The text is to be regarded as an unofficial translation based on Executive Order no. 648 of 30 May 2023. Only the Danish document has legal validity.

UNOFFICIEL TRANSLATION

Order on technical certification and servicing of wind turbines etc.[1)]

Pursuant to Section 33, Section 58 b(1), Section 60 and Section 73(1) of the Act on the promotion of renewable energy, cf. Consolidated Act No 1791 of 2 September 2021, the following shall be determined by authorisation pursuant to Section 4(1) of Order No 1366 of 28 September 2022 on the tasks and powers of the Danish Energy Agency:

Chapter 1

Purpose

Section 1. The purpose of the Order is to ensure that wind turbines that are constructed on land, in territorial water and in the exclusive economic zone and which are used for the production of electrical energy do not carry a risk to the safety and health of persons and domestic animals or the security of property when wind turbines are installed, maintained or used, and that they comply with the requirements laid down for noise emission.

Scope

Section 2. The Order covers wind turbines used for electrical energy production with a view to automatic operation, including the utilised tower, foundation, internal electro-technical systems and transformer up to and including wind turbines' connecting terminals to the electrical grid, including components to run cables from wind turbines.

(2) The Order does not cover the grid in a wind turbine park, the transformer station of the park or the park control system.

(3) The Order does not apply to wind turbines erected on ships.

Section 3. The Order does not affect the provisions following from other legislation relating to wind turbines.

Definitions

Section 4. The following definitions apply for the purposes of this Order:

1) Prototype wind turbine: The first non-series wind turbine(s) of a new type.

2) GSRN number: The unique 18-digit identification number for the wind turbine in the core data register for installations producing electricity etc. of the Danish Energy Agency.

3) Prototype certificate: A three-part statement declaring that a specific wind turbine has been designed and dimensioned in compliance with specified standards and regulations for the conduct of a prototype test at a particular geographical location.
4) Type certificate: A three-part statement declaring that a wind turbine type complies with specified standards and regulations.
5) Project certificate: A three-part statement or statement from an approved wind turbine manufacturer declaring that one or more type-certified wind turbines together with the foundation and tower used are dimensioned for the specific external conditions at a specific geographical location in accordance with specified standards.
6) Test plan: A description of the purpose of establishing the prototype and a description of the tests to be carried out with the period of validity of the certificate.
7) Structural safety: The level of safety for which a wind turbine is designed and dimensioned to withstand the loads to which it is expected to be exposed during its design lifetime.
8) Noise: Acoustic noise emission in accordance with the regulations in the Order on noise from wind turbines.
9) Activation time: The point in time of connection to the grid, cf. Section 5(1)(4) in the Act on the promotion of renewable energy, or for wind turbines that are not connected to the collective electricity supply grid, the point in time when the wind turbine is set into automated operation.

Section 5. Use of a wind turbine is conditional upon the wind turbine owner at the activation time being able to demonstrate compliance with the requirements of Section 6–16 for the erected turbine.

Chapter 2

Type certification and provisional type certification of wind turbines

Section 6. A wind turbine with a rotor area exceeding 5 m^2 shall have a valid type certificate no later than the activation time, except as provided for in Sections 7–11 and Sections 15 and 16.

(2) The type-certification of a wind turbine with a rotor area exceeding 5 m^2 and up to and including 200 m^2 shall include at least requirements equivalent to the type certification requirements laid down in the international procedure IECRE OD-554-1:2021 Type Certification Scheme for small wind turbines (Edition 1.0), including the DS/EN, IEC and ISO standards specified therein, to the extent that they relate to safety and health, cf. Annex 1.

(3) The type-certification of a wind turbine with a rotor area exceeding 200 m^2 shall include at least requirements equivalent to the mandatory modules and type certification requirements laid down in the international procedure IECRE OD-501:2022 Type and Component Certification Scheme (Edition 3.0), including the ISO and IEC standards specified therein, to the extent that they relate to safety and health, cf. Annex 1.

(4) Type certification of a wind turbine, cf. paragraph 1, shall further include a source noise measurement carried out in accordance with the Order on noise from wind turbines.

(5) A type certificate covering several different variants of the same type of wind turbine or several different wind turbine types shall contain a unique identification of each variant or wind turbine type that the certificate covers. The source noise measurement, cf. paragraph 4, for such a certificate shall, as a minimum, be representative of the noisiest variant or type of wind turbine covered by the certificate.

(6) A type certificate is issued to the manufacturer, importer or supplier of the wind turbine. When a wind turbine is sold, the purchaser shall be given a copy of the owner's certificate, except as provided for in paragraph 8.

(7) An application for type certification is sent in to the undertaking that is to certify the wind turbine, with the necessary documentation material attached.

(8) For wind turbines erected before 1 February 2013, the seller is not obliged to supply a copy of the certificate for the wind turbines as stated in paragraph 6 if the seller is not in possession of such a

certificate and it has not been possible for the seller to obtain a copy of the certificate from the manufacturer, importer or supplier.

Section 7. A provisional type certificate can be issued to a wind turbine before the certification under Section 6 is concluded, if there are no pending issues that are substantially important for safety.

(2) A provisional type certificate for wind turbines with a rotor area exceeding 5 m^2 and up to and including 200 m^2 shall include at least requirements equivalent to the requirements for provisional type certification laid down in the international procedure IECRE OD-554-1:2021 Type Certification Scheme for small wind turbines (Edition 1.0), including the DS/EN, IEC and ISO standards specified therein, to the extent that they relate to safety and health, cf. Annex 1.

(3) A provisional type certificate for wind turbines with a rotor area exceeding 200 m^2 shall include at least requirements equivalent to the mandatory modules and provisional type certification requirements laid down in the international procedure IECRE OD-501:2022 Type and Component Certification Scheme (Edition 3.0), including the IEC and ISO standards specified therein, to the extent that they relate to safety and health, cf. Annex 1.

(4) A provisional type certificate can be issued with a validity not exceeding 1 year at a time. No later than the first extension, a source noise measurement shall be carried out in accordance with the Order on noise from wind turbines, cf. Section 6(4). If the certificate is extended, the last period of expiry shall not exceed 3 years from the first date of issue of the provisional certificate.

Section 8. Wind turbines that comply with the conditions laid down in Nos 1-4 shall no later than the activation time have a valid certificate issued at least on the basis of the requirements and procedures set out in Annex 2.

1) Wind turbines with a rotor area exceeding 5 m^2 and up to and including 40 m^2,
2) designed and built by the owner,
3) manufactured only in this single copy and
4) installed on specifically limited areas.

(2) Wind turbines covered by paragraph 1 may not be transferred with a view to erection at a new location.

(3) Certification of a wind turbine, cf. paragraph 1, shall also include a source noise measurement carried out in accordance with the Order on noise from wind turbines.

Section 9. A provisional type certificate can be issued to a wind turbine before a certificate under Section 8(1) is issued, if there are no pending issues that are substantially important for safety.

(2) A provisional certificate may be issued for a maximum period of 1 year at a time. No later than the first extension, a source noise measurement shall be carried out in accordance with the Order on noise from wind turbines, cf. Section 8(3). If the certificate is extended, the last period of expiry shall not exceed 3 years from the first date of issue of the provisional certificate.

Section 10. A wind turbine with a rotor area of 5 m^2 or less shall not be certified.

(2) The Danish Energy Agency may exempt wind turbines with a rotor area of 40 m^2 or less if:

1) documentation is available showing that the wind turbine is used for education, research or testing,
2) the usage is on specifically limited areas selected for the purpose, to which there is no public access without special permission and
3) where special safety considerations have been taken in relation to the surroundings so that the wind turbine cannot be considered to pose a risk for the health and safety of persons and domestic animals.

Certification of prototype wind turbines

Section 11. A prototype wind turbine with a rotor area exceeding 5 m^2 shall have a valid prototype certificate no later than the activation time.

(2) A prototype certificate is issued for a fixed period not exceeding 3 years.

(3) The certification of a prototype wind turbine with a rotor area exceeding 5 m^2 and up to and including 200 m^2, cf. paragraph 1, shall include at least requirements equivalent to the prototype certification requirements laid down in the international procedure IECRE OD-554-1:2021 Type Certification Scheme for small wind turbines, including the DS/EN, ISO and IEC standards specified therein, insofar as they relate to safety and health, cf. Annex 1.

