

// JOINT
MESSAGES

EUROPEAN ENERGY INDUSTRIALISTS' RECOMMENDATIONS

INTRODUCTION

We are one year into the complex process of implementing the Energy Union Strategy. And we have just witnessed the historic Paris agreement, which sets the direction for a more ambitious climate policy, driving the transformation of the energy system. It is in that context that the Roundtable of European Energy Industrialists welcomes all the efforts made so far at national, regional and European level by policy makers, regulators and system operators.

We believe that cooperation, dialogue and mutual understanding of the needs of all involved stakeholders are key to ensuring that 2016 is indeed a “year of delivery” for the Energy Union.

Reflecting on the challenges specific to the electricity market, we wish to bring the attention to the potential of regional structures such as voluntary cooperation initiatives, the role of price signals in providing adequate incentives for efficient investment, and the part that digitalisation plays in ensuring flexibility in the power system.

We call on the European Commission to promote regional cooperation initiatives. They can quickly and efficiently deliver secure and flexible energy markets while taking into account national TSOs' responsibilities for operations and security of supply, and benefiting from valuable TSO know-how of local grid specificities. We hope that the European Commission will continue its efforts to ensure an appropriate and well-functioning regulatory and market framework in which price signals reflect actual system needs, thus leading to efficient investment and the implementation of efficient target market models. Finally, we wish to highlight the need to fully tap into the potential of Information and Communications Technology (ICT), as a means to promote system efficiency, support decarbonisation and increase reliability. ■

REGIONALISATION

Cooperation at regional level makes the delivery of the Energy Union easier, by using the advantages of neighbourhood to coordinate activities, conduct pilot projects and test innovative solutions. Work in this area is already ongoing with the objective to hand over better and coordinated grid planning, to integrate energy markets and to support the efficient operation of the grid. Continuous progress is expected in this field, with the view of enhancing security of supply and creating economies of scale when and where possible. Neither for the geographical scope of regions, nor for structures and tools should there be a one-size-fits-all solution for such regional cooperation.

The regional scope could be an opportunity to explore the benefits of a more coordinated approach for national energy policies and investments. Together with the appropriate regulatory framework, such a coordination, for example in the North Sea, might help to facilitate the unprecedented level of investment which is needed to ensure the delivery of EU energy and climate change objectives in the coming years and to drive growth and jobs.

RECOMMENDATION:
**PROMOTE REGIONAL COOPERATION
STRUCTURES TO FACILITATE EFFICIENT
INVESTMENTS IN NEW ENERGY
INFRASTRUCTURE**

A strengthened cooperation at regional level has the potential to provide investors with the visibility and transparency they need to deliver investments in new energy infrastructure. Indeed, the regional level provides an opportunity to improve predictability on clean energy deployment, to facilitate the implementation of European interconnection and renewables targets and to address diverging regulatory regimes that may be currently deterring efficient investment:

- Regional cooperation, with Member States co-ordinating their domestic energy developments and renewables investments, can be a decisive tool to give more visibility and predictability to investors. In this respect, the Commission has a significant role to play in supporting the setting-up (or reinforcement) of regional structures to ensure that issues like clean energy investments or obstacles to investments such as diverging regulatory regimes, unclear and often prolonged spatial and maritime planning or permitting processes are addressed collectively;
- The regional level offers also significant opportunities for the implementation of both the interconnection (10-15% by 2020/2030) and the renewables (27% by 2030) targets. Member States should be encouraged to work on these at regional level to ensure that these are actually delivered;
- The regional level is also the appropriate geographical framework to address issues such as diverging regulatory regimes. In this respect, the Agency for the Cooperation of Energy Regulators (ACER) could play a leading role in encouraging national regulators to identify the key stumbling blocks to investments, particularly for complex projects involving multiple countries, TSOs and national regulators;
- Importantly, this strengthened regional cooperation should not necessarily seek the full harmonisation of the different regions, which would be detrimental to the development of strong and innovative regional cooperation; a degree of flexibility should therefore be given as regards the regions' definition and cooperation.

RECOMMENDATION:
REGIONAL COOPERATION
IN ACTION – STARTING WITH
POINT-TO-POINT INTERCONNECTORS
TO INCREMENTALLY DEVELOP A
NORTH SEA GRID

The North Sea offers a significant potential for offshore wind energy and increased interconnectivity between European countries, opening up opportunities for a strong contribution to the completion of the EU's renewable energy objectives and of a well-connected internal energy market.

