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**Response to:**  
**European Commission Consultation Paper on  
generation adequacy, capacity mechanisms and the  
internal market in electricity**

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## I. Introduction

Europex welcomes and broadly supports the public consultation of the European Commission. The considerable development of electricity production from (intermittent) renewable energy sources has led to a critical need to ensure consistency throughout Europe on some aspects of the energy policy. This is necessary to avoid significant market distortions that could otherwise lead to an inefficient use of transmission capacities, decreased competition and a degraded price formation resulting in higher cost for the community and possibly lower security of supply.

Europex, as the organisation representing the European energy exchanges, do not have a position on all issues addressed by the present public consultation but is willing to contribute to the debate by putting forward some key elements to ensure a proper Internal Energy Market functioning. It wants to stress in particular the important role of electricity market integration to achieve decarbonisation of the power sector based on cost efficiency.

## II. Answers to Questions

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

It is unclear whether there really is a need for additional generation capacity that cannot be provided without public intervention. It seems on the contrary that there already is or will be in the coming years an oversupply of electricity in some regions of Europe compared to those regions' consumption and their ability to export the excess supply to regions with deficits. Nothing has demonstrated that the integration of the electricity market and the further improvements to come (e.g. harmonised capacity calculation, flow-based, better integration of the implicit continuous intraday markets and real-time balancing) might not suffice to ensure security of supply over the coming years.

It should also be noticed that the pace at which new energy sources have developed in some areas surpassed the most optimistic forecasts, not giving the time to other investments such as new transmission capacities, supportive power from other sources, or added flexibility in production or demand, to be realised to adapt the system to the new production mix.

### **(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?**

The uncertainty about what support mechanisms might be introduced in the future, where, at what financial compensation level and given durations, and for which energy sources might delay investment decisions that would have been taken under a more predictable regulatory and

political framework. The initiative of the European Commission to consider providing guidance to achieve a consistent approach for security of supply throughout Europe is therefore very welcomed by Europex as it could pave the way for a stable and efficient investment climate while safeguarding proper market functioning.

**(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. As already noticed by the EC and main stakeholders, the need of efficient utilization of cross-border capacities is increasing with the development of electricity production from intermittent renewable energy sources. The production not being necessarily located close to the demand areas resulted in the recent past and will increasingly result in significant electricity cross-border flows.

These flows have triggered the need for additional cross-border transmission capacities. In order to mitigate the cost of investments in such cross-border infrastructure, and to best ensure security of supply in case of scarcity of cross-border capacity, it is essential to make sure that the available capacity is used in the most efficient way. It has been widely recognised that such efficient allocation can only be guaranteed through the implicit allocation of the cross-border capacity based on market price signals.

Existing market coupling mechanisms (i.e. implicit auctions) are already significantly contributing to security of supply by the price signals they continually provide, and by the fact that market coupling guarantees the optimal use of cross-border transmission capacities to optimise the production and consumption portfolios at regional level. Projects ongoing to further extend these mechanisms and to even improve them will obviously continue to provide a great contribution to security of supply as long as the price formation and the efficient use of the transmission capacity is not compromised by national political decisions.

As described below the exchanges are concerned that price formation might be compromised by governmental intervention on prices and by specific support mechanisms aiming at increasing the profitability of power production from specific energy sources, which in themselves may very well not be neither the most cost efficient, with or without considering environmental costs, or resources available to cover current or future demand.

The market integration projects which are due to fully deliver at latest by end of 2014 are going to improve the capacity allocation efficiency. Improvement of the capacity calculation methodologies are also likely to contribute to a better use of transmission assets, hence contribute to security of supply. The framework necessary to use the market to improve security of supply will then be fully in place but the effectiveness of this will largely depend on the possibility and the willingness of consumers and producers to offer their flexibility on the market, and on the ability of TSOs to continually maximize (within security constraints) the capacity made available for market coupling. Several factors could contribute to this (no political intervention in price setting, development of smart metering and aggregators activity, etc.) which

are in some cases largely depending on political choices and for which no timing can be easily given.

