



EUROPEAN COMMISSION

Brussels, 7.2.2018
C(2018) 604 final

PUBLIC VERSION

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**Subject: State aid No. SA.48780 (2017/N) – Greece
Prolongation of the Greek interruptibility scheme**

Sir,

1. PROCEDURE

- (1) By electronic submission dated 27 November 2017, Greece notified to the Commission under Article 108(3) of the Treaty on the Functioning of the European Union (TFEU) its intention to prolong its interruptibility scheme.

2. DESCRIPTION OF THE MEASURE

2.1. Context and background

- (2) The notified measure is a prolongation of an existing measure that was temporarily approved by Commission Decision C(2014)7374 of 15 October 2014 (hereafter, 'the 2014 Decision'). Under the measure, the Greek transmission system operator, ADMIE (hereafter, 'TSO'), contracts large energy consumers to be available to reduce their consumption at times of system stress, also referred to as demand side response or DSR.
- (3) The approval of the 2014 Decision was for three years and lapsed in October 2017. The Greek authorities have notified the prolongation of the measure, including a small number of modifications, for a further two years.

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2.2. Legal basis

- (4) Articles 143(A) to 143(C) of Law 4001/2011 ("Energy Law"), as introduced by Article 17(11) of Law 4203/2013 (adopted on 24 October 2013), established the legal framework to allow the TSO to enter into agreements to interrupt the supply of electricity to certain consumers (subject to remunerating these consumers). The Energy Law also sets out how the scheme may be financed.
- (5) Article 143(A)(2) of the Energy Law provides for the issuance of a Ministerial Decision which will establish: a) which categories of consumers are eligible to conclude interruptibility agreements with the TSO; b) the prerequisites for the conclusion of such agreements and the minimum mandatory content of such agreements; c) the grounds for the activation of interruptibility services; and d) how payment to eligible consumers is determined. Ministerial Decision ΑΠΕΗΛ/Γ/Φ1/οικ 184898 was accordingly adopted on 11 December 2015 (hereafter: "Ministerial Decision"). The Greek authorities have indicated they will revise the Ministerial Decision before the revised scheme becomes operational.

2.3. Description of the Interruptibility Scheme

- (6) The interruptibility scheme enables the Greek TSO to enter into contracts with electricity consumers, which receive payments in exchange for committing to reduce their consumption in accordance with instructions of the TSO.
- (7) In total, the Greek TSO will be allowed to contract up to 1,600 MW of so-called interruptible loads, i.e. demand response from medium-sized and large energy users with a stable load profile. The 1,600 MW are split in two separate segments: 1,000 MW of capacity that will be able to reduce their consumption within 5 minutes and remain available for 48 hours and for a maximum of 288 hours per year (hereafter, 'Type 1') and 600 MW of capacity that will also be able to reduce their consumption within 5 minutes but which can remain available for just 1 hour and a maximum of 24 hours per year ('Type 2'). The detailed product requirements are specified in the following table:

Product type	Type 1	Type 2
Notice time	5 min	5 min
Duration of each power reduction order	48 hours	1 hour
Maximum number of Power reduction orders per month	3	4
Maximum duration of load shedding per year	288 hours	24 hours
Minimum period between two consecutive power reduction orders	1 day	5 days

Source: notification

- (8) The TSO can instruct the contracted consumers to reduce their loads whenever an emergency situation occurs that seriously puts at risk the security of electricity supply. The precise triggering events are laid down in detail in the Ministerial Decision. Accordingly, the Ministerial Decision ΑΠΕΗΛ/Γ/Φ1/οικ 184898, article 4, paragraph 1 stipulates that the TSO can issue power reduction orders, when one or more of the following occur:
1. When the ratio of estimated available generation power to the interconnected System and estimated system load is less than the factor 1.1.