A significant number of interconnector investments are planned in the coming years in the North Sea:

- In 2015 alone, final investment decisions have been taken to build interconnectors between the UK and Norway, the UK and Belgium and between Norway and Germany;
- Further projects are currently being envisaged, such as interconnectors between the UK and Denmark and another interconnector between France and the UK;
- The Scandinavian market is already well interconnected.

These investments will see the creation of a significant North Sea Grid network at a 2020-2025 horizon. There are however a number of challenges in evolving towards a more "meshed" network, which do not promote such a solution:

- Considering the limited visibility on future offshore wind investments in the region, it is difficult to anticipate additional connections in order to form a meshed network;
- There are inherently significant issues with regard to regulatory regimes of the Member States concerned, in particular issue of access rights, which make the construction of a "meshed" grid extremely complex – both for offshore wind farms and for interconnector developers;

- There would be significant technical barriers to transform the existing network of point-to-point interconnectors to a "meshed" model; for instance adapting the existing interconnectors would necessitate some specific works, causing outages, etc.

Whilst an incremental evolution towards a more "meshed" offshore grid may be plausible only in the long term, currently point-to-point interconnectors seem to be the only viable option to increase the interconnectivity in the North Sea and the fastest way to deliver benefits to consumers. For the time being, policy-makers should therefore focus on creating a favourable environment in which offshore wind farms and interconnectors between the North Sea countries can be delivered and further developed. In particular, we invite the Commission to:

- Continue to provide political support and targeted funding for electricity interconnectors (such as through the Connecting Europe Facility); facilitate a 'fast-track' mechanism so that new, innovative energy projects can qualify as Projects of Common Interest (PCIs) in a timely manner, in particular in the North Sea region;
- Assess measures to further facilitate permit-granting (review of the TEN-E Regulation) and public acceptance;
- Initiate a dialogue with cable suppliers to overcome the existing obstacles to the development of the cable supply market (the cable market is currently saturated and causes significant delays for interconnector investments);
- Continue to play a key role in giving a political boost to regional offshore grid cooperation, such as in the North Sea region.

**RECOMMENDATION:
REGIONAL COOPERATION IS
ESSENTIAL FOR THE SAFE AND
SECURE SYSTEM OPERATION OF
THE EUROPEAN POWER GRID**

In an interconnected European electricity system characterised by large-scale and increasing regional power flows, ensuring security of supply requires cooperation across borders.

In order to ensure this cooperation takes place efficiently, TSOs voluntarily developed Regional Security Coordination Initiatives (RSCIs), such as CORE- SO and TSC. To increase operational coordination, considering the operational demonstration of the usefulness and effectiveness of these initiatives, all European TSOs in ENTSO-E have recently committed themselves to taking part in at least one RSCI by 2017 and to procure a set of five coordination services from this RSCI. The implementation is ongoing and the increased RSCI coverage in years to come is expected to deliver substantial benefits in terms of ensuring safe and secure system operation.

This model is currently being formalised through the introduction of similar obligations in the System Operation (SO) Guideline, which is currently going through the Comitology process. Once fully implemented, the SO Guideline is expected to strengthen existing coordination and to result in increased system security.

Whilst there is commitment from the TSOs to increase their regional cooperation in time-horizons before real-time operation (e.g. greater monitoring, information exchange, analysis and decision support), it should be considered that national TSOs must remain ultimately responsible for taking the operational planning decisions, as well as for real-time operation, which is in line with Member State's responsibility for security of supply. The European electricity market is based on the concept of zones of responsibility resulting in mutual trust. This continues to allow for further market integration. The current system, in which TSOs are responsible for

system operation and are liable for ensuring system security at national level, is vital to avoid the loss of valuable know-how and expertise about the local grid and its specificities in critical situations and in the event of bigger incidents or emergencies. In those instances, efficient and effective grid restoration can be ensured if several coordinated teams of experts in Europe can collaborate to manage the restoration together.

