

DATED THIS 1<sup>ST</sup> DAY OF APRIL 2021

Between

**NANYANG TECHNOLOGICAL UNIVERSITY**

And

**1283745 B.C. LTD**

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**SPONSORED RESEARCH AGREEMENT**

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## SPONSORED RESEARCH AGREEMENT

**THIS AGREEMENT** is entered into on the 1<sup>st</sup> day of \_April\_ 2021 between:

- (1) **NANYANG TECHNOLOGICAL UNIVERSITY (Company Registration Number: 200604393R)**, located at [REDACTED], and acting through its Energy Research Institute @ NTU or ERI@N ("NTU");

and

- (2) **1283745 B.C. LTD. (Company Registration Number: BC1283745)**, a company incorporated in the Province of British Columbia, Canada, with a business address at [REDACTED] (hereinafter referred to as "**Company**")

### WHEREAS:

The Company is interested in sponsoring a research project to be carried out by NTU on the terms and conditions of this Agreement.

**THEREFORE** the Parties hereby agree as follows:

### 1. DEFINITIONS

- 1.1. In this Agreement and in the Schedules to this Agreement, unless the context otherwise requires, the following expressions shall have the following meanings:

- |                                     |   |
|-------------------------------------|---|
| <b>"Affiliate"</b>                  | - means (i) an organisation, which directly or indirectly controls a Party; or (ii) an organisation, which is directly or indirectly controlled by a Party; or (iii) an organisation, which is controlled, directly or indirectly, by the ultimate parent of a Party; or (iv) an organisation that is within the common control of a Party. For the purposes of this definition, control is defined as owning more than fifty percent (50%) of the voting equity of a Party or having otherwise the power to govern the financial and the operating policies or to appoint the management of an organisation. |
| <b>"Authorised Representatives"</b> | - means Affiliates, employees, officers, directors, legal or professional advisors, or students.  |
| <b>"Background IP"</b>              | - means Intellectual Property (not being Project IP) which is in or comes into the ownership or control of any Party separately and independently of the Research Project, under which such Party is free to use and grant licenses and which is expressly documented by the disclosing Party and disclosed to another Party pursuant to the Research Project.  |

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- “Business Day”** - means any day other than a Saturday, a Sunday or a day on which licensed banks are authorised or required to be closed in Singapore and, where expressed by reference to the jurisdiction of a person other than Singapore, means any day other than a Saturday, a Sunday or a day on which licensed banks are authorised or required to be closed in the jurisdiction of that person. If any time limit specified for a given act or event shall expire on a non-business day, then that time limit is deemed to only expire on the next business day.
- “Confidential Information”** - means any device, graphics, written information, or information in any other tangible form that is disclosed by the disclosing Party (“**Discloser**”) to the receiving Party (“**Recipient**”) and is marked at the time of disclosure as confidential or proprietary or with words of similar import. Information disclosed orally or visually and identified at the time as confidential shall be considered Confidential Information if it has been confirmed and designated in writing as confidential within thirty (30) days after its disclosure.
- “Effective Date”** - means [01/04/2021]
- “Intellectual Property” or “IP”** - means patents, copyrights, trademarks, service marks (whether registered or not), domain names, meta tags, design rights, moral rights, rights relating to computer software, registered designs, database rights and rights in databases and any similar property rights, other industrial or intellectual property rights, including those subsisting in any part of the world in inventions, unregistered designs, drawings, lay-out circuit designs, computer programs, utility models, petty patents, trade secrets, test or development results, Confidential Information, Know-How, business names, goodwill and the style or presentation of goods or services and in applications for protection of any of the above rights subsisting anywhere in the world.
- “IP Applications”** - means any patent application, division, and all applications for registration of copyrights, designs, semi-conductor layout designs, trade names, trademarks, service marks, and any other intellectual property right registration relating to the Foreground IP.

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- “Know-How”** - means any method, technique, process, discovery, invention, innovation, unpatentable process, specification, recipe, formula, material, molecule, gene, protein, regulatory element, design, plan, documentation, drawing, data or other technical information which is secret, substantial and identified or at least identifiable that is to say, described or is able to be described in a sufficiently comprehensive manner.
- “Parties”** - means NTU and the Company collectively, and a **“Party”** means any one of them.
- “Personal Data”** - means any data, whether true or not, about an individual who can be identified (a) from that data; or (b) from that data and other information to which the organisation has or is likely to have access.
- “Project IP”** - means any IP created in the course of or resulting from the Research Project that fall within the deliverables of the Research Project as set out in Schedule 1.
- “Research Project”** - means the research project titled **“Process optimization and characterization of fruit peel feedstock for hydrometallurgy of spent lithium-ion battery waste”** to be carried out under this Agreement, which details are set out in Schedule 1, as may be amended from time to time in accordance with this Agreement.
- “Term”** - means the period of this Agreement as specified in Clause 3 of this Agreement.

