

ACER Consultation on the Green Paper« Energy Regulation: a Bridge to 2025 »

EDF Response

16th June 2014

EDF welcomes this ACER consultation on the Green Paper. EDF took part in the preliminary consultation at the end of 2013 and does share ACER's views on the importance and the need to develop both a longer term and broader thinking on energy markets, in order to prepare the most adequate regulatory framework that can be anticipated at a 2025 horizon.

General comments

EDF would like to stress that it is of the utmost importance to define a clear and stable policy and regulatory framework with non-conflicting objectives while keeping the energy rationale and economic efficiency in the scope. Looking 10 years ahead to try and identify potential fields for regulatory action to ensure the regulatory framework is fit for purpose may however be a complex exercise:

- As we have already mentioned in the previous consultation, a lot of undergoing initiatives (implementation of target models, of network codes, etc.) will help tackle many of the challenges identified by fostering integration and delivering the expected benefits. It is therefore rather difficult at present to look beyond those expected benefits that have not been delivered yet and identify further improvements.
- Furthermore, the developments in recent years in electricity and gas markets have shown how difficult it is to anticipate the future (even 3–4 years ahead) and how unexpected developments can occur. This makes it more difficult to develop a regulatory framework to meet these developments; therefore ACER needs to ensure that the proposed changes are not too prescriptive.

ACER's Green Paper indeed identifies a number of areas that may benefit from greater regulatory focus but the document remains somewhat too general in the possible solutions and does not propose concrete measures to tackle the issues identified.

In terms of process, EDF welcomes the objective of European regulators (i) to provide indicative allocation of tasks between ACER and CEER in order to provide stakeholder with clarity as to which body is in charge, and (ii) to identify the various work streams and deadlines for their respective work, in order to provide visibility and ensure consistency.

1. Electricity wholesale markets

Question 1: Have we identified correctly the issues and trends within each area of the energy sector?

Yes, the trends have been correctly identified, though some issues are missing (see question 4). EDF wishes to highlight some essential comments regarding the ongoing regulatory developments to be considered and related possible priority actions.

An integrated electricity market across the continent

EDF agrees that the implementation of the target model must remain a priority: what has already been achieved in the last decade should not be minimized and the objective is to go further and expand both geographically and regarding the timeframes.

- The day-ahead market coupling initiative starting from 3 countries and now encompassing 17 countries (with the recent NWE-SWE price coupling) is a major achievement resulting in an optimized use of cross-border capacity and efficient energy flows at a large scale.
- Some further developments are expected through the implementation of network codes,
 - notably the “Capacity Allocation and Congestion Management” network code (NC CACM) with (i) a coordinated capacity calculation by TSOs, which should ensure that both existing and new infrastructures will be efficiently used and (ii) governance arrangements so as to facilitate market coupling also in the Intra-Day timeframe, which will facilitate the integration of variable RES generation; and
 - the “Forward Capacity Allocation” network code (NC FCA) which covers the long term timeframe.
- The target model is being complemented by the balancing timeframe, through the implementation of the future “Balancing” network code (NC BAL). This integration of balancing markets should be pursued in the long run as part of the development of the European Internal Energy Market, taking into account the specific boundaries related to this “*closest to real-time operation of the network*” timeframe. In this regard, ambitious Framework Guidelines are already on the table and a network code, promoting a wise step-by-step approach, has been developed by ENTSO-E.

From a general standpoint, EDF agrees that the full and effective implementation of the electricity network codes under development will contribute fostering the development of a harmonized and integrated European wholesale electricity market.

Although, EDF believes that the network codes are at the heart of the integration process, however:

- their development process must be improved notably by guaranteeing that there are no conflicting interests among those holding the pen (ENTSO-E could be seen as judge and party);
- their scope and content must be clearly justified to ensure that an economically efficient European integration process takes places. In this respect, cost-benefit analyses must be carried

out to define the relevant level of harmonization bringing real benefits to consumers and to the electrical system;

- their legal status still under discussion must be clarified.

Continued development of electricity wholesale markets

- EDF shares the current objective of further developing cross-border European balancing markets as long as it would reduce total cost of balancing services. Thus, EDF considers that ACER priority should be granted to ongoing developments (framework guidelines and network code related to balancing market integration) rather than to additional regulatory actions. (see question 3)

Intervention in electricity markets

➤ *Generation adequacy*

- EDF agrees that capacity and flexibility are related issues but believes, as they are distinct, that they should be addressed separately, referring to dedicated mechanisms. (see question 2)
- EDF considers that the implementation of well-designed capacity mechanisms shall enable to tackle the generation adequacy issue as a sustainable and universal challenge. Each Member State will, sooner or later, be concerned by the issue and it is legitimate for them to make sure it is addressed (cf. Annex I). (see question 2)
- EDF considers that capacity mechanisms should indeed implicitly take into account the contribution of cross-border capacity but they should be designed so as to refer only to “*indigenous generation capacity*” because the congestion of interconnectors may occur during periods of extreme scarcity, limiting the possible contribution from “*non indigenous capacities*”. (see question 2)