With regard to the European Commission's question whether "Regional Operation Centres" (ROCs), which would take on key TSOs responsibilities with regards to system operations and security of supply, would improve cross-border system operations, there is no evidence that such a measure would bring additional benefits for security of supply. On the contrary, there is a high risk that such a centralised system would create additional costs and red tape, without resulting in any additional benefit to system security beyond what is already expected, thanks to the current and ongoing regional and policy initiatives such as RSCIs or the forthcoming market and operational guidelines that will strengthen regional cooperation. These current developments need to be allowed time to mature and take effect before any additional and costly changes are implemented. There is no assurance either that the ROCs proposed by the Commission will maintain a sufficient level of system security. A mere delegation of national operational responsibilities to supra-national operational centres will not either address key problems such as the lack of sufficient transmission capacity or will not make capacity allocation superfluous.

However, regional cooperation with regard to adequacy assessment might foster a closer operative cooperation and could potentially bring significant benefits to consumers.

One of the main obstacles to efficient cross-border cooperation today is actually the low degree of harmonisation across Member States with regard to the national distribution of responsibility between the various stakeholders (including the national regulator,

the incumbent TSO and the government) and also with respect to the regulatory framework (including differing national rules, regulations and procedures). The implementation of network codes and guidelines will improve this situation and enable further cross-border coordination of system operations. Notwithstanding these developments, it will remain essential that Member States and NRAs continue strengthening their regional cooperation in order to achieve a closer convergence of national frameworks.

In parallel to supporting existing cooperation initiatives launched voluntarily by TSOs (e.g. Coreso and TSC), the Commission should therefore support and facilitate the full implementation of Network Codes and guidelines and the regional cooperation of Member States and NRAs to promote a closer convergence of national regulatory frameworks. ■

PRICE SIGNALS

Intermittent renewable energy sources are developing quickly in Europe and this trend is set to continue. In order to cope with this shift of paradigm, it is important that the electricity system adapts accordingly. In particular, there is an enhanced need for system flexibility so that it is able to respond to RES intermittency and guarantee in real time the balance between energy supply and demand.

A functioning market should deliver the price signals, which ensure that the required investments in adequate capacities take place when and where needed, with the appropriate level of flexibility.

In today's system, investments are often subsidised. This leads to market distortions, higher costs for consumers and the European economy, and risks for security of supply.

Though market interventions such as subsidisation may be justified in certain cases (e.g. for immature RES), the Roundtable urges all actors to take ambitious measures in order to ensure that markets function efficiently by delivering price signals which reflect the needs of the system.

RECOMMENDATION: **INTEGRATE ALL ACTORS INTO THE MARKET TO PROPERLY REFLECT THE NEEDS OF THE SYSTEM**

In today's system, too many actors are de facto outside the market, while at the same time having a major impact on it. To better reflect the needs of the system, it is therefore urgent to integrate those actors into the market, while ensuring that the market is also adapted to face their specificities.

In order to do so, the following measures are required to make sure that all actors are exposed and able to react to market signals:

- Full balance responsibility must be given to all actors, including RES;
- The most distorting support schemes such as priority dispatch or feed-in tariffs should be phased out for largely deployed technologies and, when needed, replaced by market-based supports;
- Subsidies to traditional production should also be phased out, in order to ensure as well that investment decisions are driven by the market.

Demand side response needs also to be integrated into the market to reveal its true value. A fair competition between demand side response, production and storage should be encouraged.

All markets, including the market for operating reserves, should be opened to demand side response and renewables. This may require new products, more in line with the specificities of those “new” actors, to be developed. Existing regulatory barriers also need to be removed.

The further development of the intraday market, by providing more granular or short time products and by allowing trading as close to real time as possible, should allow for more volatile sources such as RES to become increasingly integrated in the market. The development of hedging products will also help all balance responsible parties to cover their risks, while contributing to reveal the value of flexibility.

**RECOMMENDATION:
ALLOW PRICE FORMATION TO
REFLECT THE SYSTEM SITUATION**

In order for the market to deliver the correct incentives, both in terms of short-term operation and in terms of long-term investment, price formation should reflect the state and needs of the system.

An important aspect in this regard is to ensure that balancing prices reflect the true market value of electricity at the time the balancing energy is used. The creation of integrated TSO markets, regrouping the various contracts of the TSO for system balancing and congestion management (e.g. tertiary control power and redispatch) would contribute to the emergence of real time imbalance prices reflecting scarcity in the system.

