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COMMISSION DECISION

of 7.2.2018

**ON THE AID SCHEME
SA.45852 - 2017/C (ex 2017/N)
[which Germany is planning to implement for Capacity Reserve]**

(Only the German version is authentic)

(Text with EEA relevance)

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<p>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 [...].</p>		<p style="text-align: center;">PUBLIC VERSION</p> <p>This document is made available for information purposes only.</p>
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(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union, and in particular the first subparagraph of Article 108(2) thereof,

Having regard to the Agreement on the European Economic Area, and in particular Article 62(1)(a) thereof,

Having given notice to the parties concerned to submit their comments¹ and having regard to their comments,

Whereas:

1. PROCEDURE

- (1) By electronic submission of 23 January 2017, Germany notified the Commission of the latest draft legislation related to the implementation of a Capacity Reserve as well as its assessment of the necessity of the aid scheme.
- (2) By letter dated 7 April 2017 ('the Opening Decision'), the Commission informed Germany that it had decided to initiate the procedure laid down in Article 108(2) of the Treaty on the Functioning of the European Union ('Treaty') in respect of the aid scheme. Germany sent its comments on the Opening Decision by letter dated 17 May 2017.

¹ OJ C 159, 19.5.2017, p. 6.

- (3) The Opening Decision was published in the *Official Journal of the European Union*². The Commission invited interested parties to submit their comments on the aid scheme.
- (4) The Commission received comments from 22 interested parties. It forwarded them to Germany, which was given the opportunity to react; its comments were received by letter dated 14 July 2017.

2. DETAILED DESCRIPTION OF THE AID SCHEME

2.1. Context and legal basis

- (5) The notified aid scheme is part of an amendment, adopted on 26 July 2016, of the existing German Energy Act of 7 July 2005 (*Energiewirtschaftsgesetz*, hereafter, ‘EnWG’). The EnWG also contains an array of other measures related to the functioning of the German electricity and gas market, which have been presented in Section 2.1 of the Opening Decision. It is the central objective of the revision of the EnWG to reform the electricity market in order to make it fit to deal with the energy transition, which in Germany is characterised by a significant increase of generation from variable renewable energy sources, such as wind and solar energy, the phase-out of nuclear power and a high level of connection to several neighbouring markets.
- (6) The legal basis for the Capacity Reserve is Article 13e of the revised EnWG. More detailed provisions on, *inter alia*, the applicable tendering procedure, the utilisation and the remuneration of the Reserve are laid down in the *Kapazitätsreserveverordnung*³ (hereafter, ‘Capacity Reserve Ordinance’).
- (7) The Capacity Reserve aims at ensuring continued security of electricity supply also under the changing situation in the electricity market. The Capacity Reserve aims at contributing to secure supplies even at times when, despite free price formation on the power exchanges, the wholesale market does not manage to realise sufficient supplies to meet all demand. It does so by dispatching, when necessary, existing power plants that are held in reserve outside the market. Germany aims to minimise potential market distortions through several measures. It seeks in particular to separate the capacities held in reserve from the market in order to prevent any distortions of the price formation and the investment signals in the electricity market.

2.2. Description of the Capacity Reserve

- (8) The EnWG and the Capacity Reserve Ordinance provide that the four German Transmission System Operators (‘TSOs’) shall gradually build up reserve capacities that will ensure security of supply when the market fails to clear and demand for power remains unmet by supply.
- (9) The TSOs jointly procure the capacities by way of tenders, organised every two years for a two-year delivery period (the first delivery period running from October 2019 to September 2021). Capacity providers bid for the yearly remuneration they ask to receive for maintaining their capacity available, up to a maximum of EUR 100 000/MW per year. They are selected on the basis of their bid until the total

² Commission Decision of 7 April 2017 on state aid SA.45852 (2017/N) – Germany – Capacity Reserve – Invitation to submit comments pursuant to Article 108(2) of the Treaty on the Functioning of the European Union (OJ C 159, 19.5.2017, p. 6).

³ *Verordnung zur Regelung des Verfahrens der Beschaffung, des Einsatzes und der Abrechnung einer Kapazitätsreserve (Kapazitätsreserveverordnung – KapResV).*

demanded volume of 2 GW is met. The capacity providers that are successful in the tender receive remuneration based on the highest successful bid submitted in the tender ('pay-as-clear pricing').

- (10) The tender is open to all types of domestic capacity providers (generating plants, storage facilities and demand response operators) provided they fulfil a number of eligibility criteria in the form of technical requirements which are laid down in paragraph 9 of the Ordinance. Following the Opening Decision, Germany has committed itself to change certain of those eligibility criteria. These changes primarily concern the participation requirements for demand response operators and are explained in detail in Section 6 of this Decision.
- (11) Capacity providers are not allowed to sell their reserve capacity on the electricity market. They are also not allowed to return to the market once their reserve contract ends. In this way, the German authorities intend to ensure a strict separation between the market and the Reserve, and thus avoid that the Reserve distorts the market functioning.
- (12) Capacity providers are also not allowed to sell on their rights and obligations arising from their participation in the Capacity Reserve to third parties. The participation and the accompanying remuneration are strictly tied to the installation that qualified for the Capacity Reserve via the tender.
- (13) For demand response operators the no-return clause as described in recital 11 does not apply. A demand response operator may resume selling the capacity corresponding to the controllable load on the electricity markets once the delivery period is finished⁴. Other requirements applicable to demand response operators have been the subject of concerns expressed by the Commission in the Opening Decision and will be discussed in detail in Sections 3.2.2 and 7.3.3 of this Decision.
- (14) Capacity providers must be at the disposal of the TSOs throughout the entire contract, that is to say, for two years. They must also continue to fulfil the eligibility criteria throughout the contract. However, maintenance periods that are technically necessary are allowed and must be notified to the TSOs by 31 July of the year preceding the delivery year. Such scheduled outages are permitted to the extent that the capacity reserve plants are unavailable for a total of three months maximum in any delivery year. Unscheduled outages need to be reported to the TSOs as soon as they occur and availability must be restored within three months.
- (15) TSOs have to carry out functional tests before any installation enters the Capacity Reserve in order to verify that each installation meets the technical requirements. Furthermore, the TSOs shall apply trial calls of the Capacity Reserve without notifying the participating capacity providers in advance. These tests will be conducted with the full reserve output of the installations, for a period of 12 hours. Where the test demonstrates that an installation does not meet the requirements, a penalty of 20 % of the total fixed remuneration for the entire delivery period is due. If the capacity provider is able to repair the identified failures within six months, the penalty is calculated pro rata the time the installation was not available to the Reserve (that is to say, one sixth of the amount for each month). If the installation

⁴ However, this excludes markets in which a price per kilowatt is paid, that is to say, in practice the interruptibility scheme laid down in the Ordinance on the Contracting of Interruptible Loads ('*Verordnung über Vereinbarungen zu abschaltbaren Lasten*', hereafter, 'ABLAV') and the balancing capacity market.

meets the requirements only with a portion of the reserve output, then the penalty relates to the unavailable portion only.

