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| In the published version of this decision, some information has been omitted, pursuant to articles 24 and 25 of Council Regulation (EC) No 659/1999 of 22 March 1999 laying down detailed rules for the application of Article 93 of the EC Treaty, concerning non-disclosure of information covered by professional secrecy. The omissions are shown thus […]. | | PUBLIC VERSION<br><br>This document is made available for information purposes only. |

**Subject: State Aid SA.52390 (2019/N) – Germany**
**Reacquisition of the Hamburg District Heating Network**

Sir,

## 1. PROCEDURE

(1) On 17 January 2019, after pre-notification contacts, the German authorities notified to the Commission for reasons of legal certainty the acquisition of the district heating network in Hamburg from its current majority shareholder Vattenfall by the city of Hamburg.

(2) On 18 January 2019, 5 February 2019 and 14 February 2019, the Commission requested additional information from Germany, which replied on 24 January, 28 January, 8 February and 26 February 2019.

(3) On 13 March 2019, Germany waived its right under Article 342 TFEU in conjunction with Article 3 of Regulation (EEC) No 1/1958 to have the decision adopted and notified in German and agreed for the decision to be adopted and notified in English.

Seiner Exzellenz Herrn Heiko Maas
Bundesminister des Auswärtigen
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## 2. DETAILED DESCRIPTION OF THE MEASURE

(4) The district heating network in Hamburg is currently owned and operated by the Vattenfall Wärme Hamburg GmbH (VWH), whose majority shareholder is Vattenfall GmbH. In 2012, the city-owned Hamburger Gesellschaft für Vermögens- und Beteiligungsmanagement GmbH (HGV) acquired an interest of 25.1 % in VWH at a price of EUR 325 million.

(5) In 2013, the citizens of Hamburg voted by referendum in favour of public ownership of the city's energy networks, including the district heating network.

(6) In 2014, HGV and Vattenfall agreed on a purchase option in order for HGV to acquire the remaining 74.9% of the district heating network ("Vereinbarung Wärme"). The purchase option defines a minimum purchase price of EUR 950 million corresponding to 100 % of VWH's equity value.

(7) The government of Hamburg announced that it would implement a new energy generation concept following the full acquisition of the shares of VWH. This new energy generation concept consists in the replacement of two coal-fired generation plants by high-efficient gas-fired CHP plants, as of 2025 and 2030 respectively, as well as an upgrade and extension of the district heating grid infrastructure.

(8) In the course of 2018, different consultancies made several evaluations of VWH's equity value (i.e. enterprise value minus net debt).

(9) BDO performed a first evaluation in May 2018. Applying the discounted cash flow (DCF) methodology, BDO concluded that the equity value would amount to EUR 645 million.

(10) The consultancy LBD performed a second valuation in October 2018, applying also the dividend discount methodology, which concluded that VWH's equity value was of EUR 1,097 million. Unlike BDO, LBD based its valuation on the new energy generation concept envisaged by the city of Hamburg, referred to above in recital (7).

(11) PwC reviewed this latter evaluation in October 2018. The review report identified a number of corrections to the equity value made by LBD. These corrections in particular related to the discount rate applied (effect: - EUR [200-250] million), the expected sales volumes, maintenance costs and cost of debt (effect: - EUR [85-100] million) as well as the expected State support that the new energy generation concept would trigger under the CHP Act (effect: - EUR [130-180] million). On this basis, PwC evaluated VWH at an equity value of EUR 615 million.

(12) An additional report by LBD conducted in December 2018 assessed the transaction from a private investor perspective. It in particular identified the potential for a private investor to increase heat prices and the possibility for the generation plants to be built under the new energy generation concept to benefit from continuous CHP support in the future. The findings of this second LBD report were subsequently confirmed by PWC.

(13) Finally, a fairness opinion released by the Commerzbank in December 2018 assessing the equity value under all available financial methodologies (applying the multiple, dividend discount and discounted cash flow approaches), concludes that the minimum purchase price set in the purchase option is indeed adequate.

(14) Germany considers the evaluation made by LBD of October 2018 to be the most relevant as it takes into account the new energy generation concept envisaged by the city of Hamburg. However, Germany proposes the following corrections in its evaluation of VWH's equity value:

(a) The evaluation made by LBD relies on the dividend discount methodology. LBD applies a discount rate of 5.5 %. This rate has subsequently been challenged by PwC as too low (leading to a lower value of the company) because it reflects the expected return of the sold entity only, disregarding the expectations of return of the sector. In addition, the discounted cash flow methodology applied by Commerzbank uses a higher discount rate of [5.5-7.5] %. Against this background, Germany proposes a correction of the discount rate used to calculate the equity value of VWH by LBD from 5.5 % to the median value of [4.3-7.5] %. To support this correction the German authorities provided a calculation of the discount rate using the Capital Asset Pricing Model (CAPM) on the basis of input variables (beta, risk-free rate of interest, market premium) stemming from the LBD report, the Commerzbank fairness opinion, the BDO valuation as well as the German Institute of Public Auditors (*Fachausschuss für Unternehmensbewertung beim Insitut der Wirtschaftsprüfer*). This calculation provides for a scope of possible discount rates ranging from 4.3 to 7.5 %. This correction decreases the equity value as proposed by LBD by EUR [100-130] million.