The transition to a low carbon generation mix with more variables RES generates higher price volatility and more frequent and extreme price spikes, reflecting temporary market scarcities in days/hours of low wind/sun and high demand. It is impor-

tant that price spikes happen in order to send the right price signals for the necessary investments in flexible units running in case of scarcity situations (which business model is highly dependent of high prices). However, investors need to be given sufficient certainty and trust that they can generate revenues when financing flexible units, which implies that in combination with price spikes they can also rely on more stable revenues. Those stable revenues can be obtained by selling hedging products, such as insurances for other market parties against extreme prices. If such products are not developed by the market itself or still not traded in the market, then developing a capacity market is an alternative approach with similar outcomes.

It may also be worth considering an improvement of the locational signal of prices, as an alternative solution to non-market solutions (such as balancing and redispatch mechanism on the short term; grid access, permits, energy planning schemes, etc. on the long term), to improve the use of energy resources and to ensure an optimal investment in generation.

Indeed, the lack of appropriate locational signal:

- in the short term, can lead to existing energy resources not being used optimally, which can lead to inefficient operation;
- in the longer term, can lead to suboptimal investment decisions with generation capacity not being built in the place where it is most needed.

Market design changes, based for example on better designed bidding zones, deserve further consideration, keeping in mind the need to ensure sufficient market liquidity and stability.

RECOMMENDATION: AVOID SIDE EFFECTS OF OTHER POLICIES

Other policies can also prevent the market from being fully efficient. An example is competition law: there is indeed a need to clarify that high scarcity prices on spot markets and on forward markets should not be unduly considered by competition authorities as a dominant market player abuse. Another example is the application of REMIT, which risks bringing unnecessary reductions of liquidity in intra-day markets.

In order to achieve the environmental objectives as agreed at EU and worldwide level, it is essential to have a functioning ETS system with adequate carbon prices.

RECOMMENDATION: OPTIMISE CROSS-BORDER TRADE

Optimising cross-border trade is also a way to improve market functioning. This will improve market liquidity and allow for a more optimal use of resources and complementarities between national markets.

Some measures can be taken to optimise cross-border trade:

- The first would be to harmonise national and cross-border intraday gate closure time, where this is not already the case;
- A second one should also be to maximise possibilities for cross-border trade when calculating cross-border capacities, taking into account the reliability of the system (like in the flow-based methodology);
- Cross-border trading at the different stages needs to be possible. Today, cross-border intraday trade is limited by the priority given to cross-border day-ahead trade. The Commission should initiate a study to investigate whether such a priority set for security reason is welfare economically efficient and how an optimal allocation between different timeframes can be revealed. ■

DIGITALISATION

One of the main challenges for the European electricity system is to balance a power system with an increasing share of intermittent generation. ICT, together with adequate regulation and market design, are important tools to handle this challenge.

The rapid development of ICT leads to a broad digitalisation of almost all sectors of our societies, thereby increasing the need for reliable supply of electricity. At the same time, ICT offers great opportunities to increase the efficiency of the power system by better system operation, more accurate

real time information and better control of generation, grid flows and consumption. In particular, better and cheaper ICT opens new opportunities for even smaller units of consumers (and also storage and generators) to take on an active role in the balancing of the power system, both locally and at the global level. By improving system surveillance and by making more flexibility (DSR) available, ICT may also improve security of supply and decarbonisation through strengthening renewables. However, ICT may also be vulnerable to cyber attacks.

RECOMMENDATION:
**REAP THE GREAT SOCIAL BENEFITS
THAT THE DEVELOPMENT OF
ICT CAN OFFER BY IMPROVING
SYSTEM EFFICIENCY, SUPPORTING
DECARBONISATION AND POTENTIALLY
ALSO INCREASING RELIABILITY.
COORDINATED ACTION ON BOTH
TRANSMISSION AND DISTRIBUTION
LEVELS IS IMPORTANT TO MAINTAIN
SECURE SYSTEM OPERATION.**

To reach this goal, we need to:

- As mentioned above, improve the quality and penetration of price signals in the market;
- Increase the speed of innovation by research efforts and pioneering projects. We need a better understanding of the interaction between ICT, the physical power system, human behaviour and market systems. E.g. what incentives work best for consumers? We also need to understand the implications that the risk of cyber attacks and system errors may have on the optimal ICT-architecture, market design and regulation. ■