(4) The certification of a prototype wind turbine with a rotor area exceeding 200 m^2, cf. paragraph 1, shall include requirements equivalent to the mandatory modules and prototype certification requirements laid down in the international procedure IECRE OD-501:2022 Type and Component Certification Scheme (Edition 3.0), including the ISO and IEC standards specified therein, to the extent that they relate to safety and health, cf. Annex 1.

(5) Documentation must be available on source noise in accordance with the Order on noise from wind turbines.

(6) A prototype certificate is issued to the manufacturer, importer or supplier of the wind turbine.

(7) An application for prototype certification is sent in to the undertaking that is to certify the wind turbine, with the necessary documentation material attached.

(8) The certificate shall contain the GSRN number. If the GSRN number is not available at the time of issue, the certifying undertaking shall send it later together with another copy of the certificate, immediately after it becomes available.

(9) The prototype certificate can be extended for up to 1 year.

Project certification and provisional project certification of wind turbines

Section 12. Wind turbines with a rotor area exceeding 200 m^2 shall in addition to type specification or certification of the specific wind turbine, cf. Section 6 and 7 and Section 15 and 16, also be project-certified upon erection.

(2) The owner is responsible for a valid project certificate being available no later than 3 months after all wind turbines included in the project certification have been put into operation.

(3) A project certification, cf. paragraph 1, shall include at least requirements equivalent to the mandatory modules and requirements for project certification laid down in the international procedure IECRE OD-502:2018 Project Certification Scheme (Edition 1.0), including the ISO and IEC standards specified therein, to the extent that they relate to safety and health, cf. Annex 1.

(4) If the project certificate includes several wind turbines, the project certificate shall show a unique link between the wind turbine type or variant and the GSRN number for each individual wind turbine.

(5) A project certificate is issued to the owner or owners of the wind turbine or wind turbine project.

(6) An application for project certification is sent in to the undertaking that is to certify the wind turbine project, with the necessary documentation material attached.

(7) Wind turbines listed on a project certificate are exempt from the requirement for project certification.

(8) Wind turbines that are moved to be erected at a new location are exempt from the requirement for project certification. The requirement for a supplementary certificate for relocation, cf. Section 15(1)(3), continues to apply.

Section 13. A provisional project certificate can be issued to wind turbines before the certification under Section 12(1–3) is concluded, if there are no pending issues that are substantially important for safety.

(2) A provisional project certificate for wind turbines shall include at least requirements equivalent to the mandatory modules and requirements for provisional project certification laid down in the

international procedure IECRE OD-502:2018 Project Certification Scheme (Edition 1.0), including the ISO and IEC standards specified therein, to the extent that they relate to safety and health, cf. Annex 1.

(3) A provisional project certificate may be issued for a maximum period of 1 year at a time. If the certificate is extended, the last period of expiry shall not exceed 3 years from the first date of issue of the provisional certificate.

Expired time-limited certificate

Section 14. A wind turbine that has been erected on the basis of the following time-limited certificates may only be erected during the period of the certificate's validity:

1) Provisional type certificate, cf. Section 7.
2) Provisional certificate issued in accordance with Section 9.
3) Prototype certificate, cf. Section 11.
4) Provisional project certificate, cf. Section 13.
5) Supplementary certificate for tests and demonstration, cf. Section 15(1)(2).
6) Provisional supplementary certificate, cf. Section 16.

(2) The obligation to ensure that the wind turbine is only erected during the period of validity of the time-limited certificate, cf. paragraph 1, is the responsibility of the owner of the wind turbine.

(3) However, the wind turbine may remain erected if a new or renewed certificate has been issued before the expiry of the time-limited certificate.

Supplementary certification and provisional supplementary certification for modification, modification for tests and demonstration, relocation or continued use after the expiry of a time-limited certificate

Section 15. A wind turbine with a rotor area exceeding 5 m^2 shall have a supplementary certificate if one or more of the following conditions occur:

1) The wind turbine is reconstructed, cf. paragraph 2.
2) The wind turbine is reconstructed for tests and demonstration, cf. paragraph 2.
3) The wind turbine is moved.
4) The wind turbine is to be used after the expiry of a supplementary certificate for tests and demonstration or after the expiry of a prototype certificate.
5) The wind turbine is to be used after the expiry of a provisional type certificate in the event that no type certificate for the wind turbine type in question is issued, cf. Section 6, or the wind turbine is not reconstructed, so it corresponds to a wind turbine with a valid type certificate.

(2) Modification, cf. paragraph 1, Nos 1 and 2, is understood to mean changes in relation to the original type certification or type approval, including changes or replacements, where the wind turbine is not brought back to its original design and which are significant for the safety of the wind turbine.

(3) In the case of modifications where there is no certificate in accordance with paragraph 1 available, the owner of the wind turbine must be able to document that the modification is not one of those covered by paragraph 2.

(4) The owner of the wind turbine is responsible for the availability of a valid supplementary certificate and provisional supplementary certificate when the operation of the wind turbine resumes or is continued.

(5) The supplementary certification, cf. paragraph 1, including the preparation of the certification report and certificate, is carried out in accordance with requirements and procedures in Annex 3. If several of the conditions listed in paragraph 1, Nos 1–5, apply, a joint certificate can be issued for all the conditions. Certification, the certification report and the certificate shall meet all the requirements in paragraph 3 for the conditions that are being certified.

(6) If it is assessed that a relationship in accordance with paragraph 1 results in changes to the wind turbine's source noise, the source noise measurement shall be carried out in accordance with the Order on noise from wind turbines.

(7) Supplementary certificates, cf. paragraph 1, are issued to the owner of the wind turbines, except as provided for in paragraph 8.

(8) A supplementary certificate for a modification of a wind turbine type can be issued to a manufacturer, importer or supplier in accordance with Annex 3, Section 2. If a modification of a wind turbine covered by a supplementary certificate is sold, the purchaser shall be given a copy of the owner's supplementary certificate for modification of the wind turbine type.

(9) The following supplementary certificates are issued with the following periods of validity:

1) A supplementary certificate for modification for tests and demonstration, cf. paragraph 1, No 2, is issued with a validity up to a maximum of 3 years. The certificate can be extended for up to 1 year.

2) A supplementary certificate for a modification of a wind turbine type, cf. paragraph 8, is issued with a period of validity of 5 years, with the possibility of extension.

(10) An application for supplementary certification, cf. paragraphs 1 and 8, is sent to the undertaking that is to certify the wind turbine or wind turbine type, accompanied by necessary documentation materials, except as provided for in paragraph 11.

(11) For wind turbines reconstructed for tests and demonstration, cf. paragraph 1, No 2, there shall in addition to the documentation specified in No 10 be a test plan available for the period for which the certificate is issued.

(12) If the supplementary certificate is issued for a wind turbine, cf. paragraphs 1 and 8, which is covered by a project certificate, the project certificate shall be updated on the basis of the information in the supplementary certificate.

Section 16. A provisional supplementary certificate can be issued to a wind turbine before the certification under Annex 3 is concluded, if there are no pending issues that are substantially important for safety, except as provided for in paragraph 2.

(2) Paragraph 1 does not apply to certificates issued under Section 15(8).

(3) A provisional supplementary certificate may be issued for a maximum period of 1 year at a time. No later than the first extension, a source noise measurement shall be carried out in accordance with the Order on noise from wind turbines, cf. Section 15(6). If the certificate is extended, the last period of expiry shall not exceed 3 years from the first date of issue.

Chapter 3

Obligation of the owner for servicing of the wind turbine

Section 17. The owner of a wind turbine has an obligation to ensure that the wind turbine is always serviced, repaired and maintained, so that the wind turbine does not pose a risk to the health and safety of persons and domestic animals and the security of property.

(2) The owner of a wind turbine has an obligation to ensure that the wind turbine is serviced in accordance with the requirements of the service manual, as long as the wind turbine is connected to the grid, and for wind turbines that are not connected to the collective electricity supply grid, as long as the wind turbine is in automated operation. Servicing of the wind turbine shall be carried out on the basis of specifications laid down for ongoing service of the wind turbine in accordance with issued certificates or the latest version of the service manuals of the wind turbine supplier, as well as any updates to the service manual that are significant for the safety of the wind turbine, except as provided for in paragraphs 3–5.

(3) The date of the next service visit shall be in accordance with the requirements of the service manual, except as provided for in paragraphs 4 and 5.

(4) The date of the next service visit can be a maximum of 1 year after the date of the last service visit for those wind turbines where there are no fixed time intervals in the service manual or which are not equipped with technical solutions that clearly indicate when the next service visit is to be carried out.

