

### APPENDIX 1 - GRID CONNECTION TERMS - APRIL 2024

FOR GRID CONNECTION OF GENERATION FACILITIES, DEMAND FACILITIES, ENERGY STORAGE FACILITIES, ETC. TO THE TRANSMISSION SYSTEM

Please note: This translation of the original Danish text is for informational purposes only and is not a substitute for the official Danish text. The English text is not legally binding and offers no interpretation on the Danish text. In case of inconsistency, the Danish version applies.

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#### APPENDIX 1 – GRID CONNECTION TERMS – APRIL 2024

#### PART I – GENERAL

#### 1. Purpose

- 1.1 These grid connection terms form part of the overall grid connection agreement between Energinet and the system user.
- 1.2 The grid connection terms supplement and specify the applicable general legislation and regulation for the connection of facilities to the transmission system.
- 1.3 Energinet's grid connection agreements are registered with the Danish Utility Regulator in accordance with applicable legislation and regulation.

#### 2. Definitions

- 2.1 The grid connection agreement uses terms shown in italics [not italicized in the English version], which are defined below:
  - (a) "Agreement" is the grid connection agreement, excluding appendices, signed by the parties, and setting out specific conditions for the parties.
  - (b) "Facility" is the electrical facility connected to the transmission system and can be a generation facility, demand facility, energy storage facility, or electrical components connecting these to the transmission system etc.
  - (c) "Facility capacity" is the maximum nominal power capacity of the system user's generation facility, demand facility, and/or energy storage facility and is, unless otherwise explicitly stipulated in a connection requirement, the capacity that the generation facility, demand facility, energy storage facility etc. must be able to provide in terms of properties and compliance with requirements in the point of connection. The facility capacity may be, but is not necessarily equivalent to, the exchange capacity in the point of connection.
  - (d) "Direct line" is an electricity connection behind the point of connection which, subject to an establishment approval, electrically connects generation facilities, demand facilities, and energy storage facilities etc. directly and which fully or partially replaces the exchange of electricity with the electricity supply system.
  - (e) "DSO" is short for distribution system operator (grid company) and is a company licensed to own and

- operate a public electricity supply system at up to 100 kV
- (f) "Power quality" is a general term for the quality of electricity and includes, among other things, voltage imbalances (asymmetry), flicker, harmonic voltage distortion, interharmonic voltage distortion, and DC content.
- (g) "Energinet" is the transmission system operator in Denmark, and this role is performed by Energinet Systemansvar A/S and Energinet Eltransmission A/S, which are Energinet's legal parties to the grid connection agreement.
- (h) "EON" (Energisation Operational Notification), also known as an "energisation permit", is a notification issued by Energinet, allowing the energisation of the internal grid and auxiliary equipment of the system user's facility via the point of connection.
- "Establishment project" is Energinet's project for establishing and commissioning the grid connection of the system user's facility.
- (j) "FON" (Final Operational Notification), also known as a "final operating permit", is a notification issued by Energinet, allowing the system user to operate the facility via the point of connection.
- (k) "ION" (Interim Operational Notification), also known as a "temporary operating permit", is a notification issued by Energinet, allowing the system user to operate the facility via the point of connection for a limited testing period.
- (I) "LON" (Limited Operational Notification), also known as a "limited operating permit", is a notification issued by Energinet in response to significant facility modifications, temporary loss of a facility property that affects performance, or in case of faults in the facility that result in the facility not complying with requirements.
- (m)"Maturation project" is Energinet's project on planning and preparing for the establishment of the grid connection of the system user's facility, including design, expected time schedule, and expected costs.
- (n) "NC DC", also known as DCC (Network Code Demand Connection or Demand Connection Code) is the EU regulation in force at any time which lays down network codes on grid connection of transmission-connected demand facilities and distribution systems (Commission Regulation (EU)

- 2016/1388 of 17 August 2016 establishing a network code on grid connection of demand facilities and distribution systems as amended).
- (o) "NC ER" (Network Code on Emergency and Restoration) is the EU regulation in force at any time which lays down network codes for emergency situations and system restoration (Commission Regulation (EU) 2017/2196 of 24 November 2017 establishing a network code on electricity emergency and restoration as amended).
- (p) "NC HVDC" is the EU regulation in force at any time which lays down network codes on the connection of transmission systems with high voltage direct current and direct current-connected electricitygenerating facilities (Commission Regulation 2016/1447 of 26 August 2016 establishing a network code on the connection of transmission systems with high voltage direct current and direct current-connected power park modules as amended).
- (q) "NC RfG" is the EU regulation in force at any time which lays down network codes on the grid connection of transmission-connected generation facilities (Commission Regulation (EU) 2016/631 of 14 April 2016 establishing a network code on requirements for grid connection of generators as amended).
- (r) "Grid connection agreement" is the complete grid connection agreement including appendices as listed in Article 3.1 of the agreement.
- (s) "Grid connection portal" is Energinet's IT solution used at any time to handle requests for connection of facilities to the transmission system.
- (t) "Grid connection terms" are the present grid connection terms which lay down the general terms of connecting generation facilities, demand facilities, energy storage facilities, and HVDC facilities to the transmission system.
- (u) "Interconnection agreement" is a separate agreement which, under the Danish act on electricity safety and executive orders issued pursuant thereto, must be entered into between the parties' certified operations managers.
- (v) "Collaboration agreement on operation and maintenance" is a separate agreement which the parties can enter into as needed and which regulates operational and maintenance-related aspects on the boundary between the parties, e.g. maintenance of shared fences, areas, etc.
- (w) "SO GL" (System Operation Guideline) is the EU regulation in force at any time which lays down guidelines for electricity transmission system operation

- (Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation as amended).
- (x) "System user" is the natural or legal person who has full legal, physical, professional, and operational responsibility, competences, and control authority to handle the operation of and have responsibility for the entire facility covered by the grid connection agreement and connected to the transmission system.
- (y) "Point of connection", also called "POC", is the point where the system user's facility is connected to the transmission system. The point of connection may be, but is not necessarily, the same as the ownership, operation, and maintenance boundary.
- (z) "Transmission facility" is Energinet's electricity supply facility at transmission level to which the facility is connected.
- (aa)"Transmission system" is the transmission system in Denmark, owned and operated by Energinet.

