EUROPEAN COMMISSION

Brussels, 24.10.2016
C(2016) 6765 final

PUBLIC VERSION

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Subject: **State aid No. SA.43735 (2016/N) – Germany**
ABLAV Interruptibility Scheme

Madam, Sir,

I am pleased to inform you that the European Commission has assessed the above measure and has decided not to raise any objections to it on the ground that the measure constitutes State aid that is compatible with the internal market on the basis of Article 107(3)(c) of the Treaty on the Functioning of the European Union (hereafter, 'TFEU').

1. PROCEDURE

(1) On 28 April 2016 the German authorities notified the Commission of the draft Ordinance on the contracting of interruptible loads ('Verordnung über Vereinbarungen zu abschaltbare Lasten', hereafter, 'ABLAV').

(2) The notified draft Ordinance replaces the previous ABLAV Ordinance which entered into force on 1 January 2013 but which was not notified to the Commission before. The present Decision applies solely to the new ABLAV Ordinance.

Seiner Exzellenz Herrn Frank – Walter STEINMEIER
Bundesminister des Auswärtigen
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2. DESCRIPTION

2.1. Legal basis

(3) The legal basis for the ABLAV scheme under assessment is Section 13(i) of the German Energy Act ('Energiewirtschaftsgesetz' of 7 July 2005; hereafter, 'EnWG')[1] upon which the ABLAV Ordinance is based.

2.2. Context and Background

(4) The notified ABLAV scheme must be regarded in the context of a thorough reform of the German electricity market in order to make it fit to deal with the energy transition in Germany which is characterised, in particular, by significant increases in the generation from variable renewable energy sources (hereafter, 'RES') such as wind and solar, combined with a nuclear phase-out. The German Ministry of Economic Affairs and Energy has presented its objectives and the associated suggested measures in a Green Paper and White Paper which were published in October 2014 and July 2015 respectively.[2]

(5) An important pillar of the proposed reforms is the development of a more flexible demand side. Where electricity consumers are enabled, by means of installing the necessary equipment, to respond to price signals, they are incentivised to amend their consumption pattern to consume when power is plentiful and cheap and reduce consumption in times of scarcity and high prices, thus helping the system to remain in balance by making available capacities in a cost-efficient way. The ABLAV interruptibility scheme must be seen in this context.

2.3. Description of the measure

(6) The ABLAV scheme is an interruptibility scheme enabling German transmission system operators (hereafter, 'TSOs') to enter into contracts with electricity consumers, which receive payments in exchange for committing to reducing their consumption in accordance with instructions of the TSO.

(7) In total, TSOs will be allowed to contract up to 1500 MW of so-called interruptible loads, i.e. demand response, from medium-sized and large energy users with a stable load profile. The 1500 MW is split in two separate segments: 750 MW of immediately interruptible load ('sofort abschaltbare Lasten') and 750 MW of quickly interruptible load (within 15 minutes) ('schnell abschaltbare Lasten').

(8) TSOs can use these loads as a market-based ancillary service, with the aim to ensure system balance after gate closure, i.e. similar to balancing and congestion management, but before using non-market based measures such as the Network

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[1] The EnWG is being revised and the provision that forms the legal basis is foreseen to be renumbered to Section 13i EnWG.

[2] 'An electricity market for Germany's energy transition', White Paper of July 2015: http://www.bmwi.de/English/Redaktion/Pdf/weissbuch-englisch,property=pdf,bereich=bmwi2012,sprache=en,rwb=true.pdf, and
'An Electricity Market for Germany's Energy Transition', Discussion Paper of the Federal Ministry for Economic Affairs and Energy, Green Paper of October 2014: http://www.bmwi.de/EN/Service/publications,did=673330.html

Reserve and the planned Capacity Reserve[3]. The German authorities underline that the immediately interruptible loads provide TSOs with a valuable instrument, especially for automatic frequency control. Quickly interruptible loads are not apt for such role, but can be used as re-dispatch capacity in the context of congestion management.

(9) In exchange for being available to be disconnected, the loads are remunerated with (i) a fixed payment and (ii) a variable payment in case their consumption is actually reduced in response to the TSO's instructions.

(10) TSOs will select the consumers by means of a weekly, online auction. Before loads can take part in the weekly auction, they must have signed a framework agreement with the TSO in whose territory they are located. This ensures their general eligibility.

(11) In order to be eligible for participation in the ABLAV scheme, the minimum threshold is a capacity of 10 MW. The aggregation of loads is allowed. Finally, the consumers need to be connected to a grid that is not more than two voltage levels lower than the transmission grid.

(12) The product requirements are such that the loads do not have to be available 100 percent of the time. The maximum non-availability during the weekly contract is 120 quarters of an hour. The consumers must moreover have demonstrated that they can be called upon to deliver load reduction for a consecutive period of one hour. A load reduction may not last longer than eight hours, i.e. 32 quarters of an hour.

(13) TSOs are obliged to provide the German energy regulator Bundesnetzagentur, for the first time on 1 July 2018 and subsequently every 24 months, with their assessment of the necessary quantity of immediately and fast interruptible loads, on the basis of which Bundesnetzagentur may increase or decrease the quantities. Furthermore, Bundesnetzagentur may geographically limit tenders on the basis of the information it receives from the TSO. This could reinforce the role of the interruptible loads in alleviating grid congestions.

2.4. The beneficiaries

(14) The beneficiaries of the scheme are those electricity consumers that meet the eligibility criteria described in Section 2.3 of the present Decision. The previous scheme foresaw more stringent eligibility criteria, both in terms of minimum size (which was 50 MW) and in terms of connection to the grid. Hence, the pool of potential beneficiaries will be enlarged.

2.5. Budget

(15) The cost of the measure depends on the outcomes of the auctions and the frequency of use of the mechanism.

[3] These reserves are part of the reform measures described in Section 2.2 of this Decision. They form part of a number of security of supply inspired measures which aim to provide the TSOs with sufficient back-up capacity to deal with potential shortages. These reserves would be dispatched only after all market-based instruments have been exhausted. The notification subject to the present Decision does not cover these two reserves, but is limited to the ABLAV Interruptibility Scheme.