(5) A wind turbine that has been erected longer than the design lifetime stated in the certificate issued in accordance with this or earlier Orders, shall in addition go through an extended service inspection, cf. Annex 4. For wind turbines where no design lifetime is specified, the requirement for extended service inspection occurs when the wind turbine has been installed for more than 20 years.

(6) Wind turbines subject to the requirement to operate with special noise reduction measures under the Order on noise from wind turbines shall have read the noise level of the wind turbine at each service. The noise level shall be noted in the report from the service, cf. section 21, except as provided for in paragraph 7.

(7) If the equipment of a wind turbine does not facilitate reading by the service undertaking, the owner of the wind turbine shall be able to document the current noise level of the wind turbine in connection with the inspection by the competent authority.

Section 18. An owner taking a wind turbine out of service shall ensure that:

1) the wind turbine is properly secured,

2) service of the wind turbine is carried out at least once a year, unless a shorter time interval is specified in the service manual for a wind turbine that is taken out of service, and

3) a function and safety test is carried out before the wind turbine is put back into operation, if the wind turbine has been out of operation for a longer period.

(2) Service under paragraph 1, No 2, shall at least fulfil the requirements in Annex 4, unless otherwise stated in the service manual.

Section 19. Service, cf. Sections 17 and 18, of wind turbines with a rotor area exceeding 40 m^2 shall be carried out by a certified or approved company, cf. Section 25, except as provided for in Section 20.

(2) Other maintenance, repairs or improvements and the like on wind turbines with a rotor area exceeding 40 m^2 shall, without prejudice to paragraph 3, be carried out by:

1) an undertaking that is either certified or approved to perform service of that type of wind turbine, or

2) an undertaking that is certified to stop, secure, start and function and safety test wind turbines of the type in question.

(3) Other undertakings can carry out other maintenance, repairs or improvements and the like if an undertaking fulfilling the conditions in paragraph 2, No 1 or No 2, carries out stopping, securing, starting and function and safety testing of the wind turbine in question during the work.

Section 20. Wind turbine owners, persons and undertakings that have approval to carry out service under Section 9(3) and (4) in Order No 73 of 25 January 2013 on the technical certification scheme for wind turbines etc. can continue to service the wind turbines covered by their licence for the period of validity of the approval.

(2) Owners, persons and undertakings with approval under paragraph 1 shall apply for renewal of the approval before the expiry of the validity period of the current approval. An extension of the approval can be given with a duration of 3 years. The Danish Energy Agency may, in connection with the renewal, request that the owner, person or undertaking continues to document:

1) relevant education and sufficient knowledge of service for the wind turbine in question,

2) that the wind turbine has been serviced during the previous approval period in accordance with the service manual of the wind turbine and the requirements of this Order and

3) a confirmation from the owner of the wind turbine in question, if a person or undertaking is applying for renewal of approval to service a wind turbine that they do not own themselves.

(3) Approvals to owners under paragraph 2 are annulled if the wind turbine is disposed of.

(4) Applications under paragraph 2 shall be submitted on an application form available on the Danish Energy Agency's website www.ens.dk and sent by electronic mail to the Danish Energy Agency. The Danish Energy Agency may request the applicant to submit additional information and documentation within a specified time limit.

Section 21. During each service, cf. Sections 17 and 18, on wind turbines with a rotor area exceeding 40 m^2, a report shall be prepared to be sent to the owner of the wind turbine immediately after the service has been carried out.

(2) The undertaking carrying out the service shall retain the reports for 5 years.

(3) The owner of the wind turbine shall retain the reports received for 10 years.

(4) Service carried out on a wind turbine with a rotor area exceeding 40 m^2 and the date of the next service of the wind turbine shall be reported digitally to the Danish Energy Agency on behalf of the owner of the wind turbine immediately after the completion of the service by the undertaking that carried out the service, except as provided for under paragraph 5. For owners or persons with approval to perform service in accordance with Section 20, the reporting of service must be made either digitally or by means of a form made available on the Danish Energy Agency's website. The report shall fulfil the requirements stated in Annex 5.

(5) For wind turbines equipped with technical solutions which unambiguously indicate when the next service visit shall be carried out, the service undertaking shall at least once a year report having carried out the indications from the technical solution on a need for service and any service date visit.

(6) Other maintenance, repair and improvements and the like need not be reported, except as provided for under Section 15(1)(1) and (2), and Section 24.

(7) The service shall be reported to the Danish Energy Agency, as long as the wind turbine has not been deregistered in the core data register of the Danish Energy Agency in accordance with the Order on the core data register for installations producing electricity etc.

Section 22. The owner of a wind turbine with a rotor area of 40 m^2 or less shall keep a logbook of service performed on the wind turbine. The owner of the wind turbine shall retain the logbook as long as the wind turbine is connected to the grid, and for wind turbines that are not connected to the collective electricity supply grid, as long as the wind turbine is in automated operation.

Service manuals

Section 23. The manufacturer, importer or supplier of the wind turbine shall provide the necessary service manuals to the wind turbine owner upon delivery of the wind turbine.

(2) The manufacturer, importer or supplier of the wind turbine shall send updates to the service manual that are significant for the safety of the wind turbine to the wind turbine owner. The updates shall be sent at the latest 4 weeks after the update has occurred and shall be sent without a request for payment. In the cases where the manufacturer, importer or supplier are not in possession of contact information of the owners of the wind turbine type in question, the manufacturer, importer or supplier of the wind turbine shall announce in public how the owners of the wind turbines can collect the updates.

(3) If the modification of a wind turbine is sold, cf. Section 15(8), the purchaser shall be given the necessary updates of or supplement to the service manual relating to safety by the manufacturer, importer or supplier of the modification.

(4) The wind turbine owner is responsible for the specific wind turbine's service document being updated on the basis of the experience made during operation of the wind turbine.

(5) The undertakings that carry out service of the individual wind turbine, cf. Sections 25 and 26, shall assist the owner with updating and maintenance of the wind turbine's service documentation on the basis of the undertaking's experience with both the specific wind turbine as well as experience with the wind turbine type.

Chapter 4

Reporting of damage to the Danish Energy Agency

Section 24. In the event of an accident or damage to wind turbines which has posed a risk to the health and safety of persons and domestic animals and the security of property, or where continued operation without repair of the damage will be a risk for the health and safety of persons and domestic animals and the security of property, the owner of the wind turbine has an obligation to send information on this without undue delay to the Danish Energy Agency, cf. Annex 6, including information on the suspected cause of the damage. If the cause of the damage or accident is finally determined, including by an accident or damage report, the owner shall send information on this to the Danish Energy Agency where it is available, if the owner has access to it.

(2) The wind turbine owner is obliged, before the wind turbine is put back into operation, to repair the faults of the wind turbine that caused the damage and any consequential damage as well as carry out a function and safety test of the wind turbine.

(3) Repair and testing of functionality and safety for wind turbines with a rotor area exceeding 40 m^2 in case of damage shall be carried out by an undertaking that is certified or approved to work with the specific type of wind turbine, cf. Sections 25 and 26, or jointly with such an undertaking.

(4) The owner of the wind turbine shall inform the Danish Energy Agency that repair and testing of functionality and safety have been carried out. The notification must be made before the wind turbine is put back into operation. The owner of the wind turbine agree with the undertaking that has carried out the repair and the testing of functionality and safety, cf. paragraph 3, that this undertaking shall carry out this notification.

(5) The owner of the wind turbine shall on request provide the Danish Energy Agency with additional information on the accident or damage.

(6) If the Danish Energy Agency, on the basis of the information, suspects that a serial fault may be involved which may be due to original faults in construction or other manufacturing faults, the Danish Energy Agency will inform the Danish Safety Technology Authority.

Chapter 5

Requirements for undertakings that service, maintain, repair or carry out improvements and the like on wind turbines

Section 25. Undertakings servicing wind turbines with a rotor area exceeding 40 m^2 must be certified undertakings in accordance with Section 28 or approved by the Danish Energy Agency in accordance with Section 26. The undertakings may only perform service of the types of wind turbines covered by the undertaking's certification or approval.

(2) Undertakings that carry out other maintenance, repairs or improvements and similar on wind turbines with a rotor area exceeding 40 m^2 shall, except as provided for in paragraph 3:

1) be certified or licensed to carry out service on the type of wind turbine concerned, or
2) be certified as a minimum to stop, secure, start and function and safety test the type of wind turbine concerned, or
3) be approved by the Danish Energy Agency to at least stop, secure, start and function and safety test stall-regulated wind turbines with a rated power up to and including 600 kW.

