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**Subject: State aid SA.40305 (2015/N) – DK – Danish offshore wind farm Horns Rev 3**

Sir,

## **I. PROCEDURE**

1. Following pre-notification contacts, by electronic notification of 26 January 2015, Denmark notified, pursuant to Article 108(3) of the Treaty on the Functioning of the European Union (TFEU), a tender for offshore wind power in Denmark.

## **II. DESCRIPTION OF THE MEASURE**

### **Background and objectives of the notified project**

2. The notified measure is for the design and construction of a 390 – 410 MW offshore wind farm at Horns Rev (Horns Reef) off the west coast of Denmark, where there are already 2 operational wind farms (which began generating electricity in 2002 and 2009). The Horns Rev 3 wind farm would become operational by 1 January 2020.

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3. By 2020, Denmark is aiming to supply 30% of final energy consumption with energy from renewable sources. By 2050, Denmark aims to have phased out fossil fuel based energy production entirely.
4. Land use pressures prevent the required wind capacity being delivered without offshore wind power. The production capacity of offshore wind in Denmark is around double that of onshore wind. According to Denmark, the construction of the Horns Rev 3 wind farm will make an important contribution to fulfilling the 2050 ambition, which under one scenario modelled by the Danish Energy Agency will require an additional 400MW of wind capacity to be built in Denmark each year between 2020 and 2050.
5. The reason being that Horns Rev 3 wind farm will reduce CO<sub>2</sub> emissions in Denmark, since the electricity generated by the wind farm will displace electricity produced from burning coal; and contribute in the long term to reducing the costs of offshore wind technology.

### **National legal basis**

6. Once the tender process is complete, a bill will be introduced to the Danish Parliament authorising the grant of the concession. A combination of this bill, operator licences, the tender specifications and the concession contract, will form the legal basis for the measure.

### **Beneficiaries**

7. A single beneficiary will be selected through a tender process which was published in the Official Journal of the European Union on 6 December 2013.
8. The tender process involved a pre-qualification of bidders (in which all 4 interested bidders were pre-qualified). They then submitted initial, non-binding bids by 16 September 2014, which provided the basis for 1:1 negotiations in October-November 2014.
9. Denmark has explained that the participants in the negotiations were treated equally, and the discussions covered a range of issues which could potentially lower the price (for example the compensation that will be payable if the transmission system operator (TSO) delays the grid connection, and the collateral required to cover decommissioning costs). The results of the discussions were reflected in updated final tender conditions which were published on 5 December 2014. These tender conditions include a summary of the changes made as a result of the negotiations. The negotiation meetings were also recorded in minutes by the Danish Energy Agency.
10. The 4 companies participating in the tender can be considered to be fully independent competitors. The final bids must be submitted by 16 February 2015. The cheapest final bid (DKK / kWh, for 20 TWh output) will be successful. Denmark expects to select the beneficiary shortly after final bids are received.

### **Form of aid and duration**

11. The beneficiary will be granted a premium on top of the electricity price for the electricity production. The premium will be calculated for each hour and will be the difference between the price per kWh bid in the tender process (the 'target price') and the Nord Pool day ahead auction price for electricity for DK1 (western Denmark transmission zone).
12. This premium will be paid for 20 TWh of output (estimated by Denmark to be the full output of the wind farm over 11-12 years of operation). The payments will be made from the point at which the facility becomes operational and connected to the power grid (and from 1 January 2017 at the earliest) until 20 TWh of electricity has been produced, or for a maximum of 20 years from the connection of the wind farm to the power grid. The Horns Rev 3 wind farm will be fully written off according to Danish accounting rules after around 25 years.
13. For hours in which the day ahead auction price is higher than the target price, the premium calculation will be negative. This amount will be deducted from any future premiums due to the beneficiary.
14. The beneficiary will be responsible for finding a market for the electricity produced, and must cover any costs associated with selling its output into the market. The beneficiary will also face standard balancing responsibilities and be responsible for its own balancing arrangements and costs.
15. For hours in which the day ahead auction price is negative, no premium will be paid.