(16) The theoretical maximum amount can be calculated as follows: assuming the maximum price of EUR 500/MW/week is reached every week of the year and if the loads are used on average 4 hours per week at a maximum price of EUR 400/MWh, the annual costs of the measure would be EUR 164 million.

(17) A more realistic calculation however, based on experience with the previous ABLAV scheme, estimates the annual costs will be around EUR 35 million, consisting of 30 million for contracting the loads and 5 million of variable costs in case of load reduction. Under the previous scheme TSOs were allowed to contract as much as 3000 MW, but in practice generally did not succeed in acquiring more than 1000 MW, at a total cost of EUR 30 million per year. It is expected that by relaxing the eligibility criteria in the new ABLAV scheme (as described in Section 2.4) the targeted volume of 1500 MW will be contracted. The German government expects TSOs to spend an additional EUR 5 million annually for contracting the additional 500 MW.[4]

2.6. Financing mechanism

(18) The measure is financed by way of an increase of the network charges levy on the energy bill, which is charged in equal proportion to their consumption on all consumers. TSOs are obliged on a monthly basis to compare and equally divide their expenses in contracting and utilising the interruptible loads under the ABLAV Ordinance and on that basis pass their costs on to their consumers, so that irrespective of the location of the consumers in Germany, they all pay the same relative amount.

2.7. Duration

(19) The ABLAV Ordinance enters into force after the Commission has assessed and ascertained its compliance with the applicable State aid rules and replaces the previous ABLAV Ordinance. It will remain in force until 1 July 2022. An evaluation of the measure is foreseen for July 2021.

3. ASSESSMENT OF THE MEASURE

3.1. Qualification of the measure as State aid

(20) According to Article 107(1) TFEU, "*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*".

(21) In determining whether a measure constitutes State aid within the meaning of Article 107(1) TFEU, the Commission consequently has to apply the following cumulative criteria: the measure must be imputable to the State and involve State resources, it must confer an advantage on certain undertakings or certain sectors and it must distort or threaten to distort competition and being liable to affect trade between Member States.

[4] This calculation takes into account the increased competitive pressure in the auction that should result from the widened participation.

(22) The German authorities have argued that the measure does not constitute State aid. First, they argue that there is no selective advantage for the companies concerned given the wide eligibility criteria and the competitive auction, and the fact that the measure does not support undertakings, but merely creates the framework within which the TSOs operate. Second, they argue that no State resources are involved because the State does not manage the scheme. Third, they consider that there is no potential distortion of competition and no effect on trade between Member States because the regime does not affect other markets.

(23) The German authorities have nevertheless notified the measure for reasons of legal certainty. Their notification includes an assessment of the compatibility of the measure in case the Commission concludes that the measure does constitute State aid.

3.1.1. Existence of a selective advantage

(24) In order to constitute aid in the sense of Article 107(1) of the TFEU, the notified measure should confer on its recipients an economic advantage which they could not have obtained under normal market conditions.

(25) The Commission notes that in order to establish whether an advantage exists it is necessary to determine whether the beneficiaries receive funds they would not have received under normal market circumstances.

(26) The payments to electricity consumers under the ABLAV scheme are payments that these consumers would not have received if they had continued to operate as consumers in the electricity market. Even though the German electricity market increasingly provides possibilities for consumers to offer load shedding as a product, for instance on the balancing market, the sale of such products on an ad hoc basis is different from the participation in the ABLAV scheme, for which the loads receive a fixed payment in exchange for being available to the TSO. This consists of a payment of up to EUR 500/MW/week, which the capacity providers receive in exchange for being at the disposal of the TSO. Should the TSO wish to make use of the interruptibility service, then the beneficiaries are entitled to additional payments of up to EUR 400/MWh of load reduction. These payments are not available to demand-side operators outside the ABLAV scheme or to generators in the electricity market.[5]

(27) Also the fact that the interruptibility services will be tendered out in weekly auctions does not exclude the existence of an advantage. The TSOs will organise weekly auctions in order to define the support for the development of a more flexible demand side that can help balance the grid and thus ensure security of electricity supply by making additional capacity available to the TSOs. The ABLAV scheme aims at contracting 1.5 GW capacity. The State has set out in the ABLAV Ordinance the obligations of TSOs with regard to carrying out weekly auctions and accepting the offers of interruptibility services. The selection of offers and the thresholds of remuneration for tendered services are set out by the State in the Ordinance.

[5] See Section 3.2.2 of the present decision for a more detailed assessment as to why the interruptible loads do not participate or do not participate sufficiently in the energy markets (short term, balancing and ancillary services).

(28) In light of the above the weekly auctions should be rather seen as an instrument avoiding the overcompensation and defining the amount of the support at a necessary minimum[6].

(29) The German authorities maintain that an advantage does not exist, whereby they rely on the Commission's case practice on interruptibility schemes, in particular case NN 24/2010 related to the Italian compensation scheme for interruptibility services in Sardinia and Sicily.[7]

(30) In its assessment of the interruptibility scheme on Sardinia and Sicily, the Commission noted that in order to exclude the existence of a selective advantage, two cumulative conditions must be met. First, there must be a *genuine need* for interruptible loads, which also means that the volume intended to be procured must be technically justified. Second, the service must be procured *at the least cost* to the system, i.e. the remuneration for interruptible users should be in line with what a prudent market economy operator facing a similar need would have designed in order to satisfy that need.

(31) With regard to the genuine need, the Commission assessed whether technical requirements of the electricity system in Sicily and Sardinia could be met by the TSO through other functionally substitutable and potentially cheaper reserves. The Italian authorities argued that the interruptible loads were immediately available which meant that they are comparable only to primary reserves, and not to secondary of tertiary reserves which need a longer reaction time. Subsequently, it was ascertained that the availability of primary reserves was limited on the two islands, due to obsolete power plants subject to frequent outages and limited pump storage. Load shedding was hence a regular form of system stabilisation for the TSO. Therefore, the Commission considered that there was a residual demand for instant regulation in the two islands concerned which could not be satisfied in any other way than through interruptible resources. In combination with the fact that a tender was applied in contracting the loads, the Commission took the view that the scheme on Sicily and Sardinia did not provide an advantage. However, it underlined that this finding did not result from the intrinsic nature of the measure, but from the specific situation of the electricity system on the islands concerned at the time and therefore limited its conclusion to three years.