**(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?**

The European institutions should endeavour that the market is given a framework that enables it to solve any possible supply/demand issue to the largest possible extent. In this respect, ensuring that support mechanisms distorting price formation and leading to a sub-optimal use of production portfolios and available demand flexibility are avoided is essential. Price variations should also be able to correctly reflect offer/demand tightness amongst others in order to let the electricity flow where it is valued most and to create the market opportunities that are needed to develop and exploit the potential of demand response.

Harmonisation of the market rules and procedures needed for among others Market Coupling at EU level would certainly also contribute to an easier access to and a more efficient use of the IEM market resources linked to production, grid and consumption to address security of supply issues. On the transmission capacity side, capacity calculation methodologies and allocation procedures should ensure the transparency and consistency of the approach for an efficient use of the grids.

Finally, it is important that any potential supply/demand issue would be identified and solved as soon as possible. Using therefore the day-ahead market, then the intraday market and finally the balancing market, in this order, is the best way to activate flexibility available in the market as efficiently as possible and to solve the supply/demand issue in both an economically and power system resource efficient way. Any mechanism that would reserve flexibility (or cross-border capacity) upfront and therefore make it unavailable to solve the issue in day-ahead (or in intraday after the day-ahead auction has delivered results) should be prevented to the extent possible. In order to facilitate the smooth transition of the flexibility from one market timeline to the next one, it is essential to align these market segments.

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

Member States, national regulatory authorities and transmission system operators should pursue the objectives listed under question 4 above. In particular they should cooperate at European (or at least at Regional) level to ensure a coherent approach regarding security of supply and, if any, generation support schemes. In any case, they should avoid taking any measure that distorts price formation or create an unlevel playing field on the wholesale market.

Members States should avoid to introduce support schemes unless strictly necessary, and if they on that basis introduce support schemes they should avoid to restrict them to national parties and should favour market based procedures. In any case, they should strive for avoiding any

restriction of cross-border trades as a result of the implementation of those schemes since that would distort competition in the wholesale market .

**(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?**

The reaction to market price signals seems to be the easiest way to identify and incentivise suppliers, retailers and consumers to establish measures to reduce consumption when the system is tight. Public authorities should therefore support enablement of consumers to actively participate, directly or via third parties (e.g. suppliers, portfolio management firms/aggregators), to the wholesale and retail markets. The rolling out of smart metering and product innovation by the power exchanges will largely contribute to such enablement in the retail market that also can be carried forward to the wholesale level directly by larger consumers or via aggregation of many small consumers' combined demand flexibility via suppliers and/or portfolio management firms/aggregators.

In order to achieve best possible portfolio optimisation, it is important to enable pooling of all the available flexibility on the market places that are participating to the Internal Energy Market through market coupling.

**(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**

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**(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?**

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

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**(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?**

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**(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?**

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

Yes. It is important indeed to first look at how the market functioning can be improved before considering introducing capacity mechanisms. Several reasons might explain a lack of investment such as permitting issues (for new plants or for reinforcing transmission networks), regulatory uncertainty or the prospect to have capacity mechanisms implemented.

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

**a. to ensure that new flexible resources are delivered?**

Market functioning is most of the time challenged when regulatory conditions disturb the market-based delivery of new flexible resources in the electric system, although the development of innovative market products associated with facilitation of cross-border trading increase the flexibility opportunities it can offer .

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

Inability to meet demand on the system at times of highest system stress would not be the result of market failure, since (expected) high prices should deliver the necessary capacity, and demand flexibility unless a serious operational issue is encountered or an actual lack of physical reserve to meet the demand is not properly anticipated (or not responded to on time because of external ).

**(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?**

Depending on the ability of the market to trigger or not the necessary investments, strategic reserves might be temporary or permanent. In the case that investments will come naturally as a result of the market signals but will not be available soon enough to guarantee security of supply some existing production could be maintained during a limited period of time to bridge the gap

before the new plants are commissioned or the demand response is available. The time necessary to have the required capacity in place could for example result from regulatory uncertainty or a sudden political decision to close existing plants. It could also be that the demand response cannot deliver flexibility because of technological or contractual reasons. Under these assumptions yes, strategic reserves may support a transition.