  The transmission facility is part of the transmission system.
- (bb) "Exchange capacity" is the maximum active power which the system user is limited to exchange with the transmission system via the point of connection. The exchange capacity is not necessarily equal to the facility's facility capacity. Unless a connection requirement explicitly stipulates otherwise, the exchange capacity is not a limitation to the facility's technical capability or requirements for this in the point of connection, meaning that the exchange capacity does not limit the requirements that Energinet place on the facility in the point of connection. Thus, the exchange capacity may be exceeded if the facility activates, or is required to activate, a stipulated function or property or must redistribute load etc. in accordance with the facility requirements, as if the facility capacity were connected without the system user's limitation of exchange capacity.

#### Legislation and regulation

- 3.1 Each party is responsible for its handling of and compliance with the legislation and regulation in force at any time, including technical regulations, regulations, approved methods, regulatory approvals, or requirements and orders from public authorities.
- 3.2 Energinet's requirements in force at any time are published and available on Energinet's website: https://energinet.dk.
- 3.3 The system user's existing or new facilities may be subject to amended legislation or regulation as regards applicable rules, including applicable rules in the EU, in

- Denmark, and in the field of electricity supply in Denmark.
- 3.4 The system user must observe and comply with applicable requirements for permits, licences, and certifications in the field of electricity supply, in particular:
  - (a) transmission system operator activities or distribution system operator activities cannot be performed without a licence, statutory authority, or exemption therefrom in keeping with the provisions of the Danish Electricity Supply Act (Consolidated Act no. 1248 of 24 October 2023 as amended)
  - (b) the establishment and commissioning of direct lines or own production cannot be done in the facility without a permit, statutory authority, or an exception therefrom in keeping with the provisions of the Danish Electricity Supply Act
  - (c) the establishment of electricity-generation facilities may require permission from the Danish Energy Agency in keeping with the provisions of the Danish Electricity Supply Act and the Danish executive order on electricity generation (executive order no. 1363 of 29 September 2022 as amended)
  - (d) the operation of high-voltage installations requires certification by the Danish Safety Technology Authority in keeping with the rules of the Danish Electrical Safety Act (executive order no. 26 of 10 January 2019 as amended) and executive orders issued pursuant hereto, including executive order no. 1608 of 20 December 2017 as amended.

#### 4. Grid connection portal

4.1 Energinet develop and use the grid connection portal to handle requests for facility connection to the transmission system. The system user must use the grid connection portal with the functions available therein. Energinet will provide the necessary guidance on the use of the grid connection portal.

#### The system user's responsibilities towards any facility owners

5.1 If the system user has the right under applicable legislation and regulation to connect facilities which are not owned by the system user in its facility, the system user warrants that the system user has full legal, physical, professional, and operational responsibility, competences and control authority to handle the operation of and have responsibility for the entire facility covered by the grid connection agreement, so that the system user is solely responsible for the facility in relation to Energinet as if the system user were the owner of the facility.

- 5.2 If requested by Energinet, the system user must provide documentation in so far as it is reasonable of the actual control of the facility, see Article 5.1.
- 5.3 Energinet is not liable, directly, or indirectly, to any facility owners under the control of the system user, see Article 5.1, including in the event of disconnection from the transmission system for any reason.

#### PART II - ESTABLISHMENT PROJECT

### 6. Start-up and completion of the establishment project

- 6.1 Energinet will start up the establishment project and the grid connection establishment when the following conditions have been met:
  - (a) the grid connection agreement has been entered into by the parties,
  - (b) Energinet's business case for the establishment project has been approved in accordance with Energinet's current procedure,
  - (c) the system user has provided adequate security for grid connection establishment in accordance with Article 12, and
  - (d) the system user and Energinet have completed the activities described in appendices 2.1-2.4 which must be completed before grid connection establishment can be started up by Energinet .
- 6.2 As part of the establishment project, Energinet will establish the installations and equipment necessary for the system user's facility to be connected to the transmission system. The system user is responsible for establishing own facilities and equipment up until the physical connection to Energinet's installations. Establishment of installations and equipment on Energinet's substation area must be done in line with instructions from Energinet.
- 6.3 Energinet finalise the establishment project with Energinet's establishment and final commissioning of Energinet's transmission facilities at the grid point of connection, and with the system user's facility's connection and validation with FON.