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6 See also point 89 of the Notice on the notion of State aid (OJ C 262, 19.7.2016, p.1), where the Commission has distinguished the effects of a tendering procedure with regard to the qualification of the remuneration for services offered in the following way: *If the sale and purchase of assets, goods and services (or other comparable transactions) are carried out following a competitive, transparent, non-discriminatory and unconditional tender procedure in line with the principles of the TFEU on public procurement, it can be presumed that those transactions are in line with market conditions, provided that the appropriate criteria for selecting the buyer or seller as set out in paragraphs 95 and 96 have been used.* ***In contrast, if a Member State decides to provide support, for public policy reasons, to a certain activity and tenders out, for example, the amount of funding provided, such as in the case of support to the production of renewable energy or to the mere availability of electricity generation capacity, this would not fall in the scope of this sub-section (ii).*** *In such a situation a tender can only minimize the amount granted but cannot exclude an advantage.* (bold: EC)

7 State aid No. NN 24/2010 – Italy – Compensation for the provision of instant interruptibility services in Sardinia and Sicily, OJ C 205, 29.7.2010, p. 2. The authorisation of that measure was prolonged several times by the Commission, latest in 2016 through the decision on SA.41933 (2015/N) – Prolongation of the scheme for compensation of interruptible services in Sardinia and Sicily (SA.35119 2012/N), not yet published in the OJ.

(32) The Commission notes that the ABLAV scheme is of a different nature than that of the Italian scheme. Even if the German scheme may prove to have a useful function and provide an instrument to the TSO that other electricity market operators cannot deliver or cannot deliver at the same conditions, and in spite of the more general benefits of developing a flexible capacity availability by the demand side, the Commission deems the current need for an interruptibility scheme in Germany not of such a nature that system stability would be endangered without the scheme, as is the case on the Italian islands. In the case of Germany, a core objective of the measure, as assessed in more detail in Section 3.2.2 below, is indeed to ensure short term system balance[8], not because there are no other means available to ensure system adequacy, but rather with the intention to add a cost-efficient and environmentally beneficial instrument to the set of instruments at the TSOs' disposal to address short term system balance, similar – but not equal – to regular balancing or ancillary services.

(33) Also the second criterion, which requires the application of a competitive allocation procedure, cannot be decisive for the determination of the existence of an advantage because the fact that a competitive auction is applied does not mean that the measure cannot confer a selective advantage upon its beneficiaries, as set out above.

(34) The advantage is also selective because it is granted solely to electricity consumers that were successful in obtaining a contract in the tendering procedure.

(35) On the basis of the above the Commission concludes that the companies that will be rewarded an ABLAV-contract will receive a selective advantage.

3.1.2. Imputability and the involvement of State resources

(36) In order for an advantage to be categorised as State aid, it must (i) be given directly or indirectly through State resources and (ii) be imputable to the State.

(37) Germany holds that in view of the fact that the measure is financed via a surcharge ('Umlage') on the final electricity consumers there are no State resources involved in the measure. The levy takes the form of an increase of the network tariff charges. It will be collected by the TSOs who subsequently transfer these revenues to the beneficiaries without any intervention of the State.

(38) It however results from the case-law of the Court that it is not necessary to establish that there has been a transfer of money from the budget of the State or from a public entity in order to find a transfer of State resources.[9] This has been confirmed by the Court in the *Vent de Colère* case[10], where the Court ruled that a mechanism, developed by the State, for offsetting in full the additional costs imposed on undertakings because of an obligation to purchase wind-generated electricity at a price higher than the market price, by passing on those costs to all final consumers of electricity in the national territory, constitutes an intervention

8 The other objective being the longer term aim of achieving a responsive demand-side, which should contribute to cost-efficiently achieving generation adequacy in the long run.

9 *Doux Elevage*, EU:C:2013:348, paragraph 34, *France v Commission*, EU:T:2012:496, paragraph 36; Judgement in *Bouygues Telecom v Commission*, C-399/10 P et C-401/10 P, EU:C:2013:175, paragraph 100; *Vent de Colère*, C-262/12, EU:C:2013:851, paragraph 19.

10 *Vent de Colère*, EU:C:2013:851.

through State resources. In other words, the Court found State resources in a situation where funds for a measure were financed through compulsory contributions imposed by State legislation and managed/allocated in accordance with the provisions of that legislation.

(39) A similar reasoning has been applied by the General Court regarding the German renewable surcharge (hereafter: 'EEG Umlage'). The General Court has confirmed that the EEG ('Erneuerbare Energien Gesetz') involves State resources even though the support for renewables did not come from the general budget of the State but from the EEG surcharge paid eventually by the final consumers without passing through the State budget and thus did not involve any burden on the general budget.[11] The General Court considered that for state resources to be involved it is sufficient that the TSOs had been designated by the State to manage the system of support for the production of EEG electricity and that the obligation on the TSOs that additional payments be made to producers of EEG electricity was compensated ultimately by means of the funds generated by the EEG surcharge, administered by the TSOs and allocated exclusively to financing the support and compensation schemes set up by the EEG 2012.

(40) In the present case it is indeed the German State that has established via the ABLAV Ordinance the remuneration for the interruptibility services contracted under the ABLAV scheme and the obligation for the TSOs to disburse it. It is also the State that has developed the compensation mechanism to the TSOs through an increase of network charges imposed on electricity suppliers. Finally the State has decreed in the ABLAV Ordinance that these costs can be passed on to all final electricity consumers through a surcharge that is collected by the TSOs. In other words, the State has established a mechanism for offsetting in full the additional costs imposed on the TSOs by the instruction to contract 1500 MW of interruptible loads, by passing on those costs to all final consumers of electricity in the national territory.