2. When there are exceptional circumstances, like a natural gas crisis, or interruption or drastic restriction of imports of electricity due to the declaration of “force majeure” by neighbouring System Operators.
 3. When the operational safety and stability of the system are at risk.
 4. When there is a risk for the system stability due to local system problems.
 5. When there is a sudden change in the generation of or demand for electricity in the Interconnected System.
 6. When it is estimated that the system load coverage is not ensured by the Distributed Units, Contributed Supplementary System Energy Units and Emergency Import Capabilities.
- (9) In exchange for being available to be disconnected, the loads are remunerated with a fixed payment which is determined by means of three-monthly auctions. The maximum price at which the auction can clear is EUR 70,000/MW for Type 1 and EUR 50,000/MW for Type 2. Before loads can take part in the auction, they must have registered in the Interruptible Load Registry with the TSO. This ensures their general eligibility and technical ability to deliver the product requirements specified above.
- (10) In order to be eligible for participation in the interruptibility scheme, the minimum threshold is a capacity of 3 MW. The installations must moreover be connected to the transmission grid or the medium voltage network. The aggregation of loads is not allowed.

2.4. The beneficiaries

- (11) The beneficiaries of the scheme are consumers that meet the eligibility criteria described in Section 2.3 of this Decision. The previous scheme foresaw more stringent eligibility criteria in terms of minimum size (5 MW compared to 3 MW now). Hence, the pool of potential beneficiaries is enlarged.

2.5. Financing mechanism

- (12) The remuneration is paid to the beneficiaries by the TSO, who in turn is allowed to recover these costs through a specific charge imposed on all producers of electricity in the Greek interconnected system: the Special Charge for Energy Supply Security (SCESS), established in Article 143(B) of Law 4001/2011. The SCESS varies per generating unit, depending on the technology and the size of the installation.

2.6. Budget

- (13) The cost of the measure depends on the outcomes of the auctions. To give an indication of the costs, the Greek authorities have provided the Commission with the costs of the scheme in the year 2016 and the first half of 2017. The cost for both Type 1 and Type 2 for the year 2016 was EUR 36.9 million and for the first half of 2017 EUR 23.8 million. However, it must be noted that compared to the previous scheme, the overall capacity and the maximum price cap have been

lowered while the product requirements have been tightened (faster reaction time for product type 1).

2.7. Duration

- (14) The Greek authorities envisage a two-year prolongation of the scheme.

3. ASSESSMENT OF THE MEASURE

3.1. Existence of State aid

- (15) Greece notified the measure as State aid that is compatible with the Energy and Environmental Aid Guidelines.
- (16) 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. The Commission agrees that these conditions are met.
- (17) With regard to condition a) the Commission notes that the measure is granted through State resources, in view of the fact that the payments to the beneficiaries are financed through compulsory charges imposed via legislation of the Member State. Moreover, the measure is imputable to the State as the State has by law defined the essential parameters of the interruptibility scheme and has mandated the TSO to procure a pre-defined volume of interruptibility services for the purpose of ensuring security of supply in rare emergency situations.
- (18) With regard to condition b), the Commission considers that the interruptibility scheme confers an advantage on its beneficiaries. The Commission notes that in order to assess whether a notified measure confers an economic advantage on its beneficiaries, it is necessary to determine whether they could have obtained this advantage under normal market conditions¹. The Commission recalls that in Greece, DSR providers cannot obtain any revenue from the balancing markets for their demand reduction because the current electricity market design does not allow for their participation in these markets.
- (19) The Commission also notes that even when the market rules change and DSR operators will be allowed to participate in the balancing markets – as committed to by Greece – they will offer a different service in the balancing market than under the interruptibility scheme. On the one hand, the balancing markets give the TSO a tool for the day-to-day management of the grid, requiring capacity providers such as DSR to be activated frequently. On the other hand, under the interruptibility scheme, the TSO acquires services from capacity providers to manage rare extreme situations requiring much less frequent activation of the committed capacity. For this reason, the remuneration in an interruptibility scheme is typically in the form of an availability payment, while in the balancing

¹ Judgment of the Court of Justice of 11 July 1996, SFEI and Others, C-39/94, ECLI:EU:C:1996:285, paragraphs 60 and 61.

market, a larger part of the remuneration is in the form of an energy payment based on the actual activation of the service.