## 7. Prerequisites, permits, and approvals in the establishment project

7.1 On entering the connection agreement, Energinet have as a necessary prerequisite that the establishment project and the necessary permits and approvals under applicable legislation and regulation can be effected within a reasonable time as set out in appendices 2.1-

- 2.4, including Section 4 of the Danish Act on Energinet (executive order no. 271 of 9 March 2023 as amended) for reinforcement or expansion of the transmission system or applicable planning and environmental permits.
- 7.2 Unless otherwise explicitly agreed or resulting from applicable legislation or regulation, Energinet is not be liable for any delay in the completion of the establishment project, including delays of necessary permits or approvals, delays in delivery of components and equipment, or delay in commissioning of Energinet's transmission facilities, unless such delay is due to Energinet's gross negligence or intent (applicable only to Energinet and not Energinet's suppliers etc.), see also Articles 27 and 29.
- 7.3 The system user is responsible for handling the timely installation of settlement metering for the facility and obtaining own permits and approvals for the establishment of the facility, including permits pursuant to the executive order on electricity generation (executive order no. 1363 of 29 September 2022 as amended) and applicable planning and environmental permits.
- 7.4 The system user must actively seek to obtain the necessary permits and approvals to establish the facility, as access to the transmission system cannot be blocked, and capacity in the transmission system cannot be reserved.
- 7.5 If Energinet finds that the system user's facility establishment does not show the progress expected of a project and facility of this type, Energinet may require that the system user provide Energinet with the following within three weeks:
  - (a) an account of the circumstances which have led to postponement of the connection of the facility and how these matters are beyond the control of the system user
  - (b) corroboration that the system user has provided all necessary and requested information and documentation for the environmental and planning authorities to be able to process the project
  - (c) a realistic time schedule line for the environment and planning authorities' draft local plan, final local plan, site development, establishment of the facility and commissioning of the facility
  - (d) an account of how the system user intends to mitigate further delays in connection with the establishment of the facility.
- 7.6 If Energinet does not receive the system user's response, see Article 7.5, or the response in relation to the specific circumstances is of such a nature that, in Energinet's opinion, it is necessary to make changes to the grid connection agreement, including the point of connection or the time of connection, Energinet will

- make the necessary amendments to the grid connection agreement and inform the system user thereof at a reasonable notice.
- 7.7 If Energinet does not receive the system user's response, see Article 7.5, or the response is of a significantly inadequate nature in relation to the specific circumstances, and Energinet has notified the system user hereof, this will be considered a material breach of the grid connection agreement by the system user.

### 8. Cooperation in the establishment project

- 8.1 The parties must cooperate and coordinate constructively in the establishment project. The parties' contact persons will agree on the cooperation in more detail.
- 8.2 Energinet regularly report on the progress of the establishment project to the system user, depending on the duration and scope of the establishment project.
- 8.3 The parties must inform the other party without undue delay if the party becomes aware of circumstances which mean that the time schedule or budget of the establishment project may reasonably be expected to be significantly affected. In the event of significant changes to the scope, time schedule, or budget of the establishment project, the parties will cooperate constructively to reduce the impact, and Energinet will update appendices 2.1-2.4, as necessary.
- 8.4 Energinet may require the system user to answer technical questions or make technical decisions in connection with the establishment project at a reasonable notice. Delays or failure to respond by the system user may affect the time schedule for when the facility can be connected.
- 8.5 The parties are responsible for handling and communicating with their own suppliers and/or collaborators.

## 9. Responsibility in the establishment project

- 9.1 Each party is liable for timely compliance with current legislation and regulation, including planning requirements (for example environmental assessment) and requirements for their own facilities and installations. Each party is liable to any public authority for non-compliance with requirements for the activities to be performed and installations to be fitted by that party or its contractors in connection with performance of the grid connection agreement.
- 9.2 The system user cannot bring a claim against Energinet for any delay caused by the system user's own delay, non-compliance, or other non-performance, including delayed or non-performance of significant milestones

- or the stipulated requirements and prerequisites as specified in appendices 2.1-2.4.
- 9.3 Energinet's establishment project is based on the assumptions that are known and identified at the time of entering the grid connection agreement. Energinet is not liable for any delay or additional costs resulting from the establishment project (including appendices 2.1-2.4) not containing an exhaustive description of the project, or changes to the project which could not have been reasonably foreseen or avoided, or conditions outside the scope of Energinet's reasonable control, including delays or amendments to necessary permits or the provision and/or establishment of facilities and equipment.

# 10. Update of appendices to the grid connection agreement during the establishment project

- 10.1 Prior to the establishment project, the parties have completed a maturation project in which the appendices to the grid connection agreement have been fully or partially prepared.
- 10.2 To the extent necessary, depending on specific circumstances and the system user's facility, Energinet can prepare or update appendices 1.1 to 1.3 and 2.1 to 2.4 during the establishment project and enclose them with the grid connection agreement. Energinet's updates of appendices must be discussed in advance with the system user and must take the system user's reasonable conditions into consideration. Energinet's updates of appendices must comply with applicable legislation and regulation, including applicable requirements for the facility and Energinet cannot update appendices with content that conflicts with the rules, requirements, and procedures laid down in applicable legislation and regulation. Energinet must keep a record of revision history when updating appendices.

#### 11. Payment and documentation

- 11.1 The system user must pay for the connection to and use of the transmission system in accordance with applicable legislation and regulation, including applicable methods. If all or part of the installation is owned by other natural or legal persons, the system user must pay for the connection to and use of the transmission system on behalf of the facility owner.
- 11.2 Energinet set out connection payment in Article 2.6 of the agreement.
- 11.3 Energinet's costs, which under applicable legislation and regulation must be paid by the system user (facility owner), is invoiced quarterly, semi-annually, or annually, depending on the duration and scope of the establishment project, unless otherwise stated in applicable

- legislation and regulation. Energinet charges project interest from the time when any cost is activated with Energinet until this has been invoiced to the system user, unless otherwise stated in applicable legislation and regulation.
- 11.4 Energinet enclose as documentation for the invoice a standard extract from Energinet's financial management system in accordance with Article 11.3. To the extent required, the system user may request additional documentation of specific activities, if such documentation can be procured without a significant use of resources or time by Energinet to meet the system user's specific request.
- 11.5 The system user must pay Energinet's invoice within 30 days of the system user's receipt thereof. In case of non-payment, interest on any non-payment is fixed at 5% above the Danish national bank Danmarks Nationalbank's official current lending rate.