➤ *Subsidies and support schemes*

- EDF considers that subsidies may be necessary for promising technologies to develop where appropriate. Such subsidies or support schemes must however remain transitional measures until those technologies reach maturity and the financial burden must remain under control in order not to distort competition.
- EDF wishes also to reiterate that the significant impact of RES on the energy markets is due both to the design of the instruments used to support them but also to the volume of supported generation. Indeed the amount of new generation has generally no link with the volumes needed to supply demand. In this respect, the growth of RES generation should be consistent with system needs.

Improved coordination

- EDF agrees with the need for TSOs to cooperate more closely with one another. Indeed an increased and closer coordination between TSOs will be in the interest of all, notably regarding capacity calculation and the most efficient allocation of cross-border capacity. Closer coordination can foster the development of adequate solutions to solve the potential issue of a lack of infrastructure.
- Closer cooperation amongst NRAs is also of importance, especially considering the necessity to have a consistent implementation of EU rules throughout the EU.

Question 2: Have we identified an appropriate regulatory response?
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➤ ***Subsidies and support schemes***

- EDF considers that the regulatory framework in 2025 shall find a balanced path between introducing more competition into relevant solutions to be supported through technology-neutral mechanisms on the one hand, while keeping the ability to support some promising technologies adequately following the innovation process, on the other hand.

Support schemes should be concentrated on most promising technologies, able to go through the three phases (first of a kind, deploying, and deployed technologies) of this process. It is important to improve the performance and lower the costs of all technologies providing energy services and create a real research-development-innovation dynamic to foster the emergence of the most promising ones.

- EDF wishes also to reiterate that the RES impact on the energy markets is not only due to the design of the RES support mechanism but also to the volume of supported generation. Even if support schemes were more competitive and better designed, if the total volume (and the related growth) of supported RES is more important than system needs (generation adequacy, system reliability), non supported generation will bear stranded costs. In this regard, the needs of RES generation volumes should be cautiously assessed (reality check) and considered alongside European and/or national RES targets or objectives.
- EDF wishes to highlight that different solutions (RES, demand-response, interconnections, etc.) can contribute to the common objectives of affordability, security of supply and decarbonisation. In this regard, technology-centric regulation, focusing for example on RES support, should remain limited.

ACER states (§3.8) that a well-functioning carbon market driver is the most appropriate tool to drive investment in clean energy infrastructure. EDF believes it is the only tool so as to avoid conflicting policy objectives as we are currently experiencing.

➤ ***Generation adequacy***

- EDF agrees that capacity and flexibility are distinct but related issues but believes that they should be addressed separately, referring to dedicated mechanisms.

- The capacity adequacy issue is a matter of ensuring that enough capacity in the system is available during the peak period in order to ensure security of supply at a controlled risk and at the lowest cost. These situations can be forecasted in advance and the capacity part of the security of supply issue is essentially related to forward time periods. Flexibility is a matter of being able to cope with sudden variations in the system and thus will have an important part of its value revealed in Intraday and Balancing markets.
- Ideally both issues should be jointly addressed through a detailed simulation of the electrical system load-generation balance, using an accurate description of load and RES variations as well as technical characteristics of all assets. The only way to obtain convincing results would be for the scope of this assessment to be broad enough to encompass all types of possible stress situations, ranging from very short term considerations (system reaction to an outage) to longer term ones (capacity to cope with extreme peak-load situations at a low-enough risk of insufficient total capacity).
- However, assessing the system resilience through all time horizons in a single assessment is very challenging. For practical reasons, capacity and flexibility adequacies should be explicitly addressed by a dedicated mechanism to prevent from over-complexities that might lead to undermine the ability of the market-design to address both challenges.
- EDF considers that the implementation of capacity mechanisms shall enable to tackle the generation adequacy issue as a sustainable and universal challenge.

ACER states (§3.6) that a capacity remuneration mechanism may not be needed to ensure generation adequacy. EDF considers all Member states will, sooner or later, face the generation adequacy issue and it is legitimate for them to make sure it is addressed (cf. Annex I). The rapid integration of RES can even in the short-term speed up the emergence of this concern in some specific regions. Nevertheless, from a regulatory perspective, this issue shall be tackled as a more sustainable and universal challenge.

- EDF agrees that a proper competitive environment for capacity mechanisms needs to be guaranteed (§3.6).