(41) The concept of "intervention through State resources" covers not only advantages which are granted directly by the State but also "those granted through a public or private body appointed or established by that State to administer the aid".[12] In this sense, Article 107(1) TFEU covers all the financial means by which the public authorities may actually support undertakings, irrespective of whether or not those means are permanent assets of the public sector.[13]

(42) In that respect, the Commission notes that, since the TSOs are mandated to collect and attribute the funds by law, the financial flows are constantly under the control of the State even if they take place between private parties. Since the State can control, direct and influence the administration of the funds, the funds must be categorised as State funds.

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11 Judgment in *Germany v Commission,* Case T-47-15 , ECLI:EU:T:2016:281, paragraphs 81- 128.

12 Judgement in *Steinike & Weinlig v Germany,* Case 76/78, EU:C:1977:52, paragraph 21; Judgement in *PreussenElektra,* C-379/98, EU:C:2001:160, paragraph 58; Judgement in *Doux Elevage and Cooperative agricole UKL-ARREE,* C-677/11, EU:C:2013:348, paragraph 26; Case *Vent de Colère,* C-262/12, EU:C:2013:851, paragraph 20; *Sloman Neptune,* joined cases C-72/91, C-73/91, EU:C:1993:97, paragraph 19.

13 Judgement in *Doux Elevage,* EU:C:2013:348,, paragraph 34, Judgement of 27 September 2012, *France v Commission*, T-139/09, EU:T:2012:496, paragraph 36, *Vent de Colère,* C-262/12, EU:C:2013:851, paragraph 21.

(43) In line with the case law and its decisional practice[14] on other support measures similarly financed by the German TSOs, notably the aforementioned EEG 2012 and the EEG 2014, the Commission therefore finds that the measure is financed through State resources.

3.1.3. Distortion of competition and affectation of trade

(44) The beneficiaries of the measure, which notably include energy-intensive users, are industrial undertakings active not only on the electricity wholesale market, but also on a variety of other markets open to competition and on which there is intra-EU trade.

(45) Furthermore, the Commission notes that there is no strict separation between the interruptibility scheme and the wholesale electricity market. For instance, the TSO is able to use the loads as if they were capacities contracted as primary balancing reserve. Provided certain criteria are fulfilled, the interruptible loads can also decide not to be available to the TSO for a certain time, but become active on the market instead.

(46) Against this background the Commission concludes that the measure has the potential to distort competition and, according to settled case-law[15], is liable to affect intra-EU trade.

3.1.4. Conclusion on the presence of aid

(47) In the light of the assessment above, the Commission concludes that the ABLAV constitutes State aid within the meaning of Article 107(1) TFEU.

3.2. Compatibility assessment of the ABLAV scheme

(48) On the basis of Article 107(3)(c) TFEU, the Commission may consider compatible with the internal market State aid to facilitate the development of certain economic activities within the European Union, where such aid does not adversely affect trading conditions to an extent contrary to the common interest.

(49) The Commission has assessed the compatibility of the ABLAV scheme in the light of its Guidelines on State aid for environmental protection and energy (hereafter, EEAG).[16] In the EEAG, the Commission has set out the conditions under which aid for energy and environment may be considered compatible with the internal market under Article 107(3)(c) TFEU. Section 1.2 of the EEAG contains a list of the types of aid measures covered by the Guidelines. For these types of measures, specific guidance is provided in Chapter 3 of the EEAG.

(50) The Commission takes the view that the ABLAV interruptibility scheme can be considered a security of electricity supply measure: it aims at ensuring short term system reliability and at making available capacity that contributes to generation adequacy in the long term. Therefore it can be considered as a

14 See for instance, State aid SA.33995 – DE – Support of renewable electricity and reduced EEG-surcharge for energy-intensive users, OJ L 250, 25.9.2015, p. 122.

15 See, inter alia, the judgment of the ECJ in Philip Morris/Commission, (Case 730/79, ECR [1980] p. 02671, paragraph 11) and judgment of the ECJ in Air Liquide Industries/Ville de Seraing et Province de Liège (Joint Cases C 393/04 and C 41/05,[2006] ECR p.I-05293).

16 OJ C 200, 28.6.2014, p.1.

capacity mechanism falling within the scope of Section 3.9 on Aid for generation adequacy.

(51) In fact, the ABLAV scheme has the general aim to ensure that during the transition of the German energy system towards a more sustainable but at the same time more intermittent generation fleet, TSOs can ensure system reliability and adequacy at the lowest possible cost. The new ABLAV scheme incentivises larger power consumers to become active on the electricity market by making it financially attractive for them to make their electricity consumption flexibility available to the system in exchange for interruptibility payments. This provides the TSO with an additional and reliable instrument to balance the grid, which is especially important in the South of Germany where due to network congestions it has become increasingly challenging to ensure the supply of a sufficient amount of power to consumers, in particular in times of high demand and high wind infeed in the North.

(52) In the context of the ongoing Sector Inquiry into Capacity Mechanisms[17], the Commission tentatively identified a number of indicators that can help determine whether a measure constitutes a capacity mechanism:

> *'Capacity mechanisms:*
> - *are generally initiated by or with the involvement of governments;*
> - *have the primary objective of contributing to security of supply;*
> - *and provide remuneration to capacity providers in addition to revenues they receive in the electricity market, or instead of revenues they could otherwise have received in the electricity market.'*[18]

The Commission furthermore noted that:

> *'A particular area in which there may be debate about what constitutes a capacity mechanism is in the specification and procurement of ancillary services. TSOs typically procure these services to ensure the moment to moment balancing of the system. In some circumstances, these services appear to be procured independently and competitively by TSOs, are used in small volumes relative to the overall level of capacity in the market and are used only to provide short term corrections to enable system security. However, where ancillary services appear to be contracted at the request of governments and/or are used to ensure capacity is available to balance the system over longer periods, they can have the same effect as capacity mechanisms. Such measures may merit attention from the Commission and require state aid approval.'*[19]

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17 On 29 April 2015, the Commission launched a State aid sector inquiry into national capacity mechanisms. Pursuant to Article 20a of Council Regulation (EC) No 659/1999 of 22 March 1999. On 13 April 2016, it adopted an interim report consolidating the findings and tentative conclusions of the sector inquiry into capacity mechanisms. The interim report is available at http://ec.europa.eu/competition/sectors/energy/capacity_mechanism_report_en.pdf. A more detailed report accompanied the interim report. That report is available at http://ec.europa.eu/competition/sectors/energy/capacity_mechanisms_swd_en.pdf. Based on public and targeted consultations, a final report is foreseen for adoption by the end of 2016.

