II

(Non-legislative acts)

DECISIONS

COMMISSION DECISION (EU) 2017/1540

of 15 May 2017

concerning measure SA.40454 2015/C (ex 2015/N) by which France plans to assist the CEB consortium

(notified under document C(2017) 3062)

(Only the French text is authentic)

(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 called on interested parties to submit their comments pursuant to the provisions cited above ([1]), and having regard to those comments,

Whereas:

1. PROCEDURE

(1) By letter dated 7 January 2015, France notified the Commission of an invitation to tender for the installation and operation of a combined cycle gas ('CCG') ([2]) power station in Brittany. France provided additional information to the Commission by letters dated 5 June 2015 and 10 and 17 September 2015.

(2) By letter dated 13 November 2015, the Commission informed France that it had decided to initiate the procedure laid down in Article 108(2) of the Treaty on the Functioning of the European Union ('TFEU') in respect of the measure ('the opening decision').

(3) The opening decision was published in the *Official Journal of the European Union* ([3]). The Commission invited interested parties to submit their comments on the measure.

(4) The Commission received comments from several interested parties. It forwarded those observations to France, giving it the opportunity to comment on them, and received France's comments by letter dated 8 June 2016.

(5) On 12 May 2016 and 5 September 2016 the Commission sent a list of questions to the French authorities, who replied in letters dated 8 June 2016 and 5 October 2016 respectively. On 5 September the Commission sent a new list of questions to the French authorities, who replied on 5 October 2016.

([1]) OJ C 46, 5.2.2016, p. 69.
([2]) Combined cycle gas turbine.
([3]) See footnote 1.

2. DETAILED DESCRIPTION OF THE MEASURE

(6) The invitation to tender and the background to it are described in detail in the opening decision (paragraphs (4) to (29)). That description is summarised in the sections below.

2.1. The invitation to tender

(7) The French authorities consider that the security of electricity supply in Brittany is under threat because of the low capacity of power stations in the region, network constraints, growth in consumption, and high levels of temperature sensitivity.

(8) In 2010 a number of French authorities signed the Breton Electricity Pact (*Pacte Électrique Breton,* 'PEB'), which is based on three pillars, of which the first is demand management, and the second is the production of renewable energy and the security of the electricity supply. The third pillar comprises the strengthening and development of the local electricity network and the setting up of a conventional electricity production plant. It is this last which is the subject of the measure notified by France.

(9) The invitation to tender falls under article L. 311-10 of the French Energy Code. The tender notice, No 2011/S 120-198224, was published by the Minister for Energy in the *Official Journal of the European Union* on 25 June 2011. The Minister selected the winning project following an opinion given by the Energy Regulatory Commission (*Commission de Régulation de l'Énergie,* 'CRE'), which had examined the projects in accordance with the relevant French regulations ([4]).

(10) The specifications state that the power plant must:

(1) use combined cycle technology;

(2) have a guaranteed active power of 450 MW (+ 15/-10 %) which the producer undertakes to be able to inject into the network;

(3) use only natural gas as a primary energy source;

(4) have an electrical efficiency in proportion to net calorific value ([5]) of at least 54 %;

(5) be located entirely within a defined area (in north-west Brittany in the department of Finistère);

(6) guarantee that the delay in activating offers will not exceed 15 hours when the unit is at rest and two hours when the unit is in operation;

(7) guarantee that the minimum duration of balancing offers will be less than or equal to three hours for a unit in operation and eight hours for a unit at rest;

(8) guarantee that there will be no maximum duration for the activation of balancing offers; and

(9) be fitted with a remotely read load profile meter and devices enabling the remote metering of characteristic values of its electricity output.

(11) The invitation to tender provides that the producer is to be free to place its entire production on the market or to sell part of it under a power purchase agreement to the agreed buyer, Électricité de France SA ('EDF'), at a price equal to 95 % of the hourly price recorded on the EPEX spot market.

(12) Additionally, the producer will receive a fixed annual premium PT equal to the product of the guaranteed active power ([6]) (Pgar) and a premium P expressed in EUR/MW/year.

([4]) Decree No 2002-1434 of 4 December 2002 concerning tendering procedures for electrical production facilities describes each stage of the tendering procedure. It was this procedure that was followed in the case of the invitation to tender notified.

([5]) The net calorific value (NCV) is a property of fuels. It is the quantity of heat released on complete combustion of a unit of fuel, without recovering heat from condensation of water vapour.

([6]) The mean value of the instantaneous power of the plant.

(13) The payment of the fixed premium is subject to the retention of all operating licences and contracts with network managers and to the maintenance of the guaranteed power, verified via an availability factor.

(14) The invitation to tender also provides for penalties if construction of the plant is not completed on time.

(15) Candidates' tenders are to be ranked on the basis of the following three criteria detailed in the tender specifications:

(1) the amount of the premium (in EUR/MW/year) sought by the candidate, with a weighting of 45 %;

(2) the date of entry into production of the plant, with a weighting of 25 %, the maximum score being awarded to the project with the earliest date of entry into service; and

(3) a 'choice of site and environment' criterion, with a weighting of 30 %.

2.2. **Purpose of the aid**

(16) The French authorities take the view that the primary objective of the measure is to secure the electricity supply in Brittany. The need for electricity in Brittany is essentially a need for power (MW), but there is also a need for energy (MWh) ([7]). What is therefore needed is to build a plant to operate in Brittany for several thousand hours per year, and not just at times of peak demand as a gas turbine might. The CCG plant, operating using the principle of a jet engine, allows electricity production to start in a matter of minutes. This technology is therefore particularly suitable for balancing production and consumption for a few hours during peak demand. The new plant would contribute not just peak capacity but also reactive power whenever it was the most effective way of maintaining voltage stability at all points of the grid and thus facilitating the integration of intermittent renewable sources into the system (the plant would here be providing 'system services').

(17) For these reasons, the French authorities considered that there was a need for additional output centred in the north-west of the region which would operate during periods of high consumption and not just the winter peaks associated with extreme temperatures. The new production plant should contribute to the strengthening of the grid and to the management of energy.

(18) The measure should also minimise the cost to the community and the impact on the environment. That was why the ranking of candidates took account of the premium sought, the environmental suitability of the chosen site, and the quality and appropriateness of the accompanying measures (avoidance or reduction of negative environmental impact, or steps to offset it) and the environmental monitoring measures envisaged.

(19) The power plant operated by the beneficiary of the measure, Compagnie Électrique de Bretagne ('CEB'), would provide balancing services in three possible ways. First, CEB would activate the primary and secondary reserves (system service with automatic activation) and the tertiary reserve ('adjustment' (*ajustement*), with manual activation). Second, CEB, as the operator of the plant, will have to be technically ready to provide the system services. Third, for the adjustment mechanism (tertiary reserve), CEB will be obliged to offer its available power to Réseau de Transport d'Electricité ('RTE'), the company responsible for maintaining and developing the French public high and very high voltage grid. Offering power in this fashion outside the contractual reserve will not give rise to remuneration, except in the event that the balancing mechanism is actually called upon. It is anticipated that the unit will operate for a duration of around 3 000 hours/year full load equivalent from the date of entry into service. Given the power of the plant (422 MW), this operating time should give an annual energy output of around 1 250 GWh.

2.3. **Amount of the aid**

(20) The total amount of the premium paid under the invitation to tender will be a maximum of EUR 94 000/MW/year, value at 31 November 2011. The premium will be paid for a period of 20 years and will be indexed throughout the lifetime of the project to take account of operating and maintenance costs. The total amount paid will not exceed EUR 40 million a year.

([7]) The watt is the unit of measurement of electrical power, and one megawatt (MW) is a million watts. One megawatt hour (MWh) denotes the energy produced by a power of one MW in a period of one hour.

(21) Of this premium 20 % is indexed by reference to production prices, 20 % by reference to operating costs, 50 % by reference to transport costs on the regional grid, 5 % by reference to the cost of connection to the electricity grid, and 5 % by reference to the cost of connection to the gas grid.

(22) The French authorities have specified that the total sum proposed by the successful tenderer is the result of (i) a capacity value equal to EUR [50 000-60 000] (*)/MW/year, and three values relating to the geographical location of the project, namely (ii) the additional cost of the transport of gas, EUR [20 000-40 000]/MW/year, (iii) the additional cost of connection, EUR 6 000/MW/year, and (iv) the additional cost of special environmental measures, EUR 2 000/MW/year.

(23) The capacity value corresponds to the total amount of the additional cost deriving from the anticipated date on which the plant is to start production. The candidates calculated this additional cost by subtracting the revenue generated by energy sales on the market from the costs resulting from the rapid start-up of the plant. The CRE observes that 'given current market conditions and demand for electricity, the operation of a CCG plant is not economically viable. It will probably not become so for several years. There is thus a loss of earnings for the candidate resulting from the early date of commissioning of the plant, which this element of the premium is deemed to cover'.

(24) A new 111 km gas pipeline is needed to supply the plant. The estimated cost of this project is around EUR 100 million, which will be prefunded by GRTgaz, a French company set up in 2005 to manage the gas transport network in France. CEB will contribute to the profitability of the project when it pays the gas transport price.

(25) Law 2010-1488 of 7 December 2010 on the new organisation of the electricity market (the 'NOME' Act) introduced a capacity mechanism with the aim of ensuring security of supply for electricity in France ([8]). The facility in Brittany that has been selected following the invitation to tender will be required to participate in the national capacity mechanism. Revenue received by the plant from this mechanism will be deducted where applicable from the premium actually paid in accordance with the invitation to tender.

2.4. **Duration**

(26) The premium is granted for 20 years from the entry into service of the plant.

2.5. **Beneficiary(ies)**

(27) The Minister for Energy, acting on the opinion of the CRE, selected a project located in the municipality of Landivisiau that had been put forward by Compagnie Electrique de Bretagne ('CEB'), a consortium between Direct Energie and Siemens.

(28) The successful tenderer is a minor producer on the French energy production market and has no other conventional production facility in Brittany.

(29) The guaranteed power of the plant proposed by CEB is 422 MW. CEB undertook to put its plant into industrial service no later than […]. In a memorandum dated 5 October 2016, the French authorities describe delays affecting the project. The revised date anticipated for entry into service is […].

(30) According to the data submitted to the CRE by the successful tenderer, the tenderer would not be receiving any other aid that might overlap with that granted under the tender, and this situation still holds today. Furthermore, any revenue received by the plant on the future capacity market will be deducted from the premium paid under the tender.

2.6. **The business plan submitted by CEB**

(31) In support of the tender submitted to the French authorities, CEB also submitted a business plan. The business plan shows an internal rate of return ('IRR') after tax of [5-10] %. This profitability is based on two main hypotheses: a rate of utilisation of about [3 000-6 500] hours per year, and an initial investment of EUR [400-500] million. Revenue is based partly on a premium of EUR […]/MW/year and partly on net contractual remuneration from a tolling agreement representing an average remuneration of EUR […] per year.

(*) Confidential information.
([8]) The Commission authorised the French capacity mechanism on 8 November 2016, under number SA.39621.

(32) Such a tolling agreement is a contract under private law concluded between CEB and a toller (the other party to the contract, for example EDF) providing for the purchase of a fixed quantity of electricity by the toller. Revenue from such a tolling agreement has been determined in a such a manner that the business plan reflects the terms that CEB could expect to achieve at the time of the invitation to tender. The amount of the tolling fee was evaluated using a stochastic forecasting model. The assumptions for the contract were based on the sale on the market by the toller of energy produced by the plant for a total initial amount of EUR[…] million a year between March 2017 and October 2036. CEB's remuneration under the tolling contract was the subject of a sensitivity study. A flat-rate grant index is used to update the capacity premium.

(33) The remuneration payable under the tolling contract reflects the cost of converting gas into electricity and the cost of using the plant. It includes a variable component intended to cover the costs of injection, operation and maintenance. It also includes a fixed component to cover fixed operating costs and the costs of finance and depreciation. The tolling fee is split into an unindexed component and an indexed component. The indexed component is to cover fixed operating costs. The unindexed component is intended to cover infrastructure costs such as the costs of financing the project and the amortisation of investment. Given the existence of the tolling contract, the purchase of gas is not modelled. The business plan takes direct account of an anticipated average operating margin over the lifetime of the project.