EDF strongly believes that well-designed capacity mechanisms should:

- be based on an obligation assessing the sufficient level of capacity (quantity regulation) to meet the demand with the reliability criteria required and at least cost ;
- ensure a level playing field for all actors, all different technologies, and all capacities (be it demand-response, storage, new or existing peak, mid-merit or base-load generation) ;
- be market-wide, any capacity providing the system with the same contribution to security of supply should play an equal role into the mechanism.

EDF therefore considers such mechanisms should refer to “capacity requirement mechanisms” which (i) do not interfere with the energy-only market, (ii) reveal the value the capacity and (iii) provide a market-based price signal if additional capacity is needed.

- EDF considers that capacity mechanisms should indeed implicitly take into account the contribution of cross-border capacity but they should also be designed so as to refer only to “indigenous capacity” (national) because the congestion of interconnectors may occur during periods of extreme scarcity, limiting the possible contribution from “non indigenous capacities”.

The approach of ACER and NRAs is to promote cross-border solutions to address problems of generation adequacy (§3.8). EDF believes that there are technical and economic issues that need to be carefully assessed, as well as significant sovereignty issues to be solved (cf. Annex 2).

EDF considers capacities installed on one side or another of the interconnector cannot be substituted with regard to generation adequacy. Indeed, energy markets automatically ensure the use of available margins in neighbouring markets, which, during periods of extreme scarcity in a given market, most often lead to congestion of interconnectors. The possibilities for mutual assistance are in such cases limited by the interconnection capacity and not by generation capacity installed in neighbouring markets. Therefore, the efficient capacity obligation, the one leading to the regional optimum, is a joint obligation for each interconnected area to have “indigenous capacities” connected in this specific area. Each related obligation will take into account the expected contribution of interconnections by decreasing, in proportion, the level of national capacity needs.

Thus, EDF supports a dedicated capacity requirement mechanism in each specific area that can ensure the adequate obligation is met, while taking into account the full benefits stemming from (i) cross-border solidarity and (ii) the efficient functioning of energy markets that allow one market to benefit from the most economical non-indigenous capacities available in other areas.

<p>Question 3: Which regulatory actions are most important and should be prioritized?</p>
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Priority 1: EDF considers the implementation of the target model must remain a priority

In particular, EDF stresses that the current target model is being complemented by the balancing timeframe and ambitious Framework Guidelines are already on the table. In this context, EDF considers that ACER priority should be granted to existing and ongoing developments rather than to additional regulatory actions.

- EDF shares that this integration of balancing markets should be pursued in the long run and believes that it should be based on a progressive and flexible approach including a limited number of steps, each of them properly justified by the relevant cost benefit analysis.
- While implementing the balancing target model, harmonization and standardization have to be implemented in a coherent and pragmatic way. Energy and capacity services offered today in the various balancing mechanisms should still be offered in the future. Indeed, the benefits of harmonization could rapidly be surpassed by the losses due to the corresponding non offered capacities (in relation to the standardization of the offers) or the lower economic efficiency, and potentially important costs (IT development) related to any evolutions in balancing markets organization. This will have to be weighed against the expected gains all along the process.

- Besides, it is essential to underline that balancing energy activations are last resort actions – and thereby critical – for TSOs to guarantee the operational security of the grid as we are in the close-to-real-time timeframe. A flexible implementation will enable to benefit from essential feedbacks to deal with practical complexities and prevent from jeopardizing the operational security.

To ensure such a proper competitive environment, EDF considers some essentials concerns need to be further addressed by ACER while implementing the current target model:

- All balancing services, provided from both generation and demand participation, should participate to the same “technology neutral” playing field to promote competition and thereby cost-efficiency in the system. The regulatory framework shall facilitate the development of demand-side response or storage facilities if cost-efficient while revealing the value related to their contribution to fulfil flexibility adequacy requirements. All facilities, be it from generation, demand or storage, should compete on the same level playing field.

In particular, EDF shares ACER’s key priority (§3.5) to consider every party (including RES operator, DSM, third part aggregator) shall face imbalance charges that reflect the cost of system balancing, and have appropriate incentives to manage their risks via well-functioning intra-day markets.

Given that one of the cornerstones of the target model is that Balance Responsible Parties (BRP) are financially incentivized to be balanced, it is critical that efforts are pursued from now to 2025 in order for BRPs to get the right real time information about their imbalances.

- Fostering demand response implies a clear definition of roles and responsibilities of the various stakeholders.
 - It is essential to distinguish demand-side participation to flexibility issue (demand-side response, ability to one-time curtail or postpone the load) and demand-side participation to energy efficiency (energy savings, ability to structurally reduce the load). Energy savings do not provide any services with regard to flexibility issues.
 - DSOs should be responsible for monitoring their local network. DSOs should consequently be in charge of carrying out studies to assess the need for future development in this network, providing certification and controlling balancing services capabilities connected to this network (see chapter 4 – Role of DSO).
 - The neutrality of BRPs shall be ensured. It would be also essential to ensure a financial settlement between Balancing Service Providers (BSP) and relevant BRPs to settle the cost of energy of the activated volume of Balancing Energy will be respected.

