

**CALL FOR INFORMATION IN THE FRAMEWORK OF PRELIMINARY
MARKET CONSULTATIONS**
to the project "New energy source KD7"

Lovochemie, a.s., IČ: 49100262, with registered seat at Terezínská 57, 410 02 Lovosice, Czech Republic (hereinafter „**Company**“) expects to start a tender for the contractor selection process of the project „*New energy source KD7*“ (hereinafter „**Project**“) in the course of 2022.

The subject of the planned Project is the acquisition of a new low-emission energy source in the form of a technological unit of a dual pressure nitric acid plant with production of 1600 MTPD, whose technological processes also generate high-pressure export steam and will also include a turbogenerator with an expected output of 10-11 MW and related offsite projects. The aim of the Project is to build a new unit for the production of nitric acid and at the same time reduce the current CO₂ emission load in the Company.

Purpose of the preliminary market consultation: Given the specific nature of the subject of the supply, the Company decided to conduct a preliminary market consultation. The consultations will take place individually with potential suppliers known to the Company who are interested in participating. The purpose for the Company is to become acquainted with the situation on the market and use this to set up the technical and business conditions of the tender.

Participation in the preliminary market consultation: All suppliers who would consider submitting an offer in a tender process can participate in the preliminary market consultation. Preliminary market consultations will be conducted in such a way as not to distort competition and the regularity of tendering. Without a doubt, the Company states that participation in the preliminary market consultation will not affect the possibility of suppliers to participate in the subsequent tender, in case they meet its conditions.

Preliminary market consultation: Due to the current pandemic situation, the Company has decided that the Preliminary market consultation will take place in the form of videoconferences and written minutes of the meeting will be subsequently made. The Company also reserves the rights to make audiovisual recordings from videoconferences. Preliminary market consultations will be conducted in Czech and / or English. The exact date of the consultation will be individually specified with each supplier.

Subject and deadline for preliminary market consultation: Suppliers who are interested in participating in preliminary market consultations should contact **Ing. Václav Havlík, CTO of the Company** at the e-mail address: Vaclav.Havlik@lovochemie.cz or at the address of the Company's registered office **by May 30, 2021**.

In order to conduct the video conference effectively, the Company would like to ask potential suppliers to answer Basic questions concerning the Project. Basic questions are attached to this Call.

Attachments: Basic questions

April 12, 2021, in Lovosice



Ing. Petr Cingr
Chairman of the Board of Directors
Lovochemie, a.s.



Ing. Jan Stoklasa
Vice-Chairman of the Board of Directors
Lovochemie, a.s.

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ATTACHMENTS: Basic questions

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Basic questions

The subject of the planned Project is the acquisition of a new low-emission energy source in the form of a technological unit of a dual pressure nitric acid plant with production of 1600 MTPD, whose technological processes also generate high-pressure export steam and will also include a turbogenerator with an expected output of 10-11 MW and related offsite projects. The aim of the Project is to build a new unit for the production of nitric acid and at the same time reduce the current CO2 emission load in the Company.

In order to conduct the video conference effectively, the Company would like to ask potential suppliers to answer following Basic questions concerning the Project:

- What is the NA pressure at the outlet from the unit? Is it necessary to install a storage vessel near the NA unit to pump the produced hourly amount of NA to current storage site? The current storage capacity is located approximately 500m far away. Is DN150 sufficient diameter of the outlet pipeline?
- Are you able to utilize 25m³/h of process steam condensate (45°C) from CAN unit? Or how much of this condensate are you able to utilize? The composition is as follows:

(Unites in ppm)	NH ₄ NO ₃ content	Free NH ₃ content	Free HNO ₃ content	pH
Min	257	0	10	0,6
Max	612	15	988	3,9
Average	397,0	0,2	77,5	3,1

- What is the variability of the flows and temperatures of cooling water circuits? The question is about the usable heat for the heat pump? Here the rule is the warmer the better.
- Are you able to deliver cooling towers along with the NA plant? Would it be possible to make your offer in the tender in two options? We have a possibility to a) use an 20y old cooling circuit from an existing NA plant and add some cooling capacity to it or b) deliver the whole new cooling tower system.
- What are the differences in the raw material consumption norm for 70-100-110% capacity of the NA unit?
- Do you have experience with DCS simulator delivery?

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ATTACHMENTS: Basic questions

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- What is the life assumption of the key components? Could you present references to technologies you delivered which are operational more than 30years?
- We demand to install technology which can deal with start-up and shut-down with colourless tail gas. What kind of technology do you use to achieve this demand?
- We would like to have maximized operational time of the unit. Could you guarantee changing the sieves once a year and two year cycle of repair shut-down?
- What are the minimum emissions of NH₃, NO_x and N₂O you are able to guarantee?
- What is the maximum amount of steam (36bar(g), 430°C) you can export from the unit?
- Is the layout of the unit fixed or are we able to slightly change it based on wind direction and current infrastructure in the surrounding area (noise reduction in the direction of nearby city, canteen location, pavement orientation and so on)?
- We would like to minimize the service intervals. How do you solve sieve change and boiler lid disassembly?
- How do you solve the need of space around the turbo-compressor and use of handling equipment in case of repair needs?
- Are you able to deliver the carbon footprint of the construction process?
- What is the amount of middle pressure steam (MP: 11,5 bar(g); min 10,5 bar(g); 230-260°C) needed for the start-up of the unit, if any?
- What is the demand of middle pressure and low pressure steam (MP: 11,5 bar(g); min 10,5 bar(g); 230-260°C)(LP: 3 bar(g); min 2,2 bar(g); 150°C)? to operate the unit, if any?
- What is the amount of demi-water you need at battery limit (250 kPa(g); 25 °C; 1 μS)?
- Do you have your own start-up team? What is the man power demand at our end for start-up?
- Could you make a list of main components which have longer delivery time than 6 months?