



CAN Europe contribution

To the consultation on a new Energy Market Design

1 October 2015

- 1) Would prices which reflect actual scarcity (in terms of time and location) be an important ingredient to the future market design? Would this also include the need for prices to reflect scarcity of available transmission capacity?*

On the (necessary) path towards an efficient, 100% renewable-based energy system, the EU energy market will increasingly be supplied by energy from variable renewable energy sources such as wind or solar. This will in turn require – in addition to fully tapping in the potential of energy efficiency and savings - an increasing level of flexibility, i.e. using the energy when it is easily (and cheaply) available, and taking advantage of demand-side response and storage.

Prices reflecting actual scarcity and rewarding flexible production/consumption are therefore key ingredients of the market design. On the production side, flexibility should be rewarded for those renewables that are dispatchable. This also includes the need to reflect scarcity of available transmission capacity, to better manage transmission congestion and better identify the needs for investment.

Inadequate pricing, mostly due to the current over-capacity (and supply) of old, written-off base-load power plants, currently hinders the investment needed to scale up renewables, as well as demand response and distributed generation during critical periods.

- 2) Which challenges and opportunities could arise from prices which reflect actual scarcity? How can the challenges be addressed? Could these prices make capacity mechanisms redundant?*

Adequate price signals, better reflecting scarcity, will make the market develop demand and supply-based solutions (e.g. if the price really fluctuates, storage will become attractive, especially in time of negative pricing), while rewarding flexibility.

These price signals should address the need to secure additional remuneration of power plants, thereby making capacity mechanisms – which, for other reasons (see question 20), we feel should anyway not be set up - redundant.



3) Progress in aligning the fragmented balancing markets remains slow; should the EU try to accelerate the process, if need be through legal measures?

Current products on the balancing markets, defined in blocks of several hours and contracted (very) long in advance, favour conventional, inflexible power production units and do not help reward new, renewable technologies nor solutions such as demand response and storage.

Therefore, there is indeed a need for agreed legal frameworks to overcome those constraints, to harmonise rules across borders, improve markets' liquidity and to promote the interactions between markets.

4) What can be done to provide for the smooth implementation of the agreed EU wide intraday platform?

Energy policy cooperation and coordination among EU Member States is critical to avoid dysfunctional markets, development plans at cross-purposes and sending distorted signals to the market.

Transmission system operators and power exchanges are key areas where cooperation needs to be increased and rules harmonised to allow for efficient cross-border transmission capacity and congestion management. ACER could also be given increased oversight responsibilities.

5) Are long-term contracts between generators and consumers required to provide investment certainty for new generation capacity? What barriers, if any, prevent such long-term hedging products from emerging? Is there any role for the public sector in enabling markets for long term contracts?

Today, the stable conditions to foster investments in (variable) renewable energy sources are not in place, despite their cost-competitiveness, mainly because power prices are lower when wind and solar energy produce the most. This is to a large extent due to large and inflexible power plants 'monopolising' the electricity system, but also to the fact that the ETS has so far not proven successful in giving a true CO2 price signal.

Long-term contracts and power purchase agreements would help bringing more investment certainty both for new small-scale, decentralised, and large-scale renewable generation capacity. This is already occurring in countries like the USA. On the other hand, correct projections regarding energy demand have to be taken into account and such contracts should not hinder investments in energy savings.



In this respect, the public sector also has an exemplary role to play - by buying 100% renewable electricity - and public procurement should lead to long-term renewable contracts between generators and consumers.

6) *To what extent do you think that the divergence of taxes and charges levied on electricity in different Member States creates distortions in terms of directing investments efficiently or hamper the free flow of energy?*

The different tax systems are a reality in the EU, reflecting different national circumstances, and this is unlikely to change in the short to medium term. For the coming years, tackling this issue is not the priority.