### **Budget and financing**

16. Denmark has estimated the expenditure for the Horns Rev 3 premiums for the first few years of the measure (see Figure 1):

Figure 1: Estimated PSO expenditures for Horns Rev 3 in 2014 prices, million DKK

2017	2018	2019	2020
129	440	813	986

*Source: Denmark*

17. Expenditures after 2020 are expected to slightly decrease as electricity prices are expected to increase. It is expected that the support will be granted during 11-12 years, but in any case no longer than 20 years.
18. The costs of the premiums paid to the beneficiary will be financed by electricity consumers, through a so-called PSO (public service obligation) tariff imposed on customers of transmission and distribution of electricity services. In principle, the same

PSO tariff is paid by all consumers and for all electricity supplied from the collective electricity grid<sup>1</sup>. In the second quarter of 2014, it stood at DKK 0.227/kWh.

19. The tariff is collected by the distribution system operators (DSOs), but transferred to the TSO, Energinet.dk, which manages payments according to the relevant legislation and sets the future tariffs on a quarterly basis. The PSO tariff to a large extent finances measures aimed at promoting green energy production. Indeed, in 2013, the share of the PSO tariff revenue affected to renewable energy support was 70%.

### **III. ASSESSMENT**

#### **Presence of state aid**

20. Article 107 (1) TFEU states that 'any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods, shall, in so far as it affects trade between Member States, be incompatible with the common market'.
21. The support for electricity production from the wind turbines at Horns Rev 3 will be financed through the PSO levy, i.e. through financial resources under the control of the State. The beneficiary will receive an advantage in the form of direct grants (a premium) for generating electricity. Such support would normally not be available under market conditions. The notified measure favours the generation of electricity from the offshore wind installation operated by one beneficiary and is therefore selective. Electricity is widely traded within the European Economic Area (EEA) and therefore the notified measure is likely to distort the competition on the electricity market and affect trade across the EEA. Therefore the notified measure constitutes State aid in the meaning of Article 107 TFEU.

#### **Legality**

22. The measure has not yet been put into effect. Thus, by notifying the measure, Denmark has complied with the standstill obligation set out in Article 108(3) TFEU.

#### **Compatibility under the Environmental and Energy Aid Guidelines**

23. The notified measure falls within the scope of the Guidelines on State aid for environmental protection and energy 2014-2020 (EEAG)<sup>2</sup>. The Commission has assessed the notified measure against the general compatibility provisions of the EEAG (EEAG Section 3.2) and against the specific compatibility criteria for operating aid

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<sup>1</sup> Reduced PSO tariffs apply for consumers with a consumption exceeding 100 GWh and for installations that generate electricity for their own consumption. These reductions are not dealt with in this decision, as they will form part of Denmark's notification of the adjustment plan that has to be submitted according to points 194 *et seq.* of the Guidelines on State aid for environmental protection and energy 2014 -2020.

<sup>2</sup> OJ C 200 of 28.06.2014.

granted for electricity from renewable energy sources (EEAG Sections 3.3.1 and 3.3.2.1) as required in point 120 for individual notified operating aid measures.

*Objective of common interest*

24. According to point 31 EEAG, a Member State needs to define the objective of common interest pursued by the measure and explain its contribution towards this objective. Denmark has explained that the measure will contribute to achieving its long term targets to decarbonise its energy sector.
25. The Commission considers that the notified aid measures are aimed at an objective of common interest in accordance with Article 107(3)(c) TFEU.

*Need for state aid, incentive effect and appropriate instrument*

26. In EEAG point 107 the Commission acknowledges that 'under certain conditions State aid can be an appropriate instrument to contribute to the achievement of the EU objectives and related national targets'.
27. According to point 116 EEAG, to allow Member States to achieve their targets in line with the EU 2020 objectives, the Commission presumes the appropriateness of aid provided all other conditions are met.
28. In line with EEAG point 49, the incentive effect occurs if the aid induces the beneficiary to change his behaviour towards reaching the objective of common interest which it would not do without the aid.
29. The Commission notes that without the aid the notified project would not be financially viable, as, once construction costs are accounted for, the offshore wind farm at Horns Rev 3 will generate electricity at a higher cost than the expected market price of electricity. Denmark has explained that the production costs for offshore wind power are 2-3 times higher than Denmark's projected wholesale prices for electricity in 2020. The aid is therefore necessary to bring forward investment in offshore wind generation, and provides an incentive for this investment.
30. Also, Denmark has confirmed that the applicants were selected by and required to submit applications during the tendering process. The Commission notes that in line with point 52 EEAG the notified measure complies with the obligation to use an application form for aid including the check of the counterfactual scenario for aid granted through a competitive bidding process. The Commission further notes that the applications were submitted before work on the project had started in line with point 50 EEAG.
31. Consequently, the Commission considers that the aid for the notified project is necessary, provides the necessary incentive effect to address the objective of common interest, and is granted through an appropriate instrument.