1.2. In this Agreement, except where the context indicates to the contrary:

- (a) **“person”** includes any individual, corporation, company, incorporated or unincorporated body of persons, firm, business, institution, trust, association, joint venture, government, governmental agency or department, any state or agency thereof or other legal entity;
- (b) **“writing”** or any cognate expression includes a reference to any communication effected by mail, facsimile transmission or any other means of electronic communication;
- (c) words importing the singular shall include the plural and vice versa and words denoting a given gender shall include each other gender;

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- (d) any reference to “**day**” shall mean a part or whole period of twenty-four (24) hours, ending at twelve (12) midnight;
- (e) headings are inserted for ease of reference only and shall not be taken into account in the construction of or affect the interpretation of any provision to which they refer;
- (f) references to statutory provisions shall be construed as references to those provisions as respectively amended, consolidated, extended or re-enacted from time to time and all statutory instruments or orders made pursuant to them;
- (g) references to clauses or sub-clauses shall have reference to clauses or sub-clauses of this Agreement; and
- (h) all schedules and attachments to this Agreement form part of this Agreement.

### 2. STATEMENT OF WORK

- 2.1. The Parties agree to collaborate on the Research Project in accordance with the details specified in Schedule 1. The Parties recognise that the Research Project is research in nature and hence completion within the period of performance or the achievement of research outcomes cannot be guaranteed.
- 2.2. The Parties are committed to maintaining the highest standards of research integrity and the responsible conduct of research, as defined in the Singapore Statement on Research Integrity (<https://wcrif.org/guidance/singapore-statement>). The Parties agree to cooperate in any investigation(s) which result from accusations of research misconduct and malpractice arising from the Research Project.

### 3. TERM OF AGREEMENT

- 3.1. This Agreement shall come into force on the Effective Date and shall continue for a period of one (1) year (the “**Term**”) unless terminated earlier in accordance with Clause 10 of this Agreement. Notwithstanding the foregoing, this Agreement may be extended by mutual written agreement of the Parties.

### 4. PRINCIPAL INVESTIGATORS

- 4.1. The Research Project shall be supervised and coordinated by Asst. Prof. Dalton Tay Chor Yong on behalf of NTU (hereinafter referred to as the “**NTU Principal Investigator**” or “**NTU PI**”) and Houman Ershadi on behalf of the Company (“**Company PI**”)(each of the NTU PI and the Company PI is a “**Principal Investigator**”).
- 4.2. If, for any reason, either of the Principal Investigators is unable or unwilling to continue to serve as a Principal Investigator under the Research Project, and a successor acceptable to the Parties, each acting reasonably, is not available, this Agreement may be terminated by the other Party and the provisions of Clause **Error! Reference source not found.** shall apply.

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### 5. FUNDING AND PAYMENT TERMS

- 5.1. The Parties shall provide the funding and/or contributions to the Research Project in accordance with Schedule 1.
- 5.2. The amounts stated in Schedule 1 are exclusive of any Company value-added tax or goods and services tax or any other taxation of similar nature. NTU will be entitled to withhold such amounts as deemed necessary to pay the relevant authority for the purposes of withholding taxes, if any.
- 5.3. Without prejudice to any other rights NTU may have under this Agreement, in the event that any monies owed to NTU is not paid to or received by NTU when due in accordance with Schedule 1, NTU may, by sending a written notice, require the Company to remedy such default within thirty (30) days of the Company's receipt of such notice, failing which NTU shall be entitled to:
  - (a) suspend its performance of this Agreement until the outstanding monies have been paid in full (in line with Schedule 1); or
  - (b) terminate this Agreement forthwith which termination shall not relieve the Company of its obligations under Clause 5.4 below.
- 5.4. If the Company fails to make payment of any monies which is due and payable to NTU as stated in Schedule 1 of this Agreement, then the Company shall also pay to NTU any Financing Charges on the overdue amount from the date it was due for payment until the date it is actually paid. Such Financing Charges are to be calculated on a 365 day basis and at an agreed rate of five percent (5%) per annum ("**Financing Charges**").

### 6. CONFIDENTIAL INFORMATION

- 6.1. The Recipient agrees to use the Discloser's Confidential Information only for the purposes of the Research Project and/or this Agreement, unless otherwise expressly agreed to in writing by the Discloser. It is agreed that the transfer of Confidential Information shall not be construed as a grant of any right or license with respect to the information delivered except as set forth herein or in a duly executed license agreement.
- 6.2. The Recipient shall use the same degree of care regarding the Confidential Information as it uses in protecting and preserving its own confidential information of like kind to avoid disclosure or dissemination thereof, but in no event less than a reasonable degree of care.
- 6.3. The Recipient agrees to make the Discloser's Confidential Information available only to those of its Authorised Representatives who require access to it for the purposes of the Research Project and/or this Agreement and to inform such Authorised Representatives of the confidential nature of such information and their obligation to protect such confidentiality, and procure that such Authorised Representatives shall also observe and be bound by the confidentiality provisions

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of this Agreement. The Recipient shall not disclose the Confidential Information to any third party except for Authorised Representatives as provided herein. The Recipient hereby agrees that it shall be liable for any breach of the confidentiality obligations under this Agreement by its Authorised Representatives.