The focus should rather be on:

- removing tax exemptions and other advantages for fossil fuels and nuclear power;
- supporting the scaling up of renewables through incentivising producers to supply electricity to the grid, by exempting them from paying tariffs, duties and value added taxes;
- conversely, abandoning disproportionate, discriminatory grid charges, and avoiding unstable taxation regimes and taxes imposed to those consumers self-consuming electricity or supplying it to the grid.

7) *What needs to be done to allow investment in renewables to be increasingly driven by market signals?*

Market-driven investment in renewables is not only a matter of market design, but of political choice, of the EU showing that it is deeply committed to move towards a 100% renewable energy system with a fair market structure.

We are still far away from a real 'market' as conventional energy sources (fossil fuels and nuclear power) keep on enjoying large subsidies. The priority should lie in phasing out those subsidies, thereby enabling renewables and energy savings to compete on equal footing.

The market design should be designed to provide long-term price signals and the necessary stability to trigger investments and lower the cost of capital for renewable energy. But such conditions are currently not in place for (variable) renewables, despite their cost-competitiveness. Until then, (stable) support for renewables is still needed.



Extending the geographic size of markets through grid reinforcements and a balanced approach that includes both supply-side and demand-side management will help more market-driven investments in renewable energy.

The various renewable energy sources should not be considered in a 'one-size-fits-all' approach. Wind and solar PV, on one side, and emerging renewables technologies, on the other side, cannot be treated in the same way.

While this not being enough to provide enough investors' certainty, the ETS also needs to adequately make power prices reflect the true cost of CO2 emissions. Additionally, on the EU level, the RES Directive needs to be revised for the period 2020-2030 to ensure a balance between risk exposure and drive for innovation, on the one hand, and predictability and stability on the other.

Finally, the design of the market should make it possible for new actors to participate, in particular citizens and energy cooperatives. Prosumers should be at the heart of the new market design, in which the rights of self-consumption and self-production should be enshrined. Prosumer policies should facilitate the reduction of peaks and unlock demand-side flexibility through specific programmes that could bring new technologies to the market.

8) Which obstacles, if any, would you see to fully integrating renewable energy generators into the market, including into the balancing and intraday markets, as well as regarding dispatch based on the merit order?

The lack of binding national renewables targets post-2020 is a barrier as these targets are the only realistic way to ensure member states level the playing field and enable renewables to compete.

Priority access and dispatch for renewables is still very much needed and should be respected. Existing barriers to the further development of renewables need to be removed. At the moment, inflexible coal and nuclear power plants still benefit from a sort of 'natural priority dispatch', while electricity from wind or the sun is produced at almost zero marginal costs and should therefore be the first one sold onto the market.

Strong grids, strong transmission lines and network planning with decentralised renewable energy generation in mind are also needed. Grid constraints should as a matter of priority be lowered by reducing/adapting the demand pattern. This being done, reinforcing the national, regional and EU-wide grid infrastructure according to the adapted needs will also benefit from the additional benefits of larger geographical markets that can help smoothen out variable output of wind energy and demand variations.



Balancing and intra-day electricity markets need to be designed in a way that provides flexibility for renewable energy, opening the markets to more consumers and producers, simplifying and encouraging demand response and storage, and giving faster balancing and ramping responses. Further, power systems need to allow for reverse flows at the distribution level, which may require grid upgrades.

The current 'energy-only' market should be improved through creating a strong regulatory framework moving towards more transparent market prices determined in all time horizons including forward, day-ahead, intraday and real time.

The demand pattern should, as much as possible, be made to match as closely as possible the (variable) renewable production. Therefore, an expansion of demand-side management is needed, including industrial, households and prosumers as well as the roll out of smart grids.

9) Should there be a more coordinated approach across Member States for renewables support schemes? What are the main barriers to regional support schemes and how could these barriers be removed (e.g. through legislation)?

Approaches for renewables support schemes should ideally be more coordinated in the medium to long-term, but this should not be the priority at the moment as market conditions and national circumstances differ a lot, and such a process would be lengthy and lead to uncertain results.

