



Zagreb, 14.11.2019.

Broj Projekta:	KK.01.2.1.01.0045
Broj Nabave:	07

TENDER DOCUMENTATION (TD)

Call for bids for Battery Management System and associated components

No. 07 of procurement

1. INFORMATION ON THE CLIENT

Name of the customer: DOK-ING d.o.o.
Address: Kanalski put 1, 10 000 Zagreb, Croatia
PIN: 39982657045
Internet address: <http://www.dok-ing.hr/>
E-mail: eunabava@dok-ing.hr
Telephone: +385 1 2481-300
Fax: +385 1 2481-303

2. INFORMATION ON THE CONTACT PERSON FOR COMMUNICATION WITH THE SUPPLIERS

Communication and any other exchange of information between the Customer and the Bidder shall be effected exclusively via e-mail. All questions and clarification requests can be sent via e-mail to: eunabava@dok-ing.hr

The Customer shall respond to the request for additional information and clarifications only if sent by e-mail to the above address. For the purpose of equal treatment of all bidders, the response to the requests shall be sent to all bidders regardless of who sent the initial application or question.

**3. COMMENCEMENT OF THE PUBLIC PROCUREMENT PROCEDURE**

The date of commencement of the public tender procedure is the date of publication of the Contract Notice on the website www.strukturnifondovi.hr

4. TYPE OF PROCUREMENT PROCEDURE

An open public procurement procedure with a public Procurement Notice is applied.

5. DESCRIPTION OF PROCUREMENT SUBJECT

The Customer is procuring a Battery Management system and associated components. The equipment offered must comply with the technical characteristics set out in Item 5. All bidders shall respect the technical specifications referred in Item 5 of the Procurement Documents. All bidders must submit a bid for all items that are a subject of this procurement. Partial bids will not be accepted.

Battery Management System	
Battery Management System control unit	3 pc
All necessary wirings, harness and sensors	3 pc
Configuration software	1 pc
If applicable, necessary hardware tools for programing/configuration	1 pc
User manual	1 pc
Installation manual	1 pc
3D model of components	1 pc
High Power Connectors (MSD)	
Manual Service Disconnect receptacle (MSDF000R or equivalent*)	2 pc
Manual Service Disconnect plug with fuse (MSDM6302 or equivalent*)	4 pc
Datasheets	
Installation manual	
3D model (STEP or IGES)	

Call for project proposals is published in Croatian and English, and in accordance with the above-mentioned, technical specifications shall be in Croatian and English for the purpose of achieving equal treatment of all potential bidders and a clear understanding of all points of the technical specifications.

6. TECHNICAL SPECIFICATIONS

The supplier is expected to complete and deliver the following:

Table 1 - Technical specification of Battery Management System

Battery chemistry	LiFePO4
Minimum total cells number	200
Minimum cells per module *	120



Number of modules *	2
Maximum dimension	max. length 400 mm, max. width 175 mm, max. height 73 mm
Maximum battery pack voltage	800VDC
Communication interface	2x CAN
Supply voltage	24V
Additional requirement 1	Custom CAN messages configuration capability
Additional requirement 2	Cell balancing capability
Additional requirement 3	“State-of-Charge” measurement capability via “Coulomb Counting” method and transmission of value over the CAN bus
Additional requirement 4	Up to 16 temperature sensors input capability
Operating temperature range	-20 – 80 C

* System consists of two battery packs of 120 and 80 cells, each of which should have its own battery management module

Table 2 – MSD technical specification table

Contact current rating	≥ 630 A
Fuse rating	630 A
Maximum DC voltage	≥ 690 V
Temperature range	-40 – 70 C
Maximum dimensions (plug + MSD mated)	110 x 110 x 98 mm
Ingress protection	IP69k

*Equivalent items must comply to the dimension requirements and technical specifications laid out in table 2.

7. EVALUATION CRITERION

The successful Bidder selection criteria shall be the most economically advantageous bid (best value for money).

Selection criteria:

- Failure to fulfill the leads to direct exclusion of supplier from the tender.

Evaluation criteria	Score
Price	40
Delivery period	60
Total	100

The calculation of the scores of the price is done according to the following formula:

- $X_c = C_n / C_x \times 40$
- X_c – score number of the evaluated bid
- C_n – lowest tender price
- C_x – tender price

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The calculation of the scores of the delivery period is done according to the following formula:

- $X_{ri} = R_{ln} / R_{lx} \times 60$
- X_{ri} – score number of the evaluated bid
- R_{ln} – lowest tender delivery period
- R_{lx} – delivery period of the evaluated bit

For the subject of the procurement, for all (sub)items/descriptions/referring to the place which may be affixed to a trademark, patent, type, norm or specific origin, the Bidder may offer "equivalent" to the requested or specified and Customer will accept other equivalent quality assurance measures, but in that case the Bidder must enclose proof of equivalence (catalog, manufacturer or the like).

"Equivalent" is all off offered that is not within the prescribed description but meets the minimum technical characteristics of the required (sub)items. Where applicable, the characteristics must correspond to the defined ones, with the deviation up to +/- 1%, unless the range is otherwise defined by the Customer.

8. DELIVERY LOCATION

DOK-ING d.o.o., Kanalski put 1, 10000 Zagreb

9. PREPARATION AND SUBMISSION OF BIDS

The bid shall be submitted in Croatian (for Croatian bidder) or English (for non Croatian bidder) and in Latin script. When preparing the bid, the Bidder shall adhere to requests and requirements from the subject Tender Documents.


The bid must contain the following as a minimum:

1. Full name of Bidder, address and contact person
2. Detailed description of the equipment, according to the technical specifications referred to in Item 6. All points included in the technical specifications must be stated as indicated in Item 6.
3. Financial bid in HRK
4. Date and signature of the person authorized to represent the Bidder.

The proposal shall be submitted electronically, by e-mail to the address given in Item 1 of this call for bids.

10. DEADLINE FOR SUBMISSION OF BIDS

The deadline for submission of bids is 8 calendar days from the date of publication of this Notice at www.strukturfondovi.hr

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11. DELIVERY PERIOD OF THE PROCUREMENT SUBJECT

The delivery period shall commence immediately after signing the contract / Purchase Order. Expected delivery period is 3 weeks.

12. MODIFICATION OR WITHDRAWAL OF SUBMITTED BIDS

The Bidder may change or withdraw their bid before the deadline for submission. If a modification or amendment to the bid is submitted, it must be submitted in the same way as the original proposal, indicating that this is a change / addendum to the proposal.

13. VALIDITY OF BIDS

The validity of bids must be at least 120 days after the deadline for submission.

14. SELECTION OF THE MOST ADVANTAGEOUS BID

The deadline for the evaluation of bids and the decision on a successful bidder is 10 working days after the deadline for submitting the proposal. The bidders shall be informed on the decision within that deadline.

Public procurement: Ivan Kralj