(34) The business plan also allows for the updating of various assumptions during the course of the project: labour cost index, production price index, and final cost of connection to the grid. This updating is justified by the duration of the business plan, which extends over a period of [15-20] years. A capacity premium, itself updated, is awarded to the operator in order to allow its investment to be made profitable. This premium is a function of the plant's effective availability. The premium set depends on an availability coefficient for the plant. The business plan does not contemplate participation in the capacity mechanism above and beyond rebalancing. Should such participation occur, the resulting remuneration would be deducted from the premium.

(35) Fixed gas transport costs are estimated at EUR [10-20] million per year.

(36) The variable operating and maintenance cost is the product of a variable operating cost and the number of equivalent hours of operation. CEB will be paid the operating and maintenance costs by the toller.

(37) The sensitivity study also looked at other hypotheses such as inflation and labour costs.

(38) The connections to the grids, although they are to be carried out by RTE and GRTgaz, will be financed by CEB. These connection costs are estimated respectively at EUR [30-40] million and EUR [20-30] million.

(39) Under the assumptions used, the resale value of equipment in place at the end of the business plan will be offset by the costs of dismantling, so that the final value of the plant will be zero.

(40) Turnover resulting from adjustment activities is taken into account. The assumed valuations have been described by the French authorities ([9]). This revenue constitutes less than 1,5 % of total expected income.

(41) In its memorandum of 5 October 2016, France stated that works on site could start on […] with entry into production on […].

3. GROUNDS FOR INITIATING THE PROCEDURE

3.1. Existence of aid

(42) The Commission considered that the criterion of imputability for purposes of Article 107 TFEU was met. In this instance, the measure is imputable to the State in the first place because the invitation to tender was published by the Minister for Energy, who also selected the project. Secondly, the remuneration paid to the successful tenderer

([9]) Memorandum from the French authorities of 5 October 2016.

will be passed on in retail prices via the 'contribution to the public electricity service' (CSPE). In its decision in State aid case SA.36511 (2014/C), the Commission concluded that the CSPE was a State resource, since it was 'a payment imposed by the State, collected and administered by a body appointed by the State, to manage an aid scheme under rules established by the State' ([10]).

(43) The French authorities took the view that there was no benefit to the undertakings involved, because the invitation to tender satisfied the tests of the *Altmark* judgment ([11]).

(44) The Commission considered, however, that the tests set out in *Altmark* were not satisfied. For a public service to escape being classified as State aid, all of the following four criteria must be met: (i) the recipient undertaking must actually have public service obligations to discharge, and the obligations must be clearly defined; (ii) the parameters used to calculate the compensation must be established in advance in an objective and transparent manner; (iii) the compensation cannot exceed what is necessary to cover all or part of the costs incurred in the discharge of public service obligations, taking into account the relevant receipts and a reasonable profit; and (iv) where the undertaking which is to discharge public service obligations, in a specific case, is not chosen pursuant to an invitation to tender, the level of compensation needed must be determined on the basis of an analysis of the costs which a typical undertaking would have incurred, taking into account the relevant receipts and a reasonable profit for discharging the obligations. The Commission considered that the second test was satisfied, but it had doubts about the other three.

(1) On the first test (the existence of a service of general economic interest ('SGEI') and a clearly defined mandate), the Commission expressed doubt as to whether the installation and operation of the Landivisiau plant could be qualified as an SGEI, firstly because of the failure to provide documentary evidence that there had been a problem of security of electricity supply in Brittany in the past, and secondly because Member States could not tie specific public service obligations to services that were already being provided satisfactorily, or that could potentially be so provided, on terms compatible with the general interest, by undertakings operating in normal market conditions: in the case in hand, undertakings operating under normal market conditions would have been able to provide the capacity required to guarantee security of supply in Brittany if French regulations had not prevented electricity prices from sending the right signals to encourage investment in capacity in the region. Thirdly, the measure also discriminated against other technologies, since it related only to CCG technology. The measure was thus not technologically neutral ([12]). Fourthly, the measure was not proportionate, because the need for a 450 MW production plant had not been substantiated by the French authorities via a detailed analysis of the requirement for additional capacity in the region ([13]). Lastly, in the long term, the invitation to tender was likely to aggravate the problem of security of supply, by closing off the electricity market to investments which did not receive State support, by failing to resolve or indeed aggravating the producer's structural problem of 'missing money' ([14]), and by reducing the scope for developing other technologies.

(2) On the third test (no overcompensation), the Commission doubted whether overcompensation could be ruled out, given both the lack of a clawback mechanism to reflect future market conditions, and the tendering procedures, which offered no guarantees against the risk of overcompensation.

(3) On the fourth test (selection of the provider with the lowest cost), the Commission had doubts over whether the invitation to tender had made it possible to select the provider capable of providing the service at the least cost to the community, because the criteria were too restrictive to allow a real choice of service provider: choosing exclusively CCG technology, which was not necessarily the cheapest option, weighting the amount of the premium at 45 %, an excessive restriction of the geographical location, and selection criteria

([10]) Commission Decision C(2014) 1315 final of 27 March 2014 in case SA.36511 (2014/C) (ex 2013/NN) — France — Support mechanism for renewable energies and caps on the CSPE.

([11]) Judgment of the Court of Justice of 24 July 2003, *Altmark Trans GmbH and Regierungspräsidium Magdeburg* v *Nahverkehrsgesellschaft Altmark GmbH*, C-280/00.

([12]) As required by Article 3(2) of 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).

([13]) Article 3(2) of Directive 2009/72/EC; judgment of 21 December 2011, *Enel Produzione SpA* v *Autorità per l'energia elettrica e il gas*, C-242/10, paragraph 42; judgment of 20 April 2010, *Federutility and Others*, C-265/08, paragraph 33.

([14]) A situation in which demand in excess of available capacity does not lead the market to respond by expanding capacity.

designed to contribute to other aspects of the PEB, such as environmental considerations, which were not conducive to the selection of the tender offering the lowest cost to the public purse.

(45) Because of its doubts over the measure's compliance with the tests defined in the *Altmark* case, the Commission in its preliminary analysis took the view that the measure might confer a benefit on the successful tenderer, and that the benefit would be selective, because it was awarded to a single undertaking, CEB.

(46) Turning to the impact on competition and the effect on trade, the Commission considered that the measure could affect trade and competition because the successful tenderer, enjoying the benefit of an advantageous measure, would be competing with other forms of electricity generation and other suppliers of capacity on markets open to competition (the market for the sale of electricity and the adjustment mechanism).

3.2. **Compatibility analysis**

3.2.1. *Legal context*

(47) In its opening decision the Commission said that if its doubts as to compliance with all the *Altmark* criteria were confirmed, the measure would have to be assessed for compatibility with Article 107 TFEU. In that case the measure would have to be analysed by reference to the 2014 Guidelines on State aid for environmental protection and energy ('EEAG') ([15]), which set out the conditions under which aid to energy can be considered compatible with the internal market on the basis of Article 107 TFEU.

(48) In the alternative, the Commission said that if the doubts it had expressed concerning the definition of a public service obligation were not confirmed, the compatibility of the measure would have to be examined by reference to the Commission Communication on the European Union framework for State aid in the form of public service compensation (2011).

3.2.2. *Compatibility assessment*

(49) With regard to the objective in the common interest, the Commission raised doubts as to whether the measure would serve the common objective of guaranteeing the security of the electricity supply: firstly, the aim of the measure was not defined clearly enough (general shortage of capacity, peaks of demand), and secondly, in the medium term the measure might not correct the dysfunctions in regulation and the market which currently prevented an adequate level of investment in Brittany.

(50) The need for the measure had not been properly demonstrated, in the absence of a satisfactory quantification of the capacity shortfall at seasonal peaks or in the peak period. The necessity of the measure was also open to challenge given the possibility of introducing appropriate local pricing that would send price signals likely to encourage investment without recourse to aid.

(51) The Commission was not satisfied that the measure was appropriate. Firstly, the French authorities did not seem to have given proper consideration to alternatives (subdividing the pricing zone, smart meters, or strengthening the distribution grid). Further doubts arose because of the restrictive nature of the measure, targeted on the type of capacity suppliers that were able to respond to the invitation to tender (the tender being limited to a single type of technology, CCG). Lastly, the measure offered no encouragement of demand-side response.

(52) The Commission also had reservations about proportionality: the restrictive nature of the invitation to tender might have prevented competitors from participating, whereas broader participation might have made it possible to minimise the level of aid. The measure also made no provision for a clawback mechanism in the event of windfall profits.

(53) Lastly, the Commission expressed doubts as to whether the measure could avoid an undesirable negative impact on competition and trade between Member States. Firstly, the measure was not technologically neutral. It excluded other measures that might help to resolve the capacity problem: demand-side response, interconnection, storage solutions, and also other technologies (such as combustion turbines). Secondly, in view of the option

([15]) Guidelines on State aid for environmental protection and energy 2014-2020 (OJ C 200, 28.6.2014, p. 1).

given to Direct Energie to sell the energy produced to EDF at a 5 % discount rather than marketing it itself, the Commission was concerned about the risk of strengthening the position of EDF on the energy supply market.

4. COMMENTS BY INTERESTED PARTIES

(54) During the period of consultation on the opening decision, the Commission received 58 responses from interested parties other than the French State. These responses are grouped by topic below. They will be addressed in the course of the assessment of the measure.

4.1. **Compatibility analysis**

4.1.1. *Common interest*

(55) Thirty-nine interested parties believe that the French authorities overestimate the danger of power cuts. Even during the exceptionally cold weather in 2012, no such power cuts occurred. The cuts that did take place in Brittany were caused by factors external to the operation of the grid, such as falling trees. The last serious blackout experienced in France, in 1978, deprived three-quarters of the country of electricity for several hours; but no such incident has ever recurred, RTE having taken the steps necessary to ensure that this will not happen again.

(56) Other interested parties, however, submit that the measure is compatible with the objective of common interest. Around 20 of them say that there is no effective security of supply in Brittany. The particular geographical situation of Brittany, which is located at the end of the line, is combined with weak local generation of electricity that meets only 13,3 % of consumption ([16]). There is also an absence of baseload power stations able to cover demand independently, and this justifies the construction of the CCG power station. Although the region has seen a rise in energy production from renewable resources, their intermittent nature demands the creation of a baseload production plant to mitigate their potential inability to meet peaks in demand.

4.1.2. *Need for the measure*

4.1.2.1. Strengthening the grid

(57) A number of interested parties argue that there is no need for the measure because any difficulties are due to the flawed dimensions of the grid in the region. There is significant congestion on the 225 kV lines in northern Brittany. Several interested parties therefore consider that the impending construction of an underground 225 kV electricity line connecting the substations in Calan (in Morbihan) and Mûr-de-Bretagne and Plaine-Haute (in Côtes d'Armor) will secure electricity supplies in Brittany by enabling the importation into Brittany of an additional 700 MW and by facilitating the smooth transmission of electricity from the region's renewable energy facilities on land and offshore. They submit that the commissioning of this line, expected in November 2017, will complete the electrical grid in the region and secure supply to the north and centre of Brittany on a lasting basis.

(58) They observe that other French regions are also significant importers of electricity: Île de France, Bourgogne-Franche-Comté and, to a lesser extent, the Pays de la Loire and Provence-Alpes-Côte d'Azur. In these regions, investment in upgrading the network has been preferred to the construction of a new power station. For example, the region of Provence-Alpes Côte d'Azur chose to acquire a safety net consisting of three underground 225 kV electricity lines, which today gives it an electricity supply that is as effective and reliable as anywhere in France ([17]).

