CABLE PRE QUALIFICATION SYSTEM FOR USE BY VATTENFALL

Sweden and Germany

Ref to announcement in

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1. Background

Vattenfall AB (Vattenfall) is a leading European energy company, that for more than 100 years has electrified industries, supplied energy to people's homes and modernized our way of living through innovation and cooperation.

In order to operate this business and provide electricity to app 3,290,000 electricity network and app 6,450,000 electricity customers in: Sweden, Germany, the Netherlands, Denmark, the UK and Finland - Vattenfall Group has among other initiatives decided upon a common strategy to enable the cable supply.

Vattenfall Group´s annual spend of distribution and sub- transmission power land cables (LV, MV and HV) in total is app 500 MSEK. This is mainly covered through Framework agreements, created by public tendering.

Huge part of this volume will be also called off through Vattenfall´s own contracted contractors or bought through a technical prequalification model, where the contractors are the direct commercial part to the cable supplier(s).

Vattenfall´s annual spend of subsea power cables (MV, HVAC and HVDC) in total is approx. 470MSEK. This is mainly covered through project agreements, created by (public) tendering (depending on EU-tendering exceptions where windfarm are planned to will be build).

The spend of sub-transmission and transmission cables (land and subsea) vary, depending on the investment plans.

2. Scope

The scope is divide in to two parts. One for Vattenfall Distribution Germany and one or Vattenfall Distribution Sweden.

2.1. Vattenfall Distribution Germany

Vattenfall AB for Germany includes any and all of its subsidiaries, affiliates and other companies and business units that are part of Vattenfall group that are entitled to use this PQS.

Prequalified (PQ) status means that the supplier´s factory is entitled to receive all cable tenders/RFQ for Vattenfall AB (as long as the PQ status is uphold).

This Pre-Qualification System´s (PQS) aim is to prequalify supplier(s) to Vattenfall AB of:

- Qualification for delivery low voltage (1kV) incl. communication cable,
- Qualification for delivery medium voltage (10kV) and

- Qualification of application for the delivery and installation high (110 kV) with conductor material of Copper or Aluminum, all corresponding to Vattenfall´s technical specifications.

2.2. Vattenfall Distribution Sweden

2.1.1 Background scope of pre-qualification for Sweden

Vattenfall Distribution Sweden (Distribution Sweden), has over the last years consolidated the spend through frame work agreements for the supply of cables and overhead lines. Those agreements have historically been awarded to manufactures of the cable and overhead lines. The logistics services to deliver the cables to the various sites have been tendered and awarded separately with a logistical service provider (distributor).

Distribution Sweden, has decided to delegate the full responsibility to deliver cable and over-headlines to its contractors. By that Distribution Sweden will achieve a reduction of transactions and clear roles and responsibilities between Vattenfall Distribution Sweden and its contractors.

This agreement with a distributor could be used by any contractor providing that the contractor has a Distribution Sweden project id number to declare to the distributor. It will be optional for the contractor to use this agreement i.e. the contractor has its own right to establish and use other supply routes.

2.1.2 Technical Prequalification

The prequalification on the Swedish cables and overhead lines will be on a technical level.

The Prequalified (PQ) status means that the supplier´s factory is entitled to receive call-off orders from the distributer as long as the PQ status is uphold.

This Pre-Qualification System´s (PQS) aim is to prequalify supplier(s) to Distribution Sweden of:

- Qualification for cables medium voltage (12 – 24kV) and
- Qualification for of covered conductors for overhead lines (24 kV)

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3. Administrative procedure

Only applicants with clearly provable compliance and capability can be qualified. For this reason a questionnaire has to be answered and patterns of specific cable types have to be provided by every applicant.

3.1. Methodology for the qualification-system

1) The Application for participation to be sent to e-Vergabe
2) The Applicant has to answer a pre-qualification questionnaire (PQQ) provided by Vattenfall.
3) Vattenfall analyses the answers in the returned questionnaire; analyzing the fulfilment of the technical specification.

4) Further documents and patterns have to be made available on request of Vattenfall.
5) Factory audit by Vattenfall, up on request.
6) Qualification decision by Vattenfall
7) Notification of qualification status will be a public information

Qualified manufactories will be admitted into a prequalification list (PQL) expressing the qualification status in respect of site of manufacturing, type of cable and to respective Vattenfall areas/ business units/ areas.

This PQL / prequalification will be:

a) basis for next Framework agreement competition for suppliers in Germany and for the Framework agreement competition for distributions in Sweden.
b) in some Vattenfall areas be provided to Vattenfall´s contactors for supply of cables
c) Basis for upcoming project related tender (only Germany).

4. PQ process

4.1. Becoming a PQ supplier

4.1.1.Background

The long term target of PQS is to establish a cable supplier base that meet (and can improve):

- general and technical requirements - quality aspects;

- the foreseeable demand profile from 2019 and on and thereby increasing the focus on long term supply and quality assurance.

