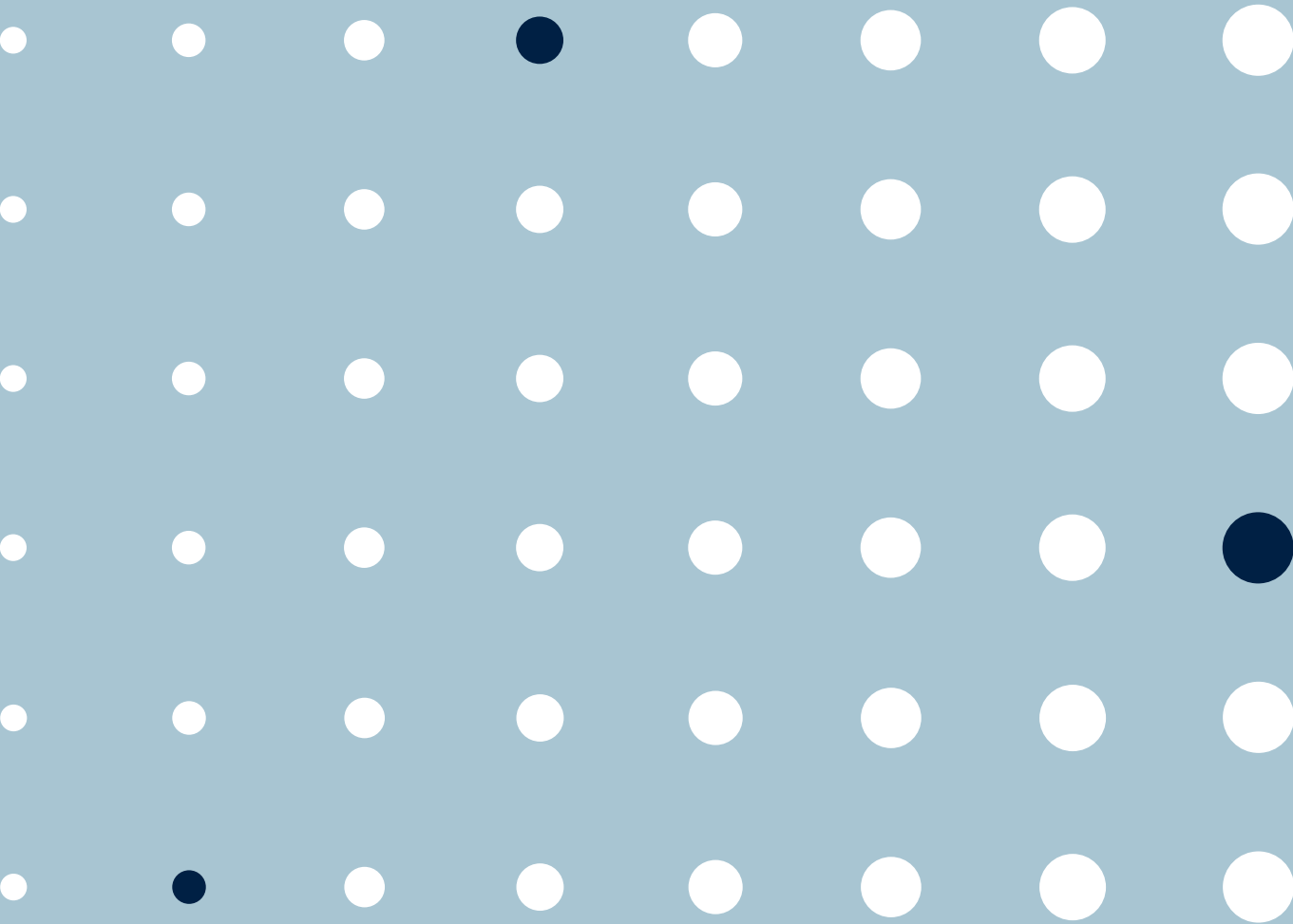


Process for Documentation of Compliance with
Grid Connection Requirements for the Medium and
High Voltage Grid:

Energy storage facilities



Energy Storage Facility – Type B

When connecting an energy storage facility to the electricity grid, you must go through the following documentation process.



You initiate the technical documentation approval process by submitting the relevant appendices for the facility type to **driftdok@cerius-radius.dk**. This is the email address you must use for all documentation submissions throughout the entire process.

It is important to test and ensure proper documentation for your facility well in advance to ensure a smooth grid connection process. We recommend that you begin preparing your documentation as early as possible. Typically, the time from submission of the first complete documentation to the issuance of an Energisation Operational Notification (EON) increases with the size of the facility — both due to the increased volume and complexity of documentation. For Type B facilities, you as the facility owner should expect a minimum of one month from the submission of the first complete documentation to the issuance of the EON.

Remember to update the documentation during the process if the facility's electrical characteristics change.

Energisation Operational Notification (EON)

An EON grants the facility owner the right to energise the internal grid and auxiliary supply systems of the energy storage facility via the grid connection point.

EON requires:

- The settlement meter is installed
- The Connection Agreement between the DSO and the Customer is signed
- You have completed and received approval for these sections of Appendix 2.1 for Type B facilities:
 - o Facility description including technical data
 - o Power quality
 - o Protection

Once EON is granted:

- It is important that you immediately familiarise yourself with the requirements for obtaining an Interim Operational Notification (ION).

