

1800 MHz Auction

Award of frequencies in the frequency bands
1720.1-1785.0 MHz and 1815.1-1880.0 MHz

Information Memorandum

Annex D

Draft Licence

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www.ens.dk

Annex D: Draft Licence

A draft Licence and the associated technical information are indicated below:

- A draft Licence to use frequencies in the frequency bands 1720.1-1785.0 MHz and 1815.1-1880.0 MHz and annexes containing technical conditions for using these frequencies, and legal conditions.

[Licensee]

Licence [no.] to use frequencies in the frequency bands 1720.1-1785.0 MHz and 1815.1-1880.0 MHz

Following an auction, [name of licence holder] (hereinafter referred to as the Licensee) is granted a Licence to use the following radio frequencies (band limits):

[1815.1-1880.0 MHz]	Base station transmitting frequency
[1720.1-1785.0 MHz]	Base station receiving frequency

The Licence is issued pursuant to section 10 of Act No. 475 of 12 June 2009 on Radio Frequencies (the Frequency Act) as subsequently amended.

Licence terms and conditions

The Licence shall enter into force on 13 June 2017 and expire on 12 June 2032.

Upon expiry, the Licence shall lapse without further notice.

Pursuant to section 10(3) and sections 14 and 15 of the Frequency Act, the following terms and conditions shall apply to the Licence:

- 1) The frequencies may be used throughout Denmark, which shall mean Danish land territory and Danish territorial waters, cf. Executive Order No. 242 of 21 April 1999 on Delimitation of Danish Territorial Waters (as subsequently amended).
- 2) The maximum transmitting power (ERP) permitted per channel from a base station: $P(e.r.p.) \leq 60$ dBm. A channel is defined as the bandwidth necessary for the technology chosen.
- 3) Base station emissions shall comply with the relevant harmonised standard in the ETSI EN 301 908 series applicable to the technology chosen.
- 4) However, subject to agreement with holders of licences in frequency bands adjacent to this Licence, the Licensee may depart from the above-mentioned technical requirements which relate to unwanted emissions within the frequency band in question. This is based on the condition that

technical terms in relation to other licensees and neighbouring countries are complied with, and that the agreement does not affect frequency users other than the parties to the agreement.

- 5) The Licensee shall comply with such agreements as might be concluded from time to time between Denmark and other countries on the use of 1710-1880 MHz, including coordination agreements with Germany and Sweden, cf. Information Memorandum on the 1800 MHz Auction of 28 June 2016, Annexes I and J. It follows from the current coordination agreements that the Licensee, subject to agreement with licensees in Sweden and Germany, may depart from the terms of such coordination agreements if this does not affect other users of frequencies,
- 6) The Licensee shall fulfil the coverage obligation specified in Annex 3 to this Licence not later than 13 December 2019. The coverage obligation shall be fulfilled at the addresses specified in Annex 4 to this Licence.
- 7) The Licensee shall fulfil the usage requirements specified in Annex 1 to this Licence not later than 13 December 2019.
- 8) As instalments on the Licence price, the Licensee shall pay DKK [amount] to the Danish Energy Agency each year on [date of Licence issue] during the period from 2017 to 2024, both years inclusive.
- 9) In case of failure to pay the instalment in due time, interest shall accrue from the due date until the date on which payment is effected, in accordance with Consolidated Act No. 459 of 13 May 2014 on Interest accruing on Delayed Payments etc.
- 10) The Licensee shall provide at any time a demand guarantee in relation to the Danish State, issued by a bank or insurance company which does not control, nor is controlled by, the Licensee, nor is controlled by a person who controls the Licensee, and which is registered in the European Economic Area and has a minimum long-term debt rating from Standard & Poors or Fitch Rating of at least A or from Moody's Investors Service Limited of at least A2. The guarantee shall at any time be for an amount equivalent to the sum of the instalments payable on the licence price that fall due over the following three years and shall at any time be valid for the following three years, but not for longer than until expiry of the repayment period and in such a manner that the guarantee shall be reduced over the last three years of the repayment period by the instalments that are paid. Other terms appear from the guarantee payable on demand as signed by the Licensee.
- 11) The Licensee shall notify the Danish Energy Agency, or the authority responsible at the time in question, without undue delay in the event that

the bank or insurance company that has provided the guarantee mentioned above no longer has the credit rating stated.