(59) In consequence, a number of interested parties propose a grid-based solution. They suggest that doubling the 400 kV line from Plaine-Haute to Domloup, or strengthening the 225 kV line, would increase transmission capacity and make it possible to import electricity at a level sufficient to guarantee security of supply. On this last option, ENGIE observes that doubling the 400 kV line would provide additional transport capacity well in excess of requirements, even in the long term, making the investment hard to justify. Strengthening the 225 kV line would therefore be more appropriate to real needs, but it would still require work on a significant length of grid.

([16]) RTE, *Bilan Electrique de la Bretagne 2014*.
([17]) See: http://www.rte-france.com/fr/projet/filet-de-securite-paca-pour-une-securisation-electrique-durable-de-la-region.

4.1.2.2. Changes in demand

(60) Several interested parties consider that changes in demand render the measure unnecessary in order to achieve the objective of security of supply.

(1) They base this argument firstly on a 2014 RTE report according to which temperature sensitivity is tending to diminish. In 2014 consumption increased by 150 MW in Brittany when the temperature dropped by one degree. Previously, this increase had been in the order of 200 MW per degree of fall.

(2) Sixteen interested parties anticipate a reduction in demand, encouraged by the roll-out of smart meters and by the Ecowatt initiative. The Ecowatt initiative enables citizens to volunteer to be informed when the network is under stress, so that they can reduce their electricity consumption.

(3) The interested parties believe that the measure is unnecessary because improvements in the energy performance of buildings will tend to bring demand under control.

(61) Some interested parties who support the project draw attention to the forecast demographic increase in Brittany, which coupled with strong temperature sensitivity means that the measure is necessary in order to meet the expected rise in demand.

4.1.2.3. Changes in production

(62) Some interested parties think that changes in production make the measure unnecessary.

(1) Opponents of the project point first to the fact that investments have already been made in prolonging the life of the sites at Brennilis and Dirinon, and that as a result their closure date has been put back from 2017 to 2023. Consequently, five interested parties consider that the production level of the existing gas turbines will mitigate the peaks in consumption and avoid the risk of generalised blackout. Ten interested parties also argue that these sites are persistently underused, making it unnecessary to subsidise the construction of a new generation plant. For example, the association Consommation, Logement et Cadre de Vie states that the gas turbines at Brennilis and Dirinon operate only for something between a few dozen hours (around 70 in 2012) and a few hundred hours (about 265 hours in 2010) per year.

(2) ENGIE secondly suggests that the SPEM Pointe gas turbine, which concludes contracts by invitation to tender to supply rapid top-up power to RTE at a cost of EUR 25 000/MW/year, offers a number of advantages over a new plant, such as the low acquisition price of the gas turbine and the already amortised costs of connection to the electricity grid. ENGIE points out that the premium set by RTE in connection with those invitations to tender, at EUR 94 000/MW/year, is lower than the annual premium of EUR 40 million required for the CCG project.

(3) Finally, some interested parties mention the possibility that the region could import electricity. These opponents of the project say that the region could obtain the electricity it needs from neighbouring regions, in particular from the gas turbine power station at Cordemais.

(63) Twenty interested parties, however, think that the measure is justified by changes in production. Five interested parties in favour of the project say that the only power stations currently in Brittany are the gas turbine plants at Brennilis and Dirinon. They believe that the measure is all the more necessary since these gas turbines are approaching the end of their cycle, and will be in operation until 2023 at the latest. Their planned closure therefore necessitates the preparation of an alternative sufficiently far ahead. Three interested parties who support the construction of the CCG power station say that those turbines are due to be closed no later than 2023, for environmental reasons, so that they can provide only a short-term solution that would not achieve the objective of energy security for the region.

4.1.3. *Appropriateness of the measure*

(64) Several interested parties dispute the appropriateness of the measure.

(1) As explained in recital 61, opponents consider that given the actual consumption needs in Brittany the project is on much too large a scale. Peak demand is estimated at 200 MW for some 200 to 400 hours annually in Finistère. The project proposed by the State and the Regional Council — 450 MW for more than 3 000 hours per year — would therefore have excess capacity.

(2) Further, according to the RTE analyses ([18]) cited by some of the interested parties who are opposed to the project, the slowing rate of increase in energy demand can be explained by structural causes (slowing population growth, the impact of the economic crisis, and energy efficiency measures). They believe that the PEB should be amended to take account of these aspects. The peak rate of demand has been fairly stable since 2009 and actually fell in 2014. Further, temperature sensitivity is tending to diminish (as explained in section 4.1.2.2), which should automatically reduce peaks in demand. This argument has been developed further in recital 60(1).

(3) Finally, they say that there are other projects that are better placed to meet Brittany's energy security problems in the long term, such as an interconnector with Ireland, or the construction of a pumped storage power station. The first of these projects would supply the region with electricity in the long term, and is in line with the objectives of the internal market in energy. Two interested parties believe the Guerdélan pumped storage power station project would be able to resolve the energy shortfall during peaks in consumption.

(65) The interested parties in favour of the project put forward the following arguments.

(1) Several highlight the attractiveness of opting for a CCG-type power station. They claim that it offers a better return and more stable output than sites using renewable energy sources. A number of contributors consider that it constitutes the best compromise in terms of efficacy and environmental impact.

(2) Some interested parties mention the appeal of cogeneration, but it is argued that the potential of such facilities remains limited (in the order of 150 MW) and that cogeneration would necessitate the construction of multiple power stations and grid connections. In contrast, the creation of a new CCG production plant would considerably reduce the need for work to upgrade the grid (for reasons set out in recital 78).

(3) Further, the presence of numerous LNG terminals in France, and in particular the creation of the new facility at Dunkirk, encouraged by the possibility left open to investors to obtain an exemption from the principle of third-party access to the network, ensures the security of the supply of gas that is essential to the proper operation of the power station. There would therefore be a match between current and future investment levels.

4.1.4. *Incentive effect*

(66) Under paragraph 3.2.4 of the EEAG, an incentive effect occurs when aid induces the beneficiary to change its behaviour to improve the functioning of the energy market. The change in behaviour must be one that would not be undertaken without the aid.

(67) ENGIE considers that the incentive effect of the measure is negative. The premium sends a negative economic signal to the electricity market in France because it incentivises output that exceeds real market requirements and therefore ousts other players from the market.

4.1.5. *Proportionality*

(68) An absence of proportionality is highlighted by several interested parties.

(1) These parties criticise the level of the aid, which they regard as disproportionate and likely to result in the overcompensation of the power station. Firstly, the project would be profitable after five years, but the premium would be paid for a twenty-year period. Secondly, Direct Energie will be authorised to sell the electricity on the market, but this additional income was not taken into account when the invitation to tender was drafted. Thirdly, a study submitted by ENGIE concludes that the amount of the fixed premium sought by CEB is totally disproportionate. A subsidy of EUR 20 million annually for 20 years would have been enough to ensure the profitability of a CCG in France. The capacity premium received by Landivisiau (excluding connection to the gas and electricity grids) would be in the order of 73 000 EUR/MW/year before inflation, giving Landivisiau a subsidy of EUR 31 million annually for 20 years, much higher than the annual EUR 20 million necessary.

(2) Several interested parties question the method of financing, via the CSPE, which they consider illegal. Under the French authorities' plans the remuneration paid to the successful tenderer would be passed on in retail electricity prices via the CSPE. Several interested parties consider that this financing via the CSPE is illegal.

([18]) RTE, *Bilan électrique de la Bretagne 2014*.

They contend that financing a CCG power station is not among the objectives of the CSPE set out in Law No 2003-8 of 3 January 2003, in particular since the CSPE is essentially intended to promote renewable energy, which would exclude the power station that is the subject of the measure.

(69) Further, ENGIE stresses that the Landivisiau project benefits from a gas connection premium of between EUR 40 000/MW/year and EUR 50 000/MW/year, 2018 value, to compensate for the strengthening of the gas pipeline upstream at a cost of EUR 100 million. This remuneration represents an internal rate of return of between 9,8 % (assuming EUR 40 000/MW/year without price inflation) and 16,5 % (assuming EUR 50 000/MW/year with price inflation). ENGIE considers that this level of remuneration is very high in proportion to the very low risk assumed by CEB, since the gas connection premium constitutes an income guaranteed by the French State carrying no risk other than the risk that the Landivisiau CCG might not be available. In comparison, the invitation to tender for offshore wind facilities in metropolitan France states that the profitability of the RTE connection must not exceed 7,25 % before taxes (5,5 % after taxes). The post-tax profit on the Landivisiau project, in the range of 9,8 % to 16,5 %, very considerably exceeds these thresholds ([19]). A gas connection premium of EUR 23 000/MW/year without inflation would be sufficient, in ENGIE's view, to guarantee a pre-tax rate of return of 7,25 %.

4.1.6. *Impact on competition and trade between Member States*

(70) The interested parties address the impact on competition from two angles. They challenge the impact of the aid firstly on competition between producers, and secondly on the technologies used, to the detriment of less polluting energy sources.

(71) With regard to the potential distortion of competition, ENGIE believes that the aid will contribute to strengthening the dominant position of EDF.

(72) In the opening decision, the Commission observed that the EEAG required that a measure should not unduly strengthen the position of the dominant incumbent operator in the market. The Commission said that in France, 'electricity generation and supply markets are very concentrated, and dominated by the incumbent operator EDF, which currently controls around 85 % of the retail market and more than 90 % of the electricity generation market' ([19]). Paying an additional sum intended to cover the lack of profitability of a CCG power station in France would distort competition with the existing CCG power stations that receive no subsidy. It would also hinder the entry to the market of new producers who would be unable on their own to advance the costs necessary for the operation of generation plants. By discouraging decisions to invest in the electricity market, the invitation to tender will not remedy the market failure observed, but will essentially strengthen the dominant position of EDF, the only producer likely to escape having to mothball its facilities despite the inevitable future decline in their profitability. Furthermore, ENGIE considers that EDF's dominant position cannot but be strengthened by the electricity purchase option mechanism imposed on it. CEB will be incentivised to sell the electricity produced to the incumbent operator rather than to other operators in the market.

(73) However, several interested parties suggest that as the measure would benefit Direct Energie, an alternative supplier with a weak market share in France, its impact on competition would be limited.

(74) As regards the potentially distorting impact of the measure on the type of technology used, several interested parties criticise the technological choice made in the invitation to tender, which has the effect of subsidising a polluting power station, thus running the risk of slowing the development of renewable energy sources.

5. **COMMENTS BY FRANCE**

5.1. **Response to the opening decision**

(75) The replies given by the French authorities following the opening decision concern the question of classification as an SGEI and the compatibility of the measure with the EEAG.

([19]) Opening decision, paragraph (137).

5.1.1. *Classification as an SGEI*

5.1.1.1. First test: task of providing an SGEI

(76) France observes that a threat to security of supply in Brittany has been clearly identified in the reports monitoring the supply/demand balance and by the transmission system operator in its adequacy forecasts for the supply/demand balance ([20]). These risks have been confirmed despite past discrepancies between adequacy studies and the reality.

(77) According to the French authorities, Brittany has a serious shortage of capacity, leading it to import the bulk of its electricity from other regions. And because of demographic growth, electricity consumption in Brittany is rising significantly faster than in France as a whole, leading to greater regional sensitivity to cold snaps.

(78) Further, the geographical configuration of the Brittany peninsula limits the scope for transporting electricity and, again according to the French authorities, undermines voltage stability on the network. Voltage is one of the main parameters of power system reliability. Because electricity is carried to Brittany over great distances (from the Val de Loire and the Loire estuary), the flow of current in the line causes a drop in voltage, which is lower at the end of the line than at the beginning, resulting in an increase in transmission losses and reduced local power quality.

(79) The French authorities then emphasise the imperfections that affect operating and investment decisions and the electricity market in France and Brittany: the absence of a metering system for monitoring consumption in real time; the lack of price-differentiated zones capable of reflecting the grid constraints; insufficient pricing signals to encourage the diversification of the electricity supply by private investors; and the unpredictability of financing conditions for private investment. They argue that introducing a Brittany pricing zone would not ensure normal market conditions, because it would not lead to specific pricing signals for private investors in the areas where voltage needs are greatest.

