Transport Canada
Transports Canada

PLACE DE VILLE
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OTTAWA, ONTARIO
K1A 0N5

July 9, 2020

ADDENDUM NO. 3

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

Further to the above-mentioned Request for Proposal, this Addendum (#3) is to advise potential bidders of questions received during this tender call to date and 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 following the labels [**Updated**]. Both the question and the response is indicated in the attached *Annex A-1 and Annex A-2*

Closing Date:
The new closing date for receiving proposals is hereby changed to July 31, 2020, at 2:00 pm (Eastern Daylight Time (EDT).

All other terms and conditions remain unchanged.

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

Yours truly,

Natasha Blackstein
Contracting Specialist
Materiel and Contracting Services
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RECEIPT ACKNOWLEDGED

Name of Company _____

Signature _____

Canada

Annex A-1

Q1. In Section 8.4 we see it still includes impact/crush test and forced discharge test since single cell battery packs do require those tests according to UN 38.3 Revision 7 however the sample requirement for UN 38.3 of a single cell battery pack stated in UN Manual of Tests and Criteria Revision 7 Table 38.3.3 is 48 samples. 25 samples would not be enough to run the full program of T.1 to T.8. Footnote B of the table allows many of the tests to be waived including Impact/Crush which requires 10 samples and Forced Discharge which requires 20 samples to run and both are conducted at the cell level. We recommend both tests be waived by Transport Canada and sample counts reduced to 15 battery packs with 8 going through T.7 Overcharge test followed by T.1-T.5 (total 10 samples) in sequence. 10 will be put through the test program and 5 are back-up samples.

A1. We will change Annex-2 to no longer request exactly twenty-five 25 batteries, instead we will specify that the bidder purchase one Set. One Set is equal to the number of batteries required for UN 38.3 testing plus nine (9) additional spare batteries as required by Transport Canada. For example: A small rechargeable battery with overcharge protection will require the bidder to purchase twenty-five (25) batteries, sixteen (16) through the requirements of the UN 38.3 test and nine (9) additional batteries.

Q2. New item 3.4.13 and 8.4.13, the video of every battery test cannot be managed under a $150K CAD budget. Please understand the length of time many of these test are. T.1 Altitude Simulation, T.3 Vibration, T.5 External Short Circuit are each 6+ hours per each test. Just for Annex-1 Scope of Work it's 8 samples x 14 sets x 6+ hours per test x 3 tests requiring 6+ hours = potential for >2,000 HOURS of footage for just those 3 tests. In addition T.2 Thermal & T.7 Overcharge require 7+ days per each test so that would be 8 samples x 14 sets x 7+ days per test x 2 tests requiring 7+ days = potential for >1,500 DAYS of footage for just those 2 tests. Also T.4 Shock requires 18 drops per pack multiplying that out would be potential for 2,016 VIDEO SEGMENTS to show every battery pack drop (18 drops x 8 samples tested per set x 14 sets = 2,016). This is just not feasible to video record that much and even though we may utilize equipment to test multiple sample simultaneously it still daunting to ask the lab technicians to record every single test when there is 672 tests to run (8 samples x 6 tests x 14 sets) . We recommend removing this subsection and if there is a reason to video record a specific test on a specific sample that could certainly be accommodated and can be discussed during project kick-off.

A2. We agree that it is not necessary to record video for the duration initially proposed. We will ask the technician to take notes on the failure event as per 3.4.12(k) and 8.4.12(k) and/or video segments of battery tests agreed upon by both parties.

We will delete section 3.4.13 and 8.4.13.

Annex A-2

[UPDATED]

~~3.4.13 Video of each and every battery test.~~

[UPDATED]

~~8.4.13 Video of each and every battery test.~~

[UPDATED]

6.3.2. Set – One (1) Set is equal to the number of single unit batteries required for UN 38.3 testing plus nine (9) additional single unit batteries as spares required by Transport Canada.
For example: A small rechargeable battery pack with overcharge protection will require the bidder to purchase twenty-five (25) batteries, sixteen (16) through the requirements of the UN 38.3 test and nine (9) additional batteries.

[UPDATED]

8. Scope of Work

In this study, The Contractor shall purchase two (2) Sets of Original Equipment Manufacturer (OEM) Batteries and eight to twelve (8-12) Sets of Replacement Batteries shipped rapidly from marketplaces such as Aliexpress, Amazon and eBay. The type of Consumer Battery will be decided by Transport Canada. One (1) Set is equal to the number of single unit batteries required for UN 38.3 testing plus nine (9) additional single unit batteries as spares required by Transport Canada. Upon receipt, the packages will be checked for compliance with Transportation of Dangerous Goods Regulations (TDGR). The Contractor will measure the State of Charge (SOC) of the Batteries to ensure compliance with IATA Packaging Instruction 965 (SOC<30%). The Contractor will request the UN 38.3 test summary report from the seller, which are required to be provided when shipping lithium-ion Batteries.

Once the package has been checked for compliance with TDGR, UN 38.3 testing will be performed by The Contractor to check that the test report from the supplier (if supplied) is accurate and true. Select Batteries which fail will be sent for further analysis at the National Research Council Canada (NRC) in Ottawa, ON, Canada or Vancouver, BC, Canada.

The selected bidder, hereinafter referred to as the “Contractor” shall carry out the study as detailed below.

[UPDATED]

8.2. Task 2: Purchase of Lithium-ion Batteries

The Contractor shall purchase two (2) OEM Consumer Battery Sets and eight to twelve (8-12) Replacement Battery Sets ~~(of 25 Batteries)~~. This gives a total amount of ten to fourteen (10-14) Sets of Batteries~~, or two hundred and fifty to three hundred and fifty (250-350) Batteries~~. The Replacement Batteries are designed to replace the OEM model of Battery to power the same make and model of the consumer product.

From the ~~25~~ Batteries purchased, the required number of Batteries will be tested according to UN 38.3. The remaining Batteries (9) will be stored and used in case any of the Batteries used for testing are not suitable or shipped to the NRC in Vancouver, BC, Canada or Ottawa. The Battery purchases should follow the steps detailed below

8.2.1 The contractor shall

i. Purchase one (1) Set of ~~twenty-five (25)~~ OEM consumer Batteries of Transport Canada's choice (such as, but not limited to e-cigarette Batteries, cell phone Batteries and power banks)

ii. Purchase four to six (4-6) Sets of ~~twenty-five (25)~~ Replacement Batteries of Transport Canada's choice (to fit the same model of consumer product as the OEM model in 3.2.1 (i))

iii. These Batteries will be shipped by air. Express shipping must be selected.

iv. The Batteries will be purchased from marketplaces such as, but not limited to, Amazon, eBay and Aliexpress

v. The UN 38.3 test summary will be requested from the manufacturer

vi. Screenshot of Battery purchased which includes the name of the marketplace, the description including capacity [look for energy rating (in Watt-hour, Wh) and lithium content (in grams)], the brand name, the tests that it passed (if applicable) and the price

8.2.2 The Contractor shall repeat 8.2.1(i) to 8.2.1 (vi) once with a second consumer product Battery model of Transport Canada's choice

[UPDATED]

8.4 Task 4: UN 38.3 Testing

The Contractor shall perform service life testing and summarize the results following the steps detailed below. Spare Batteries will be 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. Failed batteries may also be sent for further analysis provided that they are safe to ship. The UN Manual of Tests and Criteria Subsection 38.3 (UN 38.3) is available from