18 European Commission, 'Staff Working Document accompanying the 'Interim Report of the Sector Inquiry on Capacity Mechanisms," {SWD(2016) 119 final}, of 13 April 2016, page 39.

19 Idem.

(53) The Commission notes that the ABLAV scheme is initiated by the government and the terms and conditions of its use dictated to a large extent in the ABLAV Ordinance, a federal regulation. It provides remuneration to capacity providers, for reducing their consumption, in addition to revenues they receive in the electricity market, as established in Section 3.1.2 above. The Commission also notes that it is the intention of the government that the TSOs use the interruptible loads as an ancillary service in order to balance the system and that the measure leads to a more flexible demand side which has beneficial effects on the long term security of supply of the system as well.

(54) In point 220 EEAG it is recognised that the generation adequacy can be provided not only by the generation side *strictu sensu* but also by the measures facilitating demand side management.

(55) Against this background, the Commission considers the ABLAV scheme to be a capacity mechanism, the capacity of which is provided by the demand side.

(56) To assess whether the notified ABLAV scheme can be considered compatible with the internal market, the Commission assesses whether the design of the measure meets the following criteria listed in Section 3.2 of the EEAG, with more details on capacity mechanisms in Sections 3.9.1 to 3.9.7 thereof:

(a) contribution to a clearly defined objective of common interest (see Sections 3.2.1 and 3.9.1);

(b) need for State intervention (Sections 3.2.2 and 3.9.2);

(c) appropriateness (Sections 3.2.3 and 3.9.3);

(d) incentive effect (Section 3.2.4);

(e) proportionality (Sections 3.2.5 and 3.9.5);

(f) avoidance of undue negative effects on competition and trade (Sections 3.2.6 and 3.9.6);

(g) transparency of the aid (Section 3.2.7).

3.2.1. Objective of common interest

(57) The measure needs to contribute to a well-defined objective of common interest. Section 3.2.1 of the EEAG determines that the primary objective of aid in the energy sector is to ensure a competitive, sustainable and secure energy system in a well-functioning Union energy market. It also underlines the need for Member States to precisely define the objective pursued by the measure as well as its expected contribution to that objective. Aid measures falling within the scope of Section 3.9 of the EEAG shall pursue the objective of ensuring the security of energy supply. Further, Section 3.9.1. specifies *inter alia* that aid for generation adequacy can be designed in a variety of ways, in the form of investment and operating aid and can pursue different objectives, for instance addressing short term concerns related to intermittent renewables generation.

(58) The ABLAV Ordinance, as notified by the German authorities, sets out the objectives pursued by the measure. It underlines that the transition of the

German energy sector has rendered the core TSO task of ensuring security of supply more challenging. The availability of reliable interruptible loads would facilitate that task for TSOs in three different ways, namely as a balancing tool, as a means to address grid congestions and as an immediate and automated frequency control instrument.

(59) The Commission considers that all three of these applications pursue the primary objective of securing electricity supply in the context of increasing intermittent renewables generation.

(60) In addition, the Commission notes that the ABLAV scheme contributes to another, longer term objective, which is the general flexibilisation of the demand side. This is a longer term effect of the ABLAV scheme because demand response operators, i.e. consumers that are able to amend their consumption, that choose to participate in the ABLAV scheme, by having the necessary equipment installed, become de facto flexible capacity providers.

(61) In the aforementioned interim report of the Sector Inquiry into Capacity Mechanisms, the Commission has underlined the central importance of electricity consumers to be able to respond to price signals, in order for the electricity market to work effectively and produce efficient outcomes.[20] The notified draft legislation stresses this important function of ABLAV, by underlining that the scheme will allow for the unlocking of additional flexibility which is already present in the grid, but has thus far not become functional. The German authorities also underline that additional flexibility in the grid will be increasingly necessary in the years to come as the share of intermittent renewables will continue to increase. The increased flexibility of the demand side response provided by ABLAV thus also contributes to the security of electricity supply.

(62) Therefore the Commission considers that the ABLAV scheme, by providing a short term balance system and increasing flexibility of the demand side response in longer term, contributes to the objective of ensuring security of supply.

3.2.2. The need for State intervention

(63) In order to demonstrate the necessity of the ABLAV scheme it needs to be established that the measure is targeted towards a situation where aid can bring about a material improvement that the market alone cannot deliver. The general compatibility provisions of Section 3.2 of the EEAG underline that in principle the market should be relied upon to deliver efficient prices, output and use of resources, but that in the presence of market failures State intervention may improve the efficient market functioning. The EEAG specify this requirement in Recitals (222) to (224) of Section 3.9, which make clear that in order to demonstrate the necessity of a capacity mechanism, it is of particular importance that a proper analysis and quantification of the generation adequacy problem must be provided and it needs to be demonstrated why the market cannot be expected to deliver adequate capacity.

[20] European Commission, 'Staff Working Document accompanying the 'Interim Report of the Sector Inquiry on Capacity Mechanisms," {SWD(2016) 119 final}, of 13 April 2016, page 39.