(b) Another correction made by Germany relates to LBD's assumptions that the new energy generation would continue to receive CHP support in line with the current level of CHP support also after 2022, when the current legal basis for CHP support, as approved by the European Commission under State aid rules[1], will expire. LBD initially assumed that the new high-efficient CHP generation plants, envisaged to be operational as of 2025 and 2030 respectively, would receive CHP support amounting to EUR 155 million (net present value). Germany has proposed to make modifications to these assumptions by factoring in the uncertainty that CHP support will continue after 2022. To this end, Germany estimates the probability for the generation plant, which will be operational as of 2025, to receive CHP support to be 90 %; while for the second generation plant, which is envisaged to be operational as of 2030, this probability is proposed to be 50 %. These different probability rates are explained by the fact that the German legislator has recently prolonged the CHP support until 2025 subject to State aid clearance.[2] Based on this probability approach supported by the second LBD study, Germany claims that a private investor would estimate the CHP support to amount to EUR [90-

[1] SA.42393.

[2] Cf. Article 2 of the Energiesammelgesetz (BGBl. 2018, part I no. 47, p. 2522).

120] million. The impact of this correction is a decrease of the equity value by - EUR [40-70] million compared to the analysis of LBD.

(c) Another correction relates to the expected sales volumes, maintenance costs and the cost of debt. The LBD evaluation relied on optimistic assumptions as regards increases in sales volumes after the implementation of the new energy generation concept, maintenance costs of the district heating network and the cost of debt. PwC found these assumptions, in particular as regards projected sales volumes to be too optimistic, while the maintenance costs and cost of debt were deemed underestimated. Against this background, PwC corrected the LBD base value by - EUR [80-120] million. Germany has decided to accept 50% of the corrections made by PwC. The impact of these adjusted corrections on VWH's equity value is therefore - EUR [40-70] million.

(d) Furthermore, LBD in its first report of October 2018 based its valuation on the assumption that the heat prices would only be increased by +2 % per year reflecting the annual rate of inflation. Germany argues that a private investor would be able to implement an additional (one-time) increase in heat prices by [2-4] % in 2024 beyond the assumptions made by the first LBD report of October 2018. To this end, Germany relies on the second LBD report of December 2018, which assessed the transaction from a private investor perspective (see recital (12)). This study points to a relatively low price sensitivity of the district heating customers who are bound to this heating technology and would have to make significant investments to change to alternative heating technologies. Against this background, LBD argues that HGV would be able to implement an additional [2-4] % price increase, without breaching national competition rules for abuse of dominant position. LBD demonstrates that the federal and regional competition authorities would intervene where the heat prices would be 20 % above the median market price. As the prices of VWH are already about [7-10]% above the average, LBD argues that, a price increase of [2-4] % in 2024 would allow for a sufficient safety buffer, because it would increase the difference with the market from [7-10] % to less than [12-17] % and therefore below the 20% limit. PwC confirmed this LBD assessment in a subsequent report referred to above in recital (11). Net effect: + EUR [60-100] million.

(15) By taking into account the above-described corrections, Germany in sum proposes an equity value of VWH of EUR [940-1000] million (see table 1).

**Table 1 - VWH's equity value as per notification**

| EUR in millions | |
|---|---|
| **Equity value as per LBD** | **1,097** |
| (-) WACC/discount rate | [...] |
| (-) CHP support probabilistic assessment | [...] |
| (-) Revision of other PwC adjustments | [...] |
| (+) +3% price increase in 2024 | [...] |
| **Equity value - adjusted** | **[940-1,000]** |

*Source: Hamburg, LBD, PwC, DG Comp analysis*

(16) In addition, Germany claims that the transaction would trigger a significant tax advantage for HGV, which would increase the value that VWH would have for HGV. Germany explained that this tax advantage essentially derives from the fact that HGV has significant yearly taxable losses because of other loss making business segments (e.g. local passenger transport, swimming pools). These taxable losses of the HGV would reduce the taxable basis of the merged entity. Therefore, the tax burden of the merged entity would be lower compared to a situation where HGV and VWH were taxed separately. This tax advantage is expected to amount to EUR [90-120] million.