### *Proportionality*

32. According to point 69 EEAG, environmental aid is considered to be proportionate if the aid amount per beneficiary is limited to the minimum needed to achieve the environmental protection objective.
33. The EEAG recognise in point 126 that the proportionality of the aid can be ensured if the aid is granted through a competitive bidding process. As of 1 January 2017 the EEAG presumes that the aid is proportionate if the bidding process is open to all generators producing electricity from renewable sources on a non-discriminatory basis. However, as the tender provisions apply as of 2017, the EEAG allow the bidding process to be limited to specific technologies without further justification.
34. Therefore, the Commission has assessed the compatibility of the tender process with the definition in point 19 EEAG and the extent to which this provides a sufficient safeguard against overcompensation.
35. The tender process will allow the 4 bidders to compete to set the lowest level of aid required to bring forward the required investment, which will only be paid to 1 of the 4 prequalified bidders due to the limited volume of the tender. The 4 bidders can be considered independent competitors. The selection of the lowest priced bid after a competitive process will ensure the proportionality of the measure.
36. Point 129 EEAG requires that aid is only granted until the beneficiary plant has been fully depreciated according to normal accounting rules and any investment aid is deducted.
37. Denmark has explained that the Horns Rev 3 offshore wind farm will not be fully depreciated according to Danish accounting rules until after aid payments have ceased. The aid is limited to the first 20 TWh produced by the wind farm, expected to be around 11-12 years' operation at typical load factors for Danish offshore wind. The depreciation period of the Horns Rev 3 wind farm is around 25 years and the Danish authorities confirmed that it will not be less than the maximum period before aid payments cease (20 years). Moreover, no other aid will be granted to the project. The measure therefore satisfies this requirement.
38. Based on the information provided, the tendering process can be considered a competitive bidding process. Accordingly, the Commission considers that the aid granted for the notified projects will be proportional.

### *Distortion of competition and balancing test*

39. According to point 90 EEAG, the Commission considers that although aid for environmental purposes will tend to favour environmentally friendly technologies at the expense of other more polluting ones, the effect of the aid will in principle not be viewed as an undue distortion of competition since it is inherently linked to its objective of making the economy greener. The Commission must take into account the

overall environmental effect of the measure in relation to its negative impact on the market position and profits of non-aided firms.

40. Denmark has explained that the measure will provide an environmental benefit by displacing the production of electricity from burning coal, and therefore reducing CO<sub>2</sub> emissions.
41. Point 116 EEAG states that, to allow Member States to achieve their targets in line with the EU 2020 objectives, the Commission presumes the limited distortive effects of the aid provided all other conditions are met.
42. The Commission therefore considers that the measure will not have undue distortive effects on competition and trade so that the overall balance is positive.

*Cumulation and transparency*

43. The premium payment determined under the tender process will be the only subsidy available to the beneficiary, therefore there is no cumulation of aid.
44. Denmark has committed to comply with the transparency requirements in EEAG points 104 - 106.

*Compliance with other Treaty provisions*

45. In accordance with point 29 EEAG, as the PSO levy has the aim of financing the support for green electricity, the Commission has examined its compliance with Articles 30 and 110 TFEU.
46. According to the case-law, a charge which is imposed on domestic and imported products according to the same criteria may nevertheless be prohibited by the Treaty if the revenue from such a charge is intended to support activities which specifically benefit the taxed domestic products. If the advantages which those products enjoy wholly offset the burden imposed on them, the effects of that charge are apparent only with regard to imported products and that charge constitutes a charge having equivalent effect, contrary to Article 30 TFEU. If, on the other hand, those advantages only partly offset the burden borne by domestic products, the charge in question constitutes discriminatory taxation for the purposes of Article 110 TFEU and will be contrary to this provision as regards the proportion used to offset the burden borne by the domestic products.<sup>3</sup>
47. If domestic electricity production is supported by aid that is financed through a charge on all electricity consumption (including consumption of imported electricity), then the method of financing, which imposes a burden on imported electricity not benefitting

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<sup>3</sup> Joined Cases C-128/03 and C-129/03 *AEM*, EU:C:2005:224, paragraphs 44 to 47; Case C-206/06 *Essent*, EU:C:2008:413, paragraph 42.

from this financing, risks having a discriminatory effect on imported electricity from renewable energy sources and thereby violate Articles 30 and/or 110 TFEU<sup>4</sup>.

