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**Subject: State aid SA.37433 (2017/FC) – Denmark**  
**Alleged State aid through discounts on waste water charges**

Sir,

**1. PROCEDURE**

- (1) By electronic letter dated 26 September 2013 the Commission received a complaint from the Danish Butchers' Federation (DBF) (hereinafter: "the complainant") representing the small and medium-sized slaughter houses in Denmark concerning the granting of alleged State aid to large slaughterhouses through a reduction in the waste water charges.
- (2) By letters of 10 October 2013, 6 November 2013 and 10 December 2013 the complainant submitted further information on the complaint. On 26 February 2014 the Commission services forwarded the complaint to and requested some information from the Danish authorities. By letter of 26 May 2014 the Danish authorities submitted information to the Commission. On 23 July 2014 the Commission services sent a *preliminary assessment letter* to the complainant. On 21 August 2014 and 23 October 2014, the Commission services received from the complainant further statements concerning this preliminary assessment as well as the Danish authorities' submission.
- (3) On 9 December 2014 the Commission services sent a request for information to the Danish authorities. By letter of 28 January 2015, the Danish authorities submitted information to the Commission. Based on this information on 25 February 2016 the Commission services sent a *second preliminary assessment letter* to the complainant.

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- (4) On 23 March 2016 and 21 June 2016, the Commission services received a letter from the complainant which was subsequently forwarded to the Danish authorities. The Danish authorities replied on 20 July 2016 and 13 October 2016 respectively. On 23 February 2017 a teleconference took place with the Danish authorities. Further to this teleconference, on 29 March 2017 a meeting took place between the Danish authorities and the Commission services where the latter requested further clarifications and information, which the Danish authorities provided on 18 May 2017 and on 12 September 2017.

## **2. DESCRIPTION OF THE ALLEGED STATE AID MEASURE**

- (5) Pursuant to the Act on Payment Rules for Waste Water Supply Companies etc. Law No 633/2010<sup>1</sup> (hereinafter Law No 633/2010), all property owners (hereinafter "consumers") connected to a waste water treatment company (hereinafter "plant") pay charges for discharge of waste water. The charges are broken down in six different parts:
- (a) connection charge,
  - (b) supplementary connection charge,
  - (c) annual charge for ordinary waste water,
  - (d) annual charge for particularly contaminated waste water,
  - (e) payment for other more specific issues, including climate change related adjustments of the plant and pipes,
  - (f) the municipalities and the Ministry of Transport pay an annual charge as road owners for guiding rainwater from the roads to the waste water system.
- (6) Law No 633/2010 provided a single per cubic meter charge applicable to all water consumers (i.e. households or companies active in all sectors of the economy), connected to the same plant regardless of their water consumption.
- (7) In order to create a more cost reflective charging system Law No 633/2010 was amended by Act on Payment Rules for Waste Water Supply Companies etc. (payment structure for the drainage contribution, authorisation of special contributions for the processing of particularly polluted waste water, etc.) Law No 902/2013<sup>2</sup>, enacted on 27 June 2013 (hereinafter "Law No 902/2013"). The aim was to provide for: a) a new degressive "staircase model" determining the charges based on the quantity of waste water consumption per m<sup>3</sup> and b) an additional charge for particularly contaminated waste water (which has a bigger impact on large consumers). The complainant focuses on point c) of Law No 633/2010 i.e. on the annual charge for ordinary waste water.

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<sup>1</sup> <https://www.retsinformation.dk/pdfPrint.aspx?id=131457>

<sup>2</sup> <https://www.retsinformation.dk/pdfPrint.aspx?id=152770>

**a) The degressive "staircase model" determining the charge per m<sup>3</sup>**

(8) The "staircase model" is defined so that:

- Step 1 equals water consumption up to 500 m<sup>3</sup> per year per property;
- Step 2 equals water consumption in excess of 500 m<sup>3</sup> and up to 20.000 m<sup>3</sup> per year per property;
- Step 3 equals water consumption in excess of 20.000 m<sup>3</sup> per year per property.