4.1.1.1. Requirements of becoming PQ

- Only a company that has ownership of a factory that manufacture cable can apply and be awarded PQ status.
- The process for PQ is based on individual factory audit to verify that factory/supplier meet mandatory requirements.
- If one supplier/company wants to prequalify more than one factory, each factory will have its own PQ process as described below.
- Non PQ suppliers, contrary, shall not be selected for tenders/RFQ (they can consequently not be awarded contract).
- A supplier that lose PQ status during ongoing tender(s) will accordingly be rejected from tender(s).
- If a supplier would lose PQ status during ongoing supply period, this shall be seen as "substantial breach" to prequalification terms.

<u>For Distribution Germany</u>

- A factory that is approved through the described PQ process is given PQ status for the delivery of cable to Distribution Germany
- PQ status means that factory is entitled to receive all cable tenders/RFQ to Distribution Germany (as long as PQ status is uphold).

<u>For Distribution Sweden</u>

- A factory that is approved through the described PQ process is given PQ status for the delivery of cable to by Distribution Sweden selected Distributor.
- PQ status is determined per product type, i.e. PQ is granted for a specific cable types manufactured in a specific factories.
- PQ status means that factory is entitled to receive cable tenders/RFQ from the distributor for project relating to Vattenfall Distribution Sweden (as long as PQ status is uphold).

4.1.1.2. Timeline

Vattenfall intends to implement PQS during 2019.

The PQS is released on eNotices in TED [LINk]

<u>For Distribution Germany</u>

Applications over the year are welcome

<u>For Distribution Sweden</u>

Applications over the year are welcome.

To guarantee to be qualified supplier of cables and/or over headlines in the upcoming tender for Distributors you need to send in your application latest on the 8th of May 2020.

4.1.1.3. The PQ process

The PQ process (appendix 3.1) is structured as follows:

1) The EU cable qualification system by Vattenfall published in the e-Vergabe

2) Participation contact the e-Vergabe and load up a letter of interest

3) The questionnaire is sent to supplier by Vattenfall from e-Vergabe (appendix G 2.1 and S1.4)

4) Factory/supplier fills in the questionnaires and resends to Vattenfall according to instruction from e-Vergabe.

5) Vattenfall evaluates the answers in the submitted questionnaires.

6) If Vattenfall approves the answers on questionnaires, Vattenfall could request an on-site factory audit to verify answers to questionnaires and capability to meet technical requirements as set forth in the technical specifications (appendix G 2.2. – 2.4 and S1.1-1.3).

7) For supply to Vattenfall Sweden the prequalified suppliers also need to be registered and approved in UNCE/ Sellicha for AUCS 3.7.0 Cables and Accessories, manufacturers in order to get full prequalification status.

”<u>http://corporate.vattenfall.com/about-vattenfall/supplier-relations/supplier-registration/</u>”

8) Based on Vattenfall approved final audit report, factory/ supplier is awarded PQ status.

9) If factory/supplier is located in "risk country", also Vattenfall approved on-site CSR audit is necessary for PQ status.

(as not static, eventual "risk country" status will be informed upon supplier application).

4.2 Maintaining/upholding - or losing PQ status over time.

Along with the implementation of the PQS, Vattenfall also implements a Quality Management System (QMS), also called the “Concept Quality Monitoring”.

All cable supply within the PQS will be subject to this QMS. The intention of QMS is to assure continuous improvements on the PQ supplier base. Supplier quality deviations will be measured and actions for improvement will be taken (Quality follow up).

PQ status for specific cable types are maintained as long as no changes are made that affect the type test previously evaluated in the prequalification process. Technical re-evaluation is required for such changes.

A supplier that repeatedly have quality deviations and do not improve will eventually lose its PQ status (= "stopped/red" status) i.e becomes disqualified. Also, any single major quality deviation may lead to a re-audit of factory/supplier to verify that requirements on PQ supplier are meet.

5. Administrative description of the questionnaire

Please answer all questions in PQ questionnaires and attach eventual requested information or documents to support the reply.

A non-compliant answer on any question means that the manufacturer cannot assure the right:

- process, or

- product, or

- service, or

- establishment/ competence, or a combination of above to deliver to / meet the requested requirements of Vattenfall.

Any non-compliant answer will therefore mean "not prequalified status".

If all answers are compliant, it means that supplier is evaluated as capable to deliver to requested requirements.

6. Audit

The submitted answers in the questionnaire will be verified through an on-site factory audit on questions in PQ questionnaires and technical specifications through which Vattenfall intends to finally verify if factory/supplier meet the requirements.

If factory is approved through audit, factory/supplier will be awarded PQ status. PQ means that factory/supplier is entitled to receive all tenders/RFQ for Vattenfall (as long as PQ status is uphold). PQ status will be regularly checked by:

a) continuous quality follow up and

b) re-audit of factory

Periodically re-audits can take place to verify that PQ supplier meet the updated/new requirement(s) over time.

<u>High voltage cable projects Germany:</u>

The 110kV- cable projects of Stromnetz Berlin GmbH consisting of cable production (Cu and/or Al), corresponding connection systems, assembly and cable laying at the construction site in the city of Berlin. That means, that the prequalification is covering the whole cable system, meaning cable and appropriate connection systems, as well as the manufacturing plant (see point 3.1). Furthermore the prequalification of the 110-kV-cable system is requesting a successful type test as described in the technical specification TB 3415 (Appendix G 2.4.).