(17) Moreover, Germany claims that the transaction would trigger other operational synergies, which, however were not quantified in the notification.

(18) HGV exercised its purchase option in November 2018. The purchase will be finalized in 2019 and become effective retroactively as of 1 January 2019.

## 3. ASSESSMENT OF THE MEASURE

(19) Article 107(1) TFEU provides that *"[s]ave as otherwise provided in th[e] Treaty, 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 internal market"*.

### 3.1. Existence of an advantage

(20) 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. Whenever the financial situation of an undertaking is improved as a result of State intervention on terms differing from normal market conditions, an advantage is present. The test to determine whether an economic transaction is in line with normal market conditions is referred to as the Market Economy Operator Principle (MEOP). The purpose of the MEOP test is to assess whether the State grants an advantage to an undertaking by not acting like a market economy operator with regard to the transaction at stake.

(21) The Commission considers that the MEOP test is applicable in the present case. By acquiring full ownership via its subsidiary HGV, the city of Hamburg is acting not in its capacity as a public authority, but as an economic operator.

(22) The measure can be regarded to satisfy the MEOP test if the purchase price paid by HGV corresponds to the price that a market economy operator would be ready to pay. The Commission considers this condition to be fulfilled if the overall purchase price reflects the equity value of VWH.

(23) According to the Commission's Notice on the notion of State aid[3], whether a transaction is in line with market conditions can be established on the basis of a generally-accepted, standard assessment methodology. Such a methodology must be based on the available objective, verifiable and reliable data, which should be sufficiently detailed and should reflect the economic situation at the time at which the transaction was decided, taking into account the level of risk and future expectations.

(24) Germany has submitted several independent valuations of VWH's equity value (see recitals (9)-(13)). The Commission acknowledges that the evaluation made by LBD in October 2018 takes into account the new energy generation concept that HGV intends to implement after the reacquisition. Moreover, the Commission acknowledges that PWC has confirmed the appropriateness of the general methodology applied by LBD. The corrections subsequently made by PWC aim at ensuring strict compliance with international accounting standards, but do not put the general methodology into question. The Commission therefore shares the view of the German authorities that the LBD evaluation indeed can serve as a fair approximation of the equity value of VWH. The Commission moreover approves the view of the German authorities that a prudent market investor would however critically assess the various assumptions underlying the LBD evaluation, notably by taking into account the significant difference in value compared to the BDO evaluation of May 2018 and the corrections proposed by PwC in its review of the LBD report.

(25) The most significant correction proposed by Germany to the evaluation of LBD relates to the discount rate applied. While the LBD evaluation applied a discount rate of 5.5 %, Germany argues that the correct discount rate should be set at [4.3-7.5] %. To this end, Germany has submitted a sensitivity analysis applying the CAPM, while using input variables (beta, market premium etc.) that were provided by the various independent consultants. The outcome of this sensitivity analysis demonstrates that a discount rate of [4.3-7.5] % corresponds to a median value. (By applying the CAPM methodology, Germany implements the recommendation of PWC, which found the initial 5.5 % as proposed by LBD to reflect the expected return only and recommended to determine the discount rate via the CAPM.) Against this background, the Commission considers a discount rate of [4.3-7.5] % to be an assumption that a private market operator would make.

(26) Furthermore, the Commission is of the view that a private investor would not consider a continuation of CHP support at the current level beyond the expiry of the relevant legal basis for granted. In this regard, the Commission also notes that PwC bases its corrections on the accounting standards that do not foresee to take into account a cash flow, which is not sufficiently certain. Nevertheless, the Commission acknowledges that a private market investor would assess the probability that such support will continue to be granted. In this spirit, the

[3] OJ 2016 C 262/01, point 101.

German authorities have corrected the LBD assumptions as regards the CHP support that the two high-efficient CHP plants which are expected to be operational as of 2025 and 2030 respectively as foreseen by the new energy generation concept will receive. While the LBD assumptions rely on an unchanged continuation of the current CHP support as foreseen by the CHP Act as approved by the Commission (SA.42393) until 2022, the German authorities apply a probability factor of 90 % in relation to the CHP-plant expected to be operational in 2025. To this end, the German authorities in particular took into account that the German parliament has decided on a prolongation of the CHP support until 2025, which however is subject to State aid approval. At the same time, the German authorities apply a probability factor of 50 % in relation to the second CHP plant that is envisaged to be operational as of 2030. To this end, the German authorities rely on e.g. on the recommendations of the Coal Commission which recommended a further prolongation of the CHP support until 2030. The Commission considers the probability approach as presented by the German authorities to reflect the economic assessment that a private investor would make when making a purchase decision.[4]