The waste water plants shall set up the charges per m<sup>3</sup> for each step as follows:

- For step 2 the charge per m<sup>3</sup> is 20 % below the rate for step 1,
- For step 3 is 60 % below the rate for step 1.

(9) Under the "staircase model", the consumers covered by the rate in step 3 also pay for the redistribution in the rates for steps 1 and 2 until their water consumption exceeds the water consumption in step 2 and their waste-water payment is therefore made according to the rate in step 3. Thus the relief is only granted for the last cubic metre of water used.

(10) These general pricing principles apply to all consumers in Denmark regardless of the sector they are active in. As total waste water costs and consumption volume differ across different plants, the pricing scheme results in different waste water charges per m<sup>3</sup> in the different municipalities served by these plants.

(11) According to the Danish authorities, the aim of the staircase model is to align waste water charges with the "true costs" that various consumers cause to the waste water network<sup>3</sup>. These "true costs" are reflected in the following formula, expressed in DKK per m<sup>3</sup>:

Specific consumer waste water treatment charge equals  $(0.8 \cdot T/x) \cdot (1/V) + (0.2 \cdot T/V_{tot})$ , where:

- 0.8 is the fixed costs share of the plant's total waste water costs,
- 0.2 is the variable cost share of the plant's total waste water costs,
- V is the volume of waste water discharged by a specific consumer,
- T is the plant's total waste water treatment costs,
- x is the number of waste water consumers connected to the plant, and

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<sup>3</sup> Submission of the Danish authorities of 28 January 2015, page 2-3.

- V<sub>tot</sub> is the total volume of waste water treated at the plant.
- (12) This formula sets out the methodological backup justifying the structure of the staircase model in line with the waste water total payment per consumer at  $V m^3 = 0.8T/x + V * 0.2T/V_{tot}$ . This formula corresponds to the assumption that variable costs are caused fully by each consumer concerned, while fixed costs are divided equally amongst consumers per connection points.
- (13) The above formula allocates the total costs of waste water utilities to consumer based on causation. The formula is based on the assumption that 80% of the plant's related costs tend to be fixed while 20% tend to be variable<sup>4</sup>. This distribution between fixed and variable costs in relation to the staircase payment model is based on the Waste Water Committee's report and the data provided therein<sup>5</sup>. Moreover, according to the Danish authorities, in an even more cost true model costs including, amongst others, the treatment of rain water would lead to an even higher share of fixed cost than 80%.

**b) Regulation of consumers' obligation to connect to a plant (centralized treatment)**

- (14) The pollution concentration in the waste water also depends on whether a consumer has established pre-treatment equipment before discharging the waste water to the sewer.
- (15) The rules determining the handling of the waste water are set out in the Environmental Protection Act, Statutory Order No. 1189 of 27 June 2016<sup>6</sup> as amended. According to this Order, the municipality is obliged to determine the areas where all properties have to discharge waste water to a centralized waste water treatment plant<sup>7</sup>. Moreover, a property owner that is appointed to a plant is obliged to discharge waste water from the property to that plant<sup>8</sup>.
- (16) However, the municipality has the legal power to allow a property owner to fully or partly disconnect from the centralized treatment and set up their own decentralized waste water treatment<sup>9</sup>, if the following requirements are met:
- (a) It should be in accordance with the municipal council's plan for the disposal of waste water in the municipality,
  - (b) There is an agreement between the property owner and the municipal council,

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4 Submission of the Danish authorities of 18 May 2017, section 2.2. page 8. <http://naturstyrelsen.dk/media/nst/Attachments/Analyserapport.pdf> page 21 Figure 3 of the Danish Waste Water Committee's report.

5 Annex 7 of the report cited above.

6 Ibid 4 <https://www.retsinformation.dk/Forms/R0710.aspx?id=184047>

7 Ibid 4, Section 32(1) of Statutory Order No. 1189

8 Ibid 4, Section 28(4) of Statutory Order No. 1189

9 Ibid 4, Section 16 of the Statutory Order No. 726 dated 1 June 2016.

(c) There is no significant deterioration of the plants' overall economy and it can continue to function in a technically correct manner.