(64) The Commission notes that the main aims of the ABLAV scheme are short term balance system and long term flexibility of the demand side both contributing to the overall objective of security of energy supply. The ABLAV scheme differs however from market-wide capacity mechanisms which, where applied, are generally designed to become the main national instrument to ensure generation adequacy in the years to come. Although ABLAV contributes to the general security of supply objective it does so only to a limited extent. In fact, the German authorities have provided calculations that demonstrate that as much as 25 GW of flexible capacity providers may be needed in order to make the energy transition to a more sustainable generation fleet. The revised ABLAV scheme foresees the contracting of only 1.5 GW of capacity.

(65) Against this background, the Commission considers that in order to determine whether there is necessity for State intervention through the ABLAV scheme should be assessed against its main aims – the common objectives of short term reliability of the grid and long term flexibility of the demand side – rather than on the basis of a country-wide generation adequacy assessment.

(66) The central question in this assessment is whether a market failure exists that prevents potential German demand side providers from becoming active on the market and provide short term flexibility to the TSO and long term flexibilisation of the demand side contributing to the security of energy supply.

(67) As a general observation, the Commission notes that there are various ways of facilitating the participation of demand side response, not all of which involve State aid. One example is the removal of legal or practical barriers that prohibit or prevent the participation of demand response on the wholesale, balancing and/or ancillary services markets. Another example is reforming the market in such a way as to enable price signals and allow the market to become so attractive for interruptible loads that they become active spontaneously.

(68) To assess whether there are market failures present in the German electricity market and whether that justifies the application of the ABLAV-scheme, it is necessary to assess the market context in which potential demand response operators find themselves, including its failures and the ongoing efforts to resolve them.

(69) In the interim report of the Sector Inquiry into Capacity Mechanisms the Commission identified various market and regulatory failures that currently arise in European electricity markets.[21] The interim report sets out that investment decisions in the energy-only market crucially depend on the expected revenues from selling electricity and ancillary services. The interim report subsequently found that the functioning of the energy market is currently impeded by various factors, one of which is the insufficiently responsive demand side. Even when prices rise and scarcity increases, electricity consumers do not reduce their consumption.

(70) The Commission notes that these in addition to these recognised general market failures, a number of specific regulatory obstacles exist in the European Union that hinder the participation of potentially responsive consumers. The Energy

[21] European Commission, 'Staff Working Document accompanying the 'Interim Report of the Sector Inquiry on Capacity Mechanisms," {SWD(2016) 119 final}, of 13 April 2016, Chapter 2.

Efficiency Directive ('EED')[22] foresees the removal of such barriers, for instance in relation to network tarification rules, grid development, direct participation on wholesale and balancing markets and the possibility of aggregation.

(71) The Commission's Joint Research Centre assesses on a yearly basis the progress Member States make in implementing the EED removing the barriers for demand side response. With regard to Germany, the Commission's July 2016 report[23] concluded that *'currently, the German market regulation creates significant barriers to most forms of Demand Response programme types, including both those provided by retailers and independent aggregators. However, the government is aware of these barriers and is undergoing a regulatory review to facilitate change. Should the suggested changes be fully implemented, the situation in Germany will improve. However as of today – Germany is unique in Europe for having opened almost all markets to Demand Response while at the same time making actual participation almost impossible.'* The report goes on to conclude that: *'Today, a significant portion of demand-side flexibility in Germany remains untapped and will remain so, until important barriers are removed. Though Demand Response is legal, aggregation is only enabled for the retailer and these also face significant entry barriers. The wholesale market and re-dispatch (incl. winter grid reserve) are closed for Demand Response. Intra-day markets are open for consumers working through their retailer (assuming the retailer offers this service).'*

(72) The Commission notes that the revised ABLAV scheme indeed forms part of a broader package of energy market reforms in Germany. The majority of these reforms are aimed at enabling price signals to better reflect scarcity and at incentivising energy market participants to react to these signals. The revision of ABLAV itself already removes a number of obstacles by allowing for aggregation and lowering the participation thresholds, which will be described in the sections on appropriateness and proportionality below. In addition, the Commission notes that Germany is in the process of removing other demand-response specific market barriers, for instance relating to the revision of special grid charges and the clarification of rules on the aggregation of flexible consumers.

(73) The German authorities however make it clear that even if demand response operators will no longer face legal barriers to participate on the balancing market and are free to compete against generators, the product requirements of those markets are such that *de facto* it is more difficult for demand response operators to be competitive. In particular, the requirement to be available at all times is a commitment that few demand response operators are able or willing to take in view of the planning of their production processes. A more tailor-made approach for availability, as foreseen by the ABLAV scheme and described in Section 3.2.3 on the appropriateness of the measure, enables a larger participation of demand response operators. With regard to the ancillary services market, the Commission takes note that, apart from ABLAV, German TSOs do not contract demand side response services as part of a more general service.

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22 See articles 15(4) and (8) of Directive 2012/27/EU of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC.

23 European Commission, JRC 'Demand Response status in EU Member States 2016', http://publications.jrc.ec.europa.eu/repository/bitstream/JRC101191/ldna27998enn.pdf.

The low participation of interruptible loads in the wholesale, balancing and ancillary services market, compared to the relatively large potential in Germany, is a testimony of the existence of these barriers.

(74) The German authorities moreover provide additional qualitative considerations that explain the limited participation of interruptible loads. First, the authorities underline the historically low level of wholesale electricity prices, which, combined with the absence of significant price peaks, means there is little to gain from reducing consumption at peak hours. Second, the German authorities consider the fact that demand response is not the primary business of these industries but rather a side-activity, means that more work needs to be done to inform and trigger interest for the possibilities of demand side response. The authorities underline that a possible interruption of a production process at any given time may require significant organisational changes to be managed. Third, the authorities point to the initial investment that is necessary to become flexible and offer demand response.

(75) In order to assess the necessity of the measure, it also has to be determined whether the measure is expected to deliver a truly useful service that is of added value to the TSO and to the electricity system as a whole. The Commission notes that the historic use of the previous ABLAV scheme can provide insight into its added value of the new scheme. The use of the previous ABLAV scheme in practice has been significant: since its implementation in 2013 it has been used 103 times of which 89 in 2015. Normally, the delivery periods ranged between 1 and 8 hours whereby the load reductions were used for both congestion management and balancing.