#### 12. Security

- 12.1 Energinet must have sufficient security for Energinet's financial risk to establish the grid connection of the system user's facility. The system user must provide the security and enclose this in Appendix 2.5.
- 12.2 Security must be a guarantee on on-demand terms from a bank or company approved by Energinet, or an equivalent or better security.
- 12.3 Security must be received by Energinet immediately after entering into the grid connection agreement, however, no later than 10 calendar days from entering into the grid connection agreement. Energinet cannot start significant activities in the establishment project if the system user fails to provide security on time.
- 12.4 Energinet will release the security when Energinet, taking into account the specific circumstances, determines that Energinet's future financial risk in the project is insignificant, including, as a rule, upon the system user's payment in full of the applicable connection payment.
- 12.5 If security is not provided on time, see Article 12.3, or if the security provided during the establishment project is no longer valid, for whatever reason, this will be considered a material breach of the grid connection agreement by the system user .
- 12.6 Energinet may deviate from the requirement for provision of security under this clause 12, taking into account the specific circumstances and if Energinet's financial risk is insignificant.

#### PART III - CONNECTION TERMS

#### 13. Requirements for the facility

- 13.1 The system user is responsible for ensuring that the facility complies with the requirements applicable at any time for the facility or parts of the facility. Energinet's current requirements for the facility are available on Energinet's website.
- 13.2 At the time of preparation of the grid connection terms, the following requirements apply, among other things, for new transmission-connected generation facilities and demand facilities:
  - (a) SO GL Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation.
  - (b) NC ER Commission Regulation (EU) 2017/2196 of 24 November 2017 establishing a network code on electricity emergency and restauration, including the following national implementing measures, applicable to the system user (as a significant grid user and defence service supplier):
    - i. System defence plan
    - ii. Restoration plan
    - iii. Test plan.
- 13.3 At the time of preparation of the grid connection terms, the following requirements apply, among other things, for new transmission-connected generation facilities:
  - (a) NC RfG Commission Regulation (EU) 2016/631 of 14 April 2016 establishing a network code on re-

quirements for grid connection of generators, including the following national implementing measures:

- i. Appendix 1: Requirements laid down pursuant to EU regulation 2016/631
- ii. Appendix 1A: Generic signal list
- iii. Appendix 1B: Simulation model requirements
- iv. Appendix 1C: Robustness requirements (FRT)
- v. Appendix 1D: Requirements for reactive power control properties.
- (b) Technical regulation 3.2.7 Requirements for voltage quality for generation facility connections, rev. 3 (1 October 2022)
- (c) Technical regulation 5.3.4.2 Production telegraph (Produktionstelegrafen), rev. 1 (15 April 2008)
- (d) Terms of grid connection with temporarily limited grid access for generation facilities etc. in the transmission system.
- 13.4 At the time of preparation of the grid connection terms, the following requirements apply, among other things, for new transmission-connected demand facilities:
  - (a) NC DC Commission Regulation (EU) 2016/1388 of 17 August 2016 establishing a Network Code on Demand Connection, including the following national implementing measures:
    - i. National requirements
    - ii. Appendix A Information exchange
    - iii. Appendix B Power quality
    - iv. Appendix C Simulation model.
  - (b) Technical regulation 3.4.2 Manual load-shedding of transmission-connected demand facilities, rev. 0 (1 March 2021)
  - (c) Technical regulation 3.4.3 Requirements for transmission-connected demand facilities, rev. 0 (1 November 2022)
  - (d) Technical regulation 5.3.4.1 Grid telegraph (Nettelegrafen), rev. 1 (1 November 2016).
- 13.5 At the time of preparation of the grid connection terms, the following requirements apply, among other things, for new transmission-connected energy storage facilities:

- (a) Technical regulation 3.3.1 Requirements for energy storage facilities, rev. 5 (15 February 2024)
- (b) Terms of grid connection with temporarily limited grid access for generation facilities etc. in the transmission system.
- 13.6 At the time of preparation of the grid connection terms, the following requirements apply, among other things, for new transmission-connected HVDC facilities and transmission-connected direct current-connected non-synchronous generation facilities:
  - (a) NC HVDC Commission Regulation (EU) 2016/1447 of 26 August 2016 establishing a network code on requirements for grid connection of high voltage direct current systems and direct current-connected power park modules, including the following national implementing measures:
    - i. Requirement document: Requirements laid down pursuant to NC HVDC
    - ii. Annex A: Voltage quality
    - iii. Annex B: Simulation models
    - iv. Annex D: Reactive power control properties
- 13.7 Notwithstanding the above in Articles 13.2 to 13.6, connection of new generation facilities, demand facilities, energy storage facilities, or HVDC facilities must comply with current legislation and regulation applicable at any time, which means that system user installations may be subject to new requirements differing from those specified in Articles 13.2 to 13.6.
- 13.8 In Appendix 1.3, Energinet states the specific technical requirements, settings, and conditions for the facility. Energinet may update Appendix 1.3 if necessary both before and after issue of an FON. Energinet's updates of appendices must be discussed in advance with the system user and must take the system user's reasonable conditions into consideration. Energinet's updates of appendices must comply with applicable legislation and regulation, including applicable requirements for the facility and Energinet cannot update appendices with content that conflicts with the rules, requirements, and procedures laid down in applicable legislation and regulation. Energinet must keep a record of revision history when updating appendices.
- 13.9 In appendices 1.1 to 1.3, Energinet specifies the requirement for Points on Wave based on information provided by the system user about the facility.
- 13.10 The system user's facility must be dimensioned so that any fault in the system user's facility does not result in an outage greater than the reference incident in the LFC control area. Energinet can inform the system user about the reference incident in the LFC control area.