(3) Other undertakings can carry out other maintenance, repairs or improvements and the like if an undertaking fulfilling the conditions in paragraph 2, No 1 or No 2, carries out stopping, securing, starting and function and safety testing of the wind turbine in question during the work.

(4) It must be stated by the certificate for an undertaking that is certified to carry out service or to stop, secure, start and function and safety test that this Order is included in the certification of the undertaking.

(5) All undertakings that have been approved or certified to carry out service and undertakings certified to stop, secure, start and function and safety test under this Order shall be registered with the Danish Energy Agency.

(6) The Danish Energy Agency publishes a list on the home page of the Danish Energy Agency of undertakings that have a valid approval or a valid certificate to carry out service or to stop, secure, start and function and safety test. It shall be stated in the list which types of wind turbine are included in the approval or certification of the undertaking.

(7) If the Danish Energy Agency has not received a copy of the renewal of a certification or an application for renewal of approval, cf. Section 26(3), before the certification or approval that was issued has expired, the Danish Energy Agency will remove the undertaking from the Danish Energy Agency list under paragraph 5, and the undertaking cannot report service until a renewed certificate has been received or a renewed approval has been given.

Section 26. The Danish Energy Agency may authorise undertakings to service stall-regulated wind turbines with a rated power up to and including 600 kW.

(2) An approval under paragraph 1 can be issued with a maximum validity of 3 years.

(3) An application for approval shall contain the documentation specified in Annex 7, Section 1, on approval. An application for renewal shall contain the documentation specified in Annex 7, Section 2, on renewal of approval.

Chapter 6

Requirements for undertakings that certify service undertakings

Section 27. Undertakings certifying service undertakings or certifying undertakings that are permitted to stop, secure, start and function and safety test wind turbines in accordance with this Order shall be

1) accredited by The Danish Accreditation Fund (DANAK) to certify service undertakings or
2) accredited by a correspondingly recognised accreditation body which has signed the multilateral agreement of the European Co-operation for Accreditation (EA) on mutual recognition to certify service undertakings.

(2) It shall appear on the accreditation documentation for undertakings that are accredited to certify service undertakings that this Order is covered by the accreditation.

(3) All undertakings that carry out certification of service undertakings shall be registered with the Danish Energy Agency. Accredited undertakings shall attach valid documentation for accreditation during registration.

(4) The Danish Energy Agency publishes a list on the home page of the Danish Energy Agency of undertakings that are accredited to certify service undertakings.

(5) Undertakings accredited to certify service undertakings shall inform the Danish Energy Agency in the event of changes to the accreditation of the undertaking that are significant for the ability of the undertaking to certify service undertakings under this Order.

Section 28. Certification of an undertaking that services wind turbines with a rotor area exceeding 40 m^2 or of an undertaking that is permitted to stop, secure, start and function and safety test wind turbines with a rotor area exceeding 40 m^2 shall be carried out in accordance with the requirements in Annex 8.

(2) A certificate issued in accordance with paragraph 1 shall include references to checks and assessments carried out by the undertaking, cf. Annex 8, as well as the name of the person issuing the certificate and the period of validity. The certificate shall be signed or, alternatively, electronically verified.

(3) The certificate with the related list of wind turbines shall be sent to the Danish Energy Agency by the undertaking that has issued the certificate. Updates of the certificate and related list of wind turbines shall also be sent to the Danish Energy Agency.

(4) The issuer shall retain documentation for the issued certificate for the entire period of validity of the certificate, as stated in the certificate.

Section 29. A certificate issued to an undertaking servicing wind turbines or to an undertaking that may stop, secure, start and function and safety test wind turbines in accordance with this Order must be revoked by the undertaking that issued the certificate if the undertaking that issued the certificate finds that the undertaking for which the certificate is issued no longer has the prerequisites to be able to service wind turbines or stop, secure, start and function and safety test wind turbines which ensure a safe operation of the wind turbines.

(2) The assessment under paragraph 1 shall include:

1) serious faults in the servicing of the wind turbine or

2) serious faults in stopping, securing, starting as well as function and safety testing.

(3) The issuing undertaking shall inform the Danish Energy Agency that the certificate has been recalled.

Chapter 7

Requirements for undertakings that certify wind turbines or wind turbine projects

Section 30. Undertakings that certify wind turbines or wind turbine projects in accordance with this Order shall be:

1) accredited by The Danish Accreditation Fund (DANAK) to certify wind turbines and wind turbine projects,

2) accredited by a correspondingly recognised accreditation body which has signed the multilateral agreement of the European Co-operation for Accreditation (EA) on mutual recognition to certify wind turbines and wind turbine projects, or

3) approved by the Danish Energy Agency in accordance with Section 31 to carry out the certifications listed in Section 31(1) and (2).

(2) It shall appear on the accreditation documentation for undertakings that are accredited to certify wind turbines and wind turbine projects covered by paragraph 1, Nos 1 and 2, that this Order is covered by the accreditation.

(3) All undertakings that carry out certification of wind turbines and wind turbine projects shall be registered with the Danish Energy Agency. Accredited undertakings shall attach valid documentation for accreditation during registration.

(4) The Danish Energy Agency publishes a list on the home page of the Danish Energy Agency of undertakings that are accredited or have a valid approval to certify wind turbines.

(5) Undertakings accredited to certify wind turbines and wind turbine projects shall inform the Danish Energy Agency in the event of changes to the accreditation of the undertaking that are significant for the ability of the undertaking to certify wind turbines and wind turbine projects under this Order.

Section 31. The Danish Energy Agency can approve undertakings to carry out the following certifications:

1) Certification of wind turbines with a rotor area exceeding 5 m^2 and up to and including 200 m^2 in accordance with Section 6(2), Section 7(2), Sections 8 and 9 and Section 11(3).

2) Project certification in accordance with Sections 12 and 13 of wind turbines on land with a rotor area exceeding 200 m^2.

3) Supplementary certification in accordance with Sections 15 and 16.

(2) The Danish Energy Agency can also approve the manufacturers of wind turbines to carry out project certification of the manufacturer's own wind turbines on land with a rotor area exceeding 200 m^2, cf. paragraph 1, No 2. The approval can only be given to certification of projects where the preconditions for the project are within the specifications of the underlying type certificate.

(3) An approval in accordance with paragraphs 1 and 2 may be issued with a validity for a maximum of 3 years.

(4) An application shall contain the documentation of knowledge of certification of wind turbines laid down in Annex 9. An application for renewal shall contain documentation that the undertaking continues to meet the requirements in Annex 9.

Section 32. A certificate issued to a wind turbine or a wind turbine project in accordance with this Order, cf. Sections 6–9 and Sections 11–13 and Sections 15 and 16, shall contain references to assessments and tests of the wind turbines carried out as well as the name of the issuer, the date of issue and the period of validity, if this is available. The certificate shall be signed or, alternatively, electronically verified. The certificate shall state that the wind turbine or wind turbine project is certified in accordance with this Order.

(2) The certificate shall be sent to the Danish Energy Agency by the undertaking that has issued the certificate. Updates of the certificate shall also be sent to the Danish Energy Agency.

(3) The issuer shall retain documentation for the issued certificate for the design lifetime of the wind turbine, as stated in the certificate.

Section 33. A certificate issued to a wind turbine or a wind turbine project in accordance with this Order shall be recalled by the undertaking that has issued the certificate if the undertaking finds:

1) serious faults in the erected wind turbine or the wind turbine project, or

2) significant deviations from the prerequisites for certification.

(2) The issuing undertaking shall inform the Danish Energy Agency without unnecessary delay that the certificate has been recalled.

Section 34. The Danish Energy Agency publishes a list on the Danish Energy Agency's website of issued and unexpired certificates for wind turbines and wind turbine projects.

Chapter 8

Inspections and administrative provisions

Section 35. The international standards and procedures referred to in Sections 6 and 7, Sections 11–13 and Annexes 1, 8 and 9 are not published in the Official Journal, but the international standards in question will be accessible for inspection from the Danish Energy Agency.[2)]

Section 36. The costs for certification of a wind turbine, a service undertaking or an undertaking permitted to stop, secure, start and function and safety test wind turbines in accordance with this Order shall be covered by the applicant.

(2) The costs for accreditation of undertakings to certify wind turbines, service undertakings and undertakings permitted to stop, secure, start and function and safety test wind turbines in accordance with this Order shall also be covered by the applicant.

Section 37. The Danish Energy Agency can, in connection with the processing of an application for approval under Section 20, Section 26 and Section 31, request supplementary information from the applicant.