- (16) The size of the Capacity Reserve will be based on the outcome of a revised adequacy assessment, which is described in more detail in recitals 84 and 85. At the time of the Opening Decision, Germany intended to procure exactly 2 GW of capacity for the first two-year delivery period and, for the subsequent delivery periods, in principle again 2 GW unless an adequacy assessment would indicate a different need up to a maximum of 5 % of peak demand. Germany has now committed to apply a revised adequacy assessment as of the first auction and define the required volume on this basis and, in any event, limit the maximum size of the reserve to 2 GW in all three delivery periods. If the revised adequacy assessment demonstrates a need higher than 2 GW, and if as a result Germany intends to increase the size of the reserve beyond 2 GW, it would have to notify such an increase to the Commission for assessment under State aid rules.
- (17) The Capacity Reserve is dispatched when the market does not clear, that is to say, when there is insufficient supply to meet demand. The market is deemed not to have cleared when, at the electricity exchanges, on the day-ahead or on the intraday market (at the last auction of the previous day, at the opening auction of the intraday market or during the continuous intraday trading throughout the day) bids at the technical price limit, which in Germany is currently EUR 3 000/MWh for the day-ahead market and EUR 10 000/MWh for the intraday market, are not fully met within one hour by offers to generate.
- (18) TSOs can dispatch the Capacity Reserve as a last resort only so that it can only be used after all other system services have been exhausted. The fact that the installations in the Capacity Reserve have an activation time of up to 12 hours means that the TSOs have to call upon these installations well before the outcomes of the markets are known and hence before they are sure that a market clearance may not take place. The Ordinance therefore prescribes that TSOs have to make an assessment of the start-up times and take these into account when activating the Reserve.
- (19) During the activation time and before the actual dispatch of the Capacity Reserve, the plants in the reserve inject small quantities of warming energy in the grid. The Ordinance provides that the TSOs must call on other operators to ramp down existing facilities to an amount equivalent to that supplied by the reserve plants in order to ensure this warming energy does not distort intraday market functioning.
- (20) The Ordinance also provides that in principle the TSOs activate all installations. However, should the TSOs be able to restore the demand/supply balance by activating a portion of the capacity in the Reserve only, the TSOs can select only those installations that are most suitable to do so.

2.3. Budget

- (21) There is no fixed budget for the Capacity Reserve, because its costs depend to a large extent on the results of the initial tender. The maximum bid that capacity providers can submit in the tender is EUR 100 000/MW per year. Therefore, the maximum fixed costs of a 2 GW Capacity Reserve would be EUR 200 million per year. The German authorities, however, expect the auction not to clear at the maximum price, because there are various factors that may dampen the costs, such as the fact that relatively old plants will participate, namely, plants that have part or all of their

investments already amortised, that demand response operators can participate and that plants that previously signalled their intention to close down can participate.

2.4. Financing mechanism

- (22) TSOs can recover all their costs caused by the Capacity Reserve through the network tariffs on the basis of Article 13e (3) and (4) EnWG. TSOs are to subtract from their costs the revenues received from the Capacity Reserve, that is to say, through penalty payments or imbalance payments from balancing responsible parties that were out of balance at the time the Capacity Reserve was dispatched. The German authorities noted that TSOs are not obliged to submit their costs for reimbursement to the regulatory authority, but if they choose to do so the costs will be regarded as costs which cannot be influenced by the TSO for the purpose of tariff regulation and may be recovered through the network tariff. The regime applied to the costs of the Capacity Reserve is the normal regime that also applies to other components of the network tariff.

2.5. Duration

- (23) The Capacity Reserve Ordinance does not contain an end date. TSOs will organise tenders for delivery of two years, starting with a tender in 2018 for a delivery period from October 2019 to September 2021⁵. After that, every two years a new tender is organised and a (potentially adjusted) amount of capacity is procured for a delivery period of two years. The German authorities have indicated that the aid scheme will end once it has been established on the basis of the assessment of the required size of the Capacity Reserve that there is no longer a need to maintain a reserve.

2.6. Beneficiaries

- (24) The beneficiaries of the scheme are those capacity providers that are successful in the procurement auction and acquire a capacity reserve contract.

3. GROUNDS FOR INITIATING THE PROCEDURE

- (25) On 7 April 2017, the Commission initiated the procedure laid down in Article 108(2) of the Treaty in respect of the aid scheme. As stated in its Opening Decision, the Commission:
- (a) considered on a preliminary basis that the scheme did not constitute compensation for a service of general economic interest ('SGEI') that would fulfil the conditions laid down in the *Altmark* judgment⁶ but that the scheme constituted State aid pursuant to Article 107(1) of the Treaty;
 - (b) had doubts that the aid scheme was compatible with the internal market because there were concerns that several compatibility requirements were not fulfilled, in particular regarding the need for State intervention, the appropriateness of the scheme, its proportionality and the risk of undue negative effects on competition and trade between Member States.

⁵ Note that this is one year later than the originally envisaged starting date of October 2018 for the first delivery period.

⁶ Judgment of the Court of Justice of 24 July 2003, *Altmark Trans GmbH and Regierungspräsidium Magdeburg v Nahverkehrsgesellschaft Altmark GmbH, and Oberbundesanwalt beim Bundesverwaltungsgericht*, C-280/00, ECLI:EU:C:2003:415.

3.1. Grounds for initiating the procedure: existence of aid

- (26) According to Article 107(1) of the Treaty, the qualification of a measure as State aid requires the following conditions to be met cumulatively:
- (a) the measure must be financed through State resources and be imputable to the State;
 - (b) it must grant an advantage liable to favour certain undertakings or the production of certain goods;
 - (c) the measure must distort or threaten to distort competition; and
 - (d) the measure must have the potential to affect trade between Member States.
- (27) In their notification, the German authorities argued that the Capacity Reserve does not fulfil these criteria and thus does not constitute State aid. First, they consider that the aid scheme is not financed from State resources. Second, the operators would receive no advantage because they are to be regarded as providing a SGEI for which the compensation meets the four conditions set out by the Court of Justice in the *Altmark* judgment. Third, the scheme would not impact trade between Member States.
- (28) First, the Commission preliminarily concluded that the aid scheme involves State resources and is imputable to the State. This is because the scheme was developed by the German State which provides for by law that its costs can be passed on to all consumers through an increase of the network tariffs. On the basis of the *Vent de Colère* judgment⁷, State resources are therefore present and the measure is imputable to the State. In addition, the Capacity Reserve Ordinance prescribes that the TSOs shall deduct from their costs the revenues they receive through the scheme. This implies that it is the State that mandates the TSOs to attribute and collect the required funds. The funds are generated by the Capacity Reserve Ordinance and are administered collectively by the TSOs. They thus remain at all times under the influence of public authorities.
- (29) Second, the Commission expressed doubts as to whether the first and the fourth *Altmark* criteria were met, and therefore preliminarily concluded that the aid scheme would confer a selective advantage on its beneficiaries.
- (30) The first *Altmark* criterion provides that the recipient undertaking must actually have public service obligations to discharge and that the obligations must be clearly defined. While Member States enjoy a wide margin of discretion to define SGEIs, Article 3(2) of Directive 2009/72/EC of the European Parliament and of the Council⁸ confines the possibility for Member States to apply public services obligations ('PSOs') in the liberalised electricity sector. In particular, it limits the scope of PSOs to specific objectives: security, including security of supply, regularity, quality and price of supplies and environmental protection, including energy efficiency, energy from renewable sources and climate protection. It furthermore prescribes that the obligations must be clearly defined, transparent, non-discriminatory, verifiable and

⁷ Judgment of the Court of Justice of 19 December 2013, *Association Vent De Colère! Fédération nationale and Others v Ministre de l'Écologie, du Développement durable, des Transports et du Logement and Ministre de l'Économie, des Finances et de l'Industrie*, C-262/12, ECLI:EU:C:2013:851.

