voigt also consents to the publication of the statement by him quoted in (b) above in the form and context in which it is quoted.

Mr Voigt has not been involved in the preparation of the OIS and he only authorises the publication of the information and statements referred to above as contained in the form and context in which they occur and does not authorise the publication of any other part of this OIS.

- (d) **Associate Professor Mainak Majumder** has given his written consent, and has not, as at the date of this OIS, withdrawn his consent to all information set out in this OIS in relation to him (including in the Accounts forming part of this OIS), the Monash Research Team and the outcomes of Projects undertaken by Monash in collaboration with Ionic under the auspices of the Collaboration Agreement as described herein, all being included herein in the form and context in which it is so included. Associate Professor Mainak Majumder has reviewed all such information as contained herein and, to the best of his knowledge, information and belief, all such information and each statement made herein based on or purported to be based on such information and states that, in his opinion, such information and statements are not misleading or deceptive in the form and context in which they are set out in herein or otherwise.

Associate Professor Mainak Majumder has not been otherwise involved in the preparation of the OIS and he only authorises the publication of the information and statements referred to above as contained in the form and context in which they occur and does not authorise the publication of any other part of this OIS.

- (e) **Dr. Parama Chakraborty-Banerjee** has given her written consent, and has not, as at the date of this OIS, withdrawn her consent to all information set out in this OIS in relation to her being included herein in the form and context in which it is so included. She has not been involved in the preparation of the OIS and she only authorises the publication of the information and statements referred to above as contained in the form and context in which they occur and does not authorise the publication of any other part of this OIS.
- (f) **Dr Dhanraj Shinde** has given his written consent, and has not, as at the date of this OIS, withdrawn his consent to all information set out in this OIS in relation to him in the form and context in which it is so included. He has not been involved in the preparation of the OIS and he only authorises the publication of the information and statements referred to above as contained in the form and context in which they occur and does not authorise the publication of any other part of this OIS.
- (g) **Mr Abozar Akbarvakilabadi** has given his written consent, and has not, as at the date of this OIS, withdrawn his consent to all information set out in this OIS in relation to him in the form and context in which it is so included. He has not been involved in the preparation of the OIS and he only authorises the publication of the information and statements referred to above as contained in the form and context in which they occur and does not authorise the publication of any other part of this OIS.
- (h) **Associate Professor Adrian Neild** has given his written consent, and has not, as at the date of this OIS, withdrawn his consent to all information set out in this OIS in relation to him in the form and context in which it is so included. He has not been involved in the preparation of the OIS and he only authorises the publication of the information and statements referred to above as contained in the form and context in which they occur and does not authorise the publication of any other part of this OIS.
- (i) **Mr Justin Mouchacca** has given his written consent, and has not, as at the date of this OIS, withdrawn his consent to all information set out in the OIS in relation to him being included herein in the form and context in which it is so included. He only authorises the publication of the information and statements referred to above as contained in the form and context in which they occur and does not authorise the publication of any other part of this OIS.

Section 14

DIRECTOR'S RESPONSIBILITY STATEMENT

The Directors of the Company report that for the purposes of Section 731 of the Corporations Act, they state that they have made all enquiries that were reasonable in the circumstances and have reasonable grounds to believe that any statements by them in this OIS are true and not misleading or deceptive, and that with respect to any other statements made in this OIS by persons other than the Directors, the Directors have made reasonable enquiries and have reasonable grounds to believe that persons making the statement or statements were competent to make such statements, those persons have given the consent required by Section 716(2) of the Corporations Act and have not withdrawn that consent before lodgement of this OIS with ASIC. Each Director of the Company consents to the lodgement of this OIS with ASIC, and has not withdrawn that consent prior to this OIS being lodged.

This OIS is prepared on the basis that:

- certain matters may be reasonably expected to be known to professional advisers of the kind with whom applicants may reasonably be expected to consult; and
- information is known to Applicants or their professional advisers by virtue of any Acts or laws of any State or Territory of Australia or the Commonwealth of Australia.

This OIS is dated 27 April 2017.

Signed on behalf of Ionic Industries Limited:

A handwritten signature in black ink, appearing to read 'Peter Armitage', written over a horizontal line.

Peter Armitage, Director

Section 15

GLOSSARY AND DEFINITIONS

Unless otherwise stated or unless inconsistent or repugnant to the context in which each of the expressions or terms set out below is used, each of those terms or expressions shall have the meanings set out below.

