

Transport Transports Canada Canada

PLACE DE VILLE TOWER "C", 330 SPARKS STREET OTTAWA, ONTARIO K1A 0N5

June 25, 2020

ADDENDUM NO. 1

Subject: Request for Proposal No. T8080-200004 Lithium Battery Testing Study

Further to the above-mentioned Request for Proposal, this Addendum (#1) is to clarify the Request for Proposal (RFP), with the replacement of the following sections with the updated text in Annex A-1 Statement of Work and Annex A-2 Statement of Work in the attached <u>Annex A-1</u>.

All other terms and conditions remain unchanged.

Tenderers are to acknowledge this Addendum by signing in the space provided below and <u>enclosing a copy</u> of this document with their tender submission.

Yours truly,

Natasha Blackstein Contracting Specialist Materiel and Contracting Services Telephone: (343) 550-2321 Email: <u>natasha.blackstein@tc.gc.ca</u>

RECEIPT ACKNOWLEDGED

Name of Company _____

Signature



Annex A-1

Delete: 3.4 Task 4: UN 38.3 Testing

The Contractor shall perform service life testing and summarize the results following the steps detailed below. A total of 16 Batteries out of the 25 purchased should be tested, with the remainder stored in case some Batteries are faulty upon arrival or for sending for further analysis at the NRC in Vancouver, BC, Canada or Ottawa, ON, Canada. The UN Manual of Tests and Criteria Subsection 38.3 (UN 38.3) is available from https://www.unece.org/fileadmin/DAM/trans/danger/ST_SG_AC.10_11_Rev6_E_WEB_With_corrections_from_Corr.1.pdf .

3.4.1 State of Charge testing of as-received Batteries

- 3.4.2 Capacity testing of Battery
- 3.4.3 Altitude simulation test (UN 38.3.4.1)
- 3.4.4 Thermal test (UN 38.3.4.2)
- 3.4.5 Vibration test (UN 38.3.4.3)
- 3.4.6 Shock test (UN 38.3.4.4.)
- 3.4.7 External short circuit test (UN 38.3.4.5)
- 3.4.8 Impact/crush test (UN 38.3.4.6)
- 3.4.9 Overcharge test (UN 38.3.4.7)
- 3.4.10 Forced discharge test (UN 38.3.4.8)
- 3.4.11 Describe methodology and pass/fail criteria of each test.

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3.4.1 State of Charge testing of as-received Batteries

- a) By voltage reading or columbic charge, dependant on the chemistry of the battery
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- 3.4.11 Describe methodology and pass/fail criteria of each test.
- 3.4.12 Test Report containing the following information:
- a) A unique test report number;

b) Name of the test laboratory to include address, phone number, email address and website for information;

c) Date of test report;

d) Description of battery to include at minimum: state of charge, capacity, watt-hour rating, or lithium content; physical description of the battery, and model numbers;

- e) A unique battery identifier provided by the test lab for traceability
- f) List of tests conducted and results;
- g) Reference to the edition of the Manual of Tests and Criteria used and to amendment if any;
- h) The number of batteries successfully tested before the test failed;
- i) The criteria in which the battery failed as listed as a requirement for the UN 38.3 test:
 - Leakage
 - Venting
 - Disassembly
 - Rupture
 - Fire
 - Open circuit voltage less than 90% of voltage
 - External temperature > 170C;
- j) Placement of thermocouples;
- k) Miscellaneous observations or notes; and,
- 1) Signature with name and title to indicate validity of test report
- 3.4.13 Video of each and every battery test
- a) Video should be clear, focused, and taken with sufficient lighting
- 3.4.14 Two photographs of the complete battery, taken at different angles after test failure. Photographs should be clear and taken with sufficient lighting, such that any markings/labels are clearly legible and damage is clearly visible including:
- a) The unique battery identifier
- b) The thermocouple location (if still attached)
- c) The complete battery
- d) Any electrolyte leakage

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