⁸ Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC (OJ L 211, 14.8.2009, p. 55).

must guarantee equality of access for electricity undertakings of the Union to national consumers.

- (31) The Opening Decision therefore expressed the following concerns:
- (a) The aid scheme might be discriminatory as it seemed to *de facto* exclude demand response operators and to *de jure* exclude foreign capacity providers from effectively participating in the Reserve;
 - (b) It was doubtful whether the scheme was necessary for security of electricity supply in Germany and thus whether the aid could be considered as a compensation for PSOs pursuing an objective of security of supply;
 - (c) SGEIs are justified where the market is unable to deliver an efficient outcome. Therefore, if a Member State could improve the functioning of the market, a SGEI for security of supply could not be justified because the market had not been enabled to deliver. While the planned market reforms in Germany could be expected to contribute to security of supply, it was doubtful that these reforms would be sufficient to provide adequate investment signals. In particular, an estimation of the consumers' Value of Lost Load ('VOLL') was required to ensure that market prices could reach this level.
- (32) The fourth *Altmark* criterion provides that either the undertakings have to be selected through a public procurement procedure that ensures that the services are provided at the least cost to the community or on the basis of a benchmarking exercise which guarantees that the amount of compensation does not go beyond the costs which a typical and well-run undertaking would have incurred. The Opening Decision considered that due to the fact that the scheme was not sufficiently open (excluding demand response and foreign capacity), it was not designed to ensure genuine competition, even if a tender was organised, and would thus not ensure that the services were provided at the least cost to the community. There was also no evidence that the second leg of the fourth *Altmark* criterion would be met.
- (33) Third, the Commission preliminarily concluded in its Opening Decision that the Capacity Reserve would be liable to affect competition and trade on the electricity market because the German electricity market was open to competition and connected to neighbouring electricity markets. The aid scheme would provide support to some operators under the condition that they were no longer active on the market. It would thus have an effect on the merit order curve of the bidding zone in which the power plants receiving the aid operated and hence also on the way in which this bidding zone interacted with neighbouring zones.

3.2. Grounds for initiating the procedure: compatibility of the aid

- (34) The Commission preliminarily considered in the Opening Decision that there were grounds to initiate the procedure with regard to the following four aspects related to the compatibility of the aid with the internal market:
- (a) the insufficiently demonstrated need for State intervention,
 - (b) the lack of appropriateness of the scheme because of the use of restrictive eligibility criteria,
 - (c) the lack of proportionality of the scheme which would not ensure that the amount of aid was minimised, and

- (d) the risk of undue negative effects on competition and trade between Member States.

The Commission, however, took the preliminary view that the aid scheme was meant to contribute to the common interest objective of security of supply, it would have an incentive effect by changing the behaviour of market participants and it would fulfil the required transparency conditions. Hence, this Section is limited to a description of points (a) to (d) with respect to which the Commission expressed doubts as to the compatibility of the scheme with the Guidelines on State aid for environmental protection and energy 2014-2020⁹ ('EEAG').

3.2.1. *Need for State intervention*

- (35) On the basis of paragraphs (222) to (224) EEAG, the Commission considered on a preliminary basis in the Opening Decision that in order to justify the introduction of the proposed Capacity Reserve, it should be demonstrated that in the long run the reformed market would ensure an appropriate degree of security of supply, but that in the short run there were valid reasons to assume that situations might arise in which the market might fail to deliver the economically efficient level of security of supply. In addition, the Capacity Reserve should be phased out once the market would be reformed and fully delivering the required degree of protection.
- (36) First, the Commission expressed doubts about the need for the Reserve, as no end date was provided for and the scheme appeared to be intended as a permanent feature of the electricity market rather than a transitional measure accompanying market reforms.
- (37) Second, the Commission noted that the absence of an economic reliability standard and of an indicator evaluating the economic relevance of the Reserve limited the abilities of the market to provide sufficient capacity and would not allow proper sizing of the Reserve.
- (38) Third, while the Commission welcomed the notification of a worst case scenario, the Commission had doubts whether certain assumptions used in this scenario were reasonable.

3.2.2. *Appropriateness of the scheme*

- (39) The Commission assessed in the Opening Decision the compatibility of the Capacity Reserve on the basis of the criteria laid down in paragraphs (225) and (226) EEAG. While the Commission noted that a temporary strategic reserve appeared to be the most appropriate form of intervention to ensure secure supplies in a context of ongoing market reforms, the Commission underlined that the aid scheme was not designed as a temporary measure and raised concerns on two other issues: the separate remuneration of variable costs in case of activation of the Reserve and the eligibility rules.
- (40) With regard to the separate remuneration of variable costs in the case of activation of the Reserve, the Commission questioned whether the cost categories for which such separate reimbursement was foreseen constituted variable costs. It noted that reimbursing these costs separately and independently from the procurement auction implied that there would be no competition as regards these costs.

⁹ OJ C 200, 28.6.2014, p. 1.

- (41) With regard to the eligibility criteria of the Capacity Reserve, the Commission expressed concerns about the fact that demand response might *de facto* be excluded from the Reserve and be placed at a disadvantage compared to generation facilities. The Commission feared that the various participation requirements could have the effect of discouraging participation of demand response operators to such an extent that their participation would be very unlikely. These requirements included:
- (a) the minimum bid size of 10 MW for a demand response operator,
 - (b) the fact that aggregation of multiple loads was not allowed,
 - (c) the requirement to be directly connected to a transmission grid with a voltage level of 110 kV or above,
 - (d) the possibility of being subjected to as many as ten test runs per year,
 - (e) the obligation that demand response operators should constantly consume throughout the delivery period (that is to say, for two years) and buy their power forward for the entire delivery period,
 - (f) the absence of a maximum delivery period, and
 - (g) the impossibility for the loads that participated in the Capacity Reserve to become active on the balancing capacity market after their capacity reserve contract expires.
- (42) Finally, the Commission also invited interested third parties to provide views on the exclusion of foreign capacity.

3.2.3. *Proportionality of the aid*

- (43) With regard to the proportionality of the measure, the Commission reiterated its concerns regarding the restrictive eligibility requirements, underlining that where participation was unnecessarily limited, it could not be assumed that the tender would result in a total aid amount that would be limited to the minimum needed to achieve the objective pursued.

3.2.4. *Avoidance of undue negative effects on competition and trade*

- (44) The Commission considered in the Opening Decision that the design of the Reserve would ensure the effective separation between capacities in the Reserve and capacities in the market, and therefore avoid undue negative effects on competition in the German electricity market and trade between Member States.
- (45) However, the imbalance charges were set at the double of the technical price limit in the intraday market. The Commission stated that such an approach might be less economically efficient than setting the intraday price cap at the maximum imbalance charge which should itself reflect VOLL. The Commission therefore reiterated that a definition of VOLL would be required to avoid applying excessive and distortive imbalance charges.

