Prequalification application for participation in pilot for variable resources

[Applying company (BRP)]

[Unit/Group]

|  |  |
| --- | --- |
| FCR-N | aFRR upward |
| FCR-D upward | aFRR downward |
| FCR-D downward | mFRR upward |
| FFR | mFRR downward |

Date  
[YYYY-MM-DD]

Edition: 1.0  
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# Introduction

This document serves as a template that potential participants in the pilot for variable resources must fill out. The requested information in the template is to be regarded as a minimum of information to be provided, and shall be supplemented if necessary. Please note that this is a simplified version of the ordinary prequalification documents. For more guidance in completing this document, please see the ordinary prequalification documents.

Approval of this application only applies to participation in the ancillary service markets during the pilot study. Participation in the pilot presumes that the actor submits the application no later than 15 August 2022, and has its final application approved no later than 15 September 2022. For ordinary approval (after the end of the pilot study), completion and approval of ordinary prequalification documents, including associated tests, is required. Information from this simplified application, as well as operational data that is logged during the pilot, can partly be used as basis for a complete ordinary application at the end of the pilot.

All documentation related to the application and the pilot must be sent by utilising a service for secure communication provided by Svenska kraftnät. When the application is complete and ready to be filed, the applicant notifies Svenska kraftnät of this by sending an email to fcr@svk.se. The applicant will in turn recieve access to one of the secure communication services offered, currently *Alfresco*.

# Summary

*Enter summarising information about the unit or group.*

|  |
| --- |
| Specify type of reserve:  Unit[[1]](#footnote-1)  Group[[2]](#footnote-2)  Specify name of the unit or group:  Specify bidding area:  SE1  SE2  SE3  SE4  Specify if the control method is a local or central function:  Local  Central  Specify type of control:  Linear  Step-wise  Specify type of energy reservoir:  Unlimited energy reservoir  Limited energy reservoir (LER) |

*Enter in the table below a summary of the resulting capacity from the performed tests.*

Table 1. Summary of obtained test results. Min test is optional for approval of the simplified version in the pilot. However, for the ordinary approval (after the pilot), it is required that the min test is performed at some point if the unit or group intends to prequalify FFR or FCR

|  |  |  |  |
| --- | --- | --- | --- |
| Service | Max test[[3]](#footnote-3) | Min test[[4]](#footnote-4) (optional) |  |
| FCR-N |  |  | MW |
| FCR-D upward |  |  | MW |
| FCR-D downward |  |  | MW |
| aFRR upward |  |  | MW |
| aFRR downward |  |  | MW |
| mFRR upward |  |  | MW |
| mFRR downward |  |  | MW |
| FFR[[5]](#footnote-5) |  |  | MW |
|  |  |  |  |

# Cover letter

*Information from the potential participants in the pilot for variable resources to the reserve connecting transmission system operator (Svenska kraftnät).*

## Information about the applying company

*Specify information about the applying company (balance responsible party).*

Table 2. Information about the company

|  |  |
| --- | --- |
|  | |
| Company name |  |
| Corporate identity number |  |
| Address |  |
| Name of contact person |  |
| Phone number of contact person |  |
| E-mail of contact person |  |
| Position of contact person |  |
|  |  |

## Information about potential subcontractors

*Specify information about subcontractors, if applicable.*

Table 3. Information about potential subcontractors

|  |  |
| --- | --- |
|  | |
| Company name |  |
| Address |  |
| Corporate identity number |  |
| Name of contact person |  |
| Phone number of contact person |  |
| E-mail of contact person |  |
| Position of contact person |  |
|  |  |

## Information about the unit or group

*Specify information about the unit or group (attach as an appendix if necessary).*

Table 4. Information about the unit or group

|  |  |  |  |
| --- | --- | --- | --- |
|  | Unit 1 | Unit 2 | [….] |
| Name |  |  |  |
| Owner of Unit |  |  |  |
| GS1-code[[6]](#footnote-6)  (if applicable) |  |  |  |
| Balance Responsible Party |  |  |  |
| Rated power[[7]](#footnote-7) [MW] |  |  |  |
|  |  |  |  |

## Information of confidentiality

All information submitted to a government agency is treated in accordance with the principle of public access to official documents. This means that anyone may request access to the information provided to Svenska kraftnät unless it is marked as confidential. The applying company is recommended to specify the information that is deemed to be sensitive and to state a clear justification of why the information should be covered by confidentiality.

Please note that Svenska kraftnät is not bound by the company’s classification and will perform an independent assessment. Also, note that the evaluation of the application will partly be made towards common Nordic requirements and that Svenska kraftnät may therefore need to discuss regulatory interpretations and development of new requirements with its Nordic counterparts. The same assessment regarding confidentiality will apply in the Nordic coordination.

The applying company asks for the following information to be marked as confidential:

* *Specify the information that is considered to be sensitive. Please refer to pages, sections, etc. in application documents and appendices.*

Justification:

* *Describe the damage that may occur if the information specified above is made available.*

# Description of the unit or group

## General description of the unit or group

Specify a general description of the unit or group.

## Activation

Specify how the unit or group is activated.