DEFINITIONS

\$ or A\$	means references to dollar amounts in Australian currency.
Accounts	means the Audited Financial statements of Ionic for the calendar year ended 31 December 2016 as set out in Section 12.
AEDT	means Australian Eastern Daylight Time
AEST	means Australian Eastern Standard Time
ASX	means ASX Limited.
BOOT	In a BOOT model, a public-sector partner contracts with a private developer - typically a large corporation or consortium of businesses with specific expertise - to design and implement a large project. The public-sector partner may provide limited funding or some other benefit (such as tax exempt status) but the private-sector partner assumes the risks associated with planning, constructing, operating and maintaining the project for a specified time period. During that time, the developer charges customers who use the infrastructure that's been built to realize a profit. At the end of the specified period, the private-sector partner transfers ownership to the funding organization, either freely or for an amount stipulated in the original contract. Such contracts are typically long-term and may extend to 40 or more years.
Allotment	means the issue and allotment (or grant) of New Shares (and Options) and the entry of the name of the Applicant in Ionic's Register of Members in relation to the New Shares so allotted and the entry of the name of the Applicant in the Register of Option holders in relation to the Options so granted.
Allotment Date	means, in relation to each New Share (and Option) applied for under the Rights Issue Offer or under the General Offer, the date on which that New Share (or Option) is allotted or granted under such offer.
Applicant	means an Eligible Member applying for New Shares (and Options) by lodging a duly completed Entitlement and Application Form or a Qualified Investor applying for New Shares (and Options) under the General Offer by lodging a duly completed General Application Form.
Application Form	means an Entitlement and Application Form lodged by an Eligible Member or a General Application Form for New Shares (and Options) lodged by an Qualified Investor.
ASIC	means the Australian Securities and Investments Commission
Associate	has the meaning given to it in the Corporations Act.
Board or Directors	means the board of directors of Ionic acting in that capacity
Company or Ionic	means Ionic Industries Limited (ABN 30 168 143 324).
Closing Date	means the Closing Date for the Rights Issue Offer (including the Shortfall Offer) which is 5:00pm AEST on 8 June 2017 or such later date as the Directors may, in their absolute discretion determine.
Corporations Act	means the Corporations Act 2001 (Cth).
Director	means a director of the Company acting in that capacity.
Eligible Member	means a member registered as the holders of Shares on the Record Date whose address on the Company's share register is within Australia and its external territories.
Entitlement and Acceptance Form	means the form accompanying this Rights Issue document setting out Eligible Members entitlements to apply for Shares under this Rights Issue.
Entitlement	means an Eligible Member's pro rata entitlement or right to take up New Shares (and Options) under the Rights Issue Offer in accordance with the terms and conditions hereof, excluding the right to apply for Shortfall Shares under the Shortfall Offer.
General Offer Closing Date	means the Closing Date for the General Offer which is 5:00pm AEST on 16 June 2017 or such later date as the Directors may, in their absolute discretion determine.
Ineligible Applicant	means any person other than an Eligible Member or an Qualified Investor.
Ineligible Shareholder	means a member whose address on the Company's share register is outside of Australia and its external territories.

General Offer	Means the General Offer made to Qualified Investors for a minimum of 50,000,000 New Shares (and Options) together with the right to subscribe for any Shortfall Shares (and Options) not subscribed for by Eligible Members pursuant to the Rights Issue Offer (including the Shortfall Offer).
General Application Form	means an application form for use by any Qualified Investor for use in applying for New Shares (and Options) under the General Offer: which form is attached to this OIS.
Holding Statements	Includes certificates for Shares or Options as applicable
Issue Price	means \$0.01 (1 cent) per New Share payable on Application.
listing	means an application for admission of Ionic's securities to be traded on a stock market conducted by any Stock Exchange. No representation is made that the New Shares (and Options) offered for subscription under the Offers will be listed for quotation on any Stock Exchange or that any application for listing will be made at any time in relation thereto.
Listing Rules	means the Listing Rules of ASX.
member	means a member of the Company within the meaning of the Corporations Act.
Opening Date	means 9:00am AEST on 18 May 2017.
Qualified Investor	A Qualified Investor is a person who is resident in Australia but does not include any person who is a US citizen or resident in the United States or who is acting for the account or benefit of a US citizen or a person resident in the United States.
Rights Issue Offer	means the offer for subscription of approximately 233,389,092 New Shares (and Options) to Eligible Members pursuant to the Rights Issue on the terms set out in this OIS. The exact number of New Shares and Options offered will be subject Entitlements being rounded up.
Shortfall	means that number of New Shares which is the difference between the total number of New Shares offered for subscription under the Rights Issue Offer and the total number of Shares subscribed for by Eligible Members taking up their Entitlements under that Offer.
Shortfall Offer	means the offer of all Shortfall Shares (and Options) made to Eligible Members pursuant to this OIS.
Shortfall Shares	means the New Shares (and Options) offered for subscription by Eligible Members which are not taken up by those Eligible Members in accordance with their Entitlement.
Subscription Moneys	means the amount payable for New Shares (and Options) applied for under a valid Application Form.
USD or US\$	Means the currency of the United States of America