- 13.11 If the system user wants to use the facility to provide ancillary services, the facility must comply with the requirements for the delivery of ancillary services applicable at any time.
- 13.12 In Appendix 4, Energinet specifies the system user's selected services and products etc. for the facility (if relevant). In the event of changes to or a need for clarification of the system user's selected services and products etc., Energinet can update Appendix 4 – both before and after issue of an FON. Energinet's updates of appendices must be discussed in advance with the system user and must take the system user's reasonable conditions into consideration. Energinet's updates of appendices must comply with applicable legislation and regulation, including applicable requirements for the facility and Energinet cannot update appendices with content that conflicts with the rules, requirements, and procedures laid down in applicable legislation and regulation. Energinet must keep a record of revision history when updating appendices.

#### 14. Point of connection and boundaries

- 14.1 The point of connection for the facility is specified by Energinet in Article 2.4 of the agreement.
- 14.2 Ownership, operation, and maintenance boundaries are specified by Energinet in Article 2.5 of the agreement

#### 15. Grid connection process

- 15.1 Energisation and commissioning of new facilities must follow procedures set out in applicable legislation and regulation and specified below. In order for the facility to be fully commissioned, Energinet must have issued the following permits:
  - (a) EON (energisation operational notification)
  - (b) ION (interim operational notification)
  - (c) FON (final operational notification).
- 15.2 An EON is issued by Energinet when the system user has requested an EON, and Energinet assesses that the physical, security-related, and operational conditions, including the protective settings, are adequate, and the system user has given Energinet the contact information of an IT emergency preparedness coordinator and an emergency preparedness coordinator, and an interconnection agreement has been entered into between the parties' certified interconnection managers.
- 15.3 An EON gives the system user the right to energise the internal grid and auxiliary equipment in the facility via the point of connection. An EON does not give a system user the right to operate the facility or exchange electricity from the facility through the point of connection with the transmission system.

- 15.4 An ION is issued by Energinet when the system user has requested an ION, and Energinet has approved the required documentation provided by the system user. Energinet can require the following documentation in connection with the issue of an ION:
  - (a) a detailed declaration of conformity,
  - (b) detailed technical information about the facility relevant to the grid connection as determined by Energinet,
  - (c) product certificates for the facility issued by an approved certification body in cases where these form part of the basis for the conformity documentation,
  - (d) simulation models as specified and required by Energinet,
  - (e) studies documenting static state and dynamic performance, and
  - details of the planned practical conformity testing method.
- 15.5 The complete ION documentation must be satisfactory and received by Energinet no later than three months prior to the expected approval date. If documentation is insufficient or submitted too late, this may delay the commissioning of the facility.
- 15.6 An ION gives the system user the right to operate the facility via the point of connection for a limited period of time for the purpose of running tests and validating requirements. During the ION period, the facility is tested and validated; therefore, during this period, the facility is not guaranteed regular supply of energy to the transmission system or absorption of energy from the transmission system, which means that any redistribution of load during the ION period is done without compensation.
- 15.7 Energinet will specify a reasonable period of validity of the ION, however, not exceeding 24 months in total (cf. Article 15.8) on the basis of the facility type, complexity, and other specific circumstances.
- 15.8 The system user may apply for an extension of the ION at least one month before this expires. An ION extension exceeding 24 months for facilities subject to the requirements of the NC RfG, NC DC, or NC HVDC requires an exemption from the Danish Utility Regulator. If the ION period expires without Energinet having issued an FON for the facility, the system user no longer has the right to operate the facility via the point of connection. The system user's request for an ION extension must as a minimum contain:

- (a) specification of unresolved incompatibilities,
- (b) a time schedule for testing the facility and resolving incompatibilities, and
- (c) an explanation of the need for extension.
- 15.9 An FON is issued by Energinet when Energinet has approved the necessary documentation, and it has been documented that any nonconformity found during the ION period has been resolved. Energinet can require the following documentation from the system user to issue an FON:
  - (a) a declaration of conformity and
  - (b) an update of applicable technical information, simulation models and studies using actual values measured during testing.
- 15.10 An FON gives the system user the right to operate the facility via the point of connection.

#### 16. Short-circuit level

- 16.1 In Appendix 1.1, Energinet specifies the expected maximum and minimum short-circuit levels in the point of connection for the system user. Energinet publishes the short-circuit catalogue, which shows the continuous expected development in short-circuit levels, at Energinet's website. The short-circuit levels stated are indicative and may be updated due to changes in the electricity supply system.
- 16.2 It is the system user's responsibility to ensure that the facility is designed and dimensioned to allow the facility to handle the short-circuit levels applicable at any time. This also applies if the actual short-circuit levels exceed the expected short-circuit levels in Appendix 1.1.