- (20) As a result, even if DSR operators were able to participate in the balancing market, their participation would consist in offering their flexibility as balancing capacity in the balancing market which is significantly different from the infrequent activation in the case of extreme emergency situations under the interruptibility scheme. The Commission therefore concludes that the remuneration under the interruptibility scheme constitutes an advantage which the beneficiaries would not have received under normal market conditions.
- (21) The Commission also notes that the advantage should be considered selective, in view of the fact that only consumers offering interruptible power and only consumers connected to high- and medium-voltage grids can participate.
- (22) With regard to conditions c) and d), the Commission concludes that the measure has an impact on intra-Union trade and is liable to distort competition within the EU. The beneficiaries of the measure, which may include notably energy intensive users, are industrial undertakings active on a variety of markets open to competition and on which there is intra-EU trade.
- (23) In the light of the assessment above, the Commission concludes that the interruptibility scheme constitutes State aid within the meaning of Article 107(1) TFEU.

3.2. Lawfulness of the aid

- (24) By notifying the measure before its implementation, the Greek authorities have fulfilled their obligations under Article 108(3) TFEU. The Greek authorities have ceased to grant aid as of the day the 2014 Decision expired.

3.3. Compatibility

- (25) In order to prevent State aid from distorting competition in the internal market and affecting trade between Member States in a way which is contrary to the common interest, Article 107(1) TFEU lays down the principle that State aid is prohibited. In certain cases, however, State aid may be compatible with the internal market under Articles 107(2) and (3) TFEU.
- (26) 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.
- (27) The Commission has assessed the compatibility of the interruptibility scheme in the light of the Guidelines on State aid for environmental protection and energy 2014-2020 (EEAG)². In the EEAG, the Commission has set out the conditions under which aid for energy and environmental protection may be considered compatible with the internal market under Article 107(3)(c) TFEU. Section 1.2

² Guidelines on State aid for environmental protection and energy 2014-2020 (OJ C 200, 28.6.2014, p. 1–55).

EEAG contains a list of the types of aid measures to which it applies. For these types of measures, specific guidance is provided in Chapter 3 EEAG.

- (28) The Commission takes the view that the interruptibility scheme is first and foremost a measure to ensure generation adequacy and security of electricity supply and therefore falls within the scope of Section 3.9 EEAG on State aid for generation adequacy³.
- (29) The interruptibility scheme aims to ensure that the Greek TSO is adequately equipped to ensure the safe and secure operation of his network and therewith the balance of electricity demand and supply at all times and in all parts of the network. The scheme in particular makes available capacity that would not have been available absent the measure and which is used to ensure security of supply in Greece.
- (30) To assess whether the interruptibility scheme can be considered compatible with the internal market, the Commission assesses whether the design of the measure meets the following criteria listed in point (27) EEAG (with more specific details for measures ensuring generation adequacy in Sections 3.9.1 to 3.9.6 EEAG):
- (a) contribution to a clearly defined objective of common interest (see Section 3.3.1 of this Decision);
 - (b) need for State intervention (Section 3.3.2 below);
 - (c) appropriateness (Section 3.3.3 below);
 - (d) incentive effect (Section 3.3.4 below);
 - (e) proportionality (Section 3.3.5 below);
 - (f) avoidance of undue negative effects on competition and trade (Section 3.3.6 below);
 - (g) transparency of the aid (Section 3.3.7 below).

3.3.1. Objective of common interest

- (31) The measure needs to contribute to a well-defined objective of common interest. Section 3.2.1. 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. Section 3.9.1. EEAG specifies these requirements further in points (219) to (221).

³ The Commission underlines that this 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.