6.4. Each Party agrees that the obligations of confidentiality contained herein shall not apply to any information which:

- (a) was publicly available prior to the date of disclosure under this Agreement or becomes publicly available thereafter through no wrongful act or omission of the Recipient;
- (b) was known to the Recipient prior to the date of disclosure under this Agreement or becomes known to the Recipient thereafter, without restriction as to use or disclosure, from a third party having an apparent bona fide right to disclose the Confidential Information, as evidenced by written records;
- (c) is independently developed by the Recipient, as evidenced by written records; or
- (d) is disclosed by Recipient with the Discloser's prior written consent.

6.5. Notwithstanding the foregoing, the Recipient shall be entitled to make any disclosure required by law, by a court or tribunal of competent jurisdiction, by any governmental or other regulatory authority or by any stock exchange of the Discloser's Confidential Information provided that if it is not legally prohibited from so doing, and the Recipient gives the Discloser not less than two (2) Business Days' notice of such requirement to disclose and cooperates reasonably with efforts to contest or limit the scope of such order or legal requirement to disclose.

6.6. The Recipient shall:

- (a) upon the termination of this Agreement, return, destroy or delete upon written request of the Discloser, all documents and materials (and all copies thereof) containing the Discloser's Confidential Information, and certify in writing to the Discloser that it has complied with the requirements of this sub-clause; and
- (b) notwithstanding the return of documents and materials as aforesaid, continue to be bound by the undertakings of confidentiality in relation thereto set out in this Clause 6 for a period of five (5) years from the date of expiry or early termination of this Agreement.

6.7. The Recipient may retain Confidential Information as required by applicable law or to satisfy the rules or regulatory requirements (regulatory body or stock exchange) or that may be reasonably impractical to delete from its electronic back-up systems. The provisions of this Agreement will continue to apply to any retained Confidential Information.

## **7. INTELLECTUAL PROPERTY AND COMMERCIALISATION RIGHTS**

7.1. Each Party shall remain the owner or authorised user of all its Background IP and

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nothing in this Agreement, save as specifically provided for herein, shall be deemed to grant impliedly or otherwise, ownership of or rights of use of such Background IP to the other Party. Each Party may, at its sole discretion, disclose its Background IP to the other Party for use in connection with the Research Project. In respect of such Background IP which a Party expressly permits may be used under the Research Project, such Party hereby grants the other Party only a non-exclusive, royalty-free, fully paid-up right to use such Background IP to the extent the same is necessary for the purpose of the Research Project and for no other purpose. It is agreed that no Party shall be compelled to disclose any of its trade secrets or Confidential Information as part of its Background IP licensed hereunder.

- 7.2. All Project IP shall be the sole and exclusive property of NTU.
- 7.3. NTU hereby grants to the Company the right to use the Project IP solely for its internal research and development purposes. Any other use by the Company of the Project IP shall require a commercial license from NTU; provided however that the Parties acknowledge and agree that the Company is party to a licence agreement dated as of February 11, 2021 with Nanyang Technological University – NTUitive Pte. Ltd. and, without limiting the generality of the foregoing, the Company shall have the right to use the Project IP pursuant to the terms and conditions of such licence agreement.
- 7.4. For the purposes of this Clause 7, the Company agrees that NTU may assign and/or transfer to NTUitive all of NTU's legal rights to and ownership in the Project IP.

## 8. PUBLICATIONS

- 8.1. Any Party may publish and otherwise publicly disclose information it has gained in the course of the Research Project including but not limited to information relating to the Project IP ("**Publishing Party**"), subject to following the procedures stipulated in this Clause 8.
- 8.2. The Publishing Party will provide the other Party with a copy of each proposed publication or presentation reasonably in advance of publication or presentation (collectively referred to as the "**Publication**") and the other Party shall have twenty-one (21) days to review each Publication to identify and notify the Publishing Party in writing of any subject matter that is the Confidential Information of or proprietary to the other Party or which constitutes patentable subject matter or where the publication would be detrimental to the national interest of Singapore; failing which the other Party shall be deemed to have approved the Publication. The Publishing Party and the other Party shall, within ten (10) days of the Publishing Party's receipt of the other Party's aforesaid notice, work together to delete or modify the portions objected to by the other Party so as to allow the Publication to proceed as amended or modified or if the proposed publication or presentation involves patentable subjects, the publication or presentation shall be delayed for a further period of sixty (60) days to allow for a patent to be filed. If no decision is made within the aforementioned ten (10) day period, the Publishing Party may proceed with the Publication with the necessary deletions of the portions objected to by the other Party.
- 8.3 Confidential Information that is governed by Clause 6 (Confidential Information) and



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identified by the Non-Publishing Party, shall be deleted from the proposed Publication. Notwithstanding the aforementioned, in the event that a student needs to publish or present results of his/her work under the Research Project as part of his/her degree requirements, any proposed deletion of Confidential Information shall not affect the scientific and academic value of such student's thesis, report, publication or presentation.