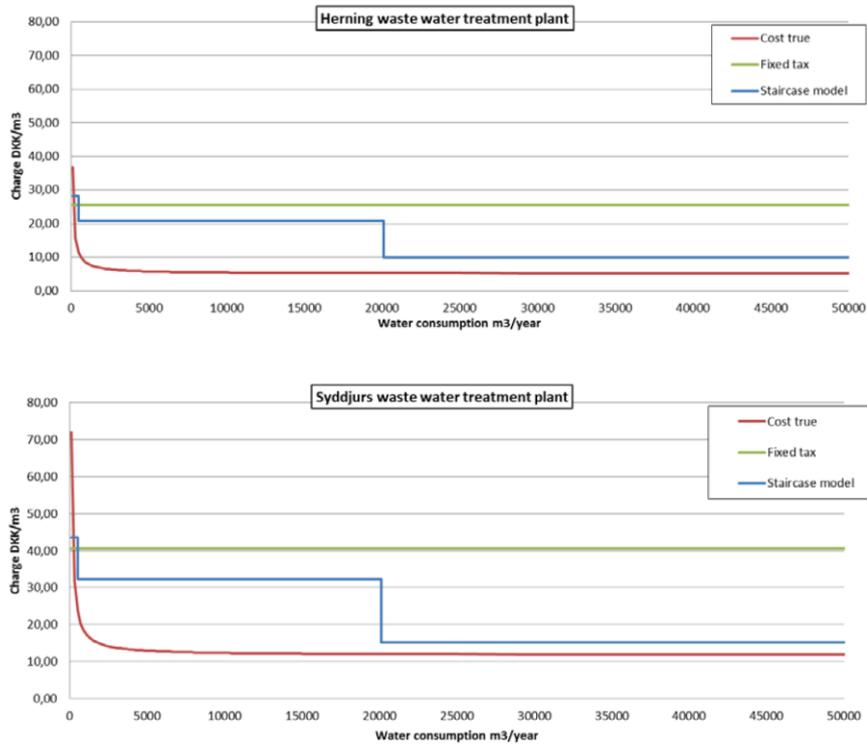
- (17) In this case, property owners finance their own waste water treatment and are exempted from payment of waste water charges.
- (18) Since the "staircase model" provides for per-cubic meter charges that decrease in function of the total waste water consumption amount, the complainant considers that the new charges imply a form of quantity rebate for larger water consumers. The complainant essentially alleges that the new "staircase model" favours the larger slaughter houses in Denmark as they benefit from a waste water charge reduction compared to the previous flat rate charging system. Thus, the complainant alleges that this reduction confers an economic advantage in favour of larger slaughterhouses, which constitutes State aid within the meaning of Article 107(1) of the Treaty on the Functioning of the European Union ("TFEU").

### **3. POSITION OF THE DANISH AUTHORITIES**

- (19) The Danish authorities consider that the measure in question does not meet all the cumulative conditions set in Article 107(1) TFEU and therefore it does not constitute State aid.
- (20) The Danish authorities argue in particular that the "staircase model" constitutes a general measure as the new method is applicable to all consumers. It does not differentiate between the type and size of companies; and is based on a degressive payment structure that reflects the plant's actual costs for handling waste water.
- (21) In particular, according to the Danish authorities, the "staircase model" ensures that all costs are allocated to various consumers on the basis of the assumption that 80% of the wastewater treatment plant's related costs tend to be fixed while 20% tend to be variable.
- (22) The two graphs below would illustrate for two different plants, the per m<sup>3</sup> charges under the previous system (horizontal line representing the fixed costs), the "true cost" benchmark according to the formula provided in recital (12) above (curved line) and the staircase tariff (staircase line). Based on the assumption of the 80/20% split between fixed and variable costs, the previous single constant tariff (horizontal line) led to charges for larger waste water consumers that were well above the costs they caused. These illustrations show that the costs related to the treatment of waste water evolves depending on the volume of water treated and the staircase model is by far more cost-reflective than the old fixed rate system.<sup>10</sup>

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<sup>10</sup> See submission of the Danish Authorities of 28 January 2015, page 4.