Priority 2: EDF agrees that some additional developments are necessary to complement the current target model. In particular, EDF supports the introduction of a capacity requirement mechanism to complement the wholesale market. Such a mechanism can contribute to a better functioning internal market while providing an answer to the security of supply related concern.

Considering the political and economic impacts of power shortages on their citizens and companies, it is legitimate for Member States to make sure the capacity adequacy issue is addressed (see Annex I). EDF supports (see question 2) dedicated national capacity requirement mechanisms that can ensure the adequate obligation is met, while taking into account the full benefits stemming from (i) cross-border solidarity and (ii) the efficient functioning of energy markets that allow one market to benefit from the most economical non-indigenous capacities available in other areas.

However, such national mechanisms cannot be isolated national schemes but need to be considered within a European context. In this regard, EDF would like to underline that what is crucial is that the information and analysis of system needs be performed jointly at European level in order to assess the volumes required in each zone. In this regard, EDF considers ACER and EU Regulators have an important role to play:

- in ensuring transparency and fostering good practices among Member States while assessing generation adequacy needs and the related methodologies;
- in promoting the issuance of the list of appropriate essential requirements which national schemes should comply with in order to ensure there is no impact on cross-border trading.

<p>Question 4: Are there other areas where we should focus?</p>

- The issue of electricity storage is not addressed in the Green Paper though storage is also ensuring flexibility in the electrical system, notably with growing amounts of non predictable RES generation. It might not be a major focus but it is a part of the picture (especially in isolated island systems) and the issue should be mentioned. In this regard, all facilities providing flexibility, be it from generation, demand or storage, should compete on the same level playing field and their development should be promoted as long as cost-efficient.
- The Green Paper does not address some very technical issues that are of crucial importance for the security and the efficiency of the grid's operation as well as for a well functioning of electricity market. We could mention the issue of inertia for example, which should be ensured in a proportionate manner by all generation facilities.

2. Gas wholesale markets

Questions 1 & 2 : Have we identified correctly the issues and trends within each area of the energy sector? Have we identified an appropriate regulatory response?

Yes, the trends have been correctly identified.

As a preliminary note, EDF understands that more concrete measures will be part of the review of the Gas Target Model but notes that there are very few possible regulatory actions regarding gas markets listed in the Annex. EDF had anticipated that the Green Paper would have proposed a more concrete approach.

A flexible framework for a liquid pan-European gas market

EDF fully agrees that priority should be given to the implementation of the existing network codes as the issues addressed will help achieving the internal gas market. In addition EDF would like to insist on the need for consistency in the implementation of the network codes and the importance of harmonized rules to foster an efficient use of interconnectors.

EDF would like to highlight the three following points:

- In terms of capacity calculation and definitions, efforts should be made to **enhance transparency**. Given the possible diversity of capacity products at each side of an interconnection point, EDF believes that bundling modalities should be clearly established by TSOs and NRAs so that market participants know exactly which product they are buying.
- In terms of congestion management, the interpretative note from the European Commission is much expected as there is an acute need for a common understanding of the provisions and **greater coordination between TSOs and NRAs from different Member States**. EDF sees a risk that a mismatch of measures taken at each side of an IP may jeopardize the congestion management procedures in the framework of bundling. How would capacities be bundled if, on one end, there is oversubscription and, on the other end, day-ahead UIOLI?
- EDF believes that **the current definition of contractual congestion should be reviewed** as it does not reflect well enough actual congestion on the networks, which may lead to take some actions where there is no need to. In addition, it should be clarified whether this definition applies throughout the 3rd Package and the network codes.

Achieving liquid gas markets

EDF agrees that the more gas markets are liquid the better it is and that liquidity is also needed in the forwards timeframe.

EDF believes that the first step to achieving liquidity is to have at most one national balancing zone per country. Then, when this prerequisite is fulfilled, EDF considers that cross border balancing zones

could be envisaged on a case-by-case basis, when necessary and economically efficient. This could be particularly the case for very small countries unable to constitute a proper market.

However, here again, EDF would like to remind that the focus should be first on ensuring that both the 3rd Energy Package provisions and all the network codes are fully and consistently implemented throughout the EU before considering further market integration. The full implementation of the codes will provide conditions for liquidity to develop: it is only once this is achieved that it can be properly assessed whether market integration should be pursued or not. EDF considers that market liquidity has significantly improved in Europe recently and believes that it may be premature to decide whether all European hubs are supposed to follow the same development path and eventually play the same role.