On the other hand, regional cooperation between Member States should be strengthened through the use of cooperation mechanisms. Binding national renewable energy targets for 2030 are a necessary condition for this. With non-binding and divergent targets, the interest of regional renewables support schemes will highly decrease. The Commission has an important role to play in this.

10) Where do you see the main obstacles that should be tackled to kick-start demand-response (e.g. insufficient flexible prices, (regulatory) barriers for aggregators / customers, lack of access to smart home technologies, no obligation to offer the possibility for end customers to participate in the balancing market through a demand response scheme, etc.)?

Demand-side response, but also increased energy efficiency and savings in general, are key to facilitate the integration of renewable energy sources and move towards a 100% renewable energy system.



At the moment, administrative barriers to self-consumption are one of the obstacles to kick-start demand-response. Excessive grid charges and taxes are also another obstacle. As well as existing regulatory barriers, such as the obligation to inject electricity into the grid before rebuying it. Similarly, security, privacy and interoperability should be guaranteed in smart equipment to communicate with the grid.

A framework to facilitate self-consumption - a key driver for demand-side flexibility – should be included in the revision of the 2009 renewables directive for the period 2020-2030, on the basis of the guidance published in July by the Commission.

11) While electricity markets are coupled within the EU and linked to its neighbours, system operation is still carried out by national Transmission System Operators (TSOs). Regional Security Coordination Initiatives ("RSCIs") such as CORESO or TSC have a purely advisory role today. Should the RSCIs be gradually strengthened also including decision making responsibilities when necessary? Is the current national responsibility for system security an obstacle to cross border cooperation? Would a regional responsibility for system security be better suited to the realities of the integrated market?

Increased cooperation between TSOs is a necessity - as long as system security keeps being understood as a national responsibility, there won't be regional responses to deal with energy challenges. Reinforcing the role of ENTSO-e and ACER would help in that respect. Strengthening the responsibilities of RSCIs is not a necessity and would potentially increase the amount of actors to unmanageable levels. RSCIs should support the operation coordination to ensure an aligned and common vision of the regional grids.

Cooperation between TSOs and DSOs is of critical importance to ensure coordinated infrastructure planning and maintenance, and exchange of information.

12) Fragmented national regulatory oversight seems to be inefficient for harmonised parts of the electricity system (e.g. market coupling). Would you see benefits in strengthening ACER's role?

ACER should be responsible for market coupling issues. Strengthening ACER's role should go hand in hand with identifying the right governance structures to make the most out of regional power markets. This will allow to build trust beyond borders and to ensure cost-savings and system optimisation.

Through its role, ACER should ensure that the potential for energy efficiency is being considered in all decision-making related to the development of the Energy Union (which gives prominence to the energy efficiency first principle).



13) Would you see benefits in strengthening the role of the ENTSOs? How could this best be achieved? What regulatory oversight is needed?

Strengthening cooperation is always a good idea, especially if the prediction is that there will be much more transmission between different areas. Also, the exchange of experience about how to integrate renewable electricity is interesting. Strengthening ENTSO-e could increase EU member states' cooperation on EU energy policy implementation and energy policy objectives' achievement.

This being said, ENTSO-e should as a matter of priority deliver on the numerous deliverables which are part of the Third Energy package, in particular by enhancing cooperation between TSOs, ensuring the harmonization of network codes and rules, and coordinating research and development plans. And overall, ensuring, the operability, reliability, compatibility and security of the European electricity transmission systems.

As for ACER, ENTSO-e should ensure that the potential for energy efficiency is being considered in all decision-making related to the development of the Energy Union (which gives prominence to the energy efficiency first principle).

14) What should be the future role and governance rules for distribution system operators? How should access to metering data be adapted (data handling and ensuring data privacy etc.) in light of market and technological developments? Are additional provisions on management of and access by the relevant parties (end customers, distribution system operators, transmission system operators, suppliers, third party service providers and regulators) to the metering data required?