#### 17. Power quality requirements

17.1 In Appendix 1.2, Energinet specifies power quality requirements.

### 18. Operation and handling of system disturbances

- 18.1 The facility must be connected and operated in a way that does not cause disruptions to or inconvenience for the transmission system. Energinet must inform the system user if this is the case.
- 18.2 The parties must organise the operation of facilities and handle system disturbances in consideration of and with the following priority:

- (a) personal safety
- (b) facility safety, and
- (c) security of supply.
- 18.3 In the interconnection agreement, the parties' interconnection managers may agree on the specific arrangements for handling personal safety and facility safety.
- 18.4 In order to maintain a high level of security of supply, power quality, and accessibility, the system user must organise operations as follows:
  - (a) the system user coordinates protection systems, equipment, and settings with Energinet, so that the facility is dimensioned for and equipped with the necessary protective functions, and the facility is protected against damage due to faults and incidents in the facility and in the transmission system.
  - (b) the system user must notify Energinet of identified faults and defects that may lead to restrictions on the operation of the facility or incidents that may otherwise cause abnormal operating situations.
  - (c) the system user must cooperate with Energinet on the localisation, handling, and analysis of causes of system disturbances, faults, and contingency situations. At Energinet's request, the system user must exchange relevant information and data for the analysis and reporting of system disturbances.
  - (d) the system user eliminates causes of system disturbances, faults, and contingency situations in the facility as quickly as possible after discovery.
  - (e) the system user must notify Energinet of significant system disturbances in the facility immediately, but no later than 24 hours after the occurrence of the system disturbance and follow up with Energinet on the causes of the system disturbance.
  - (f) the system user aims to perform selective disconnection in the event of faults.
  - (g) the system user must avoid exposing Energinet's facilities to overload, including electrical, thermal, or mechanical overload of components or facilities.
  - (h) the system user does not perform switching that entails that the facility is used for distribution or transmission activities unless the system user is authorised to operate facilities for these activities or is exempt from these activities.
- 18.5 The exchange capacity only applies if the transmission system is intact and if public authorities and/or Energinet have not ordered and reduced the transfer capacity in the transmission system in emergency state situations or in situations with immediate threats to personal safety, facility safety, or the security of supply

- in accordance with applicable legislation and regulation of these situations, including the requirements of the electricity market regulation, SO GL, NC ER, the Danish Electricity Supply Act, regulations, and technical regulations.
- 18.6 In the event of critical operational situations in the electricity supply system, Energinet allocates the available capacity in the transmission system in accordance with applicable legislation and regulation, which means that in these situations, the system user's supply, or consumption of electricity to and from the transmission system may be restricted, adjusted, or disconnected.
- 18.7 The system user must organise planning of its own operations so that the system user participates in Energinet's outage planning, as described in the legislation and regulation concerning outage planning applicable at any time.
- 18.8 The parties are responsible for earthing their own facilities and installations in order to secure personal and facility safety. The parties coordinate earthing to the extent necessary.
- 18.9 In appendices 1.1-1.3, Energinet specify requirements for the facility's star point earthing.
- 18.10 Energinet specifies the scope of establishment of and settings of system protection in the facility in Appendix 1 3
- 18.11 When synchronising with the transmission system, the facility must use the following parameters:
  - (a) transmission system frequency
  - (b) transmission system voltage amplitude
  - (c) transmission system phase angle and phase sequence
  - (d) permissible tolerances for the above parameters.
- 18.12 If the facility is disconnected from the transmission system and the facility is operated by emergency generators or other forms of emergency supply, reconnection to the transmission system must be completed by synchronisation of the following parameters.
  - (a) the frequency of the facility's auxiliary supply must equal the frequency in the transmission system
  - (b) the voltage in the facility's auxiliary supply must equal the voltage in the transmission system
  - (c) the voltage in the facility's auxiliary supply is in phase with the voltage in the transmission system, and
  - (d) the phase sequence in the facility must equal the phase sequence in the transmission system.
- 18.13 If the system user wants to make modifications to own facilities which will impact Energinet's facilities, this

must be agreed with and approved by Energinet in advance. Modifications in bays must be performed in close collaboration between the parties' interconnection managers in compliance with the interconnection agreement.

#### 19. Limited operation of the facility

- 19.1 The system user must notify Energinet immediately and apply for an LON if faced with any of the following situations:
  - (a) the facility is being significantly modified or has temporarily lost properties, which affects its performance, or
  - (b) equipment failure leading to non-compliance with some relevant requirements.
- 19.2 Energinet can issue an LON to the facility, after which the FON applicable until then will lapse, and the LON gives the system user a maximum period of 12 months from the date of occurrence of the incident to comply with the requirements and terms of the grid connection agreement as well as current legislation and regulation. During the LON period, the facility is tested and validated; therefore, during this period, the facility is not guaranteed regular supply of energy to the transmission system nor absorption of energy from the transmission system, which means that any redistribution of load during the LON period is done without compensation. For facilities subject to NC RfG, NC DC, or NC HVDC requirements, an LON extension beyond 12 months requires an exemption issued by the Danish Utility Regulator.

#### 20. Information exchange

- 20.1 The system user must establish and maintain information exchange to and from the facility in accordance with the following:
  - (a) Depending on facility type, the facility must have established and maintain information exchange in accordance with applicable requirements in NC RfG, NC DC, NC HVDC, SO GL, NC ER, and applicable national implementing measures issued pursuant thereto as well as applicable regulations and technical regulations. Energinet provides guidance on establishment of information exchange to and from the facility
  - (b) the facility must have established hardwired signal exchange in accordance with Appendix 2.2
  - (c) If the system user wants to use the facility for the delivery of ancillary services, the facility must have established and is required to uphold information exchange in accordance with the requirements for

the delivery of ancillary services applicable at any time.

#### 21. Energy metering

- 21.1 Under the Danish Electricity Supply Act, the DSO in the point of connection area is responsible for energy metering for generation and demand facilities connected to the transmission system. The system user's payment for energy metering, settlement, monitoring, maintenance, etc. must be agreed between the DSO and the system user.
- 21.2 If energy meters or other metering equipment are placed at Energinet's substation, this must be done in collaboration with and, to the extent necessary, according to the instructions of Energinet.
- 21.3 The system user must pay the tariffs and/or costs applicable at any time of the metered data collector for energy metering etc. of the facility and costs related to metering of the facility, including, for example, costs in connection with the reestablishment of metering cores in the power transformer and voltage transformer.
- 21.4 The system user must pay for the use of the transmission system pursuant to applicable legislation and regulation in force, including Energinet's tariff methodologies.