Finally, EDF believes that market integration should rely on investments rather than on contractual mechanisms as only investments can deliver robust and lasting integration.

Uncertain gas supply and demand

Evolving in an uncertain world requires a framework that is flexible enough to allow rapid adjustments and progress at different paces. However the framework should also provide for some visibility to all stakeholders in order to avoid any kind of stranded costs.

In this context, EDF would like to remind again that priority should be given to the implementation of the 3rd Package in all Member States. A flexible framework will allow for targeted interventions and prevent unnecessary standardization but the aim must remain to implement the network codes in a consistent manner across all Member States.

The developments across the regional initiatives – even if progressing at different paces – are very valuable steps towards the integration of gas markets. A better cooperation among NRAs will help ensure consistency in the implementation of the various rules and will enhance the spreading of good practices.

Providing electricity flexibility through gas

EDF fully shares the view that gas-fired power plants are well placed to respond to the greater need for flexibility induced by the penetration of non predictable RES generation. In its previous response to the pre-consultation paper, EDF highlighted that gas-fired power generators were facing significant imbalance risks when responding to electricity variations by sudden ramping up and down.

EDF agrees that a better coordination between electricity and gas TSOs as well as a greater communication on the state of the networks would help overcome some obstacles. This coordination between TSOs should be accompanied by an appropriate oversight to ensure the proper engagement of all stakeholders.

There are also various measures that could be put in place to mitigate these risks:

- Improve load forecasting requirements for generators of variable renewable sources (e.g. increased frequency of forecasts),

- Allow TSOs in their role of last resort balancing operator to propose balancing services to gas-fired power generators,
- Encourage TSOs to offer linepack flexibility services,
- Push forward the deadline for gas re-nomination to H-1 whenever it is technically feasible,
- Avoid the application of within-day obligations and hourly balancing charges unless this is duly justified by network safety or system stability concerns (even if imbalances are calculated on an hourly basis, the imbalance settlement could be on a larger time period especially if gas nominations are not flexible enough to allow gas power plant to offer their technical flexibility to power markets),
- Allow the pricing of day-ahead and intra-day capacity at levels compatible with an economic sourcing of gas for power plants.

As already stated in its previous response, EDF believes that most of the above measures are consistent with the existing regulatory framework measures as set out in the gas and electricity target models. Further intervention may however be required at a later stage depending on how TSOs implement these rules.

Question 3: Which regulatory actions are most important and should be prioritized?

The top priority in terms of regulatory response should be the full implementation of the 3rd energy package and of the network codes. The approach to do it could be more flexible and allow for targeted measures and actions. However in the end the aim should remain that network codes are implemented in a consistent way across all Member States.

Question 4: Are there other areas where we should focus?

The issue of security of supply is neither addressed nor mentioned although it is a policy issue that has a structuring dimension in the way gas markets are designed. Indeed, putting in place a regulatory framework taking into account security of supply objectives and having adequate tools in place would reduce the need to take decisions and measures on the basis of short term concerns.

3. Infrastructure investment

Interconnection is a key component to contribute to the internal energy market efficiency. The development of interconnections should be promoted when it is economically efficient: cost-effectiveness is a decisive parameter to ensure the sustainable competitiveness of the energy supply in Europe.

Question 1: Have we identified correctly the issues and trends within each area of the energy sector?

We do agree that investment should be driven by market signals. We would consider that proven benefits via cost benefit analysis, to consumers from increased interconnection is the most appropriate driver.

Question 2: Have we identified an appropriate regulatory response?

The current process of prioritizing Projects of Common Interest (PCIs) is a pragmatic and efficient approach *per se*. However it is essential to ensure that the implementation of these projects does not introduce market distortions that would hinder the development of more cost-effective solutions (generation, demand-side management, or storage) or would constitute an indirect subsidy to some type of generation (e.g. variable generation).

We also would like to point out that a very efficient use of existing infrastructure will never replace investments if those are really needed.

Question 3: Which regulatory actions are most important and should be prioritized?

The development of the Internal Energy Market and the stronger interaction between energy roadmaps stress the need to provide decision-makers (including markets participants) with a coherent and complete community-wide quantitative description of plausible futures.

In this regard, EDF considers priority shall target more transparency, more consistency and open sourcing in energy modelling and assessment processes (development of scenarios at a 2030 horizon, TYNDP, SOAAF) within the EU.

Priority 1: Transparency

The transparency related to the inputs (data, key parameters of different scenarios) and methodologies are key elements for all stakeholders to understand and use the outputs of the different reports (TYNDP, SOAAF).

Priority 2: Consistency

It is essential to ensure consistent data and methodologies are used through Europe. In this perspective, carrying out common Regional and pan European assessments is an opportunity for TSOs to strengthen their coordination regarding data and promote the use of best practices through Europe regarding methodologies applied for national assessments.