- (32) Point (219) EEAG determines that measures for generation adequacy can be designed in a variety of ways and can be aimed to address both short term flexibility concerns and long term concerns about the ability to meet a generation adequacy target. The Commission notes that the interruptibility scheme is intended to address security of supply problems in the short term. This follows from the reaction times (5 minutes) and the limited availability requirements (maximum 24 hours per activation). As will be further elaborated in Section 3.3.2. on necessity, the measure is intended to give the TSO the necessary tools to reduce consumption when total available power in Greece drops to levels that can no longer ensure that the overall system demand will be met. Examples of situations are the unavailability of the interconnectors, the unavailability of gas fired power plants (which are dependent on the availability of natural gas – Greece has no gas storage facility) or the unavailability of hydro plants (whose availability greatly differs depending on the amount of rainfall). It can therefore be concluded that the measure has been designed as aid to enable the TSO address short term concerns brought about by the lack of available generation capacity.
- (33) Point (220) EEAG notes that aid for generation adequacy may contradict the objective of phasing out environmentally harmful subsidies and therefore alternative ways for achieving generation adequacy without these negative environmental impacts should primarily be considered. The Commission notes that the Greek interruptibility scheme is not open to generation so that the criterion does not apply. On the contrary, the scheme avoids the use of conventional back-up generation to address scarcity situations and therefore also avoids the need to subsidise such fossil-fuelled generation.
- (34) Point (221) EEAG underlines amongst others the need to clearly define the objective at which the measure is aimed, including when and where the adequacy problems are expected to arise. The Greek authorities have clarified that the objective of the interruptibility scheme is laid down in the justification report accompanying the Ministerial Decision⁴ and have summarised the relevant section as follows: *'the rapidly and constantly increasing inherent RES generation, the increasing demand for natural gas supply for electricity generation and their interdependence and the increasing contribution of cross-border interconnections lead to the importance of the expansion of the available tools the TSO can make use of to handle and ensure the security of supply within the fully liberalized energy market. The establishment of the interruptibility scheme, which is such a tool, shall ensure the security of electricity supply.'*
- (35) On this basis, the Commission concludes that the interruptibility scheme is targeted at and contributes to a well-defined objective of common interest, namely that of security of electricity supply.

3.3.2. Need for State intervention

3.3.2.1. Assessment of the necessity of the measure

- (36) As a general principle, in order to demonstrate the need for State intervention it needs to be established that a market failure exists that prevents market forces from achieving generation adequacy and thus risks undermining the objective of

⁴ http://www.hellenicparliament.gr/Nomothetiko-Ergo/Anazitisi-Nomothetikou-Ergou?law_id=26365641-6d64-4f51-93ea-1e6d0691d6b8.

security of supply. Points (222) to (224) EEAG define more specific criteria of how Member States should demonstrate the need for State intervention.

- (37) Point (222) EEAG requires the Member States to identify the nature and causes of the generation adequacy problem and to properly analyse and quantify them, providing the unit of measure for quantification and its method for calculation.
- (38) As part of its notification, Greece has submitted a generation adequacy assessment carried out by the TSO and covering the years 2017 to 2027. The assessment develops assumptions on the evolution of the generation mix in Greece, focussing in particular on planned new investments and the anticipated retirements of certain lignite plants, and the evolution of demand. The assessment thus gives an insight into the overall generation adequacy of the Greek market in the coming decade.
- (39) However, the Greek authorities make it clear that the assessment has important shortcomings. For instance, it does not contain any extreme scenarios, such as the simultaneous occurrence of unexpected outages. Furthermore, the assessment does not assume fuel shortages in any of its scenarios. The Greek authorities have therefore instructed the TSO to add a number of scenarios to the adequacy assessment, in order to be able to understand their impact on security of supply. The Greek authorities underline that this assessment has to date not been carried out. They have committed to submit to the Commission prior to the end of the notified extension of the scheme an adequacy assessment that contains an evaluation of the need of the interruptibility scheme.
- (40) In their notification, the Greek authorities underline that even though the adequacy assessment is not finalised, there is important practical evidence of the necessity of the interruptibility scheme. In particular, they point to the tight supply situation of December 2016 and January 2017. During these two months, the TSO could avoid load shedding only by making use of the interruptibility scheme. To mitigate the situation, the TSO had to rely excessively on hydro plants, leading to a strong decrease in reservoir levels and thus jeopardising the filling programme to prepare the reserves for the summer demand. The TSO however also instructed dual-fuel generators to switch to diesel. Finally, the TSO made full use of all the capacity in the interruptibility scheme.
- (41) The interruptibility scheme was activated on 23 December 2016 and again on 10 January 2017. The participants to both product types were instructed by the TSO to reduce their consumption.⁵ In most cases, the maximum demand reduction was delivered by the participants, but in some cases the instructions were not complied with and penalties were applied in accordance with the rules set out in the Ministerial Decision.⁶