As smart meters get rolled out, it is important that consumers have easy access to their own data and are given the tools to understand the available information. For privacy reasons, most data should remain in the meter itself. As far as aggregated information is concerned, DSOs could act as market neutral facilitators.

15) Shall there be a European approach to distribution tariffs? If yes, what aspects should be covered; for example tariff structure and/or, tariff components (fixed, capacity vs. energy, timely or locational differentiation) and treatment of self-generation?

The various characteristics of national circumstances make it difficult to implement a European approach to distribution tariffs at this stage.



Overall, an effective scheme is one that provides tariffs for all levels, from domestic to large-scale developments, guarantees long term investment security, is administratively simple, and is easy to explain in order to ensure public acceptance. The scheme should also take into account the level of development of each technology. Some innovative renewable technologies, which are still at the demonstration phase of development, may require a different type of government support, such as tax incentives or soft loans. The EU could encourage Member States to design distribution tariffs accordingly, making them support energy efficiency measures, self-consumption, and more generally the transition to a 100% renewable energy system.

16) As power exchanges are an integral part of market coupling –should governance rules for power exchanges be considered?

The power exchanges should indeed be operating with governance rules. It should be the case today already. ACER could (should) facilitate the cooperation between power exchanges.

17) Is there a need for a harmonised methodology to assess power system adequacy?

The integration of large amounts of renewable energy sources fluctuating into the system, new storage technologies and internal electricity market calls for a harmonised methodology to improve interconnection assessments, system flexibility and inputs - and a transparent methodology developed and implemented in a way that helps people understand the need for grid developments.

Any methodology for assessing system adequacy should duly take the evolution of electricity demand into account, also looking at the effects of the EU's overall commitments and legislation related to energy efficiency. This is not the case, as many of the demand projections used for energy planning are overestimated. For example, the gas demand projections used by the Commission to allocate funding for gas infrastructure projects under the Connecting Europe Facility are 30% higher than projections for gas demand in the Commission's reference scenario by 2030, and 72% higher than projections if a 30% energy savings target is met¹.

The assessment of power system adequacy at the regional level, in a harmonised way, will help analyse whether capacity mechanisms are really needed.

18) What would be the appropriate geographic scope of a harmonised adequacy methodology and assessment (e.g. EU-wide, regional or national as well as neighbouring countries)?

¹ E3G, 2014, Energy Security and the Connecting Europe Facility, September 2014.



The regional level seems appropriate (see above) and should be preferred to the national level.

19) Would an alignment of the currently different system adequacy standards across the EU be useful to build an efficient single market?

An alignment of the currently different system adequacy standards would be useful to take into account of the impacts on the EU internal market and establish a set of acceptable standards in case of disruptions and disconnections. Failure to ensure aligned system adequacy can have spill-over effects and systemic risks, while also miscalculating costs.

20) Would there be a benefit in a common European framework for cross-border participation in capacity mechanisms? If yes, what should be the elements of such a framework? Would there be benefit in providing reference models for capacity mechanisms? If so, what should they look like?

Capacity mechanisms are not the right answer to the challenges. Firstly, irrespective of their design, they are an intervention into the market, and should therefore be dealt with in the framework of State Aid control. Secondly, if badly designed, can lead to lock-in effects and support some technologies, whilst excluding others.

We therefore rather support the introduction of a harmonised methodology to assess power system adequacy in a comprehensive and regional manner.

If nonetheless used as a measure of last resort, any such mechanism needs to be subject to a clearly defined supply adequacy target level enshrined in EU law and should not prevent carbon intensive and inflexible power plants from leaving the market. In cases where capacity mechanisms are used, they should be reversible, interfere as little as possible with the market, and renewables, storage and demand response should be included.

21) Should the decision to introduce capacity mechanisms be based on a harmonised methodology to assess power system adequacy?

Power system adequacy should indeed best be considered at the regional, and not purely national level. Once system adequacy is considered at the regional level, capacity mechanisms will most likely appear as not being the right answers to the challenges (see above).

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