Priority 3: Cost–benefits assessment

PCI selections are based on cost–benefit analysis (CBA). This tool aims to objectively assess a project from an economical point of view taking into account of all the potential costs and benefits that can be monetized.

EDF is in favour of an approach focused on social and economic welfare including all potential CAPEX and OPEX affecting costs and benefits of assessed projects and considers some key improvements are still are needed in this perspective.

- As a cost for one actor can refer to a benefit for another one, it is essential that such a methodology takes consistently into account the costs and benefits for all actors.
- A clear categorization of costs for the system must be carried out in order not to forget some of them (i.e. stranded costs, value destruction, ancillary services, CAPEX, etc.) as well as to avoid double counting.
- All the indicators that can be monetized have to be integrated in the CBA. One day, the CBA might integrate all the indicators used. Today, there are still some indicators that, in the absence of international consensus on the adequate methodology (i.e. all social and environmental impacts), cannot be properly monetized.

Question 4: Are there other areas where we should focus?

EDF considers that the loop flows problem should be dealt with, prioritizing pragmatic remedial actions. Hence, the virtual Phase Shifter Transformer initiative set-up by PSE and 50 Hertz is a very good example of such successful and pragmatic cooperation agreement which allowed to significantly increase the interconnection capacity available to the market without any physical infrastructure development. Coordinated rules for cross–border redispatch as well should be incentivized. In the medium term, an adjustment or a reorientation of the ITC mechanism could be worth considering, in order to enable at least transitionally compensating loop flows and the associated remedial actions carried out by some TSOs (for example for those flows from North to South Germany that are not commercial transit flows) as long as the infrastructure needed to reduce such flows is not available. In so far as the ITC mechanism is to evolve by 2015, it could be a good opportunity to address in a more accurate way the loop flows issue by incentivizing TSOs to develop the infrastructure needed than a very radical measure like a review of bidding zones, which would have much wider and potentially negative effects.

Cross–border cost allocation is an important question, both considering investment projects and the financing of redispatching measures.

Regulatory incentives for risk-taking related to such investments shall be adequately defined. Remuneration should be set in accordance with risks to be supported.

4. Consumers, retail markets and the role of DSOs

Questions 1 to 4

An appropriate framework for energy customers

EDF fully supports the RASP principles of the CEER–BEUC 2020 vision and expects concrete measures to be shared and spread as good practices throughout the EU. These principles firstly aim at recalling that consumers must remain at the very heart of the energy market, which implies that markets are organized to comply with the consumer’s interest. The market must be easy to understand and to use, which means, for instance, that suppliers have to act as the single point of contact for consumers. The market must comply with consumers’ local or national behavior, which means that standardization or harmonization does not mean “one size fits all”.

Regarding the regulatory actions considered, EDF agrees on most of the items listed in part 3.26:

- Comparability of offers is important in order to foster competition. Comparison tools already exist that enable consumers to easily evaluate competing offers between suppliers. EDF believes that the principles of transparency and trusted information should apply to all market participants that will play a part in the energy retail markets (and not only suppliers).
- EDF agrees that switching must be easy and supports that switching will be easier if suppliers are the main point of contact. However it should be noted that the level of switching rate does not necessarily reflect how easy the process is.
- EDF agrees that a 3-week switching period is too long. On the other hand, a 24-hour may not match consumers’ expectations and could be costly. The real point is not the switching period but the simplicity of the switching procedure. Technical and security reasons could in some cases explain a difference in timeframes between electricity and gas.
- Ensuring data privacy and security is a priority in building consumer trust. In this regard, consumer’s data should not be used without permission of consumer. Customer meter data must therefore be primarily protected by law and regulation which can be complemented by any decision of other relevant authorities (data protection authorities). Regulators and public authorities must precisely define the framework of data management defining clearly roles and responsibilities and setting robust rules in terms of data access and data transmissions.
- Protecting the most vulnerable consumers is an imperative duty. However it is questionable whether encouraging them to participate in the market is part of this protection. There may be other aspects of vulnerable consumer’s protection that are more important (e.g. disconnection rules).
- Consumers must certainly benefit from smart meters when and where smart meters are rolled out. But EDF wishes to recall that some of the services usually associated with smart meters are in fact unrelated to them. For example, in France, a large part of Demand Response has been for a long time powered by the hot water storage associated with a tariff signal.