⁵ One participant to the scheme was not instructed to reduce its consumption of electricity, because it was established that such reduction would have had far-reaching negative effects on electricity security of supply that would outweigh the benefits of the demand reduction. Greece has addressed this issue and made sure that this particular beneficiary can only continue to participate to the interruptibility scheme going forward if it makes certain provisions and signs a declaration that aims to avoid a situation in which the reduction of the consumption of this beneficiary would have negative effects on security of supply.

⁶ More particularly, regarding product Type 1 for December 2016, 17 interruptible customers were instructed to reduce load and there was one penalty. Regarding product Type 2 for December

- (42) The Greek authorities have assessed the December/January energy crisis and identified the following five factors as main contributors:
- (a) the limited storing capacity of natural gas, which means that any extra demand needs to be imported via the limited entry points of the transmission grid;
 - (b) low contribution of variable RES;
 - (c) outages of lignite plants due to ageing and weather conditions;
 - (d) low contribution of the interconnector with Italy due to technical issues;
 - (e) significant increase in demand for electricity and gas for heating purposes due to weather conditions.
- (43) The Greek authorities underline that these factors are not necessarily unique to the winter of 2016/2017 and could in principle happen again in case similar weather conditions occur in the coming winters.
- (44) The Greek authorities moreover have submitted preliminary deterministic calculations which show that in case of low renewables generation combined with an absence of imports, there would be an additional need of 2,700 MW of dispatchable capacity. Such a scenario can unfold not only in winter but throughout the year.
- (45) The Commission accepts that Greece has illustrated, by way of the recent and concrete example of the energy crisis of the winter of 2016/2017, the causes of the generation adequacy problem and the need for the interruptibility scheme to adequately address this situation. However, the Commission notes that the necessary quantification and analysis, making use of well-known methodologies and metrics such as the loss of load expectation ('LOLE') or the value of lost load ('VOLL'), have not been carried out. The Commission underlines that without this information it is difficult to draw firm conclusions as to the scale and likelihood of a similar future crisis. The Commission therefore notes that for the future a proper probabilistic adequacy assessment is needed to better estimate the scale, likelihood, impact, costs and remedies of another supply crisis. The assessment should also address the likelihood and impacts of a crisis occurring in other seasons than winter.
- (46) Point (223) EEAG requires the Member State to demonstrate the reasons why the market cannot be expected to deliver adequate capacity.
- (47) The Greek authorities have made it clear that currently the market does not provide for a regulatory framework for DSR operators to become active or for new players to enter the market. For instance, flexible capacity which would be useful in situations of scarcity cannot access scarcity prices or sell ancillary services to the TSO at a price reflecting the actual economic value of the

2016, 8 interruptible customers were instructed to reduce load and 5 of them were penalized for non-compliance. Regarding product Type 1 for January 2017, 22 interruptible customers were instructed to reduce load and two of them were penalized for non-compliance. Regarding product Type 2 for January 2017, 5 interruptible customers were instructed to reduce load and one (1) of them was penalized for non-compliance.

flexibility. As a result, there would have been no demand response at all absent the interruptibility scheme. The Greek authorities have however re-confirmed their commitment to implement a functioning balancing market in which DSR can participate by August 2018, in line with Greece's commitments under the Supplementary Memorandum of Understanding between the European Commission acting on behalf of the European Stability Mechanism and the Hellenic Republic and the Bank of Greece⁷. The Commission acknowledges that at present, even though market reforms are underway, the market cannot be expected to deliver adequate flexible demand capacity. The Commission also concludes that there is no other way for the TSO to use the flexibility of the DSR operators than via a dedicated interruptibility scheme.