(80) France submits that the obligation not to discriminate is respected, because the principle applies not to technologies but to undertakings.

(81) Turning to the scale of capacity, the French authorities argue that the shortage of capacity will be worsened by the early closure of the combustion turbines at Brennilis and Dirinon (320 MW) and the restriction of capacity on the Cordemais site for environmental reasons (1 400 MW for the two units). The shortfall has been estimated at between 200 MW and 600 MW for the period 2017-2020. The plants will certainly be closed no later than 2023.

(82) The French authorities consider that the invitation to tender will not impact decisions to invest in other technologies, since the measure aims only to compensate for the additional costs specific to the technology used (strengthening gas grids in particular) and to the constraints of the time taken for construction, which are not borne by the other technologies.

(83) For the same reasons France emphasises that the invitation to tender does not amplify the 'missing money' issue for other capacities, because it aims only to compensate for additional costs specific to the technology used. Furthermore, because of the shutdown of four combustion turbine power plants by 2023, the impact of the commissioning of the new CCG plant at Landivisiau will limit the missing money effect.

(84) Contrary to paragraph (76) of the opening decision, France considers that the measure is not discriminatory. It acknowledges that the measure is not technologically neutral, since the invitation to tender requires the use of CCG technology. However, France considers that respect for the obligation not to discriminate under Directive 2009/72/EC does not prevent the choice of a technology, in particular in an invitation to tender for generating capacity, since all undertakings can access this technology.

(85) Finally, the investment in strengthening the gas network will facilitate the establishment of additional plant using natural gas.

([20]) RTE, *Bilan prévisionnel 2013* (adequacy report 2013).

5.1.1.2. Third and fourth tests: proportionality and choice of candidate at lowest cost

(86) According to the French authorities, the introduction of a clawback mechanism would have reduced candidates' expectations of revenue from the sale of electricity on the market, and would automatically have led them to demand a higher premium. They say that given the strong correlation, for CCG technology, between revenue and the cost of gas, the IRR on the project is relatively inelastic to fluctuations in turnover. Finally, the French authorities put forward some practical reasons: it would be difficult to introduce such a mechanism retrospectively, and its introduction could create legal uncertainty.

(87) Secondly, the French authorities believe that the number of eligible sites able to serve as locations was sufficiently large to ensure that no candidate was excluded. The total eligible area can be estimated at between 2 000 km² and 4 000 km² of vacant land, and only 15 hectares were required for the construction of a CCG site. Applicants would also have been able to choose other sites by applying for amendments to local zoning plans within timescales compatible with those set by the invitation to tender. According to the French authorities, therefore, no candidate for the invitation to tender was prevented from tendering because of the lack of a site.

(88) The French authorities consider that the environmental criterion did not play a major role in the selection of the successful tenderer, given the variety of possible steps that a candidate could take in order to obtain a satisfactory score in that respect. They also point out that the three tenders lodged with the CRE obtained equivalent scores for the environmental criterion.

(89) As to the potentially discriminatory nature of the choice of technology, the authorities say that the technology is common in Europe and easily accessible. Given the closeness between the technologies considered (OCG ([21]), CCG, and combustion turbine), there was no applicant that specialised exclusively in one gas technology that could regard itself as discriminated against by the measure. There was no breach of the principle of respect for technological neutrality.

5.1.2. *Compatibility with the EEAG*

5.1.2.1. Common interest

(90) The French authorities submit that the objective of the measure is to secure electricity supplies in Brittany in two ways: ensuring a balance between supply and demand, and guaranteeing voltage stability over the electricity grid.

(91) The measure will ensure a balance between supply and demand by helping to increase generating capacities, which must be available during consumption peaks, particularly in the west of the region (matching supply to demand for reactive power).

(92) The French authorities observe, finally, that the fact that there has been no interruption in the electricity supply in the past is not a reason for failing to take measures to avert identified potential threats.

5.1.2.2. Need

(93) In the first place, the French authorities seek to demonstrate the need for the measure with quantified data. In the event of the closure of four combustion turbine plants at Brennelis and Dirinon and the fuel oil units at the Cordemais site, the residual capacity shortfall is estimated at between 200 MW and 600 MW per year over the period 2017-2023. These power plants have to be closed no later than 2023.

(94) Secondly, France argues that the measure is made necessary by market failures, which are illustrated, inter alia, by the absence of investment in Brittany even though there is a need felt by the community.

(95) Thirdly, the French authorities believe that the need cannot be met by introducing a Breton pricing zone. A pricing zone covering the whole of Brittany would not achieve the objective of voltage stability within Brittany. And a pricing zone limited to the west of Brittany would not result in pricing signals sufficient to trigger investment, because of the absence of congestion on the connections with the east of Brittany. The west of

([21]) Open cycle gas turbine.

Brittany on its own is of limited appeal, because it is too small to attract small suppliers. There is no certainty that a pricing zone would bring the real value of a generating plant in Brittany into the open, and lead to investment there, because of the low occurrence of network congestion. Nor is there any certainty that such investment would be at a lower cost to the community than a one-off invitation to tender. Finally, the authorities point to the costs that would be engendered by the creation of a specific pricing zone for Brittany: adjustments to wholesale markets, allocation of transport rights, and tariff equalisation ([22]) to avoid penalising Breton consumers. Also, the time required for the process to take effect might not match the more short-term requirement of a secure electricity supply in the Breton system.

(96) Fourthly, the French authorities observe that Breton electricity generation is for the most part renewable, thanks to wind power. The management of intermittency thus constitutes a growing challenge in Brittany, making the availability of a flexible resource such as the Landivisiau CCG increasingly necessary.

(97) Fifthly, the construction of a production plant in Brittany could benefit all French consumers, outside periods of network congestion, by limiting the risk of voltage collapse, helping to reduce transmission losses, and improving the overall capacity match.

(98) Sixthly, France believes that the need for the measure is substantiated by the need to avoid voltage collapse over the whole of Brittany, which cannot be met solely by the creation of power lines.

(99) Finally, the French authorities stress that, in light of the closure of the combustion turbines at Brennilis and Dirinon, the variation of thermal capacity in the region will be low, in the order of 100 MW. In this context, the impact on the 'missing money' will be very small.

5.1.2.3. Appropriateness

(100) The French authorities believe that the remuneration is appropriate, because it remunerates capacity, and therefore does not provide any incentive to produce.

(101) Splitting the pricing zone would not be appropriate, in particular given the need to maintain voltage stability, as explained in recital 95.

(102) While the French authorities do not dispute that the measure announced is selective, they nevertheless consider that the technology chosen is best placed to meet the identified need and would have been selected after a technologically neutral invitation to tender, and that the measure does not seek to take the place of a balanced and equitable development of all the technologies necessary to security of supply, including demand-side response, interconnections and storage.

(103) Furthermore, France states that the 450 MW capacity is justified by the shortage of capacity during demand peaks (see for example the 2012 RTE forecasts).

(104) The French authorities argue that the technology is justified by the technical specifications required to meet particular needs: a mobilisation period not exceeding 15 hours when the unit is at rest and two hours when it is in operation, and a minimum duration of adjustment offers less than or equal to eight hours for a unit at rest and three hours for a unit in operation. There are no constraints on the maximum duration for the activation of adjustment offers. The French authorities argue that these technical requirements cannot be met by the other technologies (open cycle or combustion turbine) or demand-side response.

(105) According to the French authorities, France cannot be reproached with failing to consider technologies other than CCG in the invitation to tender ([23]). The French authorities invoke Article 194 TFEU, which states that measures taken by the European Union may not affect a Member State's right to determine the general structure of its energy supply: the choice of a gas-fired plant is a matter of national competence, and cannot render the measure incompatible with the Treaty.

([22]) Tariff equalisation (*péréquation tarifaire*) is a tool for ensuring the application of identical tariffs throughout the territory concerned.
([23]) Paragraph (6) of the reply of the French authorities of 17 December 2015.

(106) With regard to demand-side response, the French authorities state that one of the objectives of the measure is local voltage stability, which cannot be achieved by demand-side response, but only by a local injection of electricity.

(107) Other technologies could not have been included without higher premiums being sought.

(108) CCG technology is justified by the high number of hours of use needed to maintain voltage stability. Combustion turbines are competitive only for around 100 hours. CCG technology is also justified by the requirements of gas supply: a combustion turbine would have needed 50 % more gas. An OCG turbine is certainly cheaper than a CCG turbine, but the high costs of gas supply justify the use of a unit with better performance.

(109) Demand-side response technology is not compatible with an operating requirement of several thousand hours. Nor does it ensure that generation requirements will be met. The same goes for intermittent renewable energy generation plants, because the power they provide is not available on demand. The investment costs of decentralised storage technologies are too high to enable them to compete with the CCG. A new interconnector would not be able to compete with CCG technology, because of the voltage stability issue.

(110) Wind and solar power capacities are too intermittent to give a commitment that power will be available at a competitive price. The existing hydroelectric capacities are also intermittent. The existing capacities of renewable thermal technologies already receive public support, and consequently would not have been eligible to take part in the invitation to tender. Fossil fuel burning power stations would have required heavy investment by 2023. The French authorities contend that these arguments demonstrate that the chosen technology is indeed appropriate.

5.1.2.4. Proportionality

(111) France submits that the profitability of the project, measured by the IRR of [5-10] %, is in the lower range of the profitability demanded by investors for this type of project.

(112) The French authorities argue that it is too late to introduce a clawback mechanism, and that the introduction of a clawback mechanism would lead to a reduction in revenue and would demand for a higher premium, so that its impact on the profitability of the project would be neutralised.

(113) For these reasons, France believes that the measure is proportionate.

5.1.2.5. Distortion of competition

(114) According to France the measure does not reduce the incentive to invest in interconnection capacity, in particular between France and Ireland.

(115) Furthermore, the measure does not risk strengthening the dominant position of EDF. The successful tenderer will have a greater interest in bringing the electricity to the market itself. The sale of electricity to EDF at a 5 % discount, mentioned in recital 53, is less advantageous than a sale at 100 % of the market price. Legally, therefore, this option is open, but it is would not be justifiable economically.

5.2. **Response to interested parties' observations**

5.2.1. *Need for the measure*

(116) The French authorities believe that the challenge to the project brought by several interested parties on the ground that consumption is growing more slowly is unfounded. Electricity consumption in Brittany rose by 9,9 % between 2006 and 2014, compared with an average increase of only 2,9 % in France as a whole. The French authorities also cite a study which finds that in terms of rising electricity consumption Brittany is the third most dynamic region in France ([24]).

(117) In addition, the French authorities say that the particular structure of electricity consumption in the region, which shows a predominance of the residential and tertiary sectors, results in a greater sensitivity of regional consumption to cold snaps. Brittany represents 6,3 % of growth in peak demand, whereas it accounts for only 4,4 % of annual electricity consumption.

([24]) RTE, *Synthèse des bilans électriques régionaux 2014*, see Annex 1.

(118) The increase in demand has been limited by the slowdown of the economy and increasing energy efficiency brought about by changes in the regulatory context; demand stabilised for the first time in 2014. Conversely, demand is being stimulated by the increase in the number of households as a result of demographic growth, by changes in lifestyles brought on by the development of information and communication technologies, by the incipient spread of electrical vehicles and by growing use of heat pumps. According to the French authorities the latest forecasts for the increase in electricity consumption in Brittany continue to be higher than the national average.

(119) Finally, the French authorities point out that comparisons between the forecasts used for the PEB and actual consumption ought to compare like with like. For example, the PEB forecasts include consumption due to losses during distribution, which have not been taken into account systematically in thee comparisons made by the associations replying to the Commission. The French authorities believe that this error leads to a misreading of the data. Further, they believe that several associations have based their comments on erroneous evaluations, in particular of the availability of energy from intermittent sources, which should not be substituted for the evaluations made by RTE.

5.2.2. *Legality of the financing of the measure*

(120) Several interested parties believe, as explained in recital 68(2), that the financing of the measure is illegal, in particular because the CSPE is intended exclusively to fund renewable energies.

