

Response to
the consultation paper of the Commission on generation adequacy, capacity
mechanisms and the internal market in electricity

(1) Do you consider that the current market prices prevent investments in needed generation capacity?

Yes, we do. At the current level of power prices on the central-western European wholesale market gas fired and pumped storage power plants are not able to earn a sufficient margin to cover their costs.

However, current market prices do not only prevent investments in new generation capacity. In fact they are currently jeopardizing the profitability of existing generation units as reflected by decreasing operating hours of thermal power plants. As a result of the rising installed capacity of intermittent renewables, electricity generation is becoming increasingly volatile. Thus, to achieve the EU objectives in the field of energy policy (deliver sustainable and secure energy / a competitive internal market for energy) it is essential to maintain flexible and reliable generation capacity.

In this context, it is insufficient to exclusively focus on current market prices. Investment decisions are not primarily based on current market conditions but on the expected evolution of a number of value drivers over the lifetime horizon of the investment (20 years and more). Expected fundamentals (like price spreads power/gas & CO₂, power/coal & CO₂ and other cost components of generation) as well as stable political and regulatory frameworks are additional criteria which have to be considered for investment decisions.

(2) Do you consider that support (e.g. direct financial support, priority dispatch or special network fees) for specific energy sources (renewables, coal, nuclear) undermines investments needed to ensure generation adequacy? If yes, how and to what extent?

Yes, we do.

The divergence of capital investments based on long-term profitability and an increasingly short-term policy effectively jeopardizes legal certainty and thus generation adequacy.

Additionally, to selectively support specific energy sources will lead to distortions on the level playing field and affect potential investments needed to sustainably ensure generation adequacy.

The contribution of volatile renewables within Europe's climate strategy has to be fully acknowledged. As long as renewable technologies were at a very early development stage and presented only a small share of generation an out-of-market support scheme was appropriate. However, as renewable technologies have become more and more mature and the feed-in of volatile renewables present a significant share of generation, the power market has become more and more distorted.

While an increased share of volatile renewables requires more reliable generation assets needed to be constantly available (i.e. in "stand-by mode") in order to back up outages of renewable energy sources (e.g. in case of few wind/sun), the low variable costs together with current rules of priority feed-in of renewables into the system at fixed prices, not taking into

account the market scarcity valuation and costs, result in a significant reduction of operating hours, the spread between base and peak load prices, and as a result, profitability of flexible and back-up generation. The main challenge is to integrate volatile generation capacity into the market in order to re-establish competition in a level playing field.

Furthermore, volatile renewables cannot be relied upon when needed and must be de-rated in order to be accounted for in the generation adequacy assessments. As a consequence, the price profile facing the market becomes more volatile, which can threaten generation adequacy. Under these rules, earnings of this flexible generation become even more weather dependent, making investments into back-up flexible plants depend more on stochastic weather conditions. This increases risk and therefore makes investment decisions more challenging.

Integration of volatile renewable generation into the market means that renewable producers are incited to sell their own production in the market as well as to take system responsibility.

(3) Do you consider that work on the establishment of cross-border day ahead, intraday and balancing markets will contribute to ensuring security of supply? Within what timeframe do you see this happening?

Yes, we basically do consider that work on the establishment of cross-border day ahead, intraday and balancing markets will contribute to ensuring security of supply, but will not solve the security of supply concern at all.

The establishment of cross-border day ahead, intraday and balancing markets is an indispensable requirement to accomplish the IEM. They should be regarded as an indispensable, but only small part of the solution as they cannot significantly contribute to security of supply in the long run. Additionally, please see answer to question (17).

For some regions the establishment of cross border markets could be realized in the short run. Respecting for example the existing transmission infrastructure between Germany and Austria and the already implemented cross-border day ahead and intraday markets, the establishment of cross-border balancing markets should be obvious.

Hand in hand with the establishment of cross border markets, the harmonisation of national regulation is inevitable to ensure a level playing field. The European Commission shall therefore address this issue in the context of the next Commission Communication on the Internal Energy market.