**Figure 1: Benchmark costs, fixed fee and staircase tariffs calculated for two waste water treatment plants**

- (23) Moreover, submitted data illustrates that even if the ratio of fixed to variable costs were somewhat lower (e.g. 70:30 instead of 80:20) prices charged under the “staircase model” would remain above the benchmark of the “true cost” curve<sup>11</sup>.
- (24) They argue further that the "staircase model" is only part of the overall charging methodology for waste water charges as described in recital (5) above. When the "staircase model" was introduced to replace the old flat rate system, a charge for particularly contaminated waste water was introduced as well. The introduction of these two mutually independent but interconnected charges would reflect more accurately the true costs and be in line with the polluter pays principle. All companies in the same *de jure* and *de facto* situation are treated and charged alike<sup>12</sup>.
- (25) Moreover, the Danish authorities argue that it is fair to question whether there is in fact an economic advantage for the companies on step 3 of the staircase. For this purpose they have provided calculations alleging that it is more profitable for the large waste water companies in general to have a decentralized waste water treatment<sup>13</sup>. Even though companies do not always have the actual opportunity to be disconnected from a centralized plant, calculations would illustrate that large

<sup>11</sup> Ibid 4.

<sup>12</sup> See submission of the Danish Authorities of 26 March 2014.

<sup>13</sup> Ibid 4.

waste water companies pay a higher charge when connected to a centralized plant as opposed to the wastewater treatment cost of companies treating their own waste water<sup>14</sup>.

- (26) Furthermore, the Danish authorities claim that the fact that large waste water consumers now pay less with the staircase model is not enough to conclude that there is a distortion of competition. It would be crucial to look at all aspects of the system. The Danish authorities state "*When redemption is made for those who have been treated unjust, it cannot be argued that the same 'redemption' automatically should be imposed for those who have not been in the same actual and factual situation. The fact is the firms on step 2 now also pay less due to the staircase model than they did with the flat rate – but their new and more cost true payment is closer to the flat rate, than the payment on step 3*"<sup>15</sup>.

#### 4. ASSESSMENT OF THE MEASURE

- (27) In order for a measure to constitute State aid within the meaning of Article 107(1) TFEU it has to fulfil on a cumulative basis four conditions. Firstly, the aid is granted by a Member State or through State resources. Secondly, the measure confers a selective advantage to certain undertakings or the production of certain goods. Thirdly, the measure must be liable to affect trade between Member States. Fourthly, the measure must distort or threaten to distort competition in the internal market.
- (28) The Commission considers it appropriate to assess first the notions of advantage to consumers of waste water services and, in relation to the assessment of the presence or absence of advantage, the notion of State resources.
- (29) An advantage, within the meaning of Article 107(1) TFEU, is any economic benefit which an undertaking could not have obtained under normal market conditions, that is to say in the absence of State intervention<sup>16</sup>. Not only the granting of positive economic advantages could constitute State aid, but the advantage can also consist in relief from economic burdens that are normally included in the budget of an undertaking.<sup>17</sup>
- (30) The operators of an infrastructure, such as the waste water treatment plants at stake in the present case, are in a position to grant an advantage to the users of the infrastructure unless the terms of use comply with the market economy operator

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<sup>14</sup> Ibid 4.

<sup>15</sup> Ibid 4. Section 6, page 28.

<sup>16</sup> Judgment of the Court of Justice of 11 July 1996, *SFEI and Others*, C-39/94, ECLI:EU:C:1996:285, point 60; Judgment of the Court of Justice of 29 April 1999, *Spain v Commission*, C-342/96, ECLI:EU:C:1999:210, point 41.

<sup>17</sup> See point 68 of the Commission Notice on the notion of State aid as referred to in Article 107(1) of the Treaty on the Functioning of the European Union, OJ C 262, 19.7.2016, p. 1 (hereinafter "the Notice").

principle (hereinafter "MEOP" test) that is to say that the infrastructure is made available on market terms<sup>18</sup>.