(2) The Danish Energy Agency may set a deadline for the provision of the information and notify that the application will be considered to have lapsed if the information is not received before the deadline expires.

(3) Approval under Section 20, Section 26 and Section 31 can be notified on conditions that are specified in detail, including that the approval lapses if the conditions laid down are not met.

Section 38. The Danish Energy Agency can suspend or recall an approval issued pursuant to Section 20, Section 26 and Section 31 in cases where the recipient of approval has been found guilty in gross or repeated infringement of the regulations in this Order or the conditions in the approval.

(2) An owner, person or undertaking whose approval has been suspended or recalled under paragraph 1 may request the Danish Energy Agency to reassess the case.

(3) If the new consideration of the case under paragraph 2 does not lead to the complainant being held fully justified, the case can be taken to the Energy Appeals Board, cf. Section 42.

Section 39. Oversight and monitoring of compliance with the regulations of the Order is conducted by the Danish Energy Agency.

(2) The Danish Energy Agency can request information for the use of oversight and monitoring of compliance with the provisions of the Order by wind turbine owners, by accredited, certified and approved undertakings or persons, and by manufacturers, importers and supplier of wind turbines.

Section 40. In special cases, the Danish Energy Agency may decide to waive the rules in the Order or allow the rules to be waived.

Injunctions

Section 41. The Danish Energy Agency may issue an injunction for the regularisation of illegal conditions immediately or within a specified time limit in cases where there are circumstances contrary to the Order, cf. Section 71 of the Act on the promotion of renewable energy, including:

1) the wind turbine or wind turbine project does not have a certificate or the correct certificate according to this or an earlier Order,
2) the specified interval for service of a wind turbine had been exceeded by more than 3 months, cf. Section 17(2),
3) a windmill that had been taken out of service has not been properly secured and serviced, cf. Section 18(1) and (2),

4) service of a wind turbine is not reported to the Danish Energy Agency, cf. Section 21(4), (5) and (7),
5) conditions of approval are violated, or
6) an undertaking or person performs service of wind turbines which the undertaking or person is not approved or certified to perform service on, cf. Section 25(1),
7) if a wind turbine that has been put out of operation, cf. Section 18(1)(3), is not function and safety tested before being put back into operation.

(2) If the wind turbine owner does not comply with an injunction pursuant to paragraph 1, the Danish Energy Agency may order the owner of the wind turbine to stop and secure the wind turbine until the illegal conditions are legalised, so that it does not endanger the safety and health of persons and domestic animals as well as the safety of property. The Danish Energy Agency can furthermore require the owner of a wind turbine to immediately stop and secure a wind turbine that is considered to be hazardous, inter alia due to poor maintenance, damage, etc., and to repair the damage and carry out function and safety testing on the wind turbine before it is put back into operation, cf. Section 24(2–4). For wind turbines, which the Danish Energy Agency has ordered to stop, stopping and securing can be carried out by a certified or approved undertaking for the specific type of wind turbine or for an equivalent type of wind turbine.

(3) The Danish Energy Agency shall notify the accrediting undertaking of injunctions that relate to the certifications of accredited undertakings.

Right of appeal

Section 42. The decisions of the Danish Energy Agency in relation to this Order cannot be appealed to another administrative authority than the Energy Appeals Board, cf. Section 66 in the Act on the promotion of renewable energy.

(2) Appeals shall be submitted in writing within 4 weeks of the decisions specified in paragraph 1 being notified, cf. Section 66(3) in the Act on the promotion of renewable energy.

Chapter 9

Penal provisions

Section 43. Unless higher penalties are stipulated under other legislation, fines will be imposed on those who:
1) send the Danish Energy Agency incorrect or misleading information or refuses to supply information on request or
2) fail to comply with injunctions, cf. Section 41.

(2) Companies etc. (legal persons) may be held criminally liable in accordance with the regulations in Chapter 5 of the Penal Code [Straffeloven].

Chapter 10

Entry into force and transitional provisions

Section 44. This Order shall enter into force on 1 July 2023.

(2) Order No 1773 of 30 November 2020 on technical certification and servicing of wind turbines for wind turbines etc. is repealed.

(3) Certificates and approvals issued in accordance with earlier Orders are valid until they expire or a new approval is given according to the regulations in this Order.

(4) Application for approval to carry out service of wind turbines, cf. Sections 20 and 26, or certify wind turbines, cf. Section 31, received by the Danish Energy Agency before 1 July 2023, shall be finalised pursuant to Order No 1773 of 30 November 2020 on technical certification and servicing of wind turbines for wind turbines etc.

(5) Certification of wind turbines and wind turbine projects cf. Sections 6-9, Sections 11-13, Sections 15 and 16 and service undertakings, cf. Section 28, where there has been a contract with the certifying undertaking on certification before 1 January 2021, may be completed for the purpose of issuing certificates pursuant to Order No 1773 of 30 November 2020 on technical certification and servicing of wind turbines for wind turbines etc.

(6) Updates, renewal and extension of certificates for wind turbines or wind turbine projects covered by Sections 6–9, Sections 11–13 and Sections 15 and 16 can be carried out in accordance with the Order on technical certification that applied at the time of the original issue of the certificate.

Danish Energy Agency, X June 2023

Stig Uffe Pedersen

/ Anders Brix Thomsen

Annex 1

Technical standards relevant for safety and health, cf. Section 6(2) and (3), Section 7(2) and (3), Section 11(3) and (4), Section 12(3) and (4), Section 13(2) and (3) and Annex 9, Section 1.

Type certificates, cf. Section 6(2) and (3), provisional type certificates, cf. Section 7(2) and (3), prototype certificates cf. Section 11(3) and (4), project certificates, cf. Section 12(3) and provisional project certificates, cf. Section 13(2), shall state compliance with the following technical international standards relevant for safety and health for the wind turbine or wind turbine project being certified:

A	Technical standards relevant for safety and health
1	IEC 61400-1:2019 Design requirements. Edition 4.0 (2019-02-08). Including the corrigendum IEC 61400-1:2019/COR1:2019. Edition 4.0 (2019-09-16)
2	IEC 61400-2:2013 Small wind turbines. Edition 3.0 (2013-12-12). Including the corrigendum IEC 61400-2:2013/COR1:2019. Edition 3.0 (2019-10-10)
3	IEC 61400-3-1:2019 Design requirements for fixed offshore wind turbines. Edition 1.0 (2019-04-05)
4	IEC TS 61400-3-2:2019 Design requirements for floating offshore wind turbines. Edition 1.0 (2019-04-05)
5	IEC 61400-4:2012 Design requirements for wind turbine gearboxes. Edition 1.0 (2012-12-04)
6	IEC 61400-5:2020 Wind turbine blades. Edition 1.0 (2020-16-06)
7	IEC 61400-6:2020 Tower and foundation design requirements. Edition 1.0 (2020-04-21). Including the corrigendum IEC 61400-6:2020/COR1:2020. Edition 1.0 (2020-11-24)

8	IEC 61400-13:2015+AMD1:2021 Measurement of mechanical loads. Edition 1.1 (2021-12-03)
9	IEC 61400-23:2014 Full-scale structural testing of rotor blades. Edition 1.0 (2014-04-08)
10	IEC 61400-24:2019 Lightning protection. Edition 2.0 (2019-07-03)

Annex 2

Requirements and procedures for certification of wind turbines built by the owner, cf. Sections 8 and 9

1.1 Requirements for certification

The certification shall, as a minimum, include a strength test of the tower and rotor components and a subsequent function and safety test. In addition, a strength verification shall be performed of the rotor and tower during the test.

The test shall include the following, as a minimum:

1) Strength testing of an erected wind turbine tower subjected to a vertical tension of at least
   N = 300 Pa x A, where:
   N = strength of the vertical tension to which the wind turbine tower is exposed at nacelle height described in Newton
   Pa = Pascal
   A = rotor area described in m^2
2) A static test of the individual rotor components installed in a test stand with a minimum of N = 300 Pa x A, where:
   N = strength with which each rotor component shall be loaded, described in Newton
   Pa = Pascal
   A = rotor area described in m^2.
   The rotor component is loaded at 2/3 radius from the base with tension in flapwise direction. For vertical axle wind turbines, each rotor element is similarly loaded relative to the rotor blade attachment point (or points) on the axle, supplemented by the calculated centrifugal force of the element.
3) A test of the wind turbine's device against runaway. The device shall be tested at a minimum wind speed of 8/s.
4) An operational test until power generation has reached an equivalent of at least 500 full load hours. However, the test period should be a minimum of 3 months under Danish wind conditions, and during the trial period there must be at least 2 occasions of mean wind speed over 12 m/s for a continuous 6-hour period. As a minimum, measurements of wind speed, power, and energy production shall be taken.
5) For use in the wind turbine erection, the wind turbine's structural safety is evaluated in relation to the desired foundation construction.
6) Provision of a source noise measurement in accordance with the Order on noise from wind turbines.