Further details

The Licence shall be subject to the provisions of Acts and Executive Orders that specify rules for holders of frequency licences. At the time of issuing the Licence, the provisions of the following Executive Orders are particularly relevant:

- Executive Order No. 1420 of 3 December 2015 on Licences to Use Radio Frequencies, and
- Executive Order No. 1129 of 1 December 2009 on the Transfer and Return of Certain Licences to Use Radio Frequencies.

The frequencies may only be used in radio equipment that complies with the Act on Radio Equipment and Electromagnetic Matters and rules issued in pursuance thereof, including requirements for the use of radio equipment that complies with the essential requirements and the regulated interfaces.

Under section 21 of the Frequency Act, the Licence may be transferred in its entirety without prior approval. Transfer or return of part of the Licence shall be subject to approval by the Danish Energy Agency, cf. section 1 of Executive Order No. 1129 of 1 December 2009 on the Transfer and Return of Certain Licences to Use Radio Frequencies.

Under section 5 of Executive Order No. 1420 of 3 December 2015 on Licences to use Radio Frequencies, the Licensee shall notify the Danish Energy Agency of its plans to transfer the Licence or parts thereof before such transfer takes place. Information about current plans for transfer will be published in the Frequency Register on the Danish Energy Agency's website.

The Danish Energy Agency will collect frequency charges, cf. section 50 of the Frequency Act. The charges are fixed annually in the Finance Act. An invoice for the frequency charge will be sent separately.

The Danish Energy Agency shall revoke the Licence if the Licensee fails to pay frequency charges due, cf. Section 25 of the Frequency Act.

In certain cases the Danish Energy Agency may modify terms in the Licence or revoke the Licence, cf. section 23 and section 24 of the Frequency Act.

If the Licensee grossly violates the Frequency Act, rules laid down in pursuance of the Act, or terms in the Licence, cf. Section 26 of the Frequency Act, the Danish Energy Agency may revoke the Licence.

Upon return of its licence to the Danish Energy Agency, the Licensee may terminate future rights and obligations not yet due by paying not later than the date of return an amount equivalent to 30% of the Licence price, or, if payment

of a smaller amount of the Licence price is outstanding, then such smaller amount. Thus a return of the Licence shall not imply that the Licence price will be repaid.

The Danish Energy Agency may impose on the Licensee the sanctions that follow from the Danish Energy Agency's decision of 28 June 2016 on the 1800 MHz auction, appended as Annex 2 to this Licence. Annex 2 thus specifies the sanction options that may be adopted in case of violation of the payment terms of this Licence and for matters bearing on the auction process if the Danish Energy Agency becomes aware of such violations after issuing this Licence; refer in particular to clauses 80-81 and 85-92 in Annex 2.

Relevant Acts and Executive Orders may be found on the Danish Energy Agency's website under: <http://www.ens.dk>

No supplement to the Licence will be issued if the rules mentioned above are changed.

In regard to matters bearing on the Licence, the venue applicable to the Licensee shall be in Denmark. If the venue of a Licensee is not in Denmark, the agreed venue of the Licensee will be the Danish Energy Agency's venue.

Danish Energy Agency, 28 June 2016

Stig Uffe Pedersen

/Maria Schmidt Jensen

Annex 1: Usage requirements for using frequencies in the frequency bands [xx MHz and xx MHz]

Terms

Antennas and transmitting and receiving equipment capable of using the frequencies specified in the Licence shall be installed by the Licensee not later than 13 December 2019 at a minimum of 100 mast positions. The equipment at the relevant mast positions shall be connected to the necessary telecommunications infrastructure in such a way as to enable the Licensee, via the relevant mast positions, to offer at least one electronic communications service (at the Licensee's own discretion) to end-users by using the frequencies specified in the Licence.