(4) What additional steps, if any, should be taken at European level to ensure that internal market rules fully contribute to ensuring generation adequacy and security of supply?

To facilitate a sustainable and secure development of generation capacity in Europe, one of the ongoing challenges will be the full integration of volatile renewable energies into the market. In this context existing subsidies have to be reviewed respecting a more European approach and in view of the three energy policy objectives of security of supply, sustainability and competitiveness.

In addition, electricity market models, existing regulations, access duties, taxes, fees and charges for conventional generation units must be harmonised to re-establish the level playing field in the internal energy market and thus strengthen the security of supply.

European-level rules are required for the

- Removal of all national market barriers and price caps on electricity prices
- Establishment of cross-border-markets for ancillary services
- Extension of the high-voltage grid.

(5) What additional steps could Member States take to support the effectiveness of the internal market in delivering generation adequacy?

All member states should open their national markets and avoid, respectively remove market distorting regulation and price caps.

Market intervention through taxes and other duties, fees and charges further interferes with the development of the internal energy market and hampers investments in existing and new flexible power plants. According to a study by EURELECTRIC about recent tax developments numerous member states have established new or increased existing taxes raising concern about existing electricity generation infrastructure and, as a consequence, negatively impacting new investments. Therefore, these market interventions should be removed to support the effectiveness of the internal market.

It is important that the acknowledgment of the internal energy market and the interpretation of security of supply within the internal energy market at regional level are further developed. The support schemes for volatile renewables have to be combined with a monitoring of availability of reliable complementary capacities in the mid-term and long-term perspective.

A consolidation process respecting on the one hand national generation structures and on the other hand physical cross-border capacities has to be established to optimize the national contribution to security of supply within the internal energy market. Thus, national trends to exclusively focus on energy autonomy or autarky shall be critically monitored.

(6) How should public authorities reflect the preferences of consumers in relation to security of supply? How can they reflect preferences for lower standards on the part of some consumers?

Security of supply is an indispensable element to improve Europe's competitive position. Whereas public authorities may determine the degree of security of electricity supply they should refrain from defining specific products intended to meet predefined preferences of different consumers. The market actors only need an appropriate legal framework to develop by themselves tailor-made consumer solutions for the whole spectrum of preferences and therewith develop the full consumer potential.

(7) Do you consider that there is a need for review of how generation adequacy assessments are carried out in the internal market? In particular, is there a need for more in depth generation adequacy reviews at:

- a. National level**
- b. Regional Level**
- c. European Level**

We think that there is a need to review how generation adequacy assessments are carried out in the internal market. European generation adequacy assessments as described in the

consultation paper do not seem to be sufficient to illustrate needed generation capacities, needed generation flexibilities and thus needed investments. Additionally, cross-border capacities and cross-border balancing markets are not reflected. As national borders might not be the most efficient approach to measure system security requirements, the need for a more in depth generation adequacy review at (b) regional and (c) European Level - following an integrated approach to incorporating all stakeholders - appears. The scope of generation adequacy has to be the same as the Internal Market and the same applies for renewable support schemes as we have to accept the substantial influence of volatile renewables on the market mechanisms (low variable costs, priority feed-in).

While it seems to be necessary to create new criteria to assess generation adequacy, in any way already collected data should be used to prevent new bureaucratic costs and – not least – the methods to determine generation adequacy have to be as transparent as possible.

(8) Looking forward, is the generation adequacy outlook produced by ENTSO-E sufficiently detailed? In particular,

- a. **Is there a need for a regional or European assessment of the availability of flexible capacity?**
- b. **Are there other areas where this generation adequacy assessment should be made more detailed?**

Please see answer to question (7).

(9) Do you consider the Electricity Security of Supply Directive to be adequate? If it should be revised, on which points?

In consideration of the existing regulations for natural gas the scope of the Electricity Security of Supply Directive has to be made compatible with the regulations for natural gas (especially as to interruptible contracts).