### 22. Expansion plan and adjustment of unused capacity

- 22.1 In Annex 1.3, Energinet describes the system user's expected expansion of exchange capacity and facility capacity.
- 22.2 Energinet may require that the system user submit an expansion plan that shows the system user's expected expansion of facility capacity or exchange capacity. If Energinet request an expansion plan, the system user must submit an updated expansion plan to Energinet if significant changes to the expansion plan can be reasonably expected.
- 22.3 As capacity cannot be reserved in the transmission system, Energinet may adjust the exchange capacity and/or facility capacity stated in Articles 2.1 and 2.2 of the agreement, if the system user's actual and expected use of the transmission system does not match the exchange capacity and/or facility capacity described in Articles 2.1 and 2.2 of the agreement. Energinet must make a specific, objective, reasonable, non-discriminatory assessment of the circumstances and proportionality of the project, including the system user's expansion plans, reasonable prospect, and whether investments have been made relying on the capacity.

# 23. Interconnection agreement and cooperation agreement for operation and maintenance

- 23.1 Before an EON is issued, the parties' certified interconnection managers must have entered into an interconnection agreement. Energinet forward a draft during the establishment project.
- 23.2 To the extent relevant, the parties enter into a cooperation agreement for the operation and maintenance of land, fences, etc. and the costs thereof in the boundary between the parties. Energinet forward a draft during or after the establishment project.

#### 24. Access to facilities

- 24.1 The system user must grant access to Energinet's, or the meter operator's facilities and installations located on the system user's property.
- 24.2 Energinet must grant access to the system user's facilities and installations located on Energinet's property.
- 24.3 Access to own facilities and installations, cf. Articles 24.1 and 24.2, must observe this party's access and security procedures. To the extent possible, requests for access must be submitted and confirmed within a reasonable time. In case of potential danger to persons, facilities, or the security of supply, the party must grant access immediately.

#### 25. Costs of operation, maintenance, cooperation, and modifications

- 25.1 The parties must pay the costs of operation and maintenance of their own facilities, land, and the costs of collaboration between the parties.
- 25.2 The parties must pay the costs of their own facilities and internal grids, including costs of modifications resulting from necessary changes to the electricity supply system, unless otherwise stated in legislation, regulation, or any other agreement(s) applicable at any time. Thus, each party's costs follow the limits of ownership, operation, and maintenance as stated in the agreement's Article 2.4.
- 25.3 Costs not covered by the above principles must be agreed in writing between the parties in accordance with applicable legislation and regulation.

#### PART IV - OTHER LEGAL MATTERS

#### 26. Confidentiality

26.1 The grid connection agreement and the cooperation between the parties may contain documents and information which are subject to confidentiality, such as

- technically and commercially sensitive information. Confidential documents and information must be handled as such by the parties and must not be disclosed without the consent of the other party, cf. however Articles 26.2 to 26.4.
- 26.2 The duty of confidentiality under this Article 26 does not extend to information that:
  - (a) is publicly available at the time of disclosure, or
  - (b) a party has received this information from a third party in lawful possession of the information in question and legally entitled to disclose this information.
- 26.3 Regardless of Article 26.1, a party may disclose confidential information to a third party to the extent necessary to allow the third party to use this information to perform services for one of the parties in connection with the grid connection agreement. The party disclosing such confidential information must ensure that the third party receiving information is subject to a duty of confidentiality with at least the same scope as that covered by the grid connection agreement.
- 26.4 Notwithstanding the above, each party may disclose confidential information to the extent that the party is obliged to do so pursuant to current legislation and rules, including the public administration act, the environmental information act, and other legislation on access to documents from public authorities. Prior to such disclosure, the disclosing party must, to a reasonable extent wherever possible, notify the other party hereof

#### 27. Liability and limitation of liability

- 27.1 The parties are, subject to the limitations and specifications stated in the grid connection agreement, mutually liable in accordance with the general rules of Danish law.
- 27.2 The parties are not liable for operating losses, production losses, loss of profits, loss of data, or other indirect losses or indirect losses due to product liability.
- 27.3 The parties' liability for damages is limited to DKK 25,000,000 per case of damage or actionable event per year.
- 27.4 However, the limitation of liability stipulated above in Articles 27.3 and does not apply in case of personal injury or if the damage or actionable event is a result of the party having shown gross negligence or acted with intent.

#### 28. Insurance

28.1 The system user must take out and maintain the following insurance policies:

- (a) any compulsory insurance required under the legislation in force, such as industrial injury insurance, occupational disease insurance, motor vehicle insurance.
- (b) commercial and product liability insurance, including for unregistered work vehicles, covering any liability that may be incurred under the grid connection agreement or under applicable Danish law, of at least DKK 25,000,000 per actionable event and in aggregate per policy year.
- 28.2 Energinet may require that the system user present an insurance certificate and other relevant documentation that sufficiently proves the Party's compliance with the insurance requirements.
- 28.3 If the system user has not taken out or maintained insurance in accordance with Article 28.1, Energinet has the right to require that insurance is taken out in compliance with these provisions within 30 calendar days. If insurance is not in compliance within the time limit, this is considered a material breach of the grid connection agreement.

