![NVE - Norges vassdrags- og energidirektorat logo]

TENDER DOCUMENT

Competitive procedure with negotiation,
in accordance with the Norwegian Public Procurement
Regulations, Part I

SOFTWARE FOR HANDLING CIM-
DATA

Case no
202013512

Contents

1 GENERAL DESCRIPTION

1.1 *Contracting authority*

The Norwegian Water Resources and Energy Directorate's (NVE) mandate is to ensure an integrated and environmentally sound management of the country's water resources, promote efficient energy markets and cost-effective energy systems and contribute to efficient energy use.

The NVE head office is located in Oslo, and the regional offices are located in Førde, Trondheim, Narvik, Tønsberg and Hamar. NVE has around 600 employees.

1.2 *Scope*

Grid data is reported to NVE. This is done through different reporting solutions. Several of these reporting solutions have steps where data is manually handled. Data is filled into excel and word sheets. We want to move away from this way of data management, cut the number of manual steps and develop a solution where we can transfer data directly from the grid companies' systems to NVEs systems.

There are initiatives on the European, Nordic and Norwegian level to exchange standardized data models within the power industry. Standardization is essential to promote efficient energy markets and cost-effective energy systems. Common Information Model (CIM) and its related IEC standards is chosen in the power industry as the common language. The CIM was developed by EPRI in North America and is now a series of standards under the International Electrotechnical Commission (IEC) (IEC 61970, IEC 61968, and IEC 62325).

NVE needs a system where we can import CIM-data and visualize, analyze and share the data.

1.3 *Information about lots*

This contract is not divided into lots.

1.4 *Important deadlines*

The following deadlines will apply for this assignment:

Activity	Deadline
Submission of tender	13.11.2020
Evaluation	2 Weeks
Notification of award	1.12.2020
Signing of contract	3.12.2020
Period of validity of tenders	6 weeks

The deadlines after the tender opening are preliminary. An extension of the period of validity of tenders must be agreed with the supplier.

2 REGULATIONS FOR TENDER COMPETITION AND TENDER REQUIREMENTS

2.1 *Procurement procedure*

The procurement is conducted in accordance with the Norwegian Public Procurement Act of 17 June 2016 (LOA) and Public Procurement Regulations (FOA) FOR 2016-08-12-974, Part I.

2.2 *Confidentiality*

The contracting authority and its employees are obliged to prevent others from gaining access to knowledge of information about technical installations and procedures or operating and business relationships that will be of commercial importance, to secrecy, cf. FOA § 7-4, cf. the Norwegian Public Administration Act § 13.

2.3 *Period of validity of tenders*

Tenders shall remain valid for the period as specified in item 1.4.

2.4 *Reservations and deviations*

If the supplier makes reservations for parts of the tender document / requirement specification / contract or other competition documents, this must be clearly stated in

the tender. The reservations must be specified with the consequences for performance, price, or other conditions.

The same applies to deviations. Reservations and deviations must be precise and clear and must be included in the tender letter so that the client can evaluate it without contact with the supplier. Substantial reservations and deviations can result in the offer being rejected.

Supplier's reference to standardized delivery terms or the like, will be considered as reservation if they deviate from the applicable competition or contractual terms.

2.5 *Communication*

All communication regarding this procurement shall take place via Mercell, www.mercell.no

Questions/inquiries that are received later than five (5) working days prior to the tender submission may not be answered.

2.6 *Subcontractor*

If the vendor uses a subcontractor, the vendor shall document that the subcontractor will have access to sufficient resources. This can be done by a declaration of commitment between vendor and subcontractor.

3   QUALIFICATION CRITERIA

3.1 *Skatteattest (tax certificate)*

Criteria	Documentation requirements
Norwegian suppliers must fulfill the requirements with regards to payment of taxes, payroll taxes and value added taxes.	• Tax certificate, not older than 6 months. Similar certificates according to their domestic national requirements must be presented by foreign suppliers

3.2 *Proven capabilities*

Criteria	Documentation requirements
Experience from similar projects	Description of the vendor's up to 3 relevant assignments within the last 3 years. The description must include assignment value, time of assignment and customer (name and e-mail). When it comes to software, experience can be documented even when the software has been sold by a different vendor. Experience of personnel may also come from different company than the supplier.

3.3 *Export and import of CIM-data*

Criteria	Documentation requirements
The system needs to be able to export and import CIM-data	References of 3 customers who are using the software to import and export CIM-data.

3.4 *Supplier's registration, authorization etc.*

Criteria	Documentation requirements
Supplier must be registered in a professional or trade register in the country where the company is established.	- For Norwegian companies: Firmaattest - For foreign companies: Documentation that the company is registered in a professional or trade register as required by law in the country where the company is legally established.

4 AWARD CRITERIA

The tenders will be evaluated according to the following weighted criteria. The tender with the best combined score of price and quality will be awarded.

Criteria	Weight	Documentation requirements
Price	40 %	Complete Financial proposal shall include: • Price of license, for this year and after this year • Fee rates of all personnel • Expected need for personnel Financial Proposals shall be given in Norwegian Kroner (NOK) and there shall be no exchange rate clauses that can alter the amount in NOK
Quality	60 %	The Technical Proposal shall include, but not necessarily be limited to: • Proposed solution • Quality of the system • User friendliness • Community, documentation, FAQ • List of personnel with input (man-hours) and role in the assignment and CVs of all personnel (maximum 3 pages per CV including references) • Presence in the Nordic market • Solidity of the company

5 TENDER SUBMISSION AND FORMAT

5.1 *Submission of tenders*

The tenders must be submitted electronically in Mercell.

5.2 *Format*

The tender must be submitted in accordance with the format the electronic system for tender submission requires.

ATTACHMENT 1 – DESCRIPTION

SYSTEM FOR HANDLING CIM DATA

To get a better understanding of the national grid today and how it will evolve in the future we need data from the DSOs and TSOs. This data needs to flow as effortlessly as possible from the companies to the NVE. We will standardize the information model according to the IEC's Common Information Model (CIM).

With our role as the Norwegian concession authority we need to have a good overview of the power grid in our system and good ways of visualizing the data are very helpful. We want to see maps and one-line diagrams.

We also need to analyze the data. We need to do load flow analysis, but not advanced, dynamic analysis. Preferably we would be able to do the analysis within the system, but we can also do it outside.

The data needs to be accessible for other systems. We need to export data from this system into existing analyses that are run in separate systems. We also want to be able to expose the data through APIs.

To sum up the NVE should by this procurement be able to:

- Import CIM data according to Common Grid Model Exchange Standard (CGMES).

- Browse the data models, visualize the data in one-line diagrams and maps. Preferably we want to be able to exchange GIS data with our ArcGIS environment. We also want to see grid topolgy

- Visualize results from load flow simulations

- Edit data, add our own properties, compare models and validate data. We also want to be able to keep different versions of the grid model.

- Export CIM data. Preferably as XML and/or CSV.

- Reach the data through scripting, preferably Python.

- APIs, preferably RESTful, for create, read, update and delete process.

The system may:

- Be compatible with MS SQL.

- We will consider it a plus if the system can run load flow analysis

Versjon 1.0 October 2020

To be able to install, use and fully take advantage of the system's capabilities we will also value:

- Documentation, installation guide, FAQ and community.

- Support/customer success services.

- Personnel who can help us with training and installation.

Norwegian is our language of preference, but English is also acceptable.

Standard contract for this procurement is SSA-K Agreement:
https://www.anskaffelser.no/verktoy/kontrakter-og-avtaler/kjopsavtalen-ssa-k