* *Describe the control system of the unit or group. Provide a block diagram and describe how the set point for power change is calculated and controlled. If the unit or group is capable of delivering several ancillary services simultaneously, describe how the combined delivery is handled.*
* *If frequency measurement or activation is made centrally and/or if the unit or group intends to deliver aFRR, briefly describe the IT security routines and risk management process.*
* *If the resource consists of several units aggregated into a group, describe the aggregation and activation of them here.*

## Limitations of the energy reservoir

Specify if there are any limitations of the energy reservoir of the unit or group, i.e. if the endurance is limited. In such cases, describe how this is handled during operation, recharging as well as when placing bids of ancillary services.

## Handling of power variations

Give a general description on how the power variations of the unit or group look like, what the variations depend on and how they vary over time.

* *Describe how the power variations of the unit or group are handled when placing bids to ensure sufficient capacity. For example, which forecasts are used, how accurate the forecasts are, what margin is used, etc.*
* *Describe how the power variations of the unit or group are handled during operation. For example, which baseline is used, how the baseline is developed, accuracy / resolution / sampling rate of the baseline, if there are periods when the baseline is more or less accurate etc.*

## Technical information

Specify technical data about the unit or group that may be of relevance when evaluating the application.

## Registration of measurements/data

Describe the method used for registration of measurements/data:

* *Describe how power and frequency measurement are performed.*
* *Specify values for measurement accuracy, measurement resolution and sampling time in Table 5 below.*

Table 5. Summary of registration and logging of data. Measured frequency only applies to FCR and FFR.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Accuracy | Resolution | Sampling time |
| Instantaneous active power | % | MW | s |
| Available capacity | % | MW | s |
| Measured grid frequency | mHz | mHz | s |
|  |  |  |  |

Tabell 6. Requirements for measuring accuracy for active power and frequency. Frequency is only relevant for FCR and FFR.

|  |  |  |  |
| --- | --- | --- | --- |
| **Category** | **Rated power** | **Accuracy, active power** | **Accuracy, frequency** |
| 1 | <2 MW | 5% | 10 mHz |
| 2 | 2-10 MW | 1% | 10 mHz |
| 3 | >10 MW | 0.5 % | 10 mHz |
|  |  |  |  |

# Presentation of test results

Specify information regarding the tests and test results.

## General information regarding the tests

Specify time and place for the tests:

Describe general operational conditions during the tests:

* *Include a brief description of how the operating conditions can be expected to have affected the test results.*

Personnel involved in testing:

Table 7. Information about personnel involved in testing

|  |  |  |
| --- | --- | --- |
| Name | Function | Organisation |
|  |  |  |
|  |  |  |
|  |  |  |

## Test method

Describe how the unit or group was tested:

* *Describe the test method.*
* *If additional equipment were used during testing, describe these and specify information about their accuracy, measurement resolution and sampling time in Table 8. Specify the UTC (Coordinated Universal Time) for logged data. Cells with values that are unchanged compared to those in Table 5 can be marked with a hyphen (-).*
* *Specify settings and control parameters that have been applied during test.*

Table 8. Summary of registration and logging of data during test. Measured grid frequency and applied frequency signal are only relevant for FCR and FFR.

|  | Accuracy | Resolution | Sampling time |
| --- | --- | --- | --- |
| Instantaneous active power | % | MW | s |
| Available capacity | % | MW | s |
| Measured grid frequency | mHz | mHz | s |
| Applied frequency signal | mHz | mHz | s |
|  |  |  |  |

# Measurements

In the pilot, reporting of real time measurements is voluntary for all ancillary services except aFRR (see table below). However, the supplier must continuously log and save data in order to be able to submit it to Svenska kraftnät monthly in advance, via Alfresco. For more information regarding data logging, see the document ‘Testing and reporting of measurements for units and groups participating in pilot study for variable resources’.

If the unit or group intends to deliver aFRR, specify a description of the set of real time telemetry setup:

* *Describe how real time measurements are delivered to Svenska kraftnät.*
* *Specify the point number (ID) used for the real time telemetry setup, if applicable.*

Table 9. Reporting of real time telemetry signals for aFRR.

|  |  |
| --- | --- |
| Signal | ID |
| aFRR Setpoint Confirm [MW] |  |
| aFRR Capacity Upward [MW] |  |
| aFRR Capacity Downward [MW] |  |
| aFRR Activated [MW] |  |
| aFRR Remote Control Permit [ON/OFF] |  |

1. See definition of unit providing reserves according to Article 3 in Regulation (EU) 2017/1485. [↑](#footnote-ref-1)
2. See definition of group providing reserves according to Article 3 in Regulation (EU) 2017/1485. [↑](#footnote-ref-2)
3. Refers to tests for the maximum demonstrated capacity. [↑](#footnote-ref-3)
4. Refers to tests for the minimum demonstrated capacity (if the prequalification tests refer to a capacity interval). [↑](#footnote-ref-4)
5. Note that the application for participation in the FFR market has closed for 2022. FFR resources participating in this pilot may therefore not participate in the FFR market during 2022. [↑](#footnote-ref-5)
6. A standard used in the industry to identify facilities through an 18-digit code [↑](#footnote-ref-6)
7. Largest possible power output [↑](#footnote-ref-7)