Fundusze Europejskie na Infrastrukturę, Klimat, Środowisko | Rzeczpospolita Polska | Dofinansowane przez Unię Europejską | Baltic Hub

Baltic Hub Container Terminal sp. z o.o.

Purchase of IMV-Type Electric Vehicles

V0.3. Offer Form

V0.3.5. List of Required Technical Documentation (list of documents to be submitted by the Tenderer)

Appendix No. 5 to the Offer Form – List of Required Technical Documentation (list of documents to be submitted by the Tenderer)

The Tenderer is obliged to submit, for the Employer's review, the electronic version of all design drawings, in accordance with the following list:

No	Document name	Submitted (Yes/No)
1	Chapter 3, Appendix A2 – Scope of Supply	
2	Chapter 3, Appendix A3 – Main Technical Parameters	
3	General dimensional drawing	
4	General technical description	
5	Proposed battery system, including its electrical characteristics and mechanical design, covering at least the following: • Charging and discharging characteristics of the battery system components, such as: Cell / Module / Pack / String / System. • Cycle Life Characteristic Curve – the relationship between cell capacity SOC [%] and the number of cycles at a temperature of 25°C for the designed depth of discharge DoD [%]. • Mechanical design and internal structure of the battery module. • Specifications and Performance Test reports. • Certified specifications and safety test reports, e.g. UN 38.3, ECE R100. • Safety data sheet for hazardous substances / material safety data sheet (MSDS – Material Safety Data Sheet).	
6	Technical documentation of the lithium-ion battery system, including technical specifications and a detailed description of the functionality of the battery management system (BMS), to be provided in the offer documentation.	
7	Technical documentation of the IMD (Insulation Monitoring Device), including the technical specification, functionalities and model of the offered IMD, to be submitted together with the offer documentation.	
8	Technical documentation of the temperature control system	
9	Technical documentation of the traction motor	

10	Layout drawings showing the general arrangement of the EPM, the operator's cab (including the instrument panel), walkways/platforms, steps, ladders, etc. Drawings showing the internal arrangement of components in the battery compartment and the power electronics compartment shall also be included. The drawings should include detailed dimensions and the following views: front, rear, left side, right side and top. Assembly drawings shall also be provided for: the electric traction motors, the inverters, the battery packs, the drivetrain and the axles. The drawings should show the location, method of mounting and relative arrangement of the listed components.	
11	Details and diagrams of the pneumatic braking system and the electrical system (including the starting circuit).	
12	Design calculations concerning the gross combination weight of the vehicle (GCW), axle loads, chassis beam sizing, tractive effort, speed and gradeability, stability, selection of the motor, inverter and battery, and the turning radius – both with and without a trailer.	
13	Design calculations concerning the fifth wheel mountings, chassis components and axles with regard to their resistance to impact loads when a container is lowered from a quay crane, taking into account the energy absorbed by the mountings	
14	Details and installation diagram of the air conditioner, including design calculations for sizing the air conditioner.	
15	Detailed design calculations for the battery cooling and heating system in accordance with the minimum and maximum ambient temperatures specified in the technical specification.	
16	A list of approval and test certificates defining the design of the EPM equipment and the country of manufacture, whereby the equipment must be designed and manufactured in accordance with the standard and in accordance with its intended use. Type test certificates (accredited in accordance with ISO/IEC 17025); type test reports under low-temperature and climatic conditions (ISO 16750-4, IEC 60068-2-1); industrial battery safety certificate (IEC 62619); electromagnetic compatibility test report (2014/30/EU); and evidence of compliance with cybersecurity requirements (ISO/SAE 21434 TARA)	

17	Calculations concerning the steel structure, both static and dynamic, shall be submitted. The use of the English language is permitted. Complete calculation files for both the static and the dynamic analysis of the steel structure shall be submitted in electronic form in two copies.	
18	Technical description of the safety support functions required under the specification	
19	Technical description of the “Drive by Wire” system hardware and readiness for future autonomous driving, as set out in the specification	