### **9. WARRANTIES AND DISCLAIMERS OF LIABILITY**

- 9.1. Each Party warrants and represents to each of the other that it has full authority, power and capacity to enter into this Agreement, and that all necessary actions have been taken to enable it lawfully to enter into this Agreement.
- 9.2. The Parties make no representations, conditions or warranties, either express or implied with respect to any of the Confidential Information and Background IP or Project IP disclosed to each other and/or with respect to the work performed pursuant to the terms of this Agreement. Without limiting the generality of the foregoing, the Parties expressly disclaim any implied warranty, condition or representation that any use thereof will not infringe or violate any patent or other proprietary rights of any other person and disclaims that the Background IP or Project IP and/or the information provided by such Party:-
  - (a) shall correspond with a particular description;
  - (b) is of a merchantable or satisfactory quality;
  - (c) is fit for a particular purpose; or
  - (d) is durable for a reasonable period of time.
- 9.3. The Parties shall not be liable for any loss, whether indirect, consequential, punitive, or incidental, or any special loss or damage (including loss of profits, loss of use, and loss of production) however caused (and whether arising out of contract, strict liability, or tort or under any legal or equitable theory of liability) which the other Party suffers arising from any defect, error, fault or failure to perform with respect to the Background IP or Project IP.
- 9.4. Save as expressly provided in this Agreement, nothing in this Agreement shall be construed as a warranty or representation by the Parties as to the title of any of the Background IP disclosed hereunder or that anything made, used, sold or otherwise disposed of in connection with the same or the Project IP is or will be free from infringement of patents, copyrights, trademarks, industrial designs or other intellectual property rights of any third party.
- 9.5. Each Party shall be solely responsible and liable for (i) the acts and omissions of its Authorised Representatives; and (ii) its use of the Project IP, or findings, results, reports or materials from the Research Project.
- 9.6. Each Party shall effect and maintain adequate insurance policies to cover any liability arising from its participation in the activities conducted pursuant to the Research Project and/or under this Agreement.
- 9.7. In no event shall any Party be liable for any loss of profits, loss of goodwill, loss of use, loss of production or business interruption costs, or any type of indirect, special,

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consequential or incidental damages arising from any breach of this Agreement whether or not the other Party has been advised of the possibility of such damage.

- 9.8. Notwithstanding anything to the contrary in this Agreement, NTU's total liability for any cause whatsoever related to the subject matter of this Agreement and regardless of the form of action, whether in contract or in tort, including negligence, shall be limited to a sum computed with reference to the total value of the Research Project which sum for the purposes of this Agreement is S\$10,000.

### 10. TERMINATION

10.1. This Agreement may be terminated by written consent of the Parties.

10.2 A Party (hereinafter referred to as the “**Terminating Party**”) may terminate this Agreement in respect of the other Party (hereinafter referred to as the “**Terminated Party**”):

- (a) in the event of the Terminated Party being in breach of any material term of this Agreement which is either incapable of rectification or if capable of rectification, which is not rectified within thirty (30) days of receipt of notice therefore;
- (b) in the event of the Terminated Party having been engaged or is engaging in any activity whatsoever that may reasonably expose Terminating Party to any sanction, prohibition, restriction, law or regulation;
- (c) in the event that any relevant institutional review board (“**IRB**”) does not give their approval necessary for the conduct of the Research Project or revokes such approval;
- (d) if any grant that has been provided to either or both Parties in relation to or for the Research Project is terminated or revoked for any reason; or
- (e) in the event the Terminated Party:
  - (i) has a receiver, manager, judicial manager or an administrator appointed on behalf of a creditor over all or a substantial part of its assets;
  - (ii) enters into an arrangement or compounds or convenes a meeting with its creditors;
  - (iii) being a company, shall pass a resolution to enter into liquidation or the courts shall make an order that the company be compulsorily wound up (other than for the purposes of amalgamation or reconstruction);
  - (iv) is subject to the supervision of the court, either involuntarily or otherwise;
  - (v) ceases or threatens to cease for any reason whatsoever to carry on its business; or
  - (vi) is unable to pay its debts as defined in the Companies Act (Cap. 50) or

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takes or suffers any similar action in consequence of debt.