4. COMMENTS FROM INTERESTED PARTIES

- (46) The Commission received 22 responses on the Opening Decision from third parties during the consultation period, in particular stakeholders active in the energy sector (such as companies active in conventional generation, renewable energy generation and demand response operators, as well as trade associations), the German regulatory

authority for energy (*'Bundesnetzagentur'*), a joint response from the German TSOs and the authorities of the Czech Republic.

4.1. State aid within the meaning of Article 107(1) of the Treaty

(47) Very few market participants expressed specific observations with regard to the aid character of the measure. The Czech Republic, however, specifically indicated that the *Altmark* judgment criteria for a SGEI were not fulfilled and supported the reasoning of the Commission in the Opening Decision. It also agreed with the Commission's view that the measure involved State resources and was imputable to the State.

4.2. Compatibility of the aid with the internal market

4.2.1. Comments on the objective of the scheme

(48) The Commission did not receive substantiated observations as to whether the scheme contributed to an objective of common interest, although a few respondents doubted that the objective was sufficiently precisely defined.

4.2.2. Comments on the necessity of the scheme

4.2.2.1. Comments on economic justification of the need and size of the Reserve

(49) According to a majority of respondents to the consultation, the aid scheme as such was needed. They explained that a strategic reserve would provide an insurance against the risks associated with the ongoing transition of the electricity market in Germany, in particular the nuclear power phase-out, the significant increase of renewable energy and the uncertainty regarding the extent of the exit of conventional plants.

(50) While some respondents favourable to the introduction of a Reserve underlined the great uncertainty around future market developments and thus the difficulty to quantify the required size, most of them did not expressly comment on the appropriateness of the size of the Reserve.

(51) On the contrary, those participants that doubted the necessity of the Reserve underlined the need to define a reliability standard and an indicator of the economic value brought by the Reserve in order to be able to verify the necessity of the Reserve.

4.2.2.2. Comments on the reasonable worst case scenario

(52) Only few market participants expressed specific observations with regard to the reasonableness of the assumptions underlying the scenario considered by Germany to justify the measure. Three respondents specifically mentioned that the assumption with regard to potential fraud appeared to be unreasonable.

4.2.2.3. Comments on the duration of the scheme

(53) Most respondents who provided observations regarding the duration of the scheme indicated that the Reserve should be temporary. They explained that a phase-out was necessary and should either occur at a certain predefined date or be based on predefined indicators evaluating the necessity of the Reserve.

4.2.3. Comments on the appropriateness of the scheme

4.2.3.1. Comments on alternative measures

(54) A majority of respondents to the consultation indicated that a strategic reserve was an appropriate measure to deal with the risks that the German electricity market was facing. This was because the Reserve would be relatively small in comparison to the peak demand in Germany, it was designed to minimise the impact on the electricity market, it was meant to be activated only in exceptional circumstances, it could easily be phased out once it was no longer needed, and it was favourable to the development of renewable energy by avoiding to subsidise and lock in conventional plants contrary to market-wide capacity mechanisms. A minority of respondents however indicated that a market-wide capacity mechanism would be a more appropriate measure, as it would give more certainty to market participants and thus favour early investments and reduce the cost of capital required to invest.

4.2.3.2. Comments on remuneration of availability only

(55) With regard to the remuneration structure, the observations received by the Commission were relatively mixed. Two market participants indicated that variable costs should be included in the selection process. Another respondent underlined that variable costs should be reimbursed since this would not distort the market functioning as the Reserve was outside the market. The TSOs indicated that including costs, such as the cost for securing fuel supply, in the auction would facilitate the comparison of the different offers, but would risk increasing the fixed payment and might require estimating the number and duration of calls on the basis of specific scenarios. Another respondent also indicated that the requirement to secure fuel could be very expensive for gas power plants in particular. The actual procurement of fuel – in particular reservation of gas transmission capacities – should not occur before the contracts would be awarded to the tenderers in order not to make them incur sunk costs in case their bid would not be retained.

4.2.3.3. Comments on the openness and the eligibility rules

(a) Openness to all demand response operators

(56) Most comments received by the Commission with regard to the appropriateness of the scheme were related to the openness and the eligibility rules of the Reserve.

(57) As regards the restrictive eligibility criteria that would have *de facto* excluded demand response, the Commission received mixed responses. A slight majority of respondents indicated that there was no reason to exclude demand response from participating in the tender, as demand response could provide valuable reserve services and the scheme should be technology neutral.

(58) Several participants underlined the existence of barriers for demand response operators to effectively participate, in line with the following issues identified by the Commission in its Opening Decision:

- (a) high minimum bid size,
- (b) requirement to be connected to a transmission grid with a voltage of 110 kV or above,
- (c) impossibility of aggregating loads,
- (d) no reimbursement of opportunity costs,

- (e) very high number of tests,
- (f) requirement to purchase electricity for the whole duration of the contract,
- (g) absence of maximum dispatch duration and of unavailability periods, and
- (h) no possibility for demand response operators of returning to the market, while their consumption pattern may evolve over time.

(b) Cross-border participation

- (59) While some respondents considered that all potential capacity providers should be able to participate in the Reserve as a matter of principle, a majority of the respondents was not favourable to cross-border participation in the Reserve. They considered that foreign capacities should be exhausted before the Reserve was dispatched and should not be booked as a last resort solution, such as the Capacity Reserve. Allowing foreign capacities to participate in the Reserve may thus lead to inappropriate incentives. In addition, in order to rely on foreign capacities, it would require reserving interconnection capacities which would reduce the amount of capacity available when the Reserve would not yet be dispatched and negatively impact cross-border trade.

4.2.4. Comments on the avoidance of undue negative effects on competition and trade

- (60) The Commission received a few comments on the need to define VOLL and to use this value as the intraday price cap and to determine the imbalance charge. Responses were however mixed on this point. Some respondents underlined the need to define VOLL and introduce in the market design this estimation of consumers' willingness to pay for security of supply. Other market participants, however, underlined the fact that a high imbalance charge as currently defined in the proposed design would incentivise market participants to be balanced irrespective of the actual level of VOLL.

5. COMMENTS FROM GERMANY

- (61) This section summarises the comments received from Germany on 17 May 2017 (in Section 0) and on 14 July 2017 (in Section 0).
- (62) Germany provided these observations before making the commitments described in Section 6.

5.1. Observations on the Opening Decision

- (63) On 17 May 2017, Germany reacted by letter to the Commission's Opening Decision. Germany's submission consists of two parts. The first part describes the common goals of Germany and the Commission with regard to the internal market in electricity and how the Capacity Reserve fits with these objectives. The second part addresses the concrete concerns raised by the Commission with regard to the compliance of the proposed scheme with State aid rules. This Section summarises the second part of Germany's submission, which is directly related to the procedure initiated by the Commission in accordance with Article 108(2) of the Treaty.
- (64) In general terms, Germany considers that the Capacity Reserve is a small but efficient measure to accompany the ongoing energy transition process in Germany. It stresses that the measure leaves market functioning intact. It also explains that an exact and mathematical calculation of the size of the Reserve is not possible.