- (31) In order to assess whether the reduced ordinary waste water charges applicable under the “*staircase model*” confer an advantage to the companies discharging waste water, the Commission assessed whether the tariff system is in line with the logic of a market economy operator.
- (32) The Commission assessed in particular whether a market economy operator that is subject to the same pricing constraints as the waste water utilities at stake in the present case would introduce quantity rebates such as those achieved by the staircase system.
- (33) The Commission has provided guidance in section 7.4 of the Notice on the notion of aid<sup>19</sup> on the methodology to use in order to assess whether the terms of use for the end-users of an infrastructure are in line with market terms. Pursuant to paragraph 225, if the resources of the operator of an infrastructure constitute State resources, it is in a position to grant an advantage to the users of the infrastructure (if they are undertakings) unless the terms of use comply with the market economy operator test, that is to say the infrastructure is made available to the users on market terms.
- (34) In the present case, the charges constitute State resources and are attributable to the State, as the system was imposed by a national law (Law 902/2013, see point (7) above, and the waste water treatment plants are municipal public companies whose resources are therefore considered as being under the control of the State.<sup>20</sup>
- (35) This said, the charges for the waste water treatment are not set through a tender. Furthermore, there appear to be no market benchmarks for the use of a comparable infrastructure. Therefore, points 226 and 227 of the Notice do not apply to the case at stake.
- (36) Given the absence of prices set through tenders and of market benchmarks (paragraphs 226 and 227 of the Notice), the Commission will, as explained in paragraph 228 of the Notice, assess the existence of market conditions on the basis of a generally accepted standard assessment methodology. In this respect, the Commission considers that the MEO test can be satisfied for public funding of open infrastructures not dedicated to any specific user(s) *where their users incrementally contribute, from an ex ante viewpoint, to the profitability of the project/operator*. This is the case where the operator of the infrastructure establishes commercial arrangements with individual users that allow covering all costs stemming from such arrangements, including a reasonable profit margin on the basis of sound medium-term prospect. This assessment should take into

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<sup>18</sup> Judgment of the Court of Justice of 11 July 1996, *SFEI and Others*, C-39/94, ECLI:EU:C1996:285, paragraphs 60 and 61.

<sup>19</sup> OJ C 262 19.7.2016, p.1

<sup>20</sup> See case C-482/99, France / Commission, ECLI:EU:C:2002:294, paras. 32 to 38.

account all incremental revenues a revenues and expected incremental costs incurred by the operator in relation to the activity of the specific user<sup>21</sup>.

- (37) The Commission considers that, as the charges in question apply horizontally to all consumers linked to a particular plant and are not dedicated to any specific consumer, the MEOP is satisfied if the staircase model ensures that the charges in question cover the plants' incremental costs.
- (38) The Commission verified whether the charges under the "staircase model" are such that they enable the plants to cover incremental costs in the medium-term. Such incremental costs encompass all categories of expenses or investments, such as personnel, equipment and investment costs, induced by the presence of the user<sup>22</sup>.
- (39) In the Danish staircase model, the main factor driving the incremental cost benchmark a consumer causes to the waste water system is the ratio of fixed to variable costs. In particular, all variable costs can be attributed to the consumer concerned. However, fixed costs are divided among the consumers. The "*cost true*" benchmark applied by the Danish Authorities follows this logic, and allocates fixed costs equally to the connection points.
- (40) The Commission furthermore considers that the distribution of total waste water utility costs into 80% fixed and 20% variable is reasonable over a typical infrastructure planning horizon. This ratio is supported, among others, by figure 3 on page 21 of the Danish Waste Water Committee's analysis report and the data provided in annex 7 of the report, which essentially confirms the appropriateness of this proportional split between fixed and variable costs as regards the relevant number of Danish waste water plants considered in that report.<sup>23</sup>
- (41) Furthermore, the Commission analysed whether the reductions introduced for step 2 and 3 do not amount to the charges being below true costs. In this respect, the Commission considers that the staircase charges on steps 2 and 3 are higher than the "true cost" curve that arises from the distribution of costs into fixed and variable costs. According to data provided by the Danish authorities, even if the ratio of fixed to variable costs were considerably lower (e.g. 70:30 instead of 80:20), the prices charged under the "staircase model" would remain above the benchmark of the "true cost" curve on the steps with reduced charge (steps 2 and 3). By applying the aforementioned formula on data provided for six

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<sup>21</sup> See point 228 of the Notice, as well as paragraph 176 of the Commission's decision in case SA.36147 on the alleged infrastructure aid implemented by Germany in favour of Propapier PM2 GmbH, OJ L 89, 1.4.2015, p. 72 (hereinafter, the "Propapier case"). See also joined cases 67, 68 and 70/85, *Kwekerij Gebroeders van der Kooy BV et al. / Commission*, ECLI:EU:C:1988:38, para. 30.