1.2 Requirements for certification report

The certification report shall include the following, as a minimum:

1) A description of the wind turbine and the purpose of the certificate.
2) A safety assessment of the specific erection conditions, including whether the areas are specifically limited, cf. Section 8(1)(4).
3) A report on strength testing.
4) Operation and service manual.
5) A report of a function and safety test of the wind turbine.
6) A source noise measurement in accordance with the Order on noise from wind turbines.

1.3 Requirements for certificate

The certificate shall as a minimum include:

1) Certificate number and version.
2) Information on whom the certificate is issued to.
3) GSRN number of the wind turbine.
4) Locality (physical positioning of the wind turbine, including coordinates).
5) Information on who has issued the certificate.
6) Date from which the certificate is valid.
7) Expiry date for the certificate, if it is a provisional certificate, cf. Section 9.
8) Reference to underlying certification report.
9) Design lifetime.
10) Reference to source noise measurement, cf. Section 8(3).
11) List of manuals.
12) Validity and prerequisites, including as a minimum that the certificate has been issued in accordance with this Order, cf. Section 32(1).
13) Dated signature or alternatively electronic verification, cf. Section 32(1).

Annex 3

Requirements and procedure for supplementary certification in accordance with Sections 15 and 16.

1. Requirements for supplementary certification of wind turbines for modification and modification for tests and demonstration, cf. Section 15(1)(1) and (2)

1.1 Requirements for certification

The certification shall be carried out on the basis of:

1) Original type certificate including specifications.
2) Documentation of any deviations from the original type certificate.

3) Documentation of intended changes.
4) Description of a function and safety test.
5) A technical report on the safety condition of the wind turbine.
6) Assessment of change in noise emission due to intended changes.
7) Service manual and any supplements thereto.
8) Assessment of conditions significant for structural safety, including loads and design lifetime for erection at the specific location.
9) For modification for tests and demonstration, cf. Section 15(1)(2), establishing a test plan.

1.2 Requirements for certification report

The certification report shall include the following, as a minimum:

1) A description of the wind turbine and the purpose of the certificate.
2) A description of the modification and installation carried out.
3) A review of the technical documentation available for the wind turbine.
4) A review and assessment of documentation of deviations and changes compared with the original type certificate etc.
5) An assessment of conditions significant for structural safety, including loads and design lifetime for erection at the specific location.
6) An assessment of compliance with the design standard on the basis of which the original wind turbine type was designed, if the original type certificate shows compliance with a specific design standard.
7) A report of a function and safety test of the wind turbine.
8) An overall assessment of the acceptability of the modification carried out.
9) Addition to operation and service manuals according to changes made to supplement original manuals.
10) An assessment of whether the modification can lead to noise impacts and documentation showing that the Order on noise from wind turbines is complied with, cf. Section 15(6).
11) If it is considered that there will be noise impacts, the source noise measurement shall be carried out in accordance with the Order on noise from wind turbines.

1.3 Requirements for certificate

Supplementary certificates for modification or modification for tests and demonstration shall as a minimum include:

1) Certificate number and version.
2) Information on whom the certificate is issued to.
3) Wind turbine type.
4) ID number of the wind turbine.
5) GSRN number of the wind turbine.
6) Number of original type certificate and original type designation.
7) Locality (physical positioning of the wind turbine, including coordinates).
8) Information on who has issued the certificate.
9) Date from which the certificate is valid.

10) Expiry date on the certificate, in the case of a certificate for modification for tests and demonstration, see. Section 15(1)(2), or a provisional supplementary certificate, cf. Section 16.
11) Reference to underlying certification report.
12) Reference to list of changes.
13) Design lifetime, if it can be documented that changes have been made in this respect in comparison with the original type certificate.
14) Reference to source noise measurement, if this has been carried out, cf. Section 15(6).
15) List of manuals.
16) Validity and prerequisites, including as a minimum that the certificate has been issued in accordance with this Order, cf. Section 32(1).
17) Dated signature or alternatively electronic verification, cf. Section 32(1).

2. Supplementary certificates issued to manufacturers, importers or suppliers during modification of a wind turbine type, cf. Section 15(8).

A supplementary certificate for modification of a wind turbine type can be issued to a manufacturer, importer or supplier who wishes to offer the same modification of the same wind turbine type that has previously been type-certified or type-approved in accordance with this or earlier Orders, and where a supplementary certificate has been issued for the first reconstructed wind turbine of this type, cf. Section 15(1)(1), and Annex 3, Section 1.1–1.3

2.1 Requirements for certification

The certification is carried out in accordance with requirements and procedures in point 1.1 in this Annex.

2.2. Requirements for certification report

The certification report shall include the following, as a minimum:

1) A description of the wind turbine and the purpose of the certificate.
2) A description of the modification and installation.
3) A review of conditions significant for structural safety, including loads and design lifetime for erection at the specific location with reference to the GSRN numbers in question for those wind turbines that are erected in Denmark.
4) An assessment of compliance with the design standard on the basis of which the original wind turbine type was designed, if the original type certificate shows compliance with a specific design standard.
5) A report of a function and safety test of the wind turbine for the first reconstructed wind turbine of the type.
6) An overall assessment of the acceptability of the proposed modification.
7) Addition to operation and service manuals according to changes made to supplement original manuals.
8) An assessment of whether the modification can lead to noise impacts and documentation showing that the Order on noise from wind turbines is complied with, cf. Section 15(6).
9) If it is considered that there will be noise impacts, the source noise measurement shall be carried out in accordance with the Order on noise from wind turbines.

2.3. Requirements for certificate

Supplementary certificates issued to manufacturers, importers or suppliers shall as a minimum contain:

1) Certificate number and version.
2) Information on whom the certificate was issued to (manufacturer, importer or supplier).
3) Number of original type certificate and original type designation.
4) List of the ID and GSRN numbers of the wind turbines included.
5) Information on who has issued the certificate.
6) Date from which the certificate is valid.
7) Expiry date on the certificate, cf. Section 15(9)(2).
8) Reference to underlying certification report.
9) Reference to list of changes.
10) Design lifetime, if it can be documented that changes have been made in this respect in comparison with the original type certificate.
11) Reference to source noise measurement, if this has been carried out, cf. Section 15(6).
12) List of manuals.
13) Validity and prerequisites, including as a minimum that the certificate has been issued in accordance with this Order, cf. Section 32(1).
14) Dated signature or alternatively electronic verification, cf. Section 32(1).

3. Requirements for supplementary certification in connection with relocation of a wind turbine, cf. Section 15(1)(3)

3.1 Requirements for certification

The certification shall be carried out on the basis of:

1) Original prototype or type certificate including specifications.
2) Documentation of any deviations from the original prototype or type certificate.
3) Description of a function and safety test.
4) A technical report on the safety condition of the wind turbine.
5) A technical report on the safety condition of existing installations, including the foundation that it is proposed to reuse.
6) Service manual and any supplements thereto.
7) Assessment of conditions significant for structural safety, including loads and design lifetime for erection with wind conditions, soil conditions and any climate difficulties at the specific location.
8) For wind turbines with a rotor area above 200 m^2:
   a. Description of transport and assembly.
   b. The original project certificate for the wind turbine, if such is available.

3.2. Requirements for certification report

The certification report shall include the following, as a minimum:

1) A description of the wind turbine and the purpose of the certificate.

2) A review of the available technical documentation for the wind turbine, including an assessment of the documentation of any deviations from the original prototype or type certificate with documentation of the safety condition of the wind turbine.
3) Assessment of the design of the foundation compared with the wind turbine that has been moved.
4) Assessment of the safety condition of the installation, including the foundation, that it is proposed to reuse.
5) A review of conditions significant for structural safety, including loads and design lifetime for erection with wind conditions, soil conditions and any climate difficulties at the specific location.
6) Assessment of the design wind class of the wind turbine in relation to the place of erection.
7) An overall assessment of the acceptability of the move.
8) A report of a function and safety test of the wind turbine.
9) Updated operation and service manuals, if the move gives rise to an update for these.
10) For wind turbines with a rotor area above 200 m^2: Review and possible update to the transport and assembly descriptions.