- (48) Point (224) EEAG requires the Commission to take account of various assessments to be provided by the Member State, relating to the impact of variable generation, demand side participation, interconnection and any other element causing or exacerbating the generation adequacy problem.
- (49) As set out in recital (44), Greece has provided the Commission with its adequacy report and also with extensive documentation on the energy crisis of the winter of 2016/2017. In both sets of documents, the role of variable generation, demand response, interconnection as well as the availability of existing capacity are analysed in detail. The Commission has taken account of the reports, so that the requirement of point (224) EEAG is met. The Commission however notes that the documents do not contain a probabilistic assessment of the adequacy situation in Greece taking into account the various threats to security of supply (and in particular the combination of these threats).

3.3.2.2. Conclusion on the necessity of the measure

- (50) The Commission concludes that on the one hand, the Greek authorities have not yet carried out an adequacy assessment to the required standards to demonstrate the need for the continuation of the interruptibility scheme. The Commission is however also aware of the crucial role that the interruptibility scheme played in avoiding involuntary load shedding during the crisis in December 2016 and January 2017. The Commission in particular agrees that the factors causing and exacerbating the impacts of the crisis, do not appear so exceptional as to never happen again. On the contrary, it cannot be excluded that the situation re-occurs in the coming two years for which the interruptibility scheme is notified.
- (51) The Commission therefore considers the interruptibility scheme to be currently necessary in view of the circumstances of the Greek market and the absence of the possibility for responsive demand to offer their flexibility on any of the electricity markets. The Commission takes note of the fact that the Greek authorities have committed to implement market reforms that enable DSR to participate on the balancing market by August 2018 and to develop by the end of 2019 an adequacy assessment that meets the required quality standards to identify the market failures that cause the adequacy problems and to demonstrate the necessity and the size of a possible future interruptibility scheme. The Greek

⁷ The Memorandum of Understanding ('MoU') is available at: https://ec.europa.eu/info/sites/info/files/smou_final_to_esm_2017_07_05.pdf.

authorities have moreover committed to report to the Commission on the progress in implementing these commitments by 30 September 2018.

3.3.3. *Appropriateness*

- (52) As a general principle, a State aid measure is appropriate if it is designed in a way as to properly address the market failures identified. The EEAG further specify in points (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 response or storage solutions.
- (53) With regard to point (225), related to the remuneration of availability only, the Commission notes that the interruptibility scheme contains a fixed remuneration for availability only (i.e. per MW). The loads do not have access to the electricity market and can therefore not receive any energy payments (i.e. per MWh). The Commission therefore considers the interruptibility scheme to be compatible with point (225).
- (54) With regard to point (226), related to the eligibility requirements of capacity mechanisms and in particular the need to be as open as possible to different capacity providers, the Commission recalls that in its Final Report of the Sector Inquiry on Capacity Mechanisms⁸ it 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.
- (55) In interruptibility schemes, the required capacity is exclusively provided by the demand side. They are thus by definition technology specific mechanisms because they exclusively target DSR providers. In order to assess whether an interruptibility scheme is nevertheless appropriate, it must therefore be examined whether the objective of security of supply can be achieved in another way.
- (56) In the Final Report of the Sector Inquiry, the Commission also found that in most Member States under investigation, DSR did not compete on equal footing with generation. The reasons for this special treatment is the objective to ensure a minimum amount of DSR participation to solve adequacy problems in order to promote the flexibilisation of the demand side which often can react at very short notice and which is environmentally favourable when it leads to a genuine demand reduction.
- (57) In the case at hand, the Commission notes that demand response can currently not participate in any of the electricity markets (forward, day-ahead, intraday, balancing or ancillary services). Therefore, the only possible way for the TSO to make use of the flexibility that energy consumers have to offer – the necessity of which has been established in recital (52) of this Decision – is by way of a scheme that exists outside the market and on top of the balancing reserves contracted by the TSO from capacity in the balancing market.