(121) The French authorities dispute this allegation. This is because:

(a) The legal basis of the invitation to tender is the 2009 multi-annual investment plan, which identifies the risks to security of supply in Brittany, and underlines the necessity of establishing a new conventional generation facility in the region.

(b) Article L. 311-10 of the Energy Code states that invitations to tender may be launched 'when generation capacities do not meet the objectives of the multi-annual investment plan, in particular those regarding generation technologies and the geographic location of facilities.' This is clearly the case of the invitation to tender in question.

(c) Finally, point 1 of Article L. 121-7 of the Energy Code states that the expenses ascribable to public service obligations include 'the additional costs that may result from the application of Articles L. 311-10 to L. 311-13-5'.

This legislation shows that the financing of invitations to tender launched under Article L. 311-10 of the Energy Code may indeed seek to offset the expenses ascribable to public service obligations even if renewable energy is not involved.

(122) Finally, according to the French authorities, the reform of the CSPE at the end of 2015 did not amend these provisions. The measure will be financed from budgetary appropriations.

5.2.3. *Effect on competition*

(123) As explained in recital 74, ENGIE considers that the invitation to tender will strengthen the dominant position of the EDF group, because it is the only producer likely to escape having to mothball its facilities despite the inevitable future decline in their profitability. The French authorities, however, contend that the arrival of a new player on the generation market will help to increase competition.

5.2.4. *Transparent procedure — Public consultation*

5.2.4.1. Public debate

(124) Several interested parties have suggested that there was insufficient public debate on the project. The French authorities believe that the procedure for the public debate was satisfactory. Thus:

(1) The project was given authorisation in the form of a prefectural order setting forth the requirements with which the operator must comply in order to ensure environmental protection under Title I of Book V of the Environmental Code, on facilities classified for environmental protection.

(2) The project was subject to a public enquiry held between 15 September 2014 and 31 October 2014 in accordance with the conditions specified in the prefectural order of 18 August 2014. The conclusions of this public enquiry state that the public were properly informed and that there was proper consultation. The French authorities submit that while the majority of replies received were unfavourable, that does not in any way call into question the substantiated decision of the committee of enquiry.

(3) The French authorities further submit that there was a debate at regional and local level, and that the consultation did not only inform the public but also provided an opportunity that led to the setting up of working groups of associations supporting or opposing the project.

5.2.4.2. Purpose of the premium

(125) The French authorities consider that the assertion of one interested party to the effect that the invitation to tender was not transparent, in that the purpose of the premium was not clearly defined, is unfounded.

(126) According to that interested party, the premium was intended solely to cover the additional expenses arising out of the location of the facility, the transport of gas, and the expected commissioning date, but some tenders sought an additional sum to offset the power station's lack of profitability. Such a payment was not provided for in the specifications and would distort competition with the existing combined cycle power stations, thus causing them injury.

(127) The French authorities submit that the selected tenderer can be compensated only by the amount of the fixed premium proposed. The purpose of the premium is clearly described in the specifications, and any tender demanding an additional payment would not be compliant. No additional payment can therefore be made, or be considered in the evaluation of the premium criterion. This point was reiterated by the Energy Regulatory Commission in response to a question asked by a candidate during the tender procedure.

(128) According to the French authorities, the candidates who submitted a tender had no difficulties in interpreting this point. They were able to incorporate the additional cost of commissioning the facility during an economic downturn into the amount of the proposed premium.

6. **ASSESSMENT OF THE MEASURE**

6.1. **Existence of aid**

(129) State aid is defined in Article 107(1) TFEU as 'any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods … in so far as it affects trade between Member States'.

(130) It results from the preceding recital that for a measure to constitute State aid the following three conditions must all be met: (a) the measure must be imputable to the State and financed through State resources; (b) the measure must confer a selective advantage likely to favour certain undertakings or the production of certain goods; and (c) the measure must distort or threaten to distort trade between Member States.

6.1.1. *Aid imputable to a Member State or granted through State resources*

(131) To be considered State aid, a financial measure must be imputable to the Member State and must be granted, directly or indirectly, through State resources.

(132) In this instance, it is proposed that the payment to CEB will be passed on in retail electricity prices via the CSPE (see recital 42).

(133) As explained in the opening decision, the Commission considers that the CSPE is a State resource, since it is 'a payment imposed by the State, collected and administered by a body appointed by the State, to manage an aid scheme under rules established by the State.' The Court of Justice has held ([25]) that funds financed through compulsory charges imposed by the legislation of the Member State, managed and apportioned in accordance with the provisions of that legislation, may be regarded as State resources within the meaning of Article 107(1) TFEU even if they are managed by public or private entities separate from the public authorities ([26]).

(134) Finally, the measurement is imputable to the State, since the invitation to tender was issued by the Energy Minister, who then made the choice of tenderer.

6.1.2. *Economic benefit*

(135) To constitute aid for purposes of Article 107(1) TFEU, the measure must confer an economic benefit on the undertaking that the undertaking would not have obtained under normal market conditions, i.e. in the absence of the State intervention.

(136) The French authorities consider that the measure does not confer an economic benefit, because it meets all the tests set out in the *Altmark* judgment ([27]). In the opening decision the Commission expressed some doubt about this assessment, with reference to the first test in particular.

(137) To determine whether it confers a benefit on CEB the measure must be evaluated with reference to the findings in *Altmark* ([27]).

(138) In *Altmark* the Court of Justice ruled that, 'where a State measure must be regarded as compensation for the services provided by the recipient undertakings in order to discharge public service obligations, so that those undertakings do not enjoy a real financial advantage and the measure thus does not have the effect of putting them in a more favourable competitive position than the undertakings competing with them, such a measure is not caught by Article 92(1) of the Treaty' ([28]).

(139) It will be recalled that the French authorities consider that the measure does not constitute an economic benefit, since it satisfies all the tests set out in the *Altmark* judgment.

(140) This is because the Court of Justice states that ([29]), in order for compensation for a public service to escape classification as State aid, the following conditions must all be met:

(1) the recipient undertaking must actually have public service obligations to discharge, and the obligations must be clearly defined;

(2) the parameters used to calculate the compensation must be established in advance in an objective and transparent manner;

(3) the compensation cannot exceed what is necessary to cover all or part of the costs incurred in the discharge of public service obligations, taking into account the relevant receipts and a reasonable profit; and

(4) where the undertaking which is to discharge public service obligations, in a specific case, is not chosen pursuant to a competitive procedure which would allow for the selection of the tenderer capable of providing those services at the least cost to the community, the level of compensation needed must be determined on the basis of an analysis of the costs which a typical undertaking, well run and adequately provided with the means necessary to discharge the public service obligations, would have incurred, taking into account the relevant receipts and a reasonable profit for discharging the obligations.

([25]) Judgment of the Court of Justice of 19 December 2013, *Vent de Colère!* v *Minister for Ecology*, C-262/12.
([26]) Judgment of the Court of Justice of 2 July 1974, *Italy* v *Commission*, 173/73, [1974] ECR 709, paragraph 35.
([27]) Judgment of the Court of Justice of 24 July 2003, *Altmark Trans GmbH and Regierungspräsidium Magdeburg* v *Nahverkehrsgesellschaft GmbH*, C-280/00.
([28]) *Altmark*, paragraph 87.
([29]) *Altmark*, paragraphs 88-94.

(141) With regard to the first of these tests, while it is accepted that Member States have a wide margin of discretion to determine which services may be considered public service obligations ([30]), the General Court has recently observed ([31]) that, where specific Union rules exist regulating the scope and boundaries of an SGEI, the Member States' discretion is bound by those rules, in accordance with paragraph 46 of the Communication from the Commission on the application of the European Union State aid rules to compensation granted for the provision of services of general economic interest. Such rules generally set out to harmonise of legislation in order to remove barriers to the freedom of movement and the freedom to provide services. The fact that they were adopted on the basis of Treaty provisions other than those regarding State aid control, and have as their main purpose the completion of the internal market, in no way limits their relevance to the first *Altmark* test.

(142) In the light of the comments from interested parties and the replies provided by France (section 5), the Commission considers that the measure does not satisfy the first *Altmark* test for classification as a public service obligation, specifically in the energy sector, for two reasons.

(143) First, as the Commission has explained ([32]), it would not be appropriate to classify as a public service obligation an activity which is already provided or can be provided satisfactorily by the market. For purposes of this analysis, account has also to be taken of possible improvements to the operation of the market that could be made by the Member States. If such changes are possible, it is not appropriate to classify the activity as a public service obligation. In the present instance the market can be considered dysfunctional, because it does not send proper price signals to trigger investment at local level. This is the case particularly of the short-term markets such as balancing markets, where at the date of the project the adjustment mechanisms do not yet produce an adequate local price signal.

(144) Secondly, the service is prevented from being classified as a public service obligation by the existence of discrimination between technologies. Article 3(2) of the Electricity Directive ([33]) lays down specific conditions governing Member States' power to impose public service obligations in the liberalised electricity sector. It confines the scope left to Member States to impose public service obligations in the energy sector to specific objectives ([34]): 'Member States may impose on undertakings operating in the electricity sector, in the general economic interest, public service obligations which may relate to security, including security of supply, regularity, quality and price of supplies and environmental protection, including energy efficiency, energy from renewable sources and climate protection.' The same Article 3(2) also states that public service obligations in the energy sector must be 'clearly defined, transparent, non-discriminatory, verifiable and shall guarantee equality of access for electricity undertakings of the Community to national consumers.'

(145) The Commission considers that the criterion of non-discrimination, evaluated with respect to the existence of a public service obligation, must be interpreted strictly. The notification submitted by France makes it clear that the invitation to tender is for the construction and operation of an electricity generation plant that must use combined cycle gas technology ([35]). In other words, the invitation to tender is limited to a single technology (CCG), to the exclusion of conventional technologies such as open cycle gas or combustion turbines, which might also have been able to supply the services required of the recipient power station.

(146) As explained in recitals 84 and 89, the French authorities consider that the fact that the measure is not technologically neutral does not constitute discrimination for purposes of Article 3(2) of Directive 2009/72/EC because all undertakings can access CCG technology just as they can access all the conventional technologies. But aid measures must be designed so that all types of energy generating capacity that might be able to make an effective contribution to resolving a problem of inadequate generation are in a position to take part in such measures, and this includes the capacities of producers using different technologies. Consequently, France's argument that all undertakings can access CCG technology does not show that the measure is not discriminatory.

([30]) Communication from the Commission on the application of the European Union State aid rules to compensation granted for the provision of services of general economic interest (OJ C 8, 11.1.2012, p. 4), paragraph 46.
([31]) Judgment of the General Court of 1 March 2017, *SNCM* v *Commission*, T-454/13, paragraph 113.
([32]) Communication from the Commission on the application of the European Union State aid rules to compensation granted for the provision of services of general economic interest (OJ C 8, 11.1.2012, p. 4), paragraph 48.
([33]) Directive 2009/72/EC.
([34]) Judgment of the Court of Justice in *Enel Produzione*, C-242/10, ECLI:EU:C:2011:861, paragraph 42.
([35]) Paragraph 20 of the notification sent by France.

(147) The Commission would observe, too, that the invitation to tender was intended to increase electricity generation in the region so that security of supply could be maintained despite the closure of several generation plants, and to resolve a recurrent problem of supply in Brittany. To meet this dual objective, the specifications listed several requirements that must be met by the beneficiary power station. It must have active power of 450 MW (+/– 10 %), be located in the west of Brittany, and be available at all times for mobilisation by RTE using the adjustment mechanism. For this last requirement, the specifications indicated that RTE must be able to mobilise the power station within a period not exceeding 15 hours when the unit is at rest and two hours when it is in operation, that there are to be no constraints on the maximum duration for the activation of adjustment offers, and that the minimum duration of adjustment offers must be less than or equal to eight hours for a unit at rest and three hours for a unit in operation. These conditions aim to guarantee the responsiveness and flexibility of the power station, and hence to ensure that RTE will be able to mobilise the power station to meet one-off and short-term needs, ensuring both voltage stability and local balance. In the observations summarised in recitals 107 and 108, France does not dispute that these conditions may be fulfilled by all conventional power stations, i.e. by CCG and by OCG or combustion turbines.