10.3 Not in Use

### **11. CONSEQUENCES OF TERMINATION**

- 11.1. Where this Agreement is terminated in accordance with Clause 4.2, Clause 10.1 or Clause 13, the Parties shall use their best endeavours to wind up the work carried out in relation to the Research Project in an orderly fashion and where applicable, to complete such outstanding work during the relevant action periods. NTU shall be entitled to claim from the Company all costs incurred by NTU that would otherwise have been covered by the funding from the Company, including for non-cancellable commitments and NTU resources utilised, in the performance of the Research Project up to and including the date of termination, provided that the total funding amount shall not be exceeded. NTU shall reimburse to the Company any unutilised funds.
- 11.2. Where this Agreement is terminated in accordance with Clause 5.3 or Clause 10.2 the Terminating Party shall be relieved of its obligations under the Research Project and shall have no liability whatsoever to the Terminated Party in respect of such termination.
- 11.3. If this Agreement is terminated by the Company, then NTU is entitled to retain all deliverables (including work in progress) due to or for the benefit of Company hereunder as at the date of termination, until all amounts due from the Company for all deliverables and any other services properly rendered up to the date of effective termination have been received by NTU. In addition, NTU may set off any amounts owed by NTU to the Company against the amounts payable by Company to NTU.
- 11.4. The termination of this Agreement shall not affect any rights, obligations or liabilities that shall have accrued to any Party prior to the effective date of such termination.
- 11.5. In addition to such provisions which survive the termination of this Agreement by operation of law, the provisions of Clauses 6, 7, 8, 9, 11, 12, 14, and 15 to 24 shall continue in force in accordance with their terms, notwithstanding the termination of this Agreement for any reason.

### **12. ASSIGNABILITY**

- 12.1. Except as expressly provided for in this Agreement, no Party may assign any right or novate, charge, delegate, sub-license or sub-contract any obligation or otherwise dispose of or transfer any of its rights or obligations under this Agreement without the prior written permission of the other Party whose permission may not be unreasonably withheld or delayed.

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### 13. FORCE MAJEURE

- 13.1. For purposes of this Agreement, a Force Majeure Event is an event which is a circumstance or event beyond the reasonable control of a Party which prevents or delays such Party from observing or performing an obligation under this Agreement. Such circumstance or event shall include, without limitation, industrial actions or labour disputes, civil unrest, war or threats of war, criminal or terrorist acts, government actions or regulations, telecommunication or utility failures, fire, explosion, natural physical disasters, epidemic, pandemic, quarantine restrictions, widespread travel restrictions of persons or goods, inclement weather and general failure of public utility or transportation (each, a “**Force Majeure Event**”).
- 13.2. The Party prevented or delayed in the performance of its obligations under this Agreement by a Force Majeure Event shall give written notice thereof to the other Party, specifying the matters constituting the Force Majeure Event, together with such evidence as it reasonably can give and specifying the period for which it is estimated that such prevention or delay will continue.
- 13.3. No Party shall be liable for any failure to perform its obligations under this Agreement if the failure results from a Force Majeure Event, provided always that whenever possible the affected Party will resume that obligation as soon as the Force Majeure Event ceases or abates.
- 13.4. In case of a Force Majeure Event, the time for performance required by the relevant Parties under this Agreement shall be extended by the same duration as the duration of the period during which the performance is prevented or delayed by the Force Majeure Event.
- 13.5. If the Force Majeure Event shall continue for a period exceeding three (3) months from the date of the notice of such Force Majeure Event under Clause 13.2 above, the non-affected Party may at any time thereafter terminate the Agreement, by written notice to the affected Party.

### 14. ANNOUNCEMENTS

- 14.1. Neither Party will make any official press release, announcement or other formal publicity relating to the transactions which are the subject matter of this Agreement without first obtaining in each case, the prior written consent of the other Party, which consent will not be unreasonably withheld. The foregoing prohibition shall not apply if disclosure is required, in the opinion of counsel to a Party, by applicable law or the rules, policies, by-laws and disclosure standards of any applicable regulatory authorities or stock exchanges; however in such a case the Party required to make the disclosure must provide a copy to the other Party for its information at least seventy-two (72) hours prior to release for the review and comment by such other Party, and the disclosing Party shall use commercially reasonable best efforts to address any comments received from the other Party.
- 14.2. Notwithstanding the generality of Clause 14.1, the Parties may notify third parties of the fact that this Agreement is in effect.

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### 15. NOTICES

- 15.1. Any notice to be given by a Party to this Agreement shall be in writing and shall be deemed duly served if delivered personally or by prepaid registered post, or by e-mail to the addressee at the address or e-mail address of that Party as set out below, or at such other address or e-mail address as the Party to be served may have notified the other Party for the purposes of this Agreement:

#### NTU:

##### Scientific/Technical Matters and Project Management Matters:

Name: Asst. Prof. Dalton Tay Chor Yong  
Address: School of Materials Science and Engineering  
Nanyang Technological University

Phone:

E-mail:

##### Intellectual Property Matters:

Name: Attn: CEO (NTU Ref: REQ0200576)  
Address: Nanyang Technological University – NTUitive Pte Ltd

Fax:

#### Company:

1283745 B.C. Ltd.

Attn: Principal

Email:

- 15.2. Any notice given pursuant to Clause 15.1. shall be deemed to have been received:

- (a) in the case of delivery by hand, when delivered; or
- (b) in the case of sending by post:
  - (i) where posted in the country of the addressee, on the third (3rd) Business Day following the day of posting; and
  - (ii) where posted in any other country, on the seventh (7th) Business Day following the day of posting; or
- (c) if sent by email on a Business Day and at a time which is during business hours on a Business Day, at the time it is transmitted to the relevant email box



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specified above.