GLOSSARY

MΩ	Megaohm: a unit of resistance, equal to one million ohms. Symbol: MΩ
absorption	In chemistry, absorption is a physical or chemical phenomenon or a process in which atoms, molecules or ions enter some bulk phase – gas, liquid or solid material
adsorption	Adsorption is the adhesion of atoms, ions, or molecules from a gas, liquid, or dissolved solid to a surface. This process creates a film of the adsorbate on the surface of the adsorbent.
anions	An ion is an atom or group of atoms in which the number of electrons is not equal to the number of protons, giving it a net positive or negative electrical charge. An anion is an ion that is negatively charged, and is attracted to the anode (positive electrode) in electrolysis. A cation has a net positive charge, and is attracted to the cathode (negative electrode) during electrolysis.
battery	a container consisting of one or more cells, in which <u>chemical</u> energy is converted into electricity and used as a source of power.
capacitor	a passive two-terminal electrical component that stores <u>electrical energy in an electric field</u> .
capacitance	Capacitance is the ability of a body to store an electric charge. Also mF/cm ² .
desorption	Desorption is a phenomenon whereby a substance is released from or through a surface. The process is the opposite of sorption (that is, either adsorption or absorption).
farad	Farad is the unit of capacitance. It is named after Michael Faraday. The farad measures how much electric charge is accumulated on the capacitor.

Humic acid	Humic acids are a principal component of humic substances, which are the major organic constituents of soil (humus), peat and coal. It is also a major organic constituent of many upland streams, dystrophic lakes, and ocean water.[1] It is produced by biodegradation of dead organic matter. It is not a single acid; rather, it is a complex mixture of many different acids containing carboxyl and phenolate groups so that the mixture behaves functionally as a dibasic acid or, occasionally, as a tribasic acid.
Hydroiodic acid	Hydroiodic acid is a highly acidic aqueous solution of hydrogen iodide (HI) (concentrated solution usually 48 - 57% HI). It is the strongest hydrohalic acid.
Hydrophobic	Hydrophobic is a property of a substance to repel water. Hydrophobic molecules tend to be nonpolar molecules and group together. Oils and fats are hydrophobic.
Hydrophilic	Having an affinity for water; capable of interacting with water through hydrogen bonding; hygroscopic.
Ionic	A chemical bond formed between two ions with opposite charges. Ionic bonds form when one atom gives up one or more electrons to another atom. These bonds can form between a pair of atoms or between molecules and are the type of bond found in salts.
kWh	kWh is a derived unit of energy equal to 3.6 megajoules. If the energy is being transmitted or used at a constant rate (power) over a period of time, the total energy in kilowatt-hours is the power in kilowatts multiplied by the time in hours. The kilowatt-hour is commonly used as a billing unit for energy delivered to consumers by electric utilities.
mF	Millifarad is a unit of capacitance, equal to one thousandth of a farad
mA/cm²	Milliampere per square centimetre. A milliampere is equal to one thousandth of an ampere.
mF/cm²	Millifarad per square centimetre. A millifarad is equal to one thousandth of a farad.
m³	Cubic metre
ms	Equals millisecond. A millisecond is equal to one thousandth of a second.
nematic	relating to or denoting a state of a liquid crystal in which the molecules are oriented in parallel but not arranged in well-defined planes
planar geometry	Situated in a plane: having a two-dimensional characteristic.
resistance	Resistance is an electrical quantity that measures how the device or material reduces the electric current flow through it. The resistance is measured in units of ohms (Ω).
rGO	Reduced GO is GO reduced to a monolayer of graphene atoms without modifying their structure.
van der Waals forces	van der Waals forces (or van der Waals interaction), named after Dutch scientist Johannes Diderik van der Waals, are the residual attractive or repulsive forces between molecules or atomic groups that do not arise from covalent bonds, nor ionic bonds

Your Guide to the Application Form

Please complete all relevant white sections of the Application Form in BLOCK LETTERS, using black or blue ink. These instructions are cross-referenced to each section of the form.