(76) The Commission concludes that in view of the fact that there is a growing need for additional capacity provided by demand side response in the German market and in view of the fact that market failures are being addressed by the German government but are currently still present in the market, the measure can be deemed necessary. The Commission however also notes that if market barriers are successfully removed the necessity to foster demand response via an interruptibility scheme may no longer be present in the future. In that context, it is relevant to note that the measure will apply for six years, i.e. until 2022, whereby in 2021 an evaluation will be carried out.

3.2.3. Appropriateness

(77) As a general principle, in order to demonstrate the appropriateness of a State aid measure it needs to be established that it is designed in a way as to properly address the market failures identified. The EEAG further specify in Recitals (225) and (226) that in the context of aid for generation adequacy this implies that the aid should remunerate solely the service of pure availability provided by the generator and that the measure should be open and provide adequate incentives to both existing and future generators and to operators using substitutable technologies, such as demand-side response or storage solutions.

(78) The Commission's Interim Report of the Sector Inquiry on Capacity Mechanisms has found that open capacity mechanisms with non-discriminatory technology neutral eligibility requirements are more likely to generate efficient outcomes, i.e. ensuring that the desired service is delivered at the lowest cost to the system.

(79) In interruptibility schemes, the required capacity is exclusively provided by the demand side. They are thus by definition non-technology neutral capacity mechanisms because they exclusively target demand side response providers. In order to assess whether an interruptibility scheme is nevertheless appropriate, it must therefore be assessed whether the development of the interruptible loads could not take place in the context of a technology neutral capacity mechanism, such as for instance a central buyer model or an open strategic reserve.

(80) In the Interim Report of the aforementioned Sector Inquiry, the Commission also found that in most Member States under assessment demand side response does not compete on equal footing with generation. Even in open capacity mechanisms, whereby the aim is to put different technologies in competition with each other, usually a different regime or a subcategory with distinct conditions applies to demand side response. The reasons for this divergent treatment include the wish to ensure a minimum amount of demand side participation in the scheme – inspired by the general policy objective of flexibilisation of the demand side – and the need for specific product requirements to ensure effective participation of the demand side participation.

(81) In the case at hand, the German authorities point to three reasons for justifying the new ABLAV scheme (rather than for instance opening up the aforementioned Network Reserve to interruptible loads). Firstly, the loads that the TSOs contract are suitable to be used for more than congestion management alone. Due to their immediate or very fast reaction time, the 'immediately interruptible loads' are particularly useful in the context of emergency load reductions. Capacities in the Network Reserve for instance can be used only in the context of re-dispatch. Secondly, the ABLAV scheme foresees the possibility for the contracted operators to be active on the wholesale and balancing markets whilst being under an ABLAV contract (an element that is further discussed in Section 3.2.5 on proportionality). In contrast, capacities in the Network Reserve cannot participate in the market and cannot return to the market after leaving the reserve[24]. Thirdly, keeping the interruptible loads outside the Network Reserve means that they have preference and must be used by the TSOs before they can dispatch the power plants in the Network Reserve, given that they are characterised as a market-based instrument in the sense of the EnWG.

(82) The Commission takes the view that ultimately market rules and conditions should be such that no barriers hinder the flexibilisation of the demand side. Ideally, interruptibility schemes can be phased out once the market provides the price signal that makes flexibilisation attractive enough to become active on the basis of market price signals alone. In that context, the short contract duration foreseen under ABLAV (one week) make that loads can decide to move to the market on a weekly basis, rather than being bound by a yearly or longer contract in a strategic reserve.

(83) The Commission concludes that in the present case sufficient arguments exist in favour of a differential treatment of demand side response.

(84) As to the appropriateness of ABLAV scheme with regard to the objective of common interest, the ABLAV scheme is an appropriate measure to address the

[24] Unless the plant concerned had initially signalled its intention to close down temporarily only.

objective of balancing the grid and making available capacity by the demand side and thus to make the demand side contribute to security of supply.

3.2.4. Incentive effect

(85) As a general rule, to establish whether a State aid measure has an incentive effect, it must be demonstrated that it changes the behaviour of the undertakings concerned in such a way that it engages in an activity which it would not carry out without the aid or which it would carry out in a restricted or different manner. The EEAG has laid down more specific guidance as to the interpretation of this criterion in Section 3.2.4. It is determined that the measure should induce the beneficiary of the aid to change its behaviour to improve the functioning of a secure, affordable and sustainable energy market, a change in behaviour which it would not undertake without the aid.

(86) The Commission notes that the revised ABLAV scheme obliges its beneficiaries to be available to the TSO for at least 80% of the time to be ready to reduce their consumption. In practice, this limits the consumers' freedom to determine when they consume electricity for their production processes. As such, the undertakings concerned indeed change their behaviour to the benefit of market functioning.

(87) The Commission furthermore notes that, in view of the reasons described in recitals (66) and (67), it is unlikely that an equivalent volume of interruptible consumption would have become available absent the measure.

3.2.5. Proportionality of the aid

(88) According to the proportionality criterion, the aid amount must be limited to the minimum needed to incentivise the additional investment or activity in the area concerned. The EEAG specify this requirement in their Recitals (228) to (231) which aim to ensure that a competitive bidding process is in place that ensures fair reasons and excludes windfall profits.

(89) In the Interim Report to the Sector Inquiry, the Commission identified the risk that *'interruptibility schemes [...] overcompensate participating industries. [...] Some of these mechanisms were indeed criticized by respondents to the sector inquiry as constituting indirect subsidies to energy intensive industries. This was particularly the case for interruptibility mechanisms that were in practice hardly ever used [...].'*[25]

(90) To exclude that the scheme becomes a subsidy to energy intensive industry, it is important to ensure that an appropriate quantity is procured. Where interruptibility schemes demand more capacity than is reasonably available, the auction will clear at the maximum price. The new ABLAV scheme tackles the problem of potential overprocurement in three ways. First, it has lowered the maximum volume to be procured from 3000 MW to 1500 MW compared to the existing scheme where demand at times tended to exceed supply. Second, it widens the eligibility criteria not only by lowering the participation threshold

[25] European Commission, 'Staff Working Document accompanying the 'Interim Report of the Sector Inquiry on Capacity Mechanisms," {SWD(2016) 119 final}, of 13 April 2016, p.78.

from 50 MW to 10 MW[26] by also by allowing for the aggregation or 'pooling' of capacities. Third, the tender takes the form of a pay-as-bid auction, so that even if a load is accepted at maximum price, compensation is limited to the minimum necessary to bring about the desired change in the beneficiaries' behaviour.