(10) Would you support the introduction of mandatory risk assessments or generation adequacy plans at national and regional level similar to those required under the Gas Security of Supply Regulation?

No.

(11) Should generation adequacy standards be harmonised across the EU? What should be that standard or how could it be developed taking into account potentially diverging preference regarding security of supply?

Yes, at least general principles should be harmonised.

We would appreciate if the process of creating adequacy standards is organised in such a transparent way as the drafting process of the network codes to ensure the participation of all stakeholders.

(12) Do you consider that capacity mechanisms should be introduced only if and when steps to improve market functioning are clearly insufficient?

Yes, we do. If no steps at all are taken to improve market functioning or time is already short (which means endangered generation adequacy through reduced investments and early decommissioning), the introduction of a capacity remuneration mechanism should be considered..

The energy only market has proven to function as intended since the start of liberalisation. The increasing share of renewable energies with variable costs close to zero drives on the one hand wholesale prices down, but facilitates on the other hand new possibilities for existing generation units as well as demand side management due to the volatile production.

The enhancement of the market design to additionally enable capacity remuneration shall be thoroughly considered and designed within a European approach.

We would like to highlight that the introduction of a capacity mechanism has several years of lead time as, for example, new flexible thermal generation capacity requires approximately 5 years for planning and construction until commercial commissioning.

(13) Under what circumstances would you consider market functioning to be insufficient:

Political interventions have significantly contributed to today's aberrations of existing energy markets (e.g. regulated end-user prices, restrictions on plant operations, price caps). Only if authorities refrain from intervening in the market and accept price signals such as price spikes and volatility, energy and balancing markets will deliver necessary price signals for flexibility.

a. to ensure that new flexible resources are delivered?

Additional incentives for new flexible sources could weaken the business case for existing flexible power plants which already suffer from the strongly reduced price peaks as a result of increased volatile generation capacity. Mechanisms should therefore be designed in a market oriented manner and should not distinguish between new and old resources. Revenues should not only enable new investments but also the feasible operation of existing flexible resources

b. to ensure sufficient capacity is available to meet demand on the system at times of highest system stress?

Under current circumstances the danger of supra-regional blackouts increases in line with the installed volatile generation capacity.

(14) In relation to strategic reserves:

a. Do you consider that the introduction of a strategic reserve can support the transition from a fossil fuel based electricity system or during a nuclear phase out?

Yes, if the following requirements are met:

- Implementation at regional level (at least for well-linked countries)
- Clear and transparent guidelines
- Predictable duration of application (transitional period)
- Market based mechanism
- Technology neutral
- Not differentiating between existing and new power stations

b. What risks, if any, to effective competition and the functioning of the internal market do you consider being associated with the introduction of strategic reserves?

- Weakening of market signals if strike price is set too low and power plants being subject to a strategic reserve are not operated under strictly defined dispatching rules
- Distortions of competition and inefficient allocation of resources if a strategic reserve is solely implemented at national level.
- Risk of over capacity of the strategic reserve due to risk averse planning

(15) In relation to capacity markets and/or payments:

a. Which models of capacity market and /or payments do you consider to be most and least distortionary and most compatible with the effective competition and the functioning of the internal market, and why?

We believe that capacity remuneration models shall be planned in respect of a predictable duration of application. In the short term, e.g. a strategic reserve or bilateral agreements are appropriate models. For the time after the year 2020, there is no answer to this question as it is unclear how the market design will look like, e.g. the full integration of volatile renewables,

b. Which models of capacity market and /or payments do you consider to be most compatible with ensuring flexibility in a low carbon electricity system?

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c. Are there any models of capacity mechanism the introduction of which would be irreversible, or reversible only with great difficulty?

During a CRM law in force, we expect a stable regulatory framework. The duration of the application of the capacity mechanism should be predictable even if the design is made reversible in order to return to a market functioning according to the originally intended market design.

(16) Which models of capacity mechanisms do you consider to have the least impact on costs for final consumers?

In general, we believe that any model should have a market based mechanism which would foster overall system efficiency.