- 15.3. For the avoidance of doubt, a termination notice, the service of any proceedings or documents in any legal action or, where applicable, any arbitration or other method of dispute resolution shall only be deemed to have been received if delivered personally or by prepaid registered post to the addressee at the address as provided in Clause 15.1.

### 16. DISPUTE RESOLUTION

- 16.1. Any disputes arising out of or in connection with this Agreement, including any question regarding its existence, validity or termination, shall in the first instance be resolved through meeting(s) between senior representatives of the Parties.
- 16.2. If the Parties fail to resolve such dispute through good faith negotiations within thirty (30) days, such dispute shall be referred to and finally resolved by arbitration administered by the Singapore International Arbitration Centre ("**SIAC**") in accordance with the Arbitration Rules of the SIAC ("**SIAC Rules**") for the time being in force, which rules are deemed to be incorporated by reference in this Clause 16. The seat of the arbitration shall be Singapore. The tribunal shall consist of one (1) arbitrator. The language of the arbitration shall be English. The Parties agree that any award made hereunder by the arbitrator shall be final and binding upon the Parties hereto and judgment on such award may be entered into by any court or tribunal having jurisdiction thereof.

### 17. GOVERNING LAW

- 17.1. This Agreement, including its validity and interpretation and the merits of any dispute or claim arising out of or relating to this Agreement, shall be governed by the laws of Singapore.

### 18. CONTRACTS (RIGHTS OF THIRD PARTIES) ACT (CAP53B)

- 18.1. Save to give effect to the rights accruing to each Party's Affiliates, the Parties do not intend that any right, benefit or remedy of any kind or character whatsoever or any right to enforce the terms of this Agreement shall, by virtue of the Contracts (Rights of Third Parties) Act (Cap 53B) or otherwise, be conferred on any person who is not a party to this Agreement, and no person shall be deemed to be a third party beneficiary under or by reason of this Agreement.

### 19. PERSONAL DATA PROTECTION

- 19.1. The Parties shall comply with all its obligations under the Singapore Personal Data Protection Act 2012 ("**PDPA**") and directions or guidelines which Singapore Personal Data Protection Commission ("**PDPC**") may issue from time to time.
- 19.2. Each Party shall only process, use or disclose the other Party's Personal Data:
- (a) strictly for the purpose of fulfilling its obligations under this Agreement; and

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provided always that it has obtained the relevant individual's consent for such processing, use or disclosure;

- (b) with the other Party's prior written consent, provided always that the other Party has obtained the relevant individual's consent for such processing, use or disclosure; and/or
- (c) when required by law or an order of court, but shall notify the other Party as soon as practicable before complying with such law or order of court at its own costs.

19.3. This Clause 19 on Personal Data protection in this Agreement shall be effective and shall stay in force indefinitely after the expiry or termination of this Agreement.

### **20. COMPLIANCE WITH APPLICABLE LAWS**

20.1. The Parties agree to comply with any relevant laws, regulations, by-laws, rules and guidelines applicable to it in the carrying out of the Research Project and/or this Agreement including but not limited to those relating to the use of animals or recombinant DNA, the Singapore Human Biomedical Research Act 2015 ("HBRA") and all applicable local statutes and regulations.

### **21. WAIVER**

21.1. No waiver by any Party hereto of any breach or default of any of the covenants conditions, stipulations, obligations or provisions contained or implied in this Agreement herein set forth shall be deemed a waiver as to any subsequent or similar breach or default.

### **22. SEVERABILITY**

22.1. If any term, condition or provision of this Agreement or the application of any such term, condition or provision shall be held by a court of competent jurisdiction to be wholly or partly invalid, illegal, or unenforceable or a violation of any applicable law, statute or regulation of any jurisdiction, in any respect, the same shall be deemed to be deleted from this Agreement and shall be of no force and effect, and the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby, provided that the intent of the Parties in entering into this Agreement is not materially affected thereby; in which event any one Party may give written notice of its intent to terminate this Agreement to the other Party.

22.2. Notwithstanding the aforesaid, in the event of such deletion as provided in Clause 22.1, the Parties hereto shall negotiate in good faith in order to agree to terms which are mutually acceptable and satisfactory alternative provision(s) in place of the provision(s) so deleted.

### **23. ENTIRE AGREEMENT**

23.1. This Agreement including various Schedules referred to therein (all of which shall

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be deemed to form part of this Agreement) constitutes the entire agreement between the Parties and supersedes and invalidates all other commitments, representations, promises, understandings and warranties relating to the subject matter hereof which may have been made by the Parties either orally or in writing prior to the date hereof, and which shall become null and void from the date this Agreement is signed.

- 23.2. This Agreement may not be released, discharged, supplemented, interpreted, amended, varied or modified in any manner except by an instrument in writing signed by a duly authorised officer or representative of each of the Parties hereto.