If it is not economical to build flexible plant or to get sufficient flexibility on demand side to compensate renewable energy sources' intermittency (e.g. because scarcity rent is too low), strategic reserves might very well be permanent. Their cost should then be considered as necessary to guarantee a low rate of load curtailment in a system largely supplied with intermittent renewable energy.

**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?**

The impact of the strategic reserves on the functioning of the Internal Energy Market will depend on the mechanism through which they are activated and at which price. It is essential that strategic reserves would interfere to the lowest possible extent with market price formation. It might otherwise reduce the scarcity rent collected by other flexible assets, possibly compromising their profitability which could lead to entering a vicious circle. It is important that the market price continue to reflect the offer/demand of orders effectively competing into the market. Strategic reserves should aim at reducing load curtailment, not at acting on market prices. Under some design conditions, they have the advantage being less prone to market distortion than capacity markets/payments.

However, like capacity mechanisms, implementation of strategic reserves at a national level will lead to divergent market conditions throughout Europe. Their design and implementation therefore may require to be made compatible/harmonised at a regional or ultimately on a European level.

**(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?**

**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?**

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

Europex has no common position on a preferred model for capacity market and/or payments. However, it takes the opportunity to insist on the fact that a remuneration of available capacity is in any case better than a subsidy calculated based on the output of a power plant (e.g. feed-in tariffs, certain systems of certificates). Subsidy paid per MWh leads almost inevitably to the

introduction in the merit order for subsidised technologies of a bias reflecting the opportunity cost corresponding to the amount lost if they do not produce. This is the cause of most of the negative prices observed on the market, during which consumers are paid to consume electricity (even if they do not need it), and has already led to ‘incompressibility issues’ (i.e. situations where the transmission system operators are facing difficulties to export electricity surplus, even at negative prices, ultimately leading to security of supply issues).

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

Europex cannot provide information about the cost of the various capacity mechanisms. However, it is important that the methodology adopted to compensate a lack of profitability of a flexible power plant or flexible consumption would take into account the option value of such plant, i.e. its ability to arbitrate between the spot market and its own production/consumption. In any case, any capacity market/payment should be market based and open to all relevant market parties in order to ensure competition between possible production capacity or flexible consumption owners and achieve the lowest possible price for the parties supporting the costs of the mechanism (consumers, generators, suppliers, grid users, tax payers...).

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

Supply/demand balance issue should be addressed well ahead of the balancing market. It is essential indeed to give the opportunity to the market to solve any such issue as soon as possible to increase the potential for market response and increase security of supply. Flexibility should be preferably offered as from the day-ahead stage, then on intraday and on the balancing market only as a last resort. Reserving flexibility (or cross-border capacity) for the balancing timeframe risks preventing to solve the issue by using classical market mechanisms accessible to a large number of market parties.

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

The EC should seek for coordination at European or at least regional level to make sure that a lack of coordination does not lead to a tendency by member states having financed capacity markets/payments to keep the benefits of their investments in their own country, which potentially could lead to a less optimal use of available grid, production or consumption assets at European scale. It should also be avoided that different national policies would lead to an overinvestment in some zones resulting in significant structural flows towards other areas and to significant transmission costs while a harmonised design would have ensured that investment is made where demand justifies it.



**(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. It is important to address the security of supply issue consistently, at least regionally, throughout Europe to avoid losing the benefits of the Internal Energy Market. A poor coordination of energy policies in this respect would inevitably lead to higher costs for the society.

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

Yes.

**a. Should any criteria be added to this list?**

The criteria should make clear that any subsidy likely to distort market price formation should be forbidden unless it is demonstrated that they are strictly needed to avoid recurring power outages and no alternatives are possible as they lead to incorrect price signals on the market, hence trigger incorrect and inefficient responses from the market, and therefore can lead to a higher cost for the community.

An additional criteria should be that any capacity mechanism should aim at developing (or should at least not hinder) a liquid and efficient wholesale market.

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

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