(148) Likewise, analysis of the suitability of the various technologies to the objectives of the invitation to tender leads to the conclusion that all three conventional technologies — CCG, OCG and combustion turbines — would have been able to meet the requirements identified by the French authorities, though not all with the same degree of efficiency. The invitation to tender is for the construction of a CCG-type power station only. The Commission concludes that the invitation to tender is discriminatory.

(149) As pointed out in recital 144, a public service obligation must necessarily be non-discriminatory. The discrimination observed against certain conventional technologies prevents the measure from being classified as a public service obligation.

(150) Therefore, the argument submitted by France to the effect that the measure does not constitute discrimination against other conventional technologies, presented in recital 84, is not admissible. The Commission concludes that the measure cannot be classified as a public service obligation. The first test established in the *Altmark* judgment is not satisfied.

(151) Further, the measure constitutes an advantage. An advantage for purposes of Article 107(1) TFEU is any economic benefit which an undertaking could not have obtained under normal market conditions, that is to say in the absence of State intervention. In this instance, the consortium will receive a premium that is not granted under normal market conditions but results from a public subsidy. Consequently, the measure constitutes an advantage conferred on the successful tenderer.

(152) To be considered selective for purposes of Article 107(1) TFEU, aid must favour 'certain undertakings or the production of certain goods'. In this case, the measure concerns only the successful tenderer, and must therefore be considered selective.

(153) Consequently, the Commission considers that the measure confers a selective benefit for purposes of Article 107(1) TFEU.

6.1.3. *Impact on competition and trade between Member States*

(154) Public aid to undertakings has an effect on competition for purposes of Article 107(1) TFEU only if it 'distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods' and only 'in so far as it affects trade between Member States'. A measure granted by the State is considered to distort or threaten to distort competition only when it is likely to strengthen the position of the recipient compared with other undertakings competing with it ([36]). In practice, distortion for purposes of Article 107(1) is generally found where the State grants a financial benefit to an undertaking in a sector where there is competition ([37]). In this instance, the measure is likely to strengthen the CEB consortium's competitive position vis-à-vis other undertakings, enabling it to increase its electricity generating capacity in relation to the rest of the competition.

([36]) Judgment of the Court of Justice of 17 September 1980, *Philip Morris*, 730/79.
([37]) Judgment of the General Court of 15 June 2000, *Alzetta*, T-298/97, T-312/97 etc.

(155) Public aid to undertakings constitutes State aid for purposes of Article 107(1) TFEU only in so far as it 'affects trade between Member States'. Public aid can be considered capable of having an effect on trade between Member States even if the recipient is not directly involved in cross-border trade. Moreover, the relatively small amount of aid or the relatively small size of the undertaking which receives it does not as such exclude the possibility that trade between Member States might be affected ([38]). In this instance, the beneficiary of the aid will obtain a benefit that its competitors will not be able to obtain because of the selectivity of the aid.

(156) Furthermore, the effect of aid on competition and on trade between Member States is clear if the measure benefits an undertaking active in a sector which has been liberalised at the European level ([39]). In this instance, the energy sector has indeed been so liberalised.

(157) Consequently, the measure will affect competition and trade between Member States.

6.1.4. *Conclusion on the existence of aid*

(158) For these reasons, the Commission maintains its view that the measure constitutes State aid caught by Article 107(1) TFEU.

6.2. **Lawfulness of the aid**

(159) The measure has not yet been implemented. The aid will be paid when the plant is commissioned, on or after […]. Consequently, the measure will be implemented after this decision. It cannot be considered to be unlawful.

6.3. **Compatibility with the internal market**

6.3.1. *Justification of the analytical framework*

(160) The service cannot be classified as a public service obligation, as explained in recitals 144 to 147. Therefore, the Commission's communication on the SGEI framework does not apply.

(161) The Commission has consequently assessed the compatibility of the measure in the light of section 3.9 of the EEAG. Paragraph (19)(34) of the EEAG defines 'generation adequacy' as (i) a level of generated capacity which is deemed to be adequate to meet demand levels in the Member State in any given period, (ii) based on the use of a conventional statistical indicator used by essential organisations (e.g. the European Network of Transmission Operators for Electricity (ENTSO-E)).

(162) For the first criterion, the Commission agrees that the measure is indeed aimed at achieving a level of generated capacity which is deemed to be adequate to meet demand levels in Brittany, both quantitatively (see recital 166) and qualitatively (recital 174).

(163) For the second criterion, the Commission considers that the indicators tending to show that the CCG plant provides an adequate response are sufficiently objective (see recital 168).

6.3.2. *Objective of common interest; need*

(164) The Commission believes that the measure contributes to the achievement of an objective of common interest and is needed within the meaning of sections 3.9.1 and 3.9.2 of the EEAG if it fulfils the following conditions: (i) the problem of generation adequacy must be identified using a quantifiable indicator, and the results must be consistent with the generation adequacy analysis carried out by ENTSO-E; (ii) the measure must pursue a well-defined objective; (iii) the measure must target the nature and causes of the problem, and in particular the market failure which prevents the market from delivering the level of capacity required; and (iv) the Member State must have considered other options to address the problem.

([38]) Judgment of the Court of Justice of 14 January 2015, *Eventech* v *Parking Adjudicator*, C-518/13.
([39]) Judgment of the Court of Justice of 10 January 2006, C-222/04.

(165) The generation adequacy problem has been clearly identified and quantified. The closure, planned for 2017 in the absence of investment in capacity, of four combustion turbine plants at Brennilis and Dirinon and the fuel oil units at the Cordemais plant, would create a residual capacity shortfall estimated at between 200 MW and 600 MW per year over the period 2017-2023, as explained in recital 81. Even if an extension of the life of these power plants were to be considered, they would have to be closed no later than 2023. On this point the Commission notes the low level of generation in Brittany, standing at 13,3 % of consumption in 2014; of this, 11,8 percentage points are delivered by renewable energies, showing the very small proportion of production that is not intermittent. These aspects refute the line of argument developed by certain of the interested parties (see recital 55). They confirm the arguments put forward in recitals 61, 63 and 81.

(166) The Commission also believes that the French authorities have provided a properly objective demonstration of the voltage stability risk. Four times in the course of 2012 RTE decided to establish a specific measure for dealing with any incidents linked to a voltage collapse in Brittany. This consisted of a system that would trigger load shedding during the most critical periods.

(167) The need for the measure proposed by the French authorities rests on quantified data from studies conducted by RTE in connection with its annual published reports ([40]).

(168) The method used is consistent with that followed in RTE's forward estimates. It takes a probabilistic approach in which levels of supply and demand are compared using a simulation of the operation of the European electrical system based on hourly periods over a whole year. Certain parameters, such as the availability of generating facilities, rely on the reference parameters in the studies conducted by ENTSO-E.

(169) On the substance, the data provided are based on accounting information attesting to (i) consumption growth 2,7 times greater than the national trend for the period 2006-2012 (over the last six years in Brittany the average increase in consumption was 1,6 %); (ii) demand peaks still sensitive to climate conditions, above the average sensitivity for France, owing mainly to the structure of consumption in the region, where a substantial share is accounted for by the residential and tertiary sectors; (iii) inadequate local generation facilities, since plants located in Brittany provide only 13 % of the electricity consumed in the region (see recital 166), and (iv) improvements made to the grid providing a partial response to the adequacy problem. The imbalance between energy produced and energy consumed undermines energy security in the region, the particular weak points being the north of Brittany, consisting of the major part of the department of Côtes d'Armor and the conurbations of Saint-Malo and Dinard, where supply would be interrupted in the event of unavailability of the 44 kV Domloup–Plaine Haute line, and the whole of Brittany, in that it is vulnerable to a risk of voltage collapse caused by the distance between generating sites and centres of consumption. RTE has undertaken several investments: in particular, between 2011 and 2013 it installed reactive power compensation equipment throughout the west of the region, giving a total capacity of 1 150 MVAR (mega volt ampere reactive), in order to guarantee the level of power needed during periods of cold. According to RTE, this compensation equipment must be supplemented by the connection of the Landivisiau CCG station in order to restore the safety margin needed to avoid any danger of voltage collapse and thus to establish a proper safety net ([41]).

(170) Next, the measure has a well-defined objective, which is to compensate for market failures, i.e. a lack of investment despite the fact that investment is needed in Brittany in order to avoid a voltage collapse over the whole of the region, a danger which cannot be averted simply by creating electricity transmission lines, as explained in recital 98. The Commission accepts the argument that the Breton region is suffering from a 'missing money' issue which can be explained by the fact that prices do not rise sufficiently despite the Breton context of electricity shortages, and which cannot, as explained in recitals 101 and 95, be overcome by splitting the pricing zone. Nor are the specific needs of the region met by the capacity mechanism (see recital 177).

(171) These factors provide a satisfactory explanation, in the Commission's view, of why there will be no investment in new capacity without public financial support.

(172) The measure targets the causes of the problem identified, in particular the market failure preventing the supply of the capacity required, at two levels. The choice of CCG technology simultaneously meets the requirements for power and availability, as identified in the PEB. CCG makes it possible to ensure security of supply and helps to

([40]) RTE, *Bilan prévisionnel 2013*.
([41]) RTE, *Bilan prévisionnel 2013*, p. 42.

maintain voltage in the area. This point is developed in recitals 104 et seq. In addition, the proportion of production that is non-intermittent and available during winter peaks is currently very low, and this carries a risk.

(173) Turning to the justification of the need to maintain a constant voltage level, the Commission notes the existence of a weakness in the electrical system identified by RTE in the north of Brittany. The north Brittany area is supplied by a single 400 kV circuit and two 225 kV lines in the west from the substation at La Martyre. In the event of a break in the line between Rennes and Saint-Brieuc, overloads would occur on the two 225 kV lines, worsened by the voltage drops in the Rance area. This situation could result in the loss of all the supply in the area, in the absence of load shedding in the north. Further, in the event of high consumption throughout the west, certain types of plant outage or network incidents leave Brittany exposed to risks of the localised failure of its electricity supply, and also to the risk of a generalised voltage collapse across the whole region.

(174) The Member State has justified the decision not to use other technologies (for example, renewables) or demand-side response, or to create a separate pricing zone or install interconnection lines. According to the Commission, none of these remedies, taken individually, would fully meet the risks identified, in particular the risks of voltage drops, as explained in recital 16.

(175) With regard to the justification for not relying exclusively on interconnectors, the Commission observes that Brittany, located at the end of the line, is not in a situation which is comparable to other French regions with similar characteristics (Provence-Alpes-Côte d'Azur, Franche Comté, Pays de la Loire or Corsica). There the electricity supply is ensured by multiple connections with other regions. Voltage stability is not an issue. Additionally, they are not situated at the end of the grid like Brittany. Corsica, which is weakly interconnected ([42]), has significant capacities on its own territory.

(176) On 8 November 2016, the Commission approved the French capacity mechanism ([43]). The power plant is expected to play a part in the capacity mechanism mainly through rebalancing, which will represent only a marginal proportion of its total annual receipts (around 1,5 %). The impact of the mechanism on this measure and its significance in the evaluation of the measure are limited. The business plan does not provide for any participation in the capacity mechanism other than rebalancing. If any such participation were to occur, the associated remuneration would be deducted from the premium.

(177) Further, in its *Final Report of the Sector Inquiry on Capacity Mechanisms* ([44]), the Commission observed that, in the case of a local generation adequacy issue, the decision to rely on a capacity mechanism will depend on the specific market conditions ([45]). In this instance, the existence of local demand in Brittany does not result directly in the emergence of a supply located in Brittany. The French electricity market cannot bring the demand existing for capacity at local level into the open. The very localised nature of the lack of capacity cannot currently be resolved solely by the capacity mechanism recently applied in France.

(178) For these reasons, the Commission takes the view that the measure, which serves an objective of common interest, namely ensuring security of electricity supply, is indeed needed in France.