5.1.1. *Observations on necessity*

- (65) With regard to necessity, the German submission underlines that, contrary to a market-wide capacity mechanism, the Capacity Reserve is designed to address exceptional circumstances that occur only in case a reasonable worst case scenario unfolds. Attaching probabilities to the occurrence of a worst case scenario or to the assumptions that constitute the worst case scenario is difficult and by definition less accurate than the probabilistic modelling of the impacts of a multitude of scenarios as applied to market-wide mechanisms.
- (66) With regard to the assumptions that make up its reasonable worst case scenario, Germany explains that the assumption that 10 GW of conventional generation capacity will exit the market by 2020 is a conservative estimate. It illustrates this by demonstrating that between 2013 and 2015 the adequacy forecast of the European Network of Transmission System Operators for Electricity ('ENTSO-E') corrected downwards its availability assumptions for conventional generation for the year 2020 from -35 GW to -41 GW.
- (67) Regarding the balancing fraud assumption, Germany indicates that future legislation is likely to reduce the probability of large scale fraud re-occurring, but that it cannot be fully excluded that balancing fraud will not happen again.
- (68) With regard to the Commission's concerns about the absence of a cost-benefit analysis underpinning the economic efficiency of the Reserve, Germany explains that it is difficult to calculate the benefits of the Reserve given that its function is to address unforeseen circumstances of which it is unknown what they are and how often they will occur.
- (69) Germany furthermore indicates that it is developing its security of supply monitoring process further.
- (70) With regard to the duration of the measure, Germany underlines that the EnWG provides for regular recalculation of the continued need of the Reserve and contains a provision that allows the Capacity Reserve to be applied only when and for as long as the Commission has approved the measure as compatible with State aid rules.

5.1.2. *Observations on appropriateness*

- (71) With regards to variable costs, Germany explains that the reason for a separate remuneration of the costs to ensure a secure fuel supply is the equal treatment of plants in the Network Reserve and those outside the Network Reserve. Plants in the Network Reserve may already have had these costs reimbursed and thus have an advantage compared to other participants.
- (72) Germany furthermore explains that it expects variable costs to be low compared to the fixed costs of maintaining the installation operational and available.
- (73) With regards to the participation of demand response, Germany explains that respecting the principle of a strict separation between the market and the Capacity Reserve implies that demand response should not be allowed to participate in the Capacity Reserve but should instead be fully at the disposal of the market.
- (74) With regard to cross-border participation, Germany objects to the Commission's position in the Opening Decision to allow cross-border participation. It stresses that the de-rating concept as put forward by the Commission in recital 146 of the Opening Decision can at present not be applied to strategic reserves that are only activated after all market-based resources have been exhausted. This is, in particular,

due to the fact that electricity flows through interconnectors are determined by the application of the market coupling algorithm and are therefore not influenced by Germany.

5.1.3. *Observations on the impacts on competition and trade*

(75) Germany shares the Commission's observation that balancing responsible parties should be incentivised to keep their positions balanced at all times and that it should never be financially beneficial for them to rely on the TSO to restore their imbalance. Germany explains that it is against this background that imbalance charges at the time of the activation of the Capacity Reserve are set at the double of the technical price cap of the intraday market.

5.2. **Germany's reaction to the comments of the interested parties**

(76) On 14 July 2017, Germany reacted to the comments of the interested parties as forwarded by the Commission. Germany divided its reaction in general observations, observations related to the necessity of the scheme, to its eligibility rules and to its openness to foreign capacities.

5.2.1. *General observations*

(77) As a general remark, Germany concludes that the overall tone of the comments is one of agreement with the scheme and its design, noting the very limited number of respondents that reject the scheme as a whole.

5.2.2. *Observations on the necessity of the scheme*

(78) Germany points to the majority of respondents that see the Capacity Reserve as a useful insurance instrument during the energy transition Germany is experiencing. Germany underlines that only 4 out of 22 respondents reject the implementation of the Capacity Reserve, 2 of which actually make the case for a market-wide capacity mechanism instead.

5.2.3. *Observations on eligibility (demand response and foreign capacity)*

(79) Germany points out that remarks in this regard relate almost exclusively to demand response participation. Germany's reaction concerns the main issues or wishes signalled by the various demand response operators and aggregators. In view of the fact that Germany has agreed to amend most of the contested terms and conditions for demand side participation, the issue will be addressed in detail in Section 6 on commitments made by Germany.

(80) Germany furthermore draws the conclusion from the responses received that a majority of respondents agree with Germany that the participation of foreign capacity is both practically difficult and has little added value in view of the objective pursued and the design of the Capacity Reserve. Germany underlines that the three respondents that support cross-border participation do not provide concrete proposals on its practical implementation.

6. **COMMITMENTS MADE BY GERMANY**

(81) Following the Commission's further investigation and the comments received from interested parties, Germany has expressed its willingness to amend the terms and conditions governing the Capacity Reserve on a number of points so as to address the remaining concerns.

- (82) First, Germany has committed to revise the rules on the remuneration of variable costs. Germany will no longer reimburse these costs, so that capacity holders submitting a bid to participate in the Capacity Reserve are expected to include both their fixed and variable costs. The latter implies that an assessment will have to be made as to the number of times the Capacity Reserve will be dispatched.
- (83) Second, with regard to demand response, Germany has committed to modify the aid scheme as follows¹⁰:
- (a) Loads connected to medium voltage grids will be allowed to participate, thus significantly extending the number of potential demand side response ('DSR') providers;
 - (b) Aggregation of loads (that is to say, the combination of various loads into one demand response product) will be allowed, which allows a better and more efficient demand response service and thus greatly facilitates participation of demand response;
 - (c) Smaller loads can participate individually more easily thanks to the reduction of the minimum size from 10 to 5 MW;
 - (d) The obligation to purchase all power two years ahead has been reduced to six months, making it less risky and therefore less expensive for DSR to participate;¹¹
 - (e) The number of tests has been reduced from 12 to 2 per year. Given that tests are relatively expensive for DSR (high variable costs per activation), this is expected to allow DSR to place more competitive bids in the auction, thereby also increasing competitive pressure in the auction;
 - (f) Participation in the Reserve is allowed for inflexible loads only, which will be ensured by requiring that the loads did not participate in the ABLAV interruptibility scheme or the balancing market for the last 36 months; and
 - (g) Demand response operators can participate for a limited period to incentivise them to ultimately sell their flexibility in the electricity market directly. After the participation in the reserve (either for two years, or for four years with a cooling-off period of one year) they can participate in the market (but not in the ABLAV support interruptibility scheme). Operators have to decide before they take part in the auction which of the two regimes (two years or four years with cooling-off period) they intend to follow.
- (84) Third, Germany committed to revise the methodology to calculate the reasonable worst case scenario to reflect the state of the art of assessing generation adequacy. This revision will include the calculation of a reliability standard, which takes into account the broader societal costs and benefits of an additional degree of security of supply. Germany also committed to apply this revised methodology and the

¹⁰ Note that the following rules apply per installation and not per operator, in line with the general rule applicable also to generators as set out in recital 12. As such, an operator with different installations behind its connection to the grid can participate with different installations in different markets.

¹¹ In case DSR auto-generate part of their consumption, this obligation only applies to the portion of power that DSR consume from the grid and not to the portion that is auto-generated. In any event, they can only participate in the Capacity Reserve with capacity that reflects their stable electricity consumption from the grid.

reliability standard to determine the necessity and the size of the Capacity Reserve for the first delivery period.