The Shares (and Options) to which this Application Form relates are Ionic Industries Limited Shares (and Options). Further details about the shares are contained in the OIS dated 27 April 2017 issued by Ionic Industries Limited. While the OIS is current, Ionic Industries Limited will send paper copies of the OIS, the Application Form, free of charge on request.

The Australian Securities and Investments Commission requires that a person who provides access to an electronic application form must provide access, by the same means and at the same time, to the relevant OIS. This Application Form is included in the OIS.

The OIS contains important information about investing in the Shares (and Options). You should read the OIS before applying for Shares (and Options).

- A** Insert the number of Shares (and Options) you wish to apply for. The Application must be for a minimum of 200,000 Shares (A\$2,000) and thereafter in multiples of 50,000 Shares (A\$500). You may be issued all of the Shares (and Options) applied for or a lesser number.
- B** Insert the relevant amount of Application Monies. To calculate your Application Monies, multiply the number of Shares (and Options) applied for by the issue price. Amounts should be in Australian dollars. Please make sure the amount of your cheque or bank draft equals this amount.
- C** Write the full name you wish to appear on the register of Shares (and Options). This must be either your own name or the name of a company. Up to three joint Applicants may register. You should refer to the table below for the correct registrable title.
- D** Enter your Tax File Number (TFN) or exemption category. Business enterprises may alternatively quote their Australian Business Number (ABN). Where applicable, please enter the TFN or ABN for each joint Applicant. Collection of TFN(s) and ABN(s) is authorised by taxation laws. Quotation of TFN(s) and ABN(s) is not compulsory and will not affect your Application. However, if these are not provided, Ionic Industries Limited will be required to deduct tax at the highest marginal rate of tax (including the Medicare Levy) from payments.
- E** Please enter your postal address for all correspondence. All communications to you from Ionic Industries Limited and the Share Registry will be mailed to the person(s) and address as shown. For joint Applicants, only one address can be entered.
- F** Please enter your telephone number(s), area code and contact name in case we need to contact you in relation to your Application.
- G** Please complete the details of your cheque or bank draft in this section. The total amount of your cheque or bank draft should agree with the amount shown in section B. Make your cheque or bank draft payable to “**Ionic Share Account**” in Australian currency and cross it “**Not Negotiable**”. Your cheque or bank draft must be drawn on an Australian bank. Sufficient cleared funds should be held in your account, as cheques returned unpaid are likely to result in your Application being rejected.
- H** Payment made by Electronic Funds Transfer (EFT) must be made to the bank account outlined in section H on the first page. Return your completed application form to capitalmarkets@linkmarketservices.com.au before 16 June 2017. When making the EFT payment you **MUST** ensure that your payment reference is your Surname or Company Name of your application. This will assist in matching your payment to your application.

LODGEMENT INSTRUCTIONS

This Application Form and your cheque or bank draft must be mailed or delivered so that it is received before 5.00pm (AEST) on 16 June 2017 at:

Mailing Address

Ionic Industries Limited
C/- Link Market Services Limited
Locked Bag A14
Sydney South NSW 1235

Hand Delivery

Ionic Industries Limited
C/- Link Market Services Limited
1A Homebush Bay Drive
Rhodes NSW 2138
(do not use this address for mailing purposes)

APPLICANT'S COVENANTS AND WARRANTIES

I/we declare, acknowledge and agrees that I/We have been provided with the OIS and have been provided with the opportunity to request and obtain copies of any documentation referred to in the OIS as contemplated thereby and that I/We have read and understood “RISK FACTORS” in Section 8 of the OIS, and I/we have also read the OIS and I/we covenant, represent, warrant and acknowledge to the Company, and separately as a deed poll to and in favour of each of its directors and officers, as set out in Section 11 of the OIS under the heading “APPLICANT'S COVENANTS AND WARRANTIES”.