As far as the direct costs of a CRM are concerned we think that a strategic reserve as a transitional measure will have the least impact on costs for final consumers. However, when a broader view is applied – looking at the impact on the overall system efficiency of the whole market design – the impact depends on the design details of the different CRMs. Without these details it is not possible to assess which kind of CRM is the optimal solution in terms of overall system efficiency. If a strategic reserve turns out to be not effective in terms of adequate capacity in the long run it might well be a more expensive instrument than an alternative CRM.

(17) To what extent do you consider capacity mechanisms could build on balancing market regimes to encourage flexibility in all its forms?

Balancing markets are mainly tailored to provide flexible solutions in real-time or near real-time timeframes in order to support the stable (short term) operation of power systems. They typically cover the provision of online primary, secondary and tertiary power and energy

reserves. The services contracted in these markets must be provided from real-time to a few hours following real-time and are technically related with and dependent on the availability of specific technologies, on operational decisions and on market conditions.

CRMs have been designed to meet an entirely different problem which is to tackle concerns of security of supply reflected by the availability of sufficient generation to meet peak load demand and backup capacity for intermittent renewables whilst ensuring an adequate security margin.

Traditionally, this margin has been measured against generation and transmission adequacy standards (whether they are deterministically or probabilistically driven in each member state) considering planned and unplanned outages of these assets. More recently, the integration of variable renewables has introduced further complexity. The problem of meeting yearly or seasonal peak loads has been increased by the challenge of continuously meeting system load with varying renewables intake at relatively short notice from the system operator's point of view.

CRMs address fundamentally different system needs than balancing markets. Balancing market regimes can hardly be expected to meet these needs as the flexibility they enable, important to and dependent on the normal operation of power systems as it is, does not help to maintain the security margins in the medium run (having enough existing capacity to meet peak demand) that the system requires at different times. CRM, unlike balancing markets, are designed to secure sufficient funding to incentivise investment in sufficient stand-by generation assets, as well as demand response and storage to back up the intermittency of renewables. CRM, unlike balancing markets, are also more suited to promote technology non-discriminatory competitiveness in procuring the services which are required to maintain adequate security margins, including from technologies such as storage and Demand Side Response.

(18) Should the Commission set out to provide the blueprint for an EU-wide capacity mechanism?

The Commission should provide a common level playing field to minimise distortions in the common market. At least for a region with a common price zone a harmonised system should be established.

In addition, developments in national markets should be closely monitored to prevent non-harmonized CRMs, as well as other security-driven mechanisms, which would distort the internal energy market and its competitive dynamics.

(19) Do you consider that the European Commission should develop detailed criteria to assess the compatibility of capacity mechanisms with the internal energy market?

Yes, we do believe that criteria to assess the compatibility of capacity mechanism with the internal energy market should be developed.

However, these criteria shall respect regional pre-conditions (demand / supply / technical infrastructure / etc...) as well as existing market models. The process of developing these criteria shall again respect that all stakeholders are represented.

Finally, a set of criteria reflecting the most efficient approach to integrate regional characteristics into a European context shall be recommended.

(20) Do you consider the detailed criteria set out above to be appropriate?

a. Should any criteria be added to this list?

The criteria list seems to be appropriate.

Furthermore, we think that criterion (3) has to be clarified: a stable market design is an obligatory condition for investments with a long amortization time. Therefore, the predictability of the duration of application is very important, which is in our view not necessarily reflected by “limited” and “specified”.

b. Which, if any, criteria should be given most weight?

- Any capacity mechanism should not act as a barrier to competition (5). Particularly, not distorting the commercial behaviour of generators in the day-ahead and intraday markets (5a)
- A capacity mechanism should be open to electricity undertakings operating in other member states, to the extent they are able to make the electricity available in markets to which the capacity mechanism is established (4)
- No restrictions for any particular generation technology, i.e. being technology neutral and not differentiating between existing and new power stations (7)
- It is important that a capacity mechanism should be at least cost compared to its economic value (8)