3.3 Requirements for certificate

Supplementary certificates for moves shall as a minimum contain:

1) Certificate number and version.
2) Information on whom the certificate is issued to.
3) Wind turbine type.
4) ID number of the wind turbine.
5) GSRN number of the wind turbine.
6) Number of original prototype or type certificate.
7) Locality (physical positioning of the wind turbine, including coordinates).
8) Information on who has issued the certificate.
9) Date from which the certificate is valid.
10) Expiry date for the certificate, if it is a provisional certificate, cf. Section 16.
11) Reference to underlying certification report.
12) List of manuals.
13) Validity and prerequisites, including as a minimum that the certificate has been issued in accordance with this Order, cf. Section 32(1).
14) Dated signature or alternatively electronic verification, cf. Section 32(1).

4. Requirements for supplementary certification for use after tests and demonstration, use after expiry of prototype certificate and use after expiry of provisional type certificate, if the wind turbine type is not put into serial production, or the wind turbine is not reconstructed, so it corresponds to a wind turbine type with a valid type certificate, cf. Section 15(1)(4) and (5).

4.1 Requirements for certification

The certification shall be carried out on the basis of:

1) Original prototype or type certificate including specifications.
2) Documentation of any deviations from the original prototype or type certificate.

3) Documentation of intended changes.
4) Test plan, if use after tests and demonstration or after expiry of a prototype certificate is involved.
5) Description of a function and safety test.
6) A technical report on the safety condition of the wind turbine.
7) Assessment of change in noise emission due to intended changes.
8) Deviations from design compared with the following type-certified design.
9) Service manual, if changes are made to this.
10) Assessment of conditions significant for structural safety, including loads in the test period after the period when the wind turbine has been erected, and design lifetime for erection at the specific location.

4.2 Requirements for certification report

The certification report shall include the following, as a minimum:

1) A description of the wind turbine and the purpose of the certificate.
2) A review of the technical documentation available for the wind turbine.
3) A review and assessment of documentation of deviations and changes etc.
4) An assessment of conditions significant for structural safety, including loads and design lifetime for erection at the specific location.
5) An assessment of compliance with the design standard on the basis of which the original wind turbine type was designed, if the original prototype or type certificate shows compliance with a specific design standard.
6) A report of a function and safety test of the wind turbine.
7) An overall assessment of the acceptability of continued use.
8) Addition to operation and service manuals in relation to changes made to supplement the original manuals.
9) An assessment of any noise impacts resulting from any changes and documentation showing that the Order on noise from wind turbines is complied with, cf. Section 15(6).
10) If it is considered that there will be noise impacts, the source noise measurement shall be carried out in accordance with the Order on noise from wind turbines.

4.3 Requirements for certificate

Supplementary certificates shall contain as a minimum:

1) Certificate number and version.
2) Information on whom the certificate is issued to.
3) Wind turbine type.
4) ID number of the wind turbine.
5) GSRN number of the wind turbine.
6) Number of original prototype or type certificate and original type designation.
7) Locality (physical positioning of the wind turbine, including coordinates).
8) Information on who has issued the certificate.
9) Date from which the certificate is valid.
10) Reference to certification report.

11) Reference to changes.
12) Reference to source noise measurement, if this has been carried out, cf. Section 15(6).
13) Design lifetime, if it can be documented that changes have been made in this respect in comparison with the original type certificate.
14) List of manuals.
15) Validity and prerequisites, including as a minimum that the certificate has been issued in accordance with this Order, cf. Section 32(1).
16) Dated signature or alternatively electronic verification, cf. Section 32(1).

Annex 4

Requirements for extended service inspection after expiry of design lifetime, cf. Section 17(5), as well as service of wind turbines taken out of operation, cf. Section 18(2)

In the case of extended service inspections of wind turbines that have been erected longer than the design lifetime specified in the wind turbine certificate, and in cases where the wind turbine has been taken out of operation, the following shall be carried out as a minimum:

Annually:
- The machine framework is examined for cracks at heavily-loaded places and in all welds and bolt joints.
- The main axle, including the area in front of the foremost blade support is inspected for scratches, rust and signs of wear.
- The yaw control is inspected for wear, and erosion in the support is measured. Important parts of the yaw control system are inspected.
- The tower is inspected for cracks in all welds.
- Bolts in joints are re-tightened to the previous state according to the manual. It is particularly important to re-tighten the bolts in the joints for blades.
- The foundation is inspected for cracks in the concrete. The sealing against the intrusion of water into the foundation is inspected.
- The bolts of the foundation are inspected for rust and corrosion.

The above inspection is carried out by visual inspection of the specified components and details.

Every third year:
- The blades are inspected by visual control at close quarters or by the use of a camera or tele-/photo-drone with subsequent assessments.

Documentation:

The above points shall also be added to the service manual of the wind turbine, cf. Section 23(5).

The completion of the extended service inspection shall be registered in the report and sent with the corresponding checklist to the owner, cf. Section 21(1), or registered in the logbook for wind turbines of 40 m^2 and less, cf. Section 22.

Annex 5

Reporting of service cf. Section 21(4)

Reporting of the regular service, cf. Section 21(4), contains the following for each wind turbine:

1) The date of the service visit carried out, except as provided for in No 4.
2) Name of the undertaking or person certified or approved to perform service on the wind turbine.
3) Date of the next regular service visit except as provided for in No 4.
4) For wind turbines equipped with technical solutions which unambiguously indicate when the next service visit shall be carried out, the report shall instead refer to the date for review of the indications from the technical solution on a need for service and any service date visit.

For wind turbines where service is carried out by certified or approved service undertakings, cf. Section 25, or undertakings approved to carry out service on a specific wind turbine or their own wind turbine, cf. Section 20, the report shall be made by this undertaking digitally. The undertaking shall apply for user access to the self-service portal of the Danish Energy Agency by submitting the form that can be found on the home page of the Danish Energy Agency.

Wind turbine owners or persons approved to carry out service on their own wind turbine or a specific wind turbine, cf. Section 20, and who have not linked to a CVR number, can report a service carried out by submitting a completed form that can be found on the home page of the Danish Energy Agency.

Annex 6

Reporting of damage and accidents, cf. Section 24(1)

Damage and accidents shall be reported to the Danish Energy Agency, cf. Section 24(1).

The following types of damage are always considered to pose a risk to the health and safety of persons and domestic animals and to the security of property and shall therefore always be reported:

1) Stopping the wind turbine due to a risk of accident.
2) Blades or blade parts falling off.
3) Bolts falling off.
4) Other components falling off.
5) Damage resulting in fire, or that wind turbines run out of control.
6) Total destruction.

The report shall be made to the Danish Energy Agency using the form that can be found on the home page of the Danish Energy Agency, as well as any enclosed material.

The following shall be reported as a minimum:

1) Name of the owner.
2) GSRN number of the wind turbine.
3) Location of the wind turbine.
4) Date and time of the damage or accident.
5) Nature and extent of the damage and presumed cause.
6) Photographic documentation.
7) Information on plans to repair damage.

A damage or accident report shall be sent on if one has been prepared and the owner has access to it, cf. Section 24(1).

Annex 7

Approval of service undertakings by the Danish Energy Agency, cf. Section 26

1. Approval

Approval under Section 26(1) is given to service undertakings that can document expertise in service of wind turbines, including having personnel with documented, relevant knowledge and experience, as well as necessary procedures, manuals and any special tools.

The approval can be given on the basis of an application to the Danish Energy Agency, cf. Section 26(3). The applicant shall use the form that the Danish Energy Agency provides on its home page.

The following shall be enclosed with the application, as a minimum:

1) List of wind turbine types for which service approval is desired. The wind turbine types shall be uniquely identifiable and shown by manufacturer, wind turbine type and wind turbine size.
2) List with numbers and names of manuals used and check-lists for service of the individual wind turbine types with necessary information.
3) List of any special tools that the undertaking has available which are necessary to carry out service on the desired wind turbine types.
4) Documentation of the expertise of the personnel, including education background and experience of service of the wind turbine types in question, set in relation to the tasks of the undertaking. If the undertaking uses apprentice training, this shall be documented.
5) Procedure for carrying out regular service.
6) Procedure for extended service after the design lifetime of the wind turbine types covered by the application.
7) Procedure for stopping, securing, starting, function and safety testing as well as putting into service of wind turbine types to be covered by the approval.
8) Procedure and template for preparing service reports to the customer.
9) Procedure for reporting service carried out.
10) Procedure for assistance to owners in reporting accidents or damage, cf. Section 24(1).
11) If subcontractors are used, procedures in relation to use of subcontractors to carry out service visits.