TAX OFFSET AND ACCOUNTANTS CERTIFICATE

If you apply for in excess of \$50,000 in value of New Shares (and Options) then to obtain a tax offset of 20% of the full amount invested you must be a Sophisticated Investor, Experienced Investor or Professional Investor. You are referred to Section 7 of the OIS for further information. Attached to this General Application Form is a form of certificate to be provided by a qualified accountant (“certificate”) for use by Sophisticated Investors. If you apply for in excess of \$50,000 in New Shares (and Options) the Company will assume you are a sophisticated, experienced or professional investor, even if you do not forward a certificate to the Company. You do not have to provide a certificate to the Company with your Application but you will need to obtain such a certificate from a Qualified Accountant to establish your status as a Sophisticated Investor to the Australian Tax Office (ATO) at the time of this Application being made if you seek to claim a tax offset for any subscription in excess of \$50,000 to be able to satisfy the requirements of the provisions of Subdivision 360-A — Tax incentives for early stage investors in innovation companies of the ITAA 1997 when and if this is required of you by the Australian Taxation Office when you claim the offset. Obtaining and providing a certificate now more readily evidences that status: For further information see Section 7 of the OIS.

PERSONAL INFORMATION COLLECTION NOTIFICATION STATEMENT

Personal information about you is held on the public register in accordance with Chapter 2C of the *Corporations Act 2001*. For details about Link Group's personal information handling practices including collection, use and disclosure, how you may access and correct your personal information and raise privacy concerns, visit our website at www.linkmarketservices.com.au for a copy of the Link Group condensed privacy statement, or contact us by phone on +61 1800 502 355 (free call within Australia) 9am–5pm (Sydney time) Monday to Friday (excluding public holidays) to request a copy of our complete privacy policy.

CORRECT FORMS OF REGISTRABLE NAMES

Note that ONLY legal entities are allowed to hold Shares (and Options). Applications must be in the name(s) of natural persons or companies. At least one full given name and the surname is required for each natural person. The name of the beneficiary or any other non-registrable name may be included by way of an account designation if completed exactly as described in the examples of correct forms below.

Type of Investor	Correct Form of Registration	Incorrect Form of Registration
Individual Use given names in full, not initials	Mrs Katherine Clare Edwards	K C Edwards
Company Use Company's full title, not abbreviations	Liz Biz Pty Ltd	Liz Biz P/L or Liz Biz Co.
Joint Holdings Use full and complete names	Mr Peter Paul Tranche & Ms Mary Orlando Tranche	Peter Paul & Mary Tranche
Trusts Use the trustee(s) personal name(s)	Mrs Alessandra Herbert Smith <Alessandra Smith A/C>	Alessandra Smith Family Trust
Deceased Estates Use the executor(s) personal name(s)	Ms Sophia Garnet Post & Mr Alexander Traverse Post <Est Harold Post A/C>	Estate of late Harold Post or Harold Post Deceased
Minor (a person under the age of 18 years) Use the name of a responsible adult with an appropriate designation	Mrs Sally Hamilton <Henry Hamilton>	Master Henry Hamilton
Partnerships Use the partners' personal names	Mr Frederick Samuel Smith & Mr Samuel Lawrence Smith <Fred Smith & Son A/C>	Fred Smith & Son
Long Names	Mr Hugh Adrian John Smith-Jones	Mr Hugh A J Smith Jones
Clubs/Unincorporated Bodies/Business Names Use office bearer(s) personal name(s)	Mr Alistair Edward Lilley <Vintage Wine Club A/C>	Vintage Wine Club
Superannuation Funds Use the name of the trustee of the fund	XYZ Pty Ltd <Super Fund A/C>	X,YZ Pty Ltd Superannuation Fund

Put the name(s) of any joint Applicant(s) and/or account description using < > as indicated above in designated spaces at section C on the Application Form.

Qualified Accountant's Certificate for purpose of Section 708(10) of the Corporations Act

I, the undersigned, being a qualified accountant as defined in the Corporations Act, confirm that Ionic Industries Limited (ABN 30 168 143 324) ("**the Company**") and its directors may rely on this certificate in issuing and allotting shares in the Company to the Client named in item 1 below.

1. Name of person or entity ("Client") (if a company include A.C.N or A.B.N)

.....
.....

2. Address of Client

.....
.....
.....

3. Certification

I certify that:

- the Client has net assets of at least \$2.5million¹ ; or
- the Client has a gross income for each of the last 2 financial years of at least \$250,000² ; and
- where there is more than one Client stated in Section 1, that each Client qualified under the Asset Test or Income Test above.

4. I belong to
(name of my professional body)

5. My membership designation from this professional body is

6. I comply with this body's continuing professional education requirements.

Name of Accountant:

.....
Signature of Accountant

Date Certificate Issued: (d/m/year) / / 2017.