⁸ Final Report of the Sector Inquiry on Capacity Mechanisms, COM(2016) 752 final, of 30 November 2016, page 12:
http://ec.europa.eu/competition/sectors/energy/capacity_mechanisms_final_report_en.pdf

- (58) The Commission recalls Greece's commitment, set out in recital (48) to implement market reforms that will enable DSR to compete against other types of capacity in the balancing market. The Commission notes that as a general rule, where demand becomes more flexible, tight supply situations can be better managed by TSOs. As such, the Greek market reforms may in the long run lead to an adequacy situation in which the need for an interruptibility scheme is no longer present. The Commission however also acknowledges that market reforms will take time to take effect and that market-based demand response will not immediately – or in any event not within the two years for which the scheme will be prolonged – develop to a sufficient degree to replace the interruptibility scheme. Furthermore, as explained in recital (20) above, the Commission considers that the requirements for capacity in the electricity market (and in particular in the balancing markets) and the purpose of such capacity are fundamentally different from capacity in the notified interruptibility scheme. Key differences concern the number of activations, the maximum delivery period and the calculation of the remuneration and the purpose of day-to-day grid management versus crisis management. This is the reason the Greek authorities have deemed it necessary to intervene and tasked the TSO with the procurement of demand response capacity in addition to the balancing reserves it procures for the day-to-day operation of the grid. The Commission accepted the existence of the differences between DSR and generation in the balancing market and their effects on the overall availability of demand response in its decision on a German interruptibility scheme⁹, but limited the duration of its approval of that scheme to six years so as to assess the impacts that market reforms may have on the position of DSR. Similarly, the Commission takes the view that in the present case the effects of the opening of the Greek market to DSR on the continued appropriateness of the interruptibility scheme will have to be assessed after two years.
- (59) The Commission concludes that the interruptibility scheme is an appropriate measure to address the objective of security of supply, at least until 2019 while the market is reformed, which may influence the need and the size of a possible future interruptibility scheme.

3.3.4. *Incentive effect*

- (60) A State aid measure has an incentive effect if it changes the behaviour of the undertakings concerned in such a way that they engage in activity which they would not carry out without the aid or which they 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 its Section 3.2.4, namely 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.
- (61) The Commission notes that participants to the interruptibility scheme must be available to the TSO at all times to reduce their consumption. Without the interruptibility scheme, the beneficiaries would not be willing to reduce their electricity consumption as this impacts their production processes. Moreover, for

⁹ See Recital (73) of Commission Decision, State aid No. SA.43735 (2016/N) – Germany ABLAV Interruptibility Scheme.

the time being, the demand response operators are not able to participate in the ancillary service markets where they could in principle offer the same service. The measure thus incentivises the undertakings concerned to change their behaviour to the benefit of security of supply.

3.3.5. *Proportionality of the aid*

- (62) The aid amount is proportionate if it is limited to the minimum needed to achieve the objective pursued. The EEAG specify this requirement for generation adequacy measures in points (228) to (231), which aim to ensure that beneficiaries do not earn more than a reasonable rate of return and that windfall profits are excluded.
- (63) As a general comment, the Commission recalls that interruptibility schemes risk acting as a subsidy for energy intensive industry. The Commission identified this risk based on an investigation of multiple interruptibility schemes across Europe carried out in the context of the aforementioned Sector Inquiry.¹⁰ Overcompensation occurs in particular where the quantity of capacity procured by the TSO is greater than the amount of available interruptible capacity, causing the auction to clear at the maximum price. The proportionality test therefore assesses whether the quantity that has been established can in practice be delivered by the potential participants and whether that leads to a competitive price.
- (64) The Commission notes that the Greek interruptibility scheme has been in place since March 2016. This provides practical insight in the functioning of the scheme and the proportionality of the remuneration. Between March 2016 and October 2017 a maximum price of 100,000 EUR/MW/year was applicable. However, none of the quarterly auctions for either of the two products has cleared at a price above 50,000 EUR/MW/year. The Commission moreover notes that Greece will now reduce the overall size of the interruptibility scheme (from 2 GW to 1.6 GW) and will also reduce the maximum price to 70,000 EUR/MW/year for Type 1 and 50,000 EUR/MW/year for Type 2. The Commission also notes that at least 27 different providers have been participating successfully in the auction. The Commission moreover notes that the minimum bid size required will be reduced from 5 MW to 3 MW, thus increasing the pool of potential participants. Finally, the Commission deems it important that the TSO has the role and the duty to adjust the capacity it buys on the basis of the offer it expects, so as to ensure that any auction it organises will be truly competitive.
- (65) With regard to the requirement of point (230) EEAG, the Commission notes that windfall profits are excluded insofar as the mechanism only reimburses fixed costs for being available.
- (66) With regard to the requirement of point (231) EEAG, the Commission notes that based on the competitive design of the auction, the price can in principle tend to zero. In practice, the price is unlikely to become zero because the participation in such a scheme always comes with the possibility of being interrupted, which in turn has a cost that bidders will include in their bid.