- EDF agrees that an adequate regulatory framework should address the needs of household prosumers as participants to the market. However such a framework should comply with the following principles:
 - Prosumer refers to a consumer connected to the public network that can supply part of its consumption with energy generated downstream of his connection point. Such “locally consumed” energy generation should be clearly distinguished from energy efficiency, whether the “locally consumed” energy is generated from RES or any other energy source.
 - The development of prosumers shall be accurately monitored to ensure (i) its consistency with energy policy’s targets, (ii) an adequate assessment of the generation adequacy (in particular when a capacity requirement mechanism is implemented), and (iii) the safety of people and property. In this perspective, regulation should promote adequate certification and standardization of generation capacities of prosumers.
 - Adequate economic signals shall incentivize an efficient settlement/development of prosumers taking into account grid’s constraints. In this perspective, regulation should ensure, on the one hand, that the structure of grid costs is properly reflected by the structure of network charges that are paid by the consumers (in particular, the energy-based charges shall not be used to recover infrastructure costs) and, on the other hand, that the deep cost of grid connection is fully covered by the connection charges.
 - Prosumers shall not be incentivized to shift their consumption to periods where system costs (energy and network costs) are higher. In this perspective, one should pay attention, in particular, to energy taxation policy.
- Guaranteeing high customer service levels is a goal that should be pursued by any provider and setting minimum quality standards could guarantee a certain level of protection for consumers. On the other hand, it is important to note that these standards should not be set too high as they could be barriers to entry for new entrants. In addition, the quality of service is an area where providers can compete between themselves: a too high level of standardization may hinder competition between suppliers. This is why EDF is not in favour of the definition of service standards, except with regard to basic services.
- Understanding consumer behaviour is undoubtedly a good idea.

Removing barriers in Europe’s retail markets

We agree that an overall harmonization of retail markets design would not make sense not least because it would go against subsidiarity and would reveal too costly compared to the benefits expected considering the current diversity of those markets. Furthermore, diversity of designs does not mean that those markets are not functioning. Ensuring that there are no barriers to competition (new players whether national or from other countries) appears a much more pragmatic approach and indeed NRAs

have a role to play. In addition, retail market monitoring already exists in most Member States and could be applied to all Member States.

Nevertheless, as long as the cost is acceptable compared to the benefits, developing a European common framework for supplier activity licensing is an interesting idea which is supported, in its principles, by EDF.

Enabling the market in demand response

As developed in the above part of our answer to regulatory actions for wholesale electricity market (Cf Question 3, Priority 1.) EDF considers that a level playing field should be ensured for all flexibility services, provided from both generation and demand sides in order to promote competition and thereby ensure cost-efficiency in the system. A new regulatory framework, if needed, should not go beyond enabling demand response and lead to subsidy schemes that are not economically justified.

The issue of data protection and data management is not specific to demand response as it is also a topic for all consumer's data (see above): therefore there is no need for particular measures for demand response. But this shows again the need to establish a general framework defining clearly roles and responsibilities and setting robust rules for all customers' data management.

Role of DSOs

We agree that (i) the development of smart meters and grids as well as of a smarter demand side management, and (ii) a more active grid management (due to the growing amount of distributed generation connected to the distribution grids) call for a clear definition of what the role of DSOs should be and we welcome the announced consultation of stakeholders on this issue.

EDF supports the idea that (i) DSOs' role should be focused on their core business of regulated activities related to network management; (ii) DSOs should be neutral facilitators, ensuring a fair and non discriminatory access to their distribution networks and (iii) DSOs should not impede developments on the market.

In this perspective, EDF does not agree that ownership unbundling is the most effective long-term model since, as stated in the consultation paper, the Third Package already ensures neutrality and non-discrimination. Therefore EDF believes that the full implementation of these texts remains today and will remain tomorrow the priority. There is no need for a new unbundling requirement.

Concerning a possible revision of the current *de minimis* limit, EDF simply wishes to recall that the expected gain of such revision should be greater than the costs. The reasons for the *de minimis* exemption remain valid: experience shows that the cost of unbundling can be high and is proportionally even higher as DSOs are small.

Improved coordination

Improving coordination, when and where necessary, is probably useful.

Encouraging efficiency through dynamic pricing

Dynamic pricing is indeed an important and useful tool to foster efficiency. It can take the form of time of use tariffs for the supply of electricity or gas or of time of use network tariffs.

Time-of-use tariffs and critical peak pricing tariffs have respectively been introduced as early as from the 1960s and the 1980s in France. The implementation of these tariffs requires dedicated meters but does not require smart metering infrastructure, although such an infrastructure could facilitate the evolution of the tariffs and their understanding by the consumers. These tariffs successfully contribute to shaping the load in order to pass peak load periods. They will for sure also develop with the roll-out of smart meters and smart grids.

Time of use transmission and distribution network tariffs are also to be promoted.

5. Implication for governance

Questions 1 to 4

As preliminary comments, EDF welcomes the works carried out by ACER and the ENTSOs for the promotion and the implementation of market integration. Today, we definitely support ACER as the place where NRAs fully work together and cooperate in order to discuss and build a European vision of what a consistent energy regulation should be in order to accompany the evolution of electricity and gas markets.