- (85) Fourth, Germany committed to limit the volume of the Reserve to a maximum of 2 GW for the three delivery periods.
- (86) Fifth, Germany committed to reduce the assumption of the reasonable worst case scenario that related to balancing fraud from 2.5 GW to 1 GW. According to Germany, this reflects the fact that arrangements have been made in the *Strommarktgesetz*¹² to reduce, if not completely avoid, fraud. Nevertheless, fraud remains a residual uncertainty, so that for security of supply reasons balancing fraud must be maintained. Germany furthermore indicates that it will amend the assumption of the reasonable worst case scenario related to the availability of conventional power plants in view of the number of notified intentions of closure by operators of these power plants to the *Bundesnetzagentur*. Germany assumes that the current rate of notified closures will continue, which translates into an additional 2 GW of closures. Also these revised assumptions will form part of the revised adequacy assessment referred to in recital 84.

7. ASSESSMENT OF THE MEASURE

7.1. Existence of aid

- (87) As explained in Section 3, the Commission reached the preliminary conclusion in the Opening Decision that the Capacity Reserve constitutes State aid within the meaning of Article 107(1) of the Treaty.
- (88) While Germany claimed that payments under the Capacity Reserve are to be regarded as a compensation for a SGEI that meets all the conditions set out in the *Altmark* judgment and therefore does not constitute State aid, the Commission expressed doubts that the first and the fourth *Altmark* criterion were met.
- (89) With regard to the first *Altmark* criterion, the Opening Decision expressed concerns related to compliance of the scheme with Directive 2009/72/EC. In particular, the scheme might be discriminatory as it seemed to *de facto* exclude demand response operators and to *de jure* exclude foreign capacity providers from effectively participating in the Reserve. The Opening Decision furthermore questioned whether the scheme was necessary for security of electricity supply in Germany and could therefore be justified in the light of the objective of ensuring security of supply. Finally, the Opening Decision recalled that SGEIs could only be justified where it has been demonstrated that the market was unable to deliver, and that in view of the absence of important market reforms in Germany the market was unable to deliver.
- (90) The Commission furthermore doubted that the fourth *Altmark* criterion was met due to the abovementioned suspected discrimination. The Commission notes that whilst some of the doubts expressed in the Opening Decision have been alleviated, others remain.
- (91) First, the Commission takes note of the improved eligibility requirements for demand response operators as presented and assessed in recital 83 and recitals 118 to 122.

¹² *Gesetz zur Weiterentwicklung des Strommarktes (Strommarktgesetz)* of 26 July 2016. The *Strommarktgesetz* was published in the German Official Gazette on 29 July 2016 (BGBl. I 2016 No 37, p. 1786).

These changes will remove the discrimination between DSR operators and other capacity providers. Moreover, they will lead to an increased number of potential participants and therewith increase competitive pressure and a proportionate remuneration in the auction.

- (92) Second, the Commission considers that the exclusion of foreign participation can be justified because in the extreme situations in which the Capacity Reserve is triggered the import capacity will already be fully exhausted as explained in recital 125.
- (93) Third, the Commission takes note of the improvements to the necessity assessment by Germany set out in recitals 84 and 85, which are assessed in Section 7.3.2. The Commission underlines that the importance of a necessity assessment that provides realistic insights into the likelihood of extreme events lies in its ability to properly size the intervention.
- (94) However, the Commission continues to doubt whether the present measure can be considered a SGEI. The Commission recalls that a SGEI cannot be defined unless the market is unable to deliver the required level of security of supply. It would not be appropriate to define as a SGEI an activity that can be provided under normal market conditions. In order to assess whether a service can be provided by the market, also possible changes to the market functioning are taken into account.
- (95) The Commission notes that while Germany envisages putting in place in the coming years a number of market reforms and infrastructure projects, the electricity market continues to display significant market failures that have not been addressed. There are, for example, important regional imbalances in the demand and supply of electricity caused by bottlenecks in the North-South transmission networks and by divergent supply and demand trends between Northern and Southern Germany due in particular to the continued development of large amounts of wind generation in Northern Germany and the decision to close the nuclear power plants having an effect in particular in Southern Germany. As a consequence, the regional imbalances exacerbate the ‘missing money’ problem of the German market in particular for electricity capacity based in Southern Germany where prices tend to be lower than in a situation where regional scarcity would be fully reflected in the price setting. In Southern Germany, capacity that may be profitable in a fully functioning market and that may be needed after the nuclear phase-out therefore risks leaving the market. This situation contributes to an increased security of supply risk.
- (96) Moreover, the Commission notes that it should be the normal functioning of the electricity market that triggers the necessary investments to cover demand. Germany is taking steps to improve market functioning for example by improving price signals to make investments in flexible capacity more profitable. The Commission welcomes these measures and considers that they are likely to incentivise more investments in capacity in the future. At the same time, it will take time for these reforms to have tangible effects on the market and their precise impact on the security of supply situation in Germany is difficult to predict. In any event, as the situation is today, the market is not fully enabled to provide the required level of security of supply by triggering the necessary investments in flexible capacity.
- (97) The Commission reiterates that as long as the market has not been enabled to achieve, to the greatest possible degree, the desired policy objective, namely security of supply, a SGEI cannot be justified. The Commission therefore considers the measure may not constitute a genuine SGEI and that it can therefore not be excluded that it confers an advantage on its beneficiaries.

- (98) The Commission concludes, in line with the Opening Decision, that the measure is financed through State resources and is imputable to the State given the legislative provisions laid down in Article 13e EnWG. The scheme was developed by the German State which provides for by law that its costs can be passed on to all consumers through an increase of the network tariffs. On the basis of the *Vent de Colère* judgment, State resources are therefore present and the scheme is imputable to the State. In addition, the Capacity Reserve Ordinance prescribes that the TSOs shall deduct from their costs the revenues they receive through the scheme. This implies that it is the State that mandates by law the TSOs to attribute and collect the required funds. The funds are generated by the Capacity Reserve Ordinance and are administered collectively by the TSOs. They thus remain at all times under the influence of public authorities. Since the financing mechanism and the legislation have not undergone any changes in this respect since the Opening Decision, the Commission confirms the preliminary conclusion of the Opening Decision that the scheme is financed through State resources and that it is imputable to the State.
- (99) The Commission also considers, in line with the Opening Decision, that the measure is liable to affect competition and trade on the electricity market, because the German electricity market is open to competition and connected to neighbouring electricity markets, as explained in recital 33
- (100) As it cannot be excluded that the scheme confers an advantage on its beneficiaries and the other conditions for the existence of aid are fulfilled, the Commission cannot exclude that the present scheme constitutes aid and it proceeds with the assessment of its compatibility with the internal market.

7.2. Lawfulness of the aid

- (101) Germany has notified the aid scheme to the Commission and has not yet implemented the scheme. Germany has thus fulfilled its obligations under Article 108(3) of the Treaty.

7.3. Compatibility of the aid with the internal market

- (102) The Commission took the preliminary view in the Opening Decision that the Capacity Reserve was an aid scheme aimed at ensuring generation adequacy and security of electricity supply and therefore fell within the scope of Section 3.9 EEAG, setting out the conditions under which aid for generation adequacy may be considered compatible with the internal market on the basis of Article 107(3)(c) of the Treaty. A measure for generation adequacy is compatible if the following compatibility criteria listed in paragraph (27) EEAG are met¹³:
- (a) Contribution to a well-defined objective of common interest (Section 7.3.1);
 - (b) Need for State intervention (Section 7.3.2);
 - (c) Appropriateness (Section 7.3.3);
 - (d) Incentive effect (Section 7.3.4);
 - (e) Proportionality (Section 7.3.5);
 - (f) Avoidance of undue negative effects on competition and trade (Section 7.3.6);
- and

¹³ More specific details for measures ensuring generation adequacy are contained in Sections 3.9.1 to 3.9.6 EEAG.