Interim Operational Notification (ION)

An ION grants the facility owner the right to operate the energy storage facility and either import or export electricity using the grid connection for a limited period. The main purpose must be testing and verification.

ION requires:

- The complete Appendix 2.1 for Type B facilities has been completed and approved
- Protection and information exchange (if required):
 - o Setup must be approved and operational
 - o The DSO's communication equipment must be operational and online

Once ION is granted:

- It is important to begin testing your facility, as your ION is only valid for 3 months.

Final Operational Notification (FON)

A FON grants the facility owner the right to operate the energy storage facility using the grid connection.

FON requires that:

- Appendix 2.2 for Type B facilities has been completed and approved
- If the ION was issued on the condition that verifying measurements must be carried out to assess compliance with power quality requirements, such measurements and accompanying documentation must be received and reviewed by the DSO. If the assessment concludes that the requirements are not met, the facility owner must implement mitigating measures to ensure compliance

Energy Storage Facility – Type C and D

When connecting an energy storage facility to the electricity grid, you must go through the following documentation process.



You initiate the technical documentation approval process by submitting the relevant appendices for the facility type to **driftdok@cerius-radius.dk**. This is the email address you must use for all documentation submissions throughout the entire process.

It is important to test and ensure proper documentation for your facility well in advance to ensure a smooth grid connection process. We recommend that you begin preparing your documentation as early as possible. Typically, the time from submission of the first complete documentation to the issuance of an EON increases with the size of the facility — both due to the increased volume and complexity of documentation. For Type C and D facilities, you should expect at least two months from the submission of the first complete documentation to the issuance of the EON.

Remember to update the documentation during the process if the facility's electrical characteristics change.

Energisation Operational Notification (EON)

An EON grants the facility owner the right to energise the internal grid and auxiliary supply systems of the energy storage facility via the grid connection point.

EON requires:

- The settlement meter is installed
- The Connection Agreement between the DSO and the Customer is signed
- You have completed and received approval for:
 - Appendix 3.1 for Type C/D facilities (non-synchronous energy storage), or
 - Appendix 4.1 for Type C/D facilities (synchronous energy storage)
- Protection systems must be installed, approved, and operational

For relevant facilities, it is recommended to initiate work on the simulation model.

Once EON is granted:

- It is important that you immediately familiarise yourself with the requirements for obtaining an ION.

Interim Operational Notification (ION)

An ION grants the facility owner the right to operate the energy storage facility and either import or export electricity using the grid connection for a limited period. The main purpose must be testing and verification.

ION requires:

- Completed and approved:
 - Appendix 3.2 for Type C/D facilities (non-synchronous energy storage), or
 - Appendix 4.2 for Type C/D facilities (synchronous energy storage)
- Real-time signal exchange capabilities via the PCOM interface
- approved and operational technical installation and protection systems, along with documentation demonstrating compliance with the relevant technical requirements
- The DSO's communication equipment must be operational and online
- If relevant, the previously submitted simulation model must be approved

Once ION is granted:

- It is important to begin testing your facility, as your ION is valid for 6 months.

Final Operational Notification (FON)

A FON grants the facility owner the right to operate the energy storage facility using the grid connection.

FON requires:

- Completed and approved:
 - Appendix 3.3 for Type C/D facilities (non-synchronous energy storage), or
 - Appendix 4.3 for Type C/D facilities (synchronous energy storage)
- If the ION was issued with the condition that verifying measurements must be carried out to assess compliance with power quality requirements, such measurements and documentation must be submitted and reviewed by the DSO. If the assessment concludes that the requirements are not met, the facility owner must implement mitigating measures to ensure compliance
- If relevant, verification of the approved simulation model through compliance testing is required

Important Considerations – Applicable to All Processes

You can help ensure a smooth process by paying special attention to the following points, which apply across all documentation processes.

Documentation requirements

Documentation must be complete and adequate before it will be reviewed. The minimum processing time for reviewing complete documentation is one month. "Complete" means the documentation is of sufficient quality to be assessed — further revisions may be required if compliance with requirements is not evident.

Always ensure that all fields are filled in and that references to documentation and page numbers are correct and included.

Your ION is Temporary – Apply for Exemption if Needed

The ION is generally valid for 3–6 months. A longer period may be granted if deemed necessary for the facility owner to demonstrate the technical capabilities of the facility.

If the facility cannot document compliance with the requirements within the validity period of the ION, an extension or exemption must be requested before expiry by submitting:

- Identification of the energy storage facility
- Reason for missing documentation
- A detailed plan for performing the required tests

For Type D facilities:

If final documentation and operational approval cannot be achieved within 24 months, Energinet must decide whether to approve an extension of the time limit. Further information can be found in the technical regulation for energy storage facilities.

Contact info

All communication related to documentation for EON, ION, and FON must be sent to the DSO at: driftdok@cerius-radius.dk

Guidelines and Appendices

Technical requirements:

[Grid connection\(energinet.dk\)](#)

Appendices for energy storage facilities:

[Electrical Energy Storage – Technical Requirements and Guidelines](#) | Elnet (bottom of page)