Monitoring

The Licensee shall forward, not later than 13 March 2020, a survey to the Danish Energy Agency specifying the mast positions at which antennas and transmitting and receiving equipment have been installed such that at least one electronic communications service can be offered to end-users by using the frequencies specified in the Licence. In the survey, the Licensee shall indicate the geographical coordinates of the mast positions and the type of the installed transmitting and receiving equipment.

Annex 2: The Danish Energy Agency's Decision of 28 June 2016 2016 to Hold an Auction.

[Reference is made to Annex C to the Information Memorandum.]

Annex 3: Coverage obligation for using frequencies in the frequency bands [xx MHz and xx MHz]

Terms

The Licensee shall ensure provision, not later than 13 December 2019, of a mobile voice service and a mobile broadband service offering users, for most of the time, the experience of connecting at a download bit rate of at least 30 Mbit/s and an upload bit rate of at least 3 Mbit/s. The coverage obligation applies at the addresses in the Coverage Area Group(s) specified in the Licence.

The coverage obligation can be fulfilled by using frequencies governed by this Licence or other frequencies available to the Licensee. The coverage obligation may be fulfilled via national roaming agreements.

In quite exceptional cases where a Licensee cannot ensure provision of a mobile voice service or a mobile broadband service in accordance with the requirements above for reasons outside the control of the Licensee, including environmental, preservation-related or quite exceptional radio engineering conditions, the Danish Energy Agency, subject to application and after having received proper documentation, may relax the terms requiring coverage for specific addresses.

In case the Danish Energy Agency, in connection with the disposal of frequency bands other than the 1800 MHz band, issues frequency licences subject to coverage obligations, the Agency may relax the terms for coverage, cf. clause 3, including cases in which the areas correspond wholly or partly with coverage areas in other frequency licences, or where other frequency licences specify higher requirements for offered broadband bit rates etc.

Supervision and documentation for fulfilling the coverage obligation

The Licensee shall provide documentation that the coverage obligation is fulfilled. This implies that the Licensee shall forward documentation that it is possible for the users to experience a download bit rate of at least 30 Mbit/s and an upload bit rate of at least 3 Mbit/s for most of the time when using their broadband service. In case the Licensee can document fulfilment of that part of the coverage obligation which relates to a mobile broadband service of at least 30 Mbit/s download, that part of the coverage obligation which relates to a mobile voice service is also regarded as having been fulfilled, provided that the Licensee can document offering a service that enables voice via a broadband connection, for example Voice over LTE (VoLTE).

Documentation of compliance with the coverage obligation shall consist of both coverage calculations/simulations and specific measurements confirming such calculations/simulations.

When preparing calculations/simulations, the Licensee can use the method that it finds most suitable, taking into account the technology used and the implementation of the network. The Licensee can provide documentation for the functioning of the network with chosen technical parameters, or it can simulate the grade-of-service that it can deliver in the network with the chosen technical parameters and other operational parameters. These parameters are, for example: Transmitting power, propagation model, link budget, geographical distribution of users, number of simultaneous users, usage pattern etc.

Calculations/simulations must be verified by actual measurements. These measurements must be made in a radio environment (i.e. terrain conditions), over distances and with equipment that closely corresponds to the conditions that will apply in relation to the end user. Information on calculation model, measurement results and correlation degree between calculation and measurement results must be included in the documentation that the Licensee submits to the Danish Energy Agency. Licensees must therefore make enough measurements to verify the calculation model. The measurements can be made during roll out of the infrastructure. Documentation cannot depend on whether customers have bought a subscription from the Licensee in question.

As for the required provision of a mobile broadband service, the coverage obligation may be fulfilled by using WLAN technology in the license-exempt frequency bands (2.4 and 5 GHz). However, this is conditional on the WLAN technology being integrated seamlessly with terrestrial systems capable of providing electronic communications services as stated in the annex to Commission Decision 2009/766/EC as amended by Commission Implementing Decision 2011/251/EU.

The Licensee shall forward documentation to the Danish Energy Agency for the fulfilment of the coverage obligation not later than 13 March 2020.

Annex 4: Addresses subject to coverage obligations in the Licence

[Reference is made to Annex K to the Information Memorandum.]