(g) Transparency (Section 7.3.7).

7.3.1. *Contribution to a well-defined objective of common interest*

- (103) The Opening Decision reached the preliminary conclusion that the objective of the Capacity Reserve was to address concerns about security of electricity supply. The Commission invited interested parties to comment on the preliminary observation – related to paragraph (220) EEAG – that the Capacity Reserve was unlikely to undermine the objective of phasing out environmentally harmful subsidies and that alternative ways for achieving generation adequacy without these negative environmental impacts should be primarily considered.¹⁴
- (104) The Commission has not received comments related to this issue and therefore remains of the view that the Capacity Reserve is unlikely to undermine the objective of phasing out environmentally harmful subsidies as it is necessary and complementary to Germany's current efforts to manage its energy transition to a more sustainable energy mix.
- (105) On this basis, the Commission concludes that security of supply, in the form of the Capacity Reserve to deal with unexpected scarcity situations, constitutes an objective of common interest to which the Capacity Reserve contributes.

7.3.2. *Need for State intervention*

- (106) A key requirement of the EEAG is that the necessity of the measure is demonstrated on the basis of a so-called adequacy assessment. As set out in recital 35 the Opening Decision questioned whether the measure was necessary in view of:
- (a) the absence of fundamental parameters necessary to objectivise the intervention (in particular the economic indicator VOLL and the reliability standard), and
 - (b) doubts with regard to the reasonableness of some of the assumptions of the worst case scenario.
- (107) As set out in Section 6, Germany has committed to address these concerns, by improving its adequacy assessment methodology and by reviewing the assumptions.
- (108) The Commission takes note of the commitment made by Germany to revise its methodology to calculate the necessity of the Capacity Reserve, as set out in recital 84. The Commission considers that the revision of the methodology, which will be applied as of the second auction, to calculate the impacts of the worst case scenario will lead to a more objective determination of the need for the Capacity Reserve and of its size in the future. The Commission in particular welcomes the calculation of a reliability standard as an economic benchmark for security of supply, allowing for a cost-benefit analysis of additional protection against security of supply risks. The Commission notes that although Germany does not commit to use the VOLL metrics to calculate the consumers' willingness to pay for security of supply,

¹⁴ The Commission underlines that the present decision needs and will need to be interpreted in the light of relevant secondary legislation, including legislation that has not been adopted yet at the time of this decision. In this regard, the Commission would like to point to the proposal for a Regulation on the internal market for electricity (recast), COM (2016) 861, and in particular to the principles (such as the requirements regarding CO₂ emission limits) which capacity mechanisms need to incorporate and apply, even if they are already in force and have been deemed as compliant with Union state aid rules, in line with the final text of the Regulation when it becomes effective.

it does commit to calculate the broader economic societal impacts of the Capacity Reserve. The objective of these calculations is to avoid costly over-procurement of capacity. This should avoid that the State buys a level of ‘insurance’ that surpasses the consumers' willingness to pay for security of supply. The Commission considers that the approach to which Germany has committed will prevent costly over-procurement.

- (109) With regard to the core assumptions of the worst case scenario, the Commission takes note of the commitment made by Germany to reduce the size of potential balancing fraud as set out in recital 86. The Commission accepts that balancing fraud is most likely to occur when the supply situation is tight and prices are high. The Commission, however, deems it reasonable to reduce the size of the assumption in view of the development of legislation making it more difficult to commit such fraud. The Commission also accepts the increase in the expected domestic closures of conventional generation in view of the latest information on closures as notified to *Bundesnetzagentur*. These figures demonstrate that in the period between the elaboration of the reasonable worst case scenario that was communicated to the Commission before the Opening Decision (namely, November 2016) and September 2017 a further 1.4 GW of closures had been notified to *Bundesnetzagentur*. This is a significant increase compared to the expected closure rate assumed under the reasonable worst case scenario, which was based on a closure rate of 670 MW per year, in addition to ENTSO-E's base case scenario. The Commission therefore deems it reasonable to correct the assumption upwards in view of the evidence presented.
- (110) The Commission concludes that the sizing of a strategic reserve can be based on the calculation of a reasonable worst scenario, as long as such calculation takes into account the costs of additional protection in relation to its societal benefits. The Commission concludes that as a result of Germany's commitments the Capacity Reserve will comply with this approach.
- (111) With regard to the duration of the scheme, the Opening Decision expressed concerns as to the absence of an end date. The Commission notes that Germany has indicated that adequacy assessments will be carried out every two years to determine whether there is a continued need for the Capacity Reserve. Germany underlines that the size of the Capacity Reserve will be adjusted based on these calculations.
- (112) The Commission considers that the revised adequacy assessment will be suitable to determine the need and size of the Capacity Reserve and that the necessity of the reserve has been demonstrated.
- (113) The Commission reiterates its arguments put forward in the Opening Decision¹⁵ that strategic reserves are suitable temporary measures, for example, to accompany market reforms until the market functions properly and market participants are acquainted with its functioning.
- (114) Based on these considerations, the Commission limits its approval to six years, that is to say for three consecutive two-year delivery periods starting from the first auction to be awarded on 1 October 2019 until the end of the third delivery period, that will occur on 30 September 2025.

¹⁵ See Section 3.2.2.3(a) of the Opening Decision for a complete discussion on the absence of an end date for the Capacity Reserve.

7.3.3. Appropriateness

(115) With regard to the appropriateness of the Capacity Reserve, the Opening Decision expressed doubts as to the separate remuneration of variable costs in case of activation of the Reserve and the eligibility rules.

7.3.3.1. Separate remuneration of variable costs

(116) With regard to the separate remuneration of variable costs in case of activation of the Reserve, the Commission questioned whether all the cost categories for which such separate reimbursement was envisaged constituted variable costs. It noted that reimbursing these costs separately and independently from the procurement auction implied that there would be no competitive process to ensure that these costs would be limited to the necessary minimum.

(117) The Commission has taken note of Germany's commitment to exclude the separate reimbursement of variable costs for all participants as set out in recital 82. The Commission expects this amendment to result in a more competitive procurement auction because participants in the auction are incentivised to include all their costs in their bid. In assessing their variable costs, the participants will have to make assumptions regarding the number of times the Capacity Reserve will be activated, given that variable costs only arise when the reserve is dispatched. The Commission notes that the fact that the costs of a secure fuel supply are no longer reimbursed separately means that this cost element is integrated in the competitive process and puts all potential capacity providers on an equal footing. The Commission therefore considers that its concerns in this regard have been appropriately addressed.

7.3.3.2. Eligibility criteria

The participation of demand side response

(118) With regard to the eligibility criteria of the Capacity Reserve, the Commission was concerned that demand response may be placed at a disadvantage compared to generation facilities due to a number of participation requirements and would therefore be *de facto* excluded from participating in the Reserve.

(119) The Commission has taken note of the commitments made by Germany on this issue as set out in recital 83 and considers that the amended conditions governing the participation of DSR operators ensure a level playing field between DSR operators and other capacity providers.