#### 29. Force majeure

- 29.1 Neither party is liable for any non-performance of its obligations if such non-performance is due to force majeure. Force majeure must be understood as circumstances,
  - (a) which are outside the control of the contractually bound party,
  - (b) which prevent the contractually bound party from complying with the grid connection agreement,
  - (c) which the contractually bound party could not reasonably have avoided, overcome, or remedied when the situation arose.
- 29.2 The conditions stated in this clause (non-exhaustive) must be regarded as force majeure provided that the conditions in Article 29.1 are met. Force majeure and force majeure situations mean, among other things, damage or loss resulting from consequences of earthquakes, cyclones, hurricanes or other natural disasters, war, warlike actions, violation of neutrality, civil war, riots, terrorism, civil unrest or measures to safeguard against this, strike, epidemics or pandemics, power line breaches as a result of extreme degrees of cold and/or storms and/or exceptionally high salt deposits, overvoltage due to lightning, explosion, crashes of aircrafts or parts thereof, submarine or boat collisions, hacker attacks or other computer manipulation as well as damage or loss directly or indirectly associated with core reactions (fission, fusion and other radioactive radiation), whether the damage or loss occurs in time of war or peace.

#### 30. Changes

- 30.1 The grid connection agreement may, with the modifications described in the grid connection agreement, including Articles 10.2, 13.8, 13.11, and 22.3, only be amended by prior written agreement between the parties or if required to comply with procedures in applicable legislation and regulation.
- 30.2 If the grid connection agreement is to be significantly amended, Energinet will prepare a new grid connection agreement based on Energinet's template applicable at any time, cf. Article 30.1.
- 30.3 Energinet will make the necessary amendments to the grid connection agreement and notify the system user at reasonable notice if one or more aspects governed by the grid connection agreement is contradictory to or conflicts with applicable mandatory legislation or regulation by public authorities or amendments to the grid connection agreement ordered by public authorities.
- 30.4 If the whole facility or parts of the facility are substantially modified, Energinet will use applicable legislation and regulation to assess whether the system user and Energinet must enter into a new grid connection agreement for the facility.

#### 31. Assignment

- 31.1 Except in the circumstances specified in Articles 31.2 and 31.3, the parties cannot assign their rights and obligations under the grid connection agreement to a third party without the written consent of the other party. Such approval must not be withheld or refused without reasonable and objective cause.
- 31.2 Subject to notification of the system user, Energinet may assign its rights and obligations under the grid connection agreement to any wholly-owned enterprise within the Energinet Group, as defined by corporate law, which performs Energinet's obligations as specified in the Danish Electricity Supply Act.
- 31.3 When all of the following conditions are met, the system user may assign its rights and obligations in their entirety under the grid connection agreement to any wholly-owned company within the system user's group, as defined by corporate law:

- (a) the system user has notified Energinet of the assignment within a reasonable time,
- (b) the establishment project has been completed,
- (c) full and final payment of the applicable connection payment has been received by Energinet,
- (d) the security has been released in full by Energinet,
- (e) The system user warrants in writing that the receiving enterprise complies with the requirements of Article 5 and that the necessary permissions and approvals have been maintained.

### 32. Commencement, termination, and cancellation

- 32.1 This grid connection agreement enters into force when both parties have signed the agreement.
- 32.2 During the establishment project, the system user may terminate the grid connection agreement with 3 (three) months' written notice to Energinet, against compensation of all of Energinet's actual costs incurred or costs assumed in expectation of the performance of the grid connection agreement, including Energinet's losses due to costs of restoring the transmission system to a state which, in the opinion of Energinet as transmission system operator, would be most appropriate without the system user's connection of the facility. Energinet must to the best of their ability limit the system user's costs as a result of such termination. Energinet may, if Energinet deems it necessary in the specific project, use the security provided in Appendix 2.5 to cover Energinet's costs in connection with the termination.
- 32.3 After the facility's FON has been issued, the system user may terminate the grid connection agreement with one month's written notice to Energinet, .
- 32.4 Energinet may terminate the grid connection agreement with 14 calendar days' written notice to the system user in the following instances:
  - (a) If the system user has materially breached the grid connection agreement, including the stipulations in Articles 7.7 and 28.3, or if the system user fails to fulfil its obligations under Article 5,
  - (b) If the system user significantly changes the prerequisites for the establishment project, including location, capacity, or division of the desired facility, to an extent that Energinet assesses that the change means that the grid connection project

- must be started over and the system user has been given reasonable notice of this,
- (c) if the system user is declared bankrupt, is placed in reconstruction, has entered a voluntary arrangement with creditors, has gone into insolvency or liquidation, or the system user is in a financial situation which provides reasonable grounds to expect that the system user will not be able to comply with the grid connection agreement in the future.
- 32.5 In the event of termination or cancellation under Article 32, the parties must, within 10 calendar days after receipt of notice, meet and thoroughly review all project tasks and activities, assess the financial consequences of the termination or cancellation, and the performance of any practical aspects of the termination or cancellation.
- 32.6 Energinet's potential claim for payment from the system user remains in force after termination or cancellation of the grid connection agreement.
- 32.7 Termination or cancellation of the grid connection agreement does not affect the system user's fundamental right to be connected to the public electricity supply system but means that the system user may be subject to new conditions or terms in a subsequent grid connection project.

#### 33. Applicable law

33.1 The grid connection agreement in its entirety is governed by Danish law.

#### 34. Dispute resolution

- 34.1 The parties are obliged to seek to resolve disputes constructively and loyally through dialogue and negotiations without undue delay following the occurrence of the dispute.
- 34.2 Disputes that fall within the remit of the Danish Utility Regulator, the Energy Board of Appeal, or other relevant complaints authorities will be settled by the relevant complaints authority.
- 34.3 Disputes which cannot be settled through negotiation within a reasonable time, and which fall outside the remit of the relevant complaints authorities, will be settled by the Danish courts unless otherwise agreed between the parties at the time of occurrence of the dispute.