If the undertaking wishes to add a wind turbine type to the undertaking's existing approval, the documentation requirements set out in Nos 1–11 apply.

2. Renewal of approval

A renewed approval can be given on the basis of an application to the Danish Energy Agency, cf. Section 26(3). The applicant shall use the form that the Danish Energy Agency provides on its home page.

The following shall be enclosed with the application, as a minimum:

1) Documentation of service carried out in the previous approval period, specified by wind turbine types.
2) Up-to-date documentation of the employees' expertise, including educational background, and of experience of service of the types of wind turbines in question, if changes have occurred in relation to the latest approval period.
3) Up-to-date procedures, if changes have occurred in relation to the latest approval period.

If, in connection with the application for renewal, the undertaking wishes to add a type of wind turbine to the undertaking's existing approval, the documentation requirements set out in Section 1 for approval for that type of wind turbine apply.

Annex 8

Certification of accredited undertakings and auditing of service undertakings, cf. Section 28

Certification and auditing of service undertakings, cf. Section 28, shall be carried out against the background of the following requirements and procedures.

With respect to undertakings that exclusively apply for certification for stopping, securing, starting and function and safety testing of wind turbines, however, only those requirements and procedures apply that are relevant for certification for stopping, securing, starting and function and safety testing of wind turbines.

1. Certification

Certification of a service undertaking must, as a minimum, demonstrate that the undertaking has sufficient experience and expertise in wind turbine servicing and has implemented a quality management system according to DS/EN ISO 9001:2015 or equivalent. If the service undertaking uses subcontractors, the use of these shall be included in the certification of the quality management system of the service undertaking.

1.1 The certificate shall state:
1) That the service requirements of this Order are included in the certification.
2) The scope of the certificate, including whether the certificate is limited to stopping, securing, starting and function and safety testing of wind turbines.
3) That the undertaking has implemented a quality management system according to DS/EN ISO 9001:2015 or equivalent.
4) Which types of wind turbines and wind turbine sizes can be serviced by the undertaking. These may be specified in an annex to the certificate.

1.2 The certification shall ensure that the undertaking has:
1) Service manuals for the relevant turbine types as well as updates that are of importance to operation of the wind turbine. For existing turbines for which there are no specifications or service manuals prepared by the manufacturer, service may be performed on the basis of a service manual prepared by the service undertaking based on service performed thus far on the relevant wind turbine type.
2) Necessary tools to be able to carry out service as described in specifications and service manuals, as stated in No 1.

3) Qualified personnel in relation to the nature of the task according to the latest version of service manuals. The service undertaking shall be able to document that the personnel are sufficiently qualified for the wind turbine types to be covered by the certification, including how it will be ensured that the level of expertise will be maintained through subsequent training.

2. Auditing

The accredited undertaking shall ensure in each audit that the certification terms are met according to the method of quality assurance standards used. The audit shall be carried out as needed, but at least once per year.

In addition, the accredited undertaking shall ensure in each audit that:

1) A review is carried out to determine whether the undertaking's quality management system meets the requirements of this Order and ISO 9001:2015 or equivalent.
2) The undertaking has updated service manuals for all the wind turbine types the undertaking services.
3) If the manufacturer no longer updates service manuals, that the service undertaking itself provides the service manual with the amendments and improvements that the service undertaking finds necessary on the basis of the service carried out and experience with the wind turbine type.
4) There are service reports for each service visit in accordance with the service contract agreed between the wind turbine owner and the service undertaking.
5) The service has been carried out by personnel qualified for the wind turbine types in question and in accordance with the updated manuals and specified service intervals.
6) To the necessary extent, there is a completed check-list with documentation on the operating conditions of the wind turbine according to the manuals.

Finally, the certifying undertaking shall:

7) Carry out random checks on whether service of the wind turbine has been carried out as described in the service reports, including at least every 3 years and, as necessary, attend demonstration of whether service is carried out in accordance with the service manual on a representative wind turbine type on the undertaking's wind turbine list. However, in the case of first-time certification, this must be done within one year of the issue of the certificate.
8) On the basis of the annual audit, submit an update list to the Danish Energy Agency of wind turbine types on which the service undertaking is certified to carry out service, cf. Section 28(3).

Annex 9

Approval of non-accredited undertakings for the certification of wind turbines or wind turbine projects, cf. Section 31

Approval under Section 31 may be granted to non-accredited undertakings for certification of wind turbines with a rotor area of 200 m^2 or less, cf. Section 6(2), Section 7(2), Sections 8 and 9, Section 11(3), project certification of wind turbines on land with a rotor area exceeding 200 m^2, cf. Sections 12 and 13, and supplementary certification, cf. Sections 15 and 16.

The approval may be granted on the basis of an application to the Danish Energy Agency.

The undertaking has the option to use subcontractors to a limited extent and shall in this case document which relevant areas of expertise are being used from these contractors and how the cooperation is organised.

1. The Danish Energy Agency's approval of non-accredited undertakings, cf. Section 31(1)(1) for the certification of wind turbines with a rotor area of 200 m^2 and below, cf. Section 6(2), Section 7(2) and Section 11(3).

Approval is granted to undertakings that can demonstrate expertise in wind turbine construction and certification, including personnel with documented qualifications and experience.

The application shall as a minimum have documentation attached showing expertise and experience with:

1) Wind turbine types of 200 m^2 and less.
2) The control and safety systems of wind turbines and testing thereof.
3) Loads on wind turbines and specified load instances.
4) Structural, mechanical, and electrical components.
5) Tower and foundation constructions.
6) Static testing of the blades and tower.
7) Testing of safety systems.
8) Measurements of loads.
9) Applicable standards for wind turbines of 200 m^2 and less, cf. Annex 1, Section A 2 and the certification procedure IECRE OD-554-1:2021 Type Certification Scheme for small wind turbines (Edition 1.0) or equivalent.

2. The Danish Energy Agency's approval of non-accredited undertakings, cf. Section 31(1)(2) and (2), for project certification of wind turbines on land with a rotor area exceeding 200 m^2, cf. Sections 12 and 13.

Approval can be granted to undertakings that can document expertise related to project certification of wind turbines on land.

The application shall contain the following, as a minimum:

1) Documentation of knowledge and experience with project certification, including:
   a) Wind turbine construction.
   b) Wind conditions.
   c) Geotechnical conditions such as soil characteristics and ground water.
   d) Construction of foundations combined with the construction of wind turbines and type certificates issued.
   e) Erection and entry into service.
2) Procedures for project certification under IECRE OD-502:2018 Project Certification Scheme (Edition 1.0) or equivalent.
3) Documentation of implemented quality management systems according to DS/EN ISO 9001:2015 or equivalent for the delivery and erection of wind turbines.

3. The Danish Energy Agency's approval of non-accredited undertakings, cf. Section 31(1)(3) for supplementary certification for modification, modification for tests and demonstration, relocation, or continued use after expiry of time-limited certificate, cf. Sections 15 and 16

Approval is granted to undertakings that can document expertise relating to certification in connection with modification and relocation of wind turbines.

The application shall as a minimum have documentation attached showing expertise and experience with:

1) Wind turbine constructions, including relevant design standards and technical standards, cf. Annex 1.
2) Type and prototype certification.
3) Erection conditions in Denmark.
4) Construction of foundations for wind turbines.
5) Erection and commissioning of wind turbines onshore.
6) Testing of safety systems.
7) Operation, maintenance and assessment of the condition of wind turbines.

4. The Danish Energy Agency's approval of non-accredited undertakings, cf. Section 31(1)(1), for the certification of wind turbines with a rotor area of 40 m² and less, cf. Sections 8-9

The approval shall be granted to undertakings that can demonstrate expertise equivalent to the requirements of either point 1 or point 3.

Official notes

[1)] This draft Order has been notified in accordance with Directive 98/34/EC of the European Parliament and of the Council (the Information Procedure Directive), as amended by Directive 98/48/EC.

[2)] The international procedures IECRE OD-501:2022 Type and Component Certification Scheme (Edition 3.0), IECRE OD-502:2018 Project Certification Scheme (Edition 1.0) and IECRE OD-554-1:2021 Type Certification Scheme for small wind turbines (Edition 1.0) are available at www.iecre.org/documents/refdocs. All the technical standards in Annex 1 can be purchased from Dansk Standard and from the IEC via their internet shops.