¹⁰ See Recital (522) of the Staff Working Document accompanying the Final Report of the Sector Inquiry into Capacity Mechanisms, SWD(2016) 385 final:
http://ec.europa.eu/competition/sectors/energy/capacity_mechanism_sw_d_en.pdf

- (67) Based on these considerations, the Commission concludes that the aid granted under the interruptibility scheme is proportionate.

3.3.6. Avoidance of undue negative effects on competition and trade between Member States

- (68) The negative effects of the interruptibility 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 points (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.
- (69) As explained in Section 3.3.3 on appropriateness, the interruptibility scheme is technology specific. At this stage, it would not be possible to include other capacity providers without de facto withdrawing other capacity from the market as it would have to be held outside the market to serve only in the case of extreme scarcity. At the same time, demand response would not come forward to the same extent if it were outcompeted by other capacity in the interruptibility scheme. It should also be noted that, for this type of scheme, it is technically not possible to include foreign demand response providers as this is a measure of last resort when all import capacities are already in full use. The present measure does also not negatively affect the functioning of the internal market. On the contrary, as mentioned above, Greece is just in the process of reforming its electricity market to make it more flexible and competitive. In any event, the present measure is approved only for two years which will allow reassessing its need and scale once the reforms are in place.
- (70) With regard to the potential distortion of the electricity market as referred to in point (233) EEAG, the Commission notes that there is at present no competition between the beneficiaries of the interruptibility scheme and the participants on the electricity market, as the former are not allowed to participate in the electricity market. The Commission notes that once the interruptible loads are allowed to participate in the electricity market, they have to make a choice between monetising their flexibility on one of the electricity markets (most probably the balancing or ancillary services market) or in the framework of the interruptibility scheme. The Commission notes that these are two distinct activities, which come with different obligations. As a general rule, capacities participating in the balancing market will be used more frequently than capacities that are part of an interruptibility scheme that is only activated in extreme situations when security of supply is at risk.
- (71) At the same time, the Commission underlines that in order to continue to meet the criterion of avoiding undue impact on competition and trade, the authorities will have to ensure that in the future the interruptible loads in the interruptibility scheme should not be allowed to participate simultaneously in the electricity market. As long as the clear separation between the interruptibility scheme and the electricity market is safeguarded, there is little risk that the distortions alluded to in point (233) EEAG materialise.
- (72) 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 beneficiaries can only earn a reasonable rate of return.

- (73) In conclusion, the Commission considers that the present measure does not unduly affect competition and trade in the internal market.

3.3.7. Transparency of the aid

- (74) The final common assessment principle under Section 3.2.7 EEAG is transparency. For individual aid awards of EUR 500,000 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.
- (75) The Greek authorities will apply the transparency conditions laid down in Section 3.2.7 EEAG insofar as applicable to the aid granted under the interruptibility scheme.

4. CONCLUSION

The Commission has accordingly decided not to raise objections to the interruptibility scheme on the grounds that it is compatible with the internal market in accordance with Article 107(3)(c) TFEU. The Commission limits this conclusion to two years after the date of adoption of this Decision, in view of the need to improve the adequacy assessment and in view of the imminent market reforms that will enable demand response participation on the electricity market.

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

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

Your request should be sent electronically to the following address:

European Commission,
Directorate-General Competition
State Aid Greffe
B-1049 Brussels
Stateaidgreffe@ec.europa.eu

Yours faithfully
For the Commission

Margrethe VESTAGER
Member of the Commission