6.3.3. *Appropriateness*

(179) Section 3.9.3 of the EEAG requires that the proposed aid measure be an appropriate policy instrument to address the objective of common interest in question. To be considered appropriate, the measure should fulfil the following conditions: (i) the aid should remunerate solely the service of availability of capacity; (ii) the aid should provide adequate incentives to both existing and future generators and to operators using substitutable technologies, such as demand-side response or storage solutions; and (iii) the aid should also take into account to what extent interconnection capacity could remedy any possible problem of generation adequacy.

([42]) The power of the submarine link with Sardinia (single cable) has been 100 MW since 2010 (Source: Island Energy Systems — Corsica, July 2015).
([43]) Case SA.39621 — French countrywide capacity mechanism
([44]) *Report from the Commission: Final Report of the Sector Inquiry on Capacity Mechanisms*, 30 November 2016 (http://ec.europa.eu/competition/sectors/energy/capacity_mechanisms_final_report_en.pdf).
([45]) *Report from the Commission: Final Report of the Sector Inquiry on Capacity Mechanisms*, p. 17.

(180) First, the Commission observes that the premium excludes any reward for the sale of electricity. The projected remuneration is composed of (i) a capacity value equal to EUR [50 000-60 000]/MW/year, and of three values relating to the geographical location of the project, namely (ii) the additional cost relating to the transport of gas, EUR [20 000-40 000]/MW/year, (iii) the additional cost of connection, EUR 6 000/MW/year, and (iv) the additional cost of special environmental measures, EUR 2 000/MW/year. Thus the premium relates to the remuneration of capacity, and does exclude any reward for the sale of electricity.

(181) Secondly, although the Commission considers that the aid was awarded through a discriminatory tendering procedure (see recital 145), it takes the view that the French authorities were entitled to restrict the invitation to tender to CCG-type power stations. The restriction is due to a specific need to maintain voltage stability under satisfactory energy and environmental conditions. Among thermal power plants, and thus by comparison with coal-fired plants and fuel-oil technologies, gas-fired power stations are the least polluting (see also recital 102). The choice of a CCG-type power station by comparison with other gas-fired plants, in particular OCG plants, is to be preferred from an environmental viewpoint, since it is an energy-efficient method of generation using only natural gas, the fossil fuel with the lowest CO_2 emissions, while offering the flexibility and responsiveness needed to address the market failures identified.

(182) Third, the aid measure takes account of interconnection capacities, but interconnection does not provide a satisfactory answer to the need to maintain voltage stability. Furthermore, the construction of interconnectors requires a long-term vision. Interconnection projects are already in preparation that aim to increase the interconnection capacity between France and the United Kingdom, and between Brittany and Ireland. The Commission notes that the measure does not stand in the way of an increase in the flows transiting through Brittany as a result of the creation of the interconnector.

(183) Additionally, a number of alternative measures are not appropriate:

(1) Renewable energies, which are taken into account in the PEB, cannot by themselves guarantee either voltage stability or the efficient management of demand peaks in this region, which is located at the end of the line.

(2) The other conventional energy generation plants are reaching the end of their operating lives, and the combustion turbines mentioned above will be closed from 2023. Their polluting character, highlighted in recital 81, precludes any further extension.

(3) The level of investment in interconnection, in the order of EUR 45 million in 2015, will make only an inadequate contribution to the region's capacity requirements. The Commission notes that major works have already been carried out on the network by RTE, but they are not sufficient to achieve the objective of securing supply. These measures are the strengthening of the Breton safety net between 2011 and 2013, the installation of a phase shifter at the Brennilis substation, and the doubling of 400/225 kV transformer capacity at Plaine Haute in 2015. However, beyond 2017, the Brennilis phase shifter will no longer be sufficient to guarantee supply to the north of Brittany. This argument confirms the observations of interested parties referred to in recital 65(2).

(4) Demand-side response is not an appropriate instrument. The Commission notes that the integration of demand-side response into the various balancing mechanisms has been strengthened: following a four-year programme, all the markets (energy, reserves, system services) have been open to demand-side response since 1 July 2014. However, demand-side response cannot achieve the objective of the measure, which targets both the balance between electricity supply and demand and the maintenance of voltage stability.

(1) With regard to the balance between supply and demand, demand-side response does allow an effective reduction or deferral of consumption. However, this mechanism is not targeted geographically. Further, it is difficult at present to mobilise sufficient demand-side response capacities to meet the regional imbalance. For example, an experimental programme conducted by RTE in Brittany to mobilise local proposals for demand-side response made it possible to mobilise 62 MW between 1 November 2014 and 31 March 2015 ([46]), in comparison with a residual shortfall estimated at between 200 MW and 600 MW (recital 166). Even if a mechanism were to be introduced covering Brittany as a whole, it would not, by its nature, be able to respond to a local voltage stability issue by offering adequate power.

([46]) RTE, *Bilan prévisionnel de l'équilibre offre-demande d'électricité en France*, édition 2015, p. 67.

(2) Turning to voltage stability, while demand-side response can relieve the pressure of demand at peak hours, and even out consumption peaks without the use of additional sources of generation, it does not maintain voltage stability, which the French authorities say needs a feed-in of local electricity over periods that cannot be covered by demand-side response. This feed-in process requires new capacities.

(184) Finally, the Commission takes the view that Article 194 TFEU, invoked by the French authorities (see recital 105), does not exempt them from compliance with the current rules on State aid when State aid is granted to an electricity producer.

(185) In the light of these considerations, the measure is an appropriate means of meeting the identified objective of common interest.

6.3.4. *Incentive effect*

(186) The incentive effect of the aid will be assessed on the basis of the conditions set out in section 3.2.4 of the EEAG. An incentive effect occurs when aid induces the beneficiary to change its behaviour to improve the functioning of the energy market, a change in behaviour that it would not undertake without the aid.

(187) The Commission observes that the premium permits investment in new capacities that would not have occurred in the absence of the aid, given the nature of the Breton market. Without the premium, the project would not have been sufficiently profitable (recital 23). In this context it rejects the interested parties' argument presented in recitals 67 and 68.

(188) The Commission concludes that the measure has the necessary incentive effect.

6.3.5. *Proportionality*

(189) The Commission has assessed the proportionality of the measure in accordance with section 3.9.5 of the EEAG. A measure is proportionate when it fulfils the following conditions: (i) the compensation should allow the beneficiaries to earn a reasonable rate of return (this is assumed where there is a competitive bidding process on the basis of clear, transparent and non-discriminatory criteria), and (ii) the measure should have built-in mechanisms to ensure that windfall profits cannot arise.

(190) These conditions have been evaluated in the light of the business plan submitted. The assumptions of the business plan are described in section 2.6 of the present decision.

(191) The Commission observes, first of all, that the twenty-year period is necessary to achieve a reasonable IRR of [5-10] % by comparison with the weighted average cost of capital (see the following recital). A shorter duration for the project would entail a weaker IRR, which is not necessary, given that the Commission already judges the IRR level acceptable. This argument refutes the hypothesis set out in recital 68(1).

(192) In the second place, the Commission notes that the IRR of the project is [5-10] %. The Commission has evaluated the proportionate nature of this IRR in comparison with the weighted average cost of capital (WACC). The WACC for the project reflects its specific non-diversifiable risks. The Commission believes that the IRR can be evaluated by comparison with the WACC for a sample of comparable undertakings, where the average stands at 6,6 % over the period 2007-2016, which is close to the IRR for the project. The IRR is consequently close to the estimated range for a comparable WACC, and the Commission can conclude that the measure is proportionate.

(193) The reliability of this conclusion as to proportionality is confirmed by the sensitivity studies submitted. Studies have been carried out in the light of any penalties for delay, taking account of inflation, and allowing for a possible terminal value. Several price assumptions were taken into account to measure the impact of the tolling contract on the business plan.

(194) Turning to the prevention of windfall profits, the Commission notes that by its design the business plan presented by the consortium does not allow windfall profits to be made. The two main components of the receipts are, firstly, the premium received, which depends on the availability of the power station, negotiated contractually, so that no windfall profit can arise there. Secondly, the remuneration under the tolling contract is also contractually negotiated, and offers the consortium no opportunity to achieve windfall profits.

(195) Finally, the Commission observes that the consortium will be able to participate in the capacity mechanism under the conditions set out in recital 25. However, any remuneration from participation in the capacity mechanism will be deducted from the premium. The absence of any overlapping remuneration likewise tends to show that the measure is proportionate.

(196) Hence the Commission considers that the mechanism is proportionate to its objective.

6.3.6. *Avoidance of negative effects on competition and trade*

(197) In accordance with section 3.9.6 of the EEAG, to be considered compatible, aid must: (i) be open to all suppliers of capacity that may serve the purpose, where technically and physically possible; (ii) not reduce incentives to invest in interconnection capacity, and not undermine market coupling; (iii) not undermine investment decisions which preceded the measure; (iv) not unduly strengthen market dominance; and (v) give preference to low-carbon generators in case of equivalent technical and economic parameters.

(198) With regard to the first criterion, paragraph 232 of the EEAG specifies that restrictions on participation in capacity mechanisms 'can only be justified on the basis of insufficient technical performance required to address the generation adequacy problem' ([47]). In the case in hand, the Commission considers that the technical qualities of some forms of generating capacity, particularly CCG, clearly provide a more effective remedy for generation adequacy problems than others, notably OCG and combustion turbines. More specifically, the technical qualities of the latter do not allow optimisation of the project's energy performance, and hence of its economic performance, bearing in mind the procedures and operating times of the production facility sought by the French authorities to meet the generation adequacy problem identified.

(199) Here the Commission notes that not all conventional technologies possess equivalent technical capacity to meet all the requirements identified in section 3.3 of the specifications efficiently and viably.

(200) Firstly, as regards the comparison with OCGs, a joint study by the International Energy Agency (IEA) and the Nuclear Energy Agency (NEA), *Projected Costs of Generating Electricity — 2015 Edition*, indicates that where total operating times are longer CCG is a significantly more economic means of generating electricity. The reference costs for electricity generation presented by this study show that the LCOE ([48]) for an OCG plant built in Belgium or Germany ([49]) is clearly higher than the LCOE of Belgian or German CCG plants. Expressed in EUR/MWh, both investment costs and operating and maintenance costs are higher for OCG than for CCG. The conclusions of this study are presented in the table below.

Mean total cost of electricity generation

Table 3.9: Levelised cost of electricity for natural gas plants

Country	Technology	Net capacity ([1]) (MWe)	Electrical conversion efficiency (%)	Investmens cost ([2]) (USD/MWh)		
				3 %	7 %	10 %
Belgium	CCGT	420	60	9,65	13,82	17,45
	OCGT	280	44	14,54	20,82	26,28
France	CCGT	575	61	6,92	11,37	15,40

([47]) EEAG, paragraph (232)(a).
([48]) 'Levelised cost of electricity': cost of the electricity generated.
([49]) This study does not show the cost of an OCG in France, as there is no recent or forthcoming construction that makes it possible to establish a reference cost for the country.

Country	Technology	Net capacity (1) (MWe)	Electrical conversion efficiency (%)	Investmens cost (2) (USD/MWh)		
				3 %	7 %	10 %
Germany	CCGT	500	60	6,77	10,90	14,56
	OCGT	50	40	39,90	60,80	79,19
Hungary	CCGT (dual fuel)	448	59	7,53	11,79	15,67
Japan	CCGT	441	55	8,67	13,96	18,64
Korea	CCGT	396	58	7,03	11,29	15,04
	CCGT	791	61	5,86	9,40	12,52
Netherlands	CCGT	870	59	7,89	12,70	16,96
New Zealand	CCGT	475	45	10,09	15,38	20,03
	OCGT	200	30	28,31	43,13	56,18
Portugal	CCGT	445	60	8,35	12,72	16,57
United Kingdom	CCGT	900	59	7,64	12,02	16,03
	OCGT	565	39	48,11	74,54	98,37
United States	CCGT	550	60	8,06	13,24	17,94
Non-OECD countries						
China	CCGT	350	55 %	4,36	7,03	9,38

(1) Net capacity may refer to the unit capacity or to the combined capacity of multiple units on the same site.
(2) Investment cost includes overnight cost (with contingency) as the implied IDC.