(120) The commitments improve the competitive position of DSR in two important ways. A first set of commitments widens the eligibility criteria for loads that otherwise would have been unable to participate on the basis of the terms and conditions initially notified. This is the case for smaller loads (between 5 and 10 MW), for loads that need an aggregator to become active and for loads that are connected to a medium voltage grid instead of the transmission grid. A second set of amendments makes it financially more attractive and less risky for DSR providers to participate in the Capacity Reserve. In particular, the reduction of the maximum number of tests and the reduction of the time period for which the DSR providers have to buy the electricity in advance reduce the expected costs of DSR providers and make them potentially more competitive with generation in the auction.

(121) While these modifications help demand response to compete on an equal footing with generation, the Commission accepts that certain limitations apply to demand response providers. In particular, the provision that limits the participation of demand

response to inflexible DSR providers only is intended to prevent that existing flexible resources that already offer their flexibility in the market, leave that market in favour of the Capacity Reserve. The Commission considers that this provision prevents that flexible loads move out of the market to join the Capacity Reserve and at the same time it ensures that inflexible loads become flexible. In the same vein, the limitation of the duration of the participation is justified because it will stimulate demand response capacity that has become flexible to become active on the electricity market after it exits the Capacity Reserve, which may reduce the need for the Capacity Reserve in the long term.

- (122) Based on these considerations, the Commission considers that its concerns related to the *de facto* discrimination of demand response operators in the Capacity Reserve have been addressed.

The participation of foreign capacity

- (123) As set out in recital 42, the Opening Decision expressed doubts and invited comments on the exclusion of foreign generation. The German authorities had explained in the context of the pre-notification discussions that preceded the Opening Decision that there are two main reasons for the exclusion of foreign capacities. First, allowing foreign capacity providers to participate would require the reservation of interconnection capacity. Second, reserving foreign capacity for the Capacity Reserve would require that this capacity could not generate or sell power in its home market and be put exclusively at the disposal of the German TSO.
- (124) The Commission notes that responses from market participants to the Opening Decision have not brought forward new arguments. Although two respondents underlined that in principle all capacity mechanisms should be open to foreign participation, they did not provide arguments as to why there would be a market distortion or how this participation could be organised effectively.
- (125) First, the Commission considers that there is no value added in a scarcity situation that triggers the Capacity Reserve because at that moment all interconnection capacity will in any event be used for imports. Second, the design of the scheme ensures that the Capacity Reserve is held entirely outside the market so that it will distort neither the short-term operation of the market nor the long-term investment signals. This also ensures that foreign capacity is not affected by the Reserve so that there are no grounds for participation of foreign capacities to remove distortions as would be the case for example in a market-wide capacity mechanism. The Commission therefore considers that it is appropriate that only domestic capacity can participate in the Capacity Reserve.
- (126) Based on these considerations, the Commission regards the Capacity Reserve as appropriate to reach the objective of common interest.

7.3.4. Incentive effect

- (127) The Opening Decision concluded that the Capacity Reserve has an incentive effect that will change the behaviour of its beneficiaries. As no comments from third parties were received in this regard, the Commission confirms this conclusion.

7.3.5. Proportionality

- (128) With regard to the proportionality of the measure, the Opening Decision reiterated its concerns regarding the restrictive eligibility requirements. Should possibilities to

participate in the tender be unnecessarily limited, the aid would risk not being limited to the minimum necessary.

- (129) In addition, ensuring that no aid is granted beyond what is necessary requires demonstrating that the additional capacity in the form of the strategic reserve is economically meaningful and reflects the consumers' willingness to pay for capacity. It also requires that the Reserve is phased out once market reforms are implemented and the impact of the ongoing energy transition on capacity is more certain.
- (130) The Commission's concerns have been addressed by Germany's commitments set out in Section 0. The Commission in particular notes that the improved participation possibilities for DSR will ensure a competitive procurement auction and therewith a proportionate aid amount. The Commission also considers that the revised adequacy assessment will ensure that a proportionate quantity of capacity will be procured. Finally, the Commission reiterates that the Decision limits the duration of the approval to six years as set out in recital 114.
- (131) Based on these considerations, the Commission is satisfied that the design of the Capacity Reserve will ensure the proportionality of the aid.

7.3.6. *Avoidance of undue negative effects on competition and trade*

- (132) The Opening Decision indicated that the imbalance charges were set at the double of the technical price limit in the intraday market. It stated that such an approach might be less economically efficient than setting the intraday price cap at the maximum imbalance charge which should itself reflect VOLL. The Commission therefore reiterated that a definition of VOLL would be required to avoid applying excessive and distortive imbalance charges.
- (133) With regard to the Commission's concerns, Germany clarified that the intraday price cap of EUR 10 000/MWh is not a legally established maximum price on the intraday market but merely reflects the technical limit applied by the exchanges operating the market. It is possible for prices to rise further and up to EUR 20 000/MWh, for example in over-the-counter transactions, which is the price at which the Reserve is dispatched. This enables market participants to 'hedge' their position up to the amount to which they are exposed.
- (134) The Commission notes that the clarifications provided by Germany indeed remove the concern that market participants would not be able to insure themselves up to the potential penalties they could incur. By allowing the price to reach the imbalance charge payable when the Reserve is dispatched, market participants can make full use of all the resources available to prevent the activation of the Reserve.
- (135) The Commission notes that Germany has not undertaken to calculate or define VOLL. The Opening Decision underlined the importance of defining VOLL both for the necessity assessment and for the setting of a maximum price in the market. In recital 108, the Commission explained that Germany's approach to calculate the broader economic societal impacts of the capacity reserve achieved the same objective of preventing costly over-procurement. This approach is therefore satisfactory and limits the impact of the Reserve to extreme situations so that competition in the electricity market is not affected. Moreover, the absence of a maximum price implies that the price can in principle reach VOLL irrespective of whether it has been defined. The Commission is confident that with an imbalance charge set at EUR 20 000/MWh it is unlikely that capacity important for security of supply will not be available when needed.

(136) The Commission also recalls that by activating the Reserve only when the market does not clear, there is a clear separation between the market and the Reserve. This arrangement guarantees that the scheme does not impact competition and trade in the electricity market.

(137) In view of the clarifications provided by Germany, the Commission concludes that the measure does not have undue negative effects on competition and trade.

7.3.7. Transparency

(138) As set out in the Opening Decision, the German authorities will apply the transparency conditions laid down in Section 3.2.7 EEAG insofar as applicable to the aid granted under the Capacity Reserve. This requirement is therefore met.

8. CONCLUSION

(139) In light of the above and based on the commitments provided by Germany (Section 6), the Commission finds that the aid scheme is compatible with the internal market, on the basis of Article 107(3)(c) of the Treaty and in particular with Section 3.9 EEAG,

HAS ADOPTED THIS DECISION:

Article 1

The aid scheme which Germany is planning to implement in order to establish a Capacity Reserve is compatible with the internal market on the basis of Article 107(3)(c) of the Treaty for a total of three consecutive two-year delivery periods for delivery until 30 September 2025.

Implementation of the aid scheme is accordingly authorised.

Article 2

This Decision is addressed to Germany.

Done at Brussels, 7.2.2018

For the Commission
Margrethe VESTAGER
Member of the Commission