<sup>22</sup> See point 64 of the Guidelines on State aid to airports and airlines, OJ C 99, 4.4.2014, p. 3.

<sup>23</sup> <http://naturstyrelsen.dk/media/nst/Attachments/Analyserapport.pdf>. The Commission notes that some of the costs considered by the Waste Water Committee as variable may be argued to be fixed over a reasonable planning horizon. In particular, costs related to treatment of rain water and the level of pollution may not vary with the level of consumption, and therefore could be regarded as fixed. In that case, the share of fixed costs may be even above 80%.

municipalities in Denmark as regards step 3 customers, the Commission concluded that even with the share of fixed costs considerably lower than 80%, the staircase charges would remain above true costs<sup>24</sup>

- (42) Against this background, the Commission concludes that the charges paid under the "staircase model" do not convey an advantage to undertakings. As mentioned at point (9) above, all customers with high volumes of waste water, i.e. those located in steps 2 and 3, pay first the charge under step 1 and, if applicable 2, until their water consumption exceeds the water consumption in the respective steps. Moreover, the reduced charges exceed the costs that can be regarded to be incremental in the medium term. Therefore, it can be concluded that, in line with point 228 of the Notion of aid, through the charges paid for ordinary waste water, the users of each waste water treatment plant are contributing to the profitability of that plant.
- (43) Moreover, the Danish authorities provided data as to the fact that larger consumers have high elastic demand as opposed to smaller consumers, meaning that they would reduce the use of the public waste water network rapidly in response to a small increase in the waste water charge. This is primarily due to the fact that large consumers may opt out from the system by building their own waste water treatment facilities that are not connected to the main sewage system<sup>25</sup>. In this event, large consumers (typically those included in step 3) would not be obliged to pay the waste water charges at stake.
- (44) The Danish authorities provided credible indications that opting out of the system might be beneficial for large consumers and would be to the detriment of the centralised system. This position is confirmed by the rules described in point (25) above, where there is a provision that a consumer cannot disconnect from the plant if the plant's economy would be significantly deteriorated.
- (45) Furthermore, potential inefficiencies arising from excessive decentralised waste water treatment is recognized in the literature on the economics of the water sector. For instance a recent report of the European Environmental Agency on water pricing<sup>26</sup> notes that *'one should be aware of the fact that some users of water services have alternatives available, which may become attractive if the price of the water service becomes too high.[...] in the case of wastewater treatment, they may start building and operating their own private treatment plants. This not only affects the rate of cost recovery for the public (collective) water service investments, but it may also lead to a less efficient use of water resources.'*
- (46) This feature confirms that keeping the larger users -typically those included in step 3 of the staircase model- contributes to the profitability of the waste water

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<sup>24</sup> Ibid 4, section 2.1. pages 5-9.

<sup>25</sup> See section c) and point 30 of this decision.

<sup>26</sup> European Environment Agency (EEA), "Assessment of cost recovery through water pricing." Technical Report, No. 16/2013, page 22.

treatment plants and allows them to resist the competition-like pressure of users willing to leave the system. At the same time, the charge for those users still exceeds the true costs incurred by the waste water treatment plant even for the largest customers who can benefit from the step 3 reduction.

## 5. CONCLUSION

- (47) The Commission thus concludes that the charges introduced by Law No 902/2013 do not confer an advantage to certain undertakings and therefore do not constitute State aid within the meaning of Article 107(1) of the Treaty.

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>.

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State Aid Registry  
B-1049 Brussels  
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Yours faithfully  
For the Commission

Margrethe VESTAGER  
Member of the Commission