48. The aid measure subject to the present notification will be financed through a PSO tariff paid by electricity consumers. The tariff will be levied on electricity consumption, which may therefore also cover electricity imported from other EEA States. The Commission therefore is concerned that the financing mechanism could entail discrimination against imports within the meaning of Articles 30 and 110 TFEU.
49. In order to remedy the potential discrimination, Denmark has committed<sup>5</sup> to open up the RES pilot tenders it will organise in 2015 and 2016 for producers established in other EEA States, up to a share of 6% of the tendered capacity or up to 2.4 MW during this two year period (the bigger of the two figures shall prevail)<sup>6</sup>. The percentage figure has been established as a function of Denmark's total imports of green electricity from the neighbouring countries (Norway, Sweden and Germany) divided by the total electricity supply in Denmark and multiplied by the yearly new installed green electricity capacity. The imports of green electricity have been calculated as the average share of imports (more specifically imports not due to transit, but for consumption in Denmark only) from each of the neighbouring countries multiplied with the renewables share of total electricity production in each of the respective countries. The chosen formula reflects Denmark's situation as a transit country for electricity from Scandinavia, by only taking into account the share of imported electricity actually consumed in Denmark (given that only this share is effectively subject to the PSO charge).
50. The opening of the tenders to producers in other EEA States can be subject to the conclusion of cooperation agreements. This condition is in line with point 122 EEAG and the Renewable Energy Directive<sup>7</sup> which provides that Member States can set up cooperation mechanisms (Articles 6 to 11).
51. The participation in the tenders is further subject to evidence that the physical import of electricity from renewable sources will effectively take place, as far as the presentation of such evidence is feasible. This condition is in line with Articles 30 and 110 TFEU as without imports, no discrimination in the sense of Articles 30 and 110 TFEU would occur in the first place. In addition, Denmark needs to ensure that the electricity is indeed delivered to Denmark.

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<sup>4</sup> Case 47/69 *France v Commission*, EU:C:1970:60, paragraph 20. See also Case SA.38632 (2014/N) *Germany – EEG 2014 – Reform of the Renewable Energy Law* (not yet published in the OJ).

<sup>5</sup> See Commission decisions in cases SA.36204 – Aid to photovoltaic installations and other renewable energy installations, not yet published in the OJ, and SA.37122 – Aid to household wind turbines and to offshore wind turbines with an experimental aspect, not yet published in the OJ.

<sup>6</sup> According to point 126 EEAG, the tenders organised in 2015 and 2016 need to cover at least 5% of the planned new electricity capacity from renewable energy sources (pilot tenders). For the time being, the size of the pilot tender in Denmark is expected to amount to 20 MW. However, Denmark has indicated that in order to attract foreign investors, the effective share of tendered capacity for which these investors could bid would amount to a total capacity of up to 2.4 MW.

<sup>7</sup> Directive 2009/28/EC of 23 April 2009.



52. As the opening of the tenders removes the risk of discrimination against producers of green electricity in other Member States, the financing of the schemes through the PSO tariff will be compliant with Articles 30 and 110 TFEU until 31 December 2016.

*Conclusion with regard to the compatibility of the measure*

53. In light of the above, the Commission considers that the notified aid measure is compatible with the internal market.

**IV. Conclusion**

54. The Commission has accordingly decided not to raise objections to the aid on the grounds that it is compatible with the internal market pursuant to Article 107(3)(c) of the Treaty on the Functioning of the European Union.

55. If this letter contains confidential information which should not be disclosed to third parties, please inform the Commission within fifteen working days of the date of receipt. If the Commission does not receive a reasoned request by that deadline, you will be deemed to agree to the disclosure to third parties and to the publication of the full text of the letter in the authentic language on the Internet site:

<http://ec.europa.eu/competition/elojade/isef/index.cfm>.

Your request should be sent to:

European Commission  
Directorate-General for Competition  
State Aid Registry  
B-1049 BRUSSELS  
Telefax n°: + 32-2-296.12.42

Please mention the name and number of the case in all correspondence.

Yours faithfully,

For the Commission

*Margarethe VESTAGER*  
Member of the Commission