(Table continued — right-hand side)

Refurbishment and decommissioning costs (USD/MWh)			Fuel cost (USD/MWh)	Carbon cost (USD/MWh)	O&M costs (USD/MWh)	LCOE (USD/MWh)			Country
3 %	7 %	10 %				3 %	7 %	10 %	
0,21	0,12	0,07	74,62	10,08	3,97	98,54	102,61	106,19	Belgium
0,32	0,17	0,11	100,91	14,01	5,35	135,13	141,26	146,66	
0,11	0,05	0,02	68,99	10,56	6,25	92,83	97,21	101,23	France
0,11	0,05	0,02	74,00	9,90	7,71	98,49	102,56	106,20	Germany
0,76	0,36	0,20	111,00	15,15	29,68	196,50	216,99	235,23	
0,00	0,00	0,00	71,21	10,56	7,64	96,94	101,20	105,08	Hungary
0,15	0,06	0,03	104,07	10,95	9,38	133,21	138,42	143,07	Japan
0,00	0,00	0,00	98,97	10,27	5,55	121,82	126,08	129,82	Korea
0,10	0,04	0,02	95,21	9,89	4,05	115,11	118,60	121,70	

Refurbishment and decommissioning costs (USD/MWh)			Fuel cost (USD/MWh)	Carbon cost (USD/MWh)	O&M costs (USD/MWh)	LCOE (USD/MWh)			Country
3 %	7 %	10 %				3 %	7 %	10 %	
0,13	0,05	0,03	75,25	9,90	3,53	96,71	101,45	105,68	Netherlands
0,19	0,09	0,05	46,75	11,22	7,38	75,64	80,82	85,43	New Zealand
0,54	0,26	0,14	69,26	16,62	14,39	129,11	143,65	156,58	
0,16	0,08	0,04	74,00	9,90	6,24	98,65	102,93	106,75	Portugal
0,00	0,00	0,0	75,51	9,43	6,63	99,21	103,59	107,59	United Kingdom
0,00	0,00	0,00	113,85	14,22	36,45	212,63	239,06	262,89	
0,13	0,05	0,03	36,90	11,10	4,65	60,84	65,95	70,62	United States
Non-OECD counrtries									
0,07	0,03	0,01	71,47	11,02	3,25	90,17	92,79	95,13	China

Note: CGTs were modelled under an assumed capacity factor 85 %. OCGTs were modelled under nationally provides capacity factors.
Source: Memorandum from French autorities of 20 March 2017, taken from the 2015 IEA-NEA study, pp. 48-49

(201) On the basis of total operating time estimated at [3 000-6 500] hours per year and around 1 600 GWh generated annually ([50]), the Commission estimates that the technical characteristics of OCG, other things being equal and taking account of the amount of aid received by CEB, would entail generation costs of between EUR 60 million and EUR 190 million, compared with a turnover of around EUR 90 million a year. Using OCG would therefore bring about an excessive shift in the economic balance of the project and would put its viability in question. The Commission must conclude that the technical qualities of OCG are inadequate and cannot ensure the viability of the project, and thus would not resolve the generating capacity problem.

(202) Leaving this study aside, the Commission notes that the higher production costs of OCG are explained by its lower energy efficiency. The energy efficiency of OCG is some 40 % to 55 % lower than that of CCG. An OCG turbine would thus need at least 40 % more gas to be transported than a CCG turbine of the same power ([51]).

(203) Secondly, as regards the comparison with combustion turbines, the Commission notes that this technology, like OCG, presents a marginal operating cost higher than that of CCG. Combustion turbine technology becomes more expensive than CCG once operating times exceed 200 hours per year (1 000 hours in the case of OCG). Combustion turbines are thus less efficient than OCG for an operating time exceeding 1 000 hours, as in the case in hand. The Commission has already concluded that in the operating conditions in question the viability of the project would be compromised by the use of OCG, so that other things being equal the viability of the project would necessarily be compromised by the use of a combustion turbine.

(204) In the case of the notified measure it is also important to consider the impact of energy efficiency on the overall costs of the project. Better performance allows the quantity of gas that has to be transported to the plant for any given electrical power to be reduced. As the energy efficiency of an OCG is 40 % lower, and more than 55 % lower for recent CCGs, an OCG would require the transport of at least 40 % more gas than a CCG of equivalent power. This point is vital in the case of the invitation to tender in Brittany, where the planned expansion of the gas network gives rise to part of the costs that justify the granting of State aid. The share of the premium granted for gas transport represents 33 % of the total premium paid to the candidate. The higher energy efficiency of a CCG makes it possible to reduce the gas transport capacity needed, and hence the costs of a project that requires an expansion of the gas transport network in Brittany.

([50]) Source: CEB business plan.
([51]) Memorandum of the French authorities of 20 March 2017.

(205) The measure is thus indeed open to suppliers of capacity that can effectively resolve the capacity problem identified by France.

(206) Turning to the second criterion, the Commission notes that the measure does not reduce the incentive to invest in interconnection capacity, nor does it undermine market coupling. Studies are under way for interconnection projects aiming to increase interconnection capacity between France and the UK in 2022, and between Brittany and Ireland in 2025. The measure will permit an increase in the flows transiting through Brittany as a result of the creation of the interconnector.

(207) The Commission further observes that the invitation to tender was designed so as to avoid any distortion in the participation of the CCG in the different markets. The plant does not necessarily have to reserve part of its power for the adjustment mechanism. If it has sold all its power forward on the electricity market, and is generating its maximum power, it will not be required to submit offers for the adjustment mechanism for the corresponding period.

(208) In this connection the Commission notes that the project revenues used for rebalancing are negligible (around 1,5 % of annual revenue), and cannot be considered to present a significant risk in the adjustment market.

(209) With regard to the third criterion, the Commission observes that the aid is to a CCG plant, and that while CCG is not the only technology allowing voltage to be maintained over a long period, it remains the only technology which meets the requirement to maintain voltage stability in the most acceptable conditions of efficiency, as explained in recitals 199 to 204.

(210) With regard to the fourth criterion, the Commission notes that the undertakings constituting the CEB consortium are not dominant players on the French electricity market. As a result, the measure does not help to strengthen the position of the direct beneficiary of the aid. Indeed it contributes to competition in France, given the market position of Direct Energie as an alternative supplier and producer. This point also confirms the argument put forward in recital 73.

(211) The Commission observes, however, that the measure does carry a risk of strengthening the market position of the dominant operator.

(212) The dominant operator, EDF, has substantial market shares in France. EDF holds 83,5 % of total electricity generation and 89,4 % of total installed capacity in France ([52]). EDF's generating facilities are unrivalled in France in terms of both scale and diversity. They consist principally of nuclear and hydroelectric plants.

(213) There are two particular options open to the CEB consortium. It will be able to sell the electricity produced to the dominant market operator for 95 % of the market price (see recital 11), or sell it under a tolling contract as described in recital 32.

(214) If these options are exercised, they could strengthen the market position of the incumbent operator by putting the electricity generated by the plant at its disposal.

(215) Firstly, control over electrical generation by a market player contributes to a loss of liquidity in wholesale markets and penalises alternative suppliers. EDF controls more than 80 % of electricity generation in France. This control would be strengthened if a contract were to be concluded with the CEB consortium, whether a tolling contract or a long-term contract for the sale of electricity. EDF's stronger competitive position would affect the capacity of alternative suppliers to source electricity from the wholesale markets on competitive terms, by exposing them to a risk of illiquidity and to a risk of price volatility. Alternative suppliers would not to be exposed to such risks if they had access to their own generating capacity. They must therefore be assured of access to their own production capacity.

(216) Secondly, the dominant position in electricity generation held by a vertically integrated player will also give it a significant competitive advantage in electricity supply. Given the major role played by production costs in the total costs of supply, control over generation has repercussions on retail provision. EDF's competitors have little or no generating capacity that would allow them to provide a basic electricity supply with variable production

([52]) Data for 2015. Sources: CRE and RTE.

costs as low as those provided by EDF's own facilities. EDF currently has a share of around 86 % of the retail market ([53]). The scope for EDF to become a party to the tolling contract, or to purchase all the electricity generated by the plant under a long-term purchase contract, would increase its capacity to respond to retail demand. Ensuring that alternative suppliers have access to their own generating capacity would thus also help to avoid strengthening the incumbent operator's dominant position on the retail market.

(217) The Commission considers that the danger that EDF's dominant position in wholesale and retail markets might be strengthened can be averted by requiring the French authorities to take the steps necessary to guarantee that the beneficiary of the aid does not conclude contracts under either of these contractual mechanisms with an operator that controls more than 40 % of the electricity generating capacity in the French market.

(218) Given the highly unusual characteristics of the French electricity market, this limitation to 40 % is proportionate. It makes it possible to avoid the strengthening of the dominant operator's market position which could result indirectly from the aid via the contractual mechanisms referred to in recital 214.

(219) In the light of the considerations set out in this section, and provided that the condition described in recital 218 is met, the Commission concludes that the measure will not undermine competition or trade between the Member States in such a manner as to compromise the achievement of the objective in the common interest.

(220) Taking account of the remedies proposed by France, the Commission concludes that there is no longer a risk that the measure will unduly distort competition or trade between Member States.

6.3.7. *Transparency*

(221) The authorities must publish the rules governing the aid scheme, the identity of the granting authority or authorities, the identity of the beneficiary, the form and amount of the aid granted, the date of granting, the type of undertaking, the region in which the beneficiary is located and the principal economic sector in which it operates.

(222) In the case in hand the French authorities have respected the transparency obligations set out in the EEAG. The information published includes the decision to grant the aid and the implementation procedures, the identity of the granting authority, the identity of the beneficiary, the form and amount of the aid granted, the type of undertaking, the region in which the beneficiary is located and the principal economic sector in which it operates.

(223) It may also be pointed out that the website http://www.europe-en-france.gouv.fr/Centre-de-ressources/Aides-d-Etat/Regimes-d-aides presents all the aid schemes in France validated by the Commission, including the present invitation to tender. The annual amounts of aid granted to the undertaking will be published annually on the same site.

(224) For these reasons, the transparency requirements set out in the EEAG have been complied with.

7. **CONCLUSIONS**

(225) The measure granted by France to the CEB consortium constitutes aid.

(226) The measure will be compatible with the Guidelines on State aid for environmental protection and energy 2014-2020 when the French authorities have taken the steps necessary to ensure that for the entire duration of the aid the beneficiary of the aid does not provide energy from the plant to an operator which holds more than 40 % of the electricity generation capacity on the French market, whether under a tolling agreement or under a long-term contract of sale for the energy produced by the plant at a price equal to 95 % of the market price,

([53]) Report by the CRE, retail market observatory, figures for September 2016.

HAS ADOPTED THIS DECISION:

Article 1

The measure by which France plans to assist the CEB consortium, consisting of the granting of a premium of EUR 94 000/MW/year, value at 31 November 2011, payable for a duration of 20 years, constitutes State aid within the meaning of Article 107(1) TFEU, which is compatible with the internal market in accordance with Article 107(3) TFEU, subject to the conditions set out in Article 2.

Article 2

France shall take the steps necessary to ensure that for the entire duration of the aid referred to in Article 1 the beneficiary of the aid cannot provide energy from the plant to an operator which holds more than 40 % of the electricity generation capacity on the French market, whether under a tolling agreement or under a long-term contract of sale for the energy produced by the plant.

Article 3

The Commission hereby authorises the aid referred to in Article 1 in the form of the payment of a premium to the CEB consortium for the duration of use of the plant, but for no more than 20 years. Any measure maintained at the end of that period must be notified afresh.

Article 4

This Decision is addressed to the French Republic.

Done at Brussels, 15 May 2017.

For the Commission
Margrethe VESTAGER
Member of the Commission