In case the supplier is successfully prequalified for the copper cable system, he is allowed to offer inquired Al-cable systems as an alternative for the already qualified Cu-cable system. If the supplier is awarded a contract for the aluminum cable system as part of the invitation to tender for the framework contract, the supplier is owing a successful type test for the AL cable system. This type test need to be fulfilled latest 18 months before start the projects, otherwise the supplier had to deliver in copper and pays the additional costs.

7. Important notice

Vattenfall AB reserves the right to update or introduce new requirements on the factories/suppliers within the PQS.

Following an updated/new requirement the PQS will be updated with the update/new requirement; and the PQ supplier is accordingly informed.

The consequence can accordingly be that a PQ supplier cannot meet updated/new requirement; if that is the case, supplier will lose its PQ status.

8. Concept Quality Monitoring (Appendix 3.2)

CONCEPT OF QUALITY MONITORING		Quality status of supply				Related infromation from Vattenfall
Quality criteria	Sub-Criteria	Approved	Action plan	Escalation plan	Stopped	Note: If one category (=sub criteria) gets into "red" status, the supplier will immediately lose its general PQ-status. A new application fro pre-qualification is posible.
Technical	Deviation to technical specification					
	Deviation to technical specification influencing functionality of the cable or system.					Applicable only for HV & Sub Marine Cables
	Deviation to technical specification not influencing functionality of the cable or system.					Applicable only for HV & Sub Marine Cables
	Deviation during factory acceptance testing (FAT)					Applicable only for HV & Sub Marine Cables
	Deviation to type test setup					
	Deviation during testing (SAT)					
Logistics	Late delivery according to Purchase Order/ Project Time Plan (OTD)					
	Incorrect handling of cables/ drums/ goods					
	Incorrect packaging of cables/ drums/ goods					
	Damaged cables/ drums/ goods					
Execution	Deviation to SFT (specification to tenders) - Health & Safety					Applicable only for HV & Sub Marine Cables
	Deviation to SFT - Personnel					Applicable only for HV & Sub Marine Cables
	Deviation to SFT - Technical requirements and general regulations					Applicable only for HV & Sub Marine Cables
	Deviation to Documentation					Applicable only for HV & Sub Marine Cables
Commercial	Failures during guarantee time					
	Deviations in delivery statistics					
Other	Health & Safety Issues					
	Environmental Issues					
	Cooperation					

8.1. Quality follow up on Vattenfall Prequalification System (PQS) for cables

8.1.1. Quality status

The PQ supplier gets a Quality Status given the number of claimed Quality Deviations and the supplier´s ability to improve and not repeat Quality Deviations

A Quality Deviation claim is based on:

1) a specific Vattenfall requirement

2) the supplier´s acceptance of claim

8.1.2. Quality Deviations and definitions.

QD = Quality Deviation

FAT* = (factory acceptance test) = any deviation versus specification on FAT

SAT*/RFO (site acceptance test/ ready for operation) = any deviation versus specification/ supply agreement on SAT/ RFO

OTD (on time delivery) = any delivery delay to supply agreement OTD (=reday fro operation date)

G (product guarantee) = any deviation that is related to manufacturer´s product responsibility

8.1.3. Supplier Quality Status (QS) levels

The suppliers quality status (QS)levels is specified below.

- approved (green or white for OTD, also means prequalified (PQ) status)

- action plan (yellow, also means prequalified (PQ) status))

- escalation plan (amber/orange, also means prequalified (PQ) status)

- stopped (red, stopped status, also means loss of prequalified (PQ) status)

Supplier QS will be measured and monitored over time - and regularly reported to PQ suppliers.

The QMS might be updated/ improved over time and this will be the announced to PQ suppliers.

If the supplier within one year after loss of PQ status can show that requirement is met, supplier will get back the approved PQ status (all else equal).

If more than one year pass from loss of PQ status, supplier will have to re-apply to become prequalified and submit full PQ process again.

9. Contact persons

Main contact person for this PQ-system and cable supply to Vattenfall Germany (LV, MV, HV):

Marika.breunung@vattenfall.de

Contact person for cable supply to Vattenfall Sweden/ Nordic (LV, MV):

elsie.wallin@vattenfall.com

Annexes

1. Sweden (S)
   - 1.1 ND-Sb-00724_Technical specification Medium voltage cables, 12-24 kV
   - 1.2 ND-Sb-00725_Technical specification Covered conductors for overhead lines, 24 kV
   - 1.3 Cable factory audit requirements and process – SE
   - 1.4 MV Cables SWEDEN - Supplier reply form
2. Germany (G)
   - 2.1 Prequalification Questionnaire
   - 2.2 LV_MV_specification ENG
   - 2.3 LV_MV_specification ENG_Supplements
   - 2.4 GER_TB3514_110kV-Kabelsystem_V-B1.1_Berlin_EN_akt-06.2019
3. Sweden and Germany
   - 3.1 Process of EU Cable Prequalification
   - 3.2 Concept of Quality Monitoring