(27) The Commission furthermore acknowledges that the potential for an increase of heat prices is supported by the findings of the second LBD report issued as referred to in recital (12). LBD confirmed the potential for heat price increases that a prudent market operator would indeed intend to implement. To this end, LBD identified a potential to increase prices by 10 % without entering into conflict with national antitrust rules, while they conclude that a prudent market operator would limit the price increase to [2-4] % in 2024 in order to maintain a safety buffer to the abuse threshold under national antitrust rules. The Commission considers the assumption put forward by Germany to be very optimistic, taking into account the already high level of heat prices at [7-10] % above market average. Nevertheless, the Commission cannot exclude that a private market investor would make such assumption when evaluating the equity value of VWH.

(28) Moreover, the Commission is of the view that it is not inappropriate from the perspective of a private market investor to cautiously factor in half of the corrections proposed by PWC in relation to the LBD assumptions regarding the increase of sales volumes, maintenance costs as well as the cost of debt when evaluating the equity value of VWH.

(a) While LBD in its evaluation of October 2018 assumed an annual net increase of sales volumes of [1-1.5] %, PWC in its review considered this assumption too ambitious and proposed a correction to an annual increase of sales volumes of [0.4-0.8] % based on historical figures. The Commission acknowledges that it is for a private investor to define its business plan and to pursue ambitious targets in terms of sales volumes, the prospect of which cannot solely be determined on the basis of historical figures, in particular where the investor intends to implement a new energy generation concept. By accepting half of the correction proposed by PWC, the German authorities lower their assumptions as

[4] This assessment purely reflects a market economy operator perspective in the context of this decision. It is without prejudice to any decision the Commission might adopt with regard to the CHP support applicable after 2022.

regards sales volume increases to a level which a private market investor that intends to implement such new energy generation concept including two high-efficient CHP plants and an extension of the district heating grid infrastructure would factor in when evaluating the equity value of VWH.

(b) PWC considered the costs of maintaining the district heating network as assumed by LBD to be too little. To this end, PWC relied on data collected via its own project expertise, while the LBD cost assumption relied on historical data from VWH's own maintenance experience as well as the project expertise of LBD. Against this background, the Commission finds it plausible that a private market investor would factor in a value that corresponds to the median of the two sets of project experiences.

(c) Moreover, PWC corrected the cost of debt as assumed by LBD. While LBD assumed the cost of debt to be 2.25 %, PWC corrected this value to 2.75 %. PWC relied on a range justified this correction by the range of observed cost rates as communicated by HGV ranging from 2.5 % to 3 % at the time of the PWC review. The German authorities however have submitted updated data that suggests that HGV was more recently able to qualify for a cost of debt ranging from 2.46 % to 2.62 %. Against this background, the German authorities propose to apply the value of 2.5 % for the cost of debt when evaluating the equity value of the VWH. As 2.5 % indeed is within the ranges as identified by PWC as well as observed more recently, the Commission considers that this assumption is justifiable from a private market operator perspective.

(29) The Commission also takes note of the fairness opinion issued by Commerzbank, which assesses the market compliance of the purchase price in light of the terms under which comparable transactions have taken place. To this end, Commerzbank applied the multiples approach analysing a representative set of comparable transactions as well as comparable companies. In addition, Commerzbank has conducted yet another evaluation of VWH's equity value applying the discounted cash flow and discount dividend methodology. The various methodologies support an equity value ranging from EUR 929 million to 1,316 million. On this basis, Commerzbank concluded that the purchase price of EUR 950 million is appropriate.

(30) Furthermore, the Commission takes note of the alleged tax advantage that would arise following the transaction at issue as well as the operational synergies presented. The Commission acknowledges that such possibility to optimize the tax burden by acquiring a profit making company together with operational synergies constitute considerations that a private investor would take into account when deciding to invest.

(31) Therefore, Germany has provided evidence showing that the decision to purchase the district heating network was taken on the basis of economic evaluations comparable to those which, in similar circumstances, a rational market economy operator would have had carried out.

### 3.2. Conclusion on the existence of an advantage

(32) Taking into account all these elements, the Commission considers that the reacquisition is in line with the market economy operator test. Consequently, the Commission concludes that no advantage is granted to Vattenfall.

## 4. AUTHENTIC LANGUAGE

(33) As mentioned under Section 1 of this decision, Germany has waived its right to have the decision adopted in German and agreed to have the decision adopted and notified in English. The authentic language will therefore be English.

## 5. CONCLUSION

(34) The Commission has accordingly decided that the measure does not constitute State aid.

Yours faithfully
For the Commission

Margrethe VESTAGER
Member of the Commission