### 24. GENERAL

- 24.1. Nothing in this Agreement shall be construed as establishing or implying any partnership or joint venture between the Parties hereto, and nothing in this Agreement shall be deemed to constitute either of the Parties hereto as the agent of the other Party or authorise either Party; (i) to incur any expenses on behalf of the other Party, (ii) to enter into any engagement or make any representation or warranty on behalf of the other Party, (iii) to pledge the credit of, or otherwise bind or oblige the other Party, or (iv) to commit the other Party in any way whatsoever, without in each case obtaining the other Party's prior written consent.
- 24.2. The Parties shall co-operate with each other and execute and deliver to the other such instruments and documents and take such other action as may be reasonably requested from time to time in order to carry out and confirm the rights and the intended purpose of this Agreement.
- 24.3. Except as otherwise provided in this Agreement, the Parties shall bear their own costs of and incidental to the preparation, execution and implementation of this Agreement.
- 24.4. The Parties may sign this Agreement in one (1) or more counterparts by the duly authorised representatives of the Parties, each of which constitutes an original and all of which taken together shall constitute the Agreement PROVIDED THAT this Agreement shall not be in force and effect until the counterparts are exchanged. The Parties may sign and deliver this Agreement by emailed portable document format ("**PDF**") document (or other mutually agreeable document format), and a reproduction of this Agreement with a Party's signature made by PDF, sent by email shall have the same effect as and be enforceable as a signed and delivered original version of this Agreement.



## SPONSORED RESEARCH AGREEMENT

**IN WITNESS WHEREOF** the Parties have caused this Agreement to be executed on the date first above written.

SIGNED by for and on behalf of

**NANYANG TECHNOLOGICAL  
UNIVERSITY**



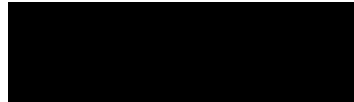
Name: Prof. Subodh Mhaisalkar

Designation: Executive Director, Energy  
Research Institute @ NTU

Date:

SIGNED by for and on behalf of

**1283745 B.C. LTD**



Name: Houman Ershadi

Designation: Director

Date:

### **Acknowledgement from NTU PI:**

I hereby acknowledge that I have read the terms of this Agreement, including the protocol and that I will act and perform my duties pursuant to the Research Project in accordance therewith, including but not limited to the assignment to NTU of any proprietary rights relating to the Research Project results that I may otherwise have according to law.



Asst. Prof. Dalton Tay Chor Yong

### **Acknowledgement from Company PI:**

I hereby acknowledge that I have read the terms of this Agreement, including the protocol and that I will act and perform my duties pursuant to the Research Project in accordance therewith, including but not limited to the assignment to the Company of any proprietary rights relating to the Research Project results that I may otherwise have according to law.



Houman Ershadi

**CONFIDENTIAL**

(v. 02 March 2020)

**NTU Ref: REQ0200576**

# SPONSORED RESEARCH AGREEMENT

## SCHEDULE 1

### RESEARCH PROJECT

**Title: Process optimization and characterization of fruit peel feedstock for hydrometallurgy of spent lithium-ion battery waste**

#### **1. BACKGROUND/ INTRODUCTION / OBJECTIVES**

*(Should include background to origin of work / collaboration - details as necessary can be included)*

Driven by the huge demand in electronic goods and electric vehicles, the demand for lithium-ion battery (LIB) is primed to increase significantly in the next 5-10 years. By 2027, the global LIB market is forecasted to hit USD 129.3 billion (Source: PRNewswire) However, just like any production enterprise, the upsurge in LIB manufacturing will also lead to the inevitable increase in LIB waste generation. Therefore, LIB waste recycling is poised to undergo rapid development and growth. Currently, pyrometallurgy and hydrometallurgy dominate industrial-scale recycling of LIB. In pyrometallurgy, spent LIB wastes are smelted at extremely high temperature ( $>500^{\circ}\text{C}$ ) and the recycling efficiency is reduced since elements such as Li are lost as slag. Conversely, hydrometallurgy that uses water as the primary medium to extract valuable metals from LIB via leaching is viewed as a greener alternative. Nonetheless, the use of strong acids and explosive reductants poses real environmental, health and safety concerns.

Recently, we reported the use of pulverised orange peel and citric acid as an eco-friendly and resource-efficient approach to reclaim Li, Co, Ni and Mn from spent  $\text{LiCoO}_2$  (LCO) batteries at high efficiency ( $> 90\%$ ). Our unique approach allows us to tackle the twin challenge of resource-depletion (by keeping these precious metals in use in the economy) and food waste-accumulation (by re-purposing waste materials as a hydrometallurgical feedstock). This technology (NTU Ref: TD2020-307) has been licensed to 1283745 B.C. LTD. As part of the licensing agreement, 1283745 B.C. LTD has kindly agreed to sponsor research activities that will bring this technology closer to commercialization. In this connection, this research project aims to systematically process and characterize a panel of fruit peel waste feedstock (e.g., chemical/ elemental composition, thermochemical properties, particle size characteristics and morphology, hydrolysis, conversion performance, etc) with the intent to minimize batch-to-batch variation and optimize its exploitation for leaching of LIBs black mass. Leaching efficiency will be evaluated in a lab-scale 2L continuous stirred tank reactor.