(91) The Commission furthermore notes that on the basis of a two-yearly assessment of the measure by the TSOs, Bundesnetzagentur may adjust the quantity to be procured by the TSOs. In addition, a complete evaluation of the measure will be carried out in 2021.

(92) In conclusion, the Commission finds, in view of the widened eligibility criteria, the organisation of the auction according to a pay-as-bid format and the review process that is included in the Ordinance, that the revised ABLAV scheme is likely to produce a competitive outcome and prevent over-compensation.

3.2.6. Avoidance of undue negative effects on competition and trade

(93) The negative effects of the ABLAV scheme on competition and trade in the internal electricity market must be sufficiently limited, so that the overall balance of the measure is positive. The EEAG specify this requirement as follows in their Recitals (232) and (233), which underline the need for broad participation in the scheme and the avoidance of market undermining effects of the measure, for instance by strengthening dominance or affecting investment decisions. The fact that the ABLAV interruptibility scheme is not technology neutral has been addressed in Section 3.2.3 on appropriateness, and therefore this section is limited to the assessment of distortive effects on competition and trade on the market.

(94) The Commission notes that the capacities in the ABLAV scheme are in general in competition with other sources of flexibility, given that they provide services, such as balancing and congestion management, that are also being procured in the wholesale, balancing and ancillary services markets.[27]

(95) The Commission notes in particular that, as described in Section 3.1.3, the ABLAV scheme foresees the possibility for the interruptible loads to 'opt out' of the scheme and become active on the balancing or the wholesale market instead. With regard to the balancing market, the loads are freed from their obligations under the ABLAV scheme in case they have sold the load as positive primary reserve capacity (available in less than 30 seconds). With regard to the wholesale market, the interruptible loads in ABLAV are freed from their obligation under ABLAV and enabled to participate on the wholesale market, where the day-ahead market has cleared at a price of more than EUR 200/MWh. The fixed remuneration is not paid for the timeframes in which the loads were active on the balancing market, but it is paid for timeframes in which the loads were active on the wholesale market.

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[26] Potentially the threshold will be further reduced to 5 MW, depending on the agreements reached in the revision of the EnWG which contains the legal basis for the ABLAV Ordinance.

[27] The instantly interruptible loads, which can be used in the context of emergency load reduction, are an exception to this rule because in the absence of ABLAV the TSOs did not procure them as an ancillary service in the market. In the absence of a market, ABLAV does not distort the procurement of this particular service.

(96) The Commission notes that the loads, when being active and available on the wholesale market whilst at the same time profiting from the fixed ABLAV remuneration, receive benefits that other capacity providers on this market do not receive. By becoming flexible loads, the participants in the ABLAV scheme de facto contribute to increased competition on the wholesale market. The short term contracts under ABLAV make it possible at any moment for the participants to decide to leave the ABLAV and become active on the energy-only-market.

(97) The German authorities justify their approach by pointing to the broader policy objective of creating abundant participation through an attractive regulatory framework for demand side response on the one hand and the wish for having them participating in the market on the other. Moreover, by allowing the loads to be active on the wholesale market in scarcity situations, the practical effect is a guaranteed load reduction in a tight market which the TSO can take into account at the day-ahead stage in its procurement of resources to address the scarcity. Finally, the authorities point out that the actual distortion is very small given that the hours during which the loads are allowed to participate on the wholesale market are limited to the rare occasions at which the price on the day-ahead market is higher than EUR 200/MWh and the maximum hourly fixed remuneration under ABLAV is under EUR 3.00 per hour.

(98) The Commission furthermore notes that by becoming flexible loads, the participants in the ABLAV scheme de facto contribute to increased competition on the wholesale market. The short term contracts under ABLAV make it possible at any moment for the participants to decide to leave the ABLAV and become active on the energy-only-market.

(99) The Commission takes the view that, on balance, enabling the loads to participate on the balancing and wholesale markets is an acceptable feature of the scheme in view of the longer term aim to realise a more flexible demand side.

(100) The Commission furthermore notes that the effects on competition and trade of other markets than the electricity market, for instance the markets on which the providers of the interruptible loads are active, are expected to be limited given the fact that the design of the scheme ensures that the remuneration does not go beyond what is proportionate for the service the consumers provide.

(101) In conclusion, the Commission is satisfied that effects of the ABLAV scheme on competition and trade are sufficiently limited.

3.2.7. Transparency of the aid

(102) The final common assessment principle under Section 3.2.7 of the EEAG is transparency. For individual aid awards of EUR 500000 or more, Member States must publish on a comprehensive State aid website the full text of the aid scheme and its implementing provisions (or a link to it), the identity of the granting authority, the identity of the individual beneficiaries, the form and amount of aid granted to each beneficiary, the date of the granting, the type of undertaking, the region in which the beneficiary is located and the principal economic sector in which the beneficiary has its activities.

(103) The German authorities will apply the transparency conditions laid down in Section 3.2.7 of the EEAG insofar as applicable to the aid granted under the revised ABLAV scheme.

3.2.8. Conclusion of the compatibility of the measure

(104) The Commission concludes that the measure is compatible with the internal market based on an assessment under the EEAG, in particular section 3.9 thereof.

4. CONCLUSION

The Commission concludes on the basis of the foregoing assessment that the measure is compatible with the internal market pursuant to Article 107(3)(c) TFEU.

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Yours faithfully

For the Commission

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Member of the Commission