#### **2. SCOPE OF WORK**

*(A definition / description of the work to be done and the objectives in the Research Project. Can also include methodology, if necessary)*

- Characterization of fruit peel waste feedstock
- Establish and optimize process workflow for fruit peel feedstock
- Lab-scale pilot testing of processed fruit peel waste feedstock to extract valuable metals (e.g., Li, Co, Ni, etc) from LIB black mass

**CONFIDENTIAL**

(v. 02 March 2020)

**NTU Ref: REQ0200576**

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## SPONSORED RESEARCH AGREEMENT

### 3. RESEARCH PROJECT SCHEDULE / TIME FRAME

*An indication of the Research Project schedules, time frames, milestones, update reports, etc, may be put in a tabulated format for easy reference, e.g.*

"Milestone"	Q1	Q2	Q3	Q4
Equipment purchases and set up	X	X		
Fruit peel collection, process and (physicochemical) characterisation		X	X	
Leaching experiments			X	X

Within 30 days of the end of each quarter, NTU shall provide the Company with a written progress report in reasonable detail respecting such quarter and shall provide any additional information respecting such quarter as may be reasonably requested by the Company following receipt of the progress report for that quarter.

### 4. CONTRIBUTIONS TO THE RESEARCH PROJECT / BUDGET

*Notes:*

- The Company is required to fund 100% of the Research Project cost (including cost of existing NTU resources utilised for the Research Project such as time of the NTU Principal Investigator that will be spent on the Research Project and the use of equipment), as described below.*
- Some sections may not be applicable. Please indicate "NA" where necessary.*

(a)	<b><u>In-kind Contribution by the Company to NTU to carry out the Research Project</u></b>	S\$
	<u>Equipment</u>	
	Equipment 1	
	Equipment 2	
	<u>Consumables</u>	
	Chemicals, etc.	
	<u>Others</u>	
	Others 1	
	Others 2	
	Total:	<u>0</u>
(b)	<b><u>Funding by the Company to NTU to carry out the Research Project</u></b>	S\$
	<u>Equipment</u>	12,000
	Equipment to process feedstock	
	<u>Manpower</u>	
	Project officer (B.E/ B.S)	55,000

## SPONSORED RESEARCH AGREEMENT

### Consumables

General lab consumable (e.g. glassware, cleaning solvents)	5,000
Consumables and Reagents needed to characterize the fruit peel feedstock (e.g. chemical-based proximate analysis, SEM consumables, etc)	
Leaching reactions reagents (e.g. solvent, citric acid, etc)	

### Others

Equipment maintenance costs	5,000
Core facility charges (e.g. SEM, ICP-OES, etc)	
Transportation charges (e.g., local transfer of feedstocks)	

<b>Total Direct Research Project Cost</b>	77,000
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<b>30% Overhead Charge</b> on Total Direct Research Project Cost	23,100
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<b>Total Amount Payable*</b> [Total Direct Research Project Cost + 30% Overhead Charge]	100,100
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#exclusive of any applicable prevailing GST

### **Note:**

- *This is a fixed price contract.*
- *NTU is given the authority to vary the stipulated budget items under (b) above, if required and upon providing reasonable notice to the Company, provided the Total Amount Payable is not exceeded.*

## **5. PAYMENT SCHEDULE**

The Company shall pay the Total Amount Payable of S\$100,100 (and any prevailing GST payable by the Company thereon) in accordance with the following schedule of payment:

Payment Description	Scheduled Date of Payment	Amount to be Paid (S\$)
Payment No.1 (Equipment, 1/4 Manpower, Consumables and Others) + 30% overhead charge	Upon Signing of this Agreement	39,975
Payment No. 2 (1/4 Manpower) + 30% overhead charge	Prior to end of Q1	17,875
Payment No. 3 (1/4 Manpower and Equipment	Prior to end of Q2	24,375

## SPONSORED RESEARCH AGREEMENT

and Others) + 30% overhead charge		
Payment No. 4 (1/4 Manpower) + 30% overhead charge	Prior to end of Q3	17,875
<b>Total Amount Payable:</b>		<b>100,100</b>

**Notes:**

1. Payment of the Total Amount Payable shall be in accordance with the foregoing.
2. NTU will not accept terms that provide for withholding of payment if the Company is not satisfied with the results.
3. All payments shall be made within thirty (30) days from the scheduled date of payment specified in the Payment Schedule above.

### 7. BACKGROUND INTELLECTUAL PROPERTY

*(Please list down each Party's Background IP to be utilized in this Research Project, and provide Technology Disclosure IDs and/or Patent IDs if applicable.)*

a) NTU: Yes/ ~~No~~ (NTU Ref: TD2020-307)

b) Company: ~~Yes~~/ No

### 8. FOREGROUND INTELLECTUAL PROPERTY

a) Likelihood of protectable IP from this Research Project?

- **Patentable invention**

*Possible*

- **Other form of IP (e.g.: Proprietary Know-How/Copyright)**

*Possible*

b) Likelihood of commercialising/licensing the discovery/invention from this Research Project?

- **Commercialisation**

*Yes*