Achieving the implementation of the 3rd Energy Package should remain the priority and improving the governance and the functioning does not necessarily need to neither amend this package nor adopt a new legislative package. What should be targeted to improve the functioning and the governance of the “*relevant actors with specific tasks under the 3rd Energy Package*” could be:

- To grant them appropriate resources to carry out their mission,
- To build up and disseminate good practices,
- To avoid conflicting situations,
- To ensure a transparency of the processes and decisions,
- To ensure effective consultation processes of market participants,
- To grant an effective representation and balanced representativeness of all actors,
- To expand the opportunity of in depth technical discussion between all parties¹,
- To strengthen some monitoring processes.

Moreover, these actors should also take action to further ensure:

- The consistency of the European regulation at every step of its development,
- The existence of justification for any new requirements or requirements significantly deviating from the present standards,
- The carrying out of the required impact assessments / cost benefit analyses at an early stage,
- A better reflection of market / system needs in the European regulation.

Fit-for-purpose processes for the implementation and enforcement of market rules

- **As regards the development, adoption, implementation and revision processes of network codes**

Quality of the rules is more important than the pace of development: If the processes are well designed and provide for clear governance, the priority objective should be to respect the processes

¹ *stakeholders are seeking to have these discussions*

and governance. Acting hastily in order to acknowledge achievements has never been a good practice nor a goal and could lead to failure. The example of the development of the Requirement for Generators (RfG) code proves that if the earlier stages of a process have not been carried out properly, the whole process (including the adoption of the text) could be completely blocked at the end of the day. The robustness of the rules must be the main objective. We would then not subscribe to any speed objective for the development of network codes but agree with the fact that processes should not be unnecessarily burdensome.

Consistency: Consistency of the requirements between the different network codes should be ensured through a better coordination of the teams elaborating the different codes. The consistency is especially important when network codes enter the comitology phase. This consistency should probably be ensured at all stages (ENTSOs, ACER and EC) of the process.

Impact Assessments and cost-benefit analyses: as of today, nearly none of the requirements of the network codes developed so far has been thoroughly assessed through neither a cost benefit analysis nor at least with an Impact assessment though they are normally required in the context of the EU processes or are explicitly foreseen in the Framework Guidelines. This analysis is fundamental since they are supporting the justification of the adoption of the requirements and provide estimates of the technical and economic consequences of those requirements.

Experts and Stakeholder Groups: The expert groups and the stakeholder advisory groups set up by ACER and the ENTSOs are important and interesting tools when they are intended to foster debate among stakeholders and contribute sharing practices and expertise with ACER and ENTSOs. However, they should be discussion and not only information places. We would welcome the systematic creation of stakeholder groups for the development of each code, then also for the pilot projects afterwards and finally for the implementation/follow-up phases.

Comitology process: It is important that this process remains transparent for stakeholders to properly follow and understand both the process and how to implement the codes at a later stage. The European Commission should ensure that updated versions of the codes are made available to stakeholders in the precomitology and comitology stages and that the amendments introduced are explained, as major changes may also be included during these stages. It is also important that European Commission guarantees the coherence and integrity of the network codes.

Process for modifying the network codes: We are expecting the revision process to be transparent and flexible in order to take into account in a quick enough and appropriate way the necessary system or market evolutions.

- **As regards the governance and the functioning of ACER**, EDF appreciates and values the publication of the minutes of the Board of Regulators, as well as the initiative to have quarterly debriefing meetings and would support any move toward further transparency within ACER such as the publication of preliminary ACER opinions on network codes for example.

EDF supports the involvement and the active role of NRAs within the organization and the governance committees of ACER, including the role of the Board of Regulators. However, we would welcome that the transparency of processes and decisions be strengthened as well as their role and scope of work be better defined. In that field, very concrete measures could be implemented:

- Define and disclose terms of reference of the participation of NRAs,
- Publish the numbers of individuals from each NRA that are working for the ACER,
- Try to widen the participation of NRAs in order to get a better representation and engagement from all European regions,
- Make the NRAs accountable for the requested work and monitor it,
- Establish a framework and develop deontology rules applicable to NRAs staff. The best would be the development of a European deontology corpus including confidentiality rules applicable to all NRAs and ACER as well as their staff and consultants.

We support the existence of ACER's Board of Regulators and would expect that it acts as a clearly decisional entity especially when reasoned opinions or recommendations are released.

We also believe that it is ACER's responsibility to ensure that technical aspects and impact assessments have been duly analyzed and carried-out and to send applicable and finalized NC to the Commission.

ACER has a very important role to play in the implementation of the network codes. Ensuring a common interpretation and the consistent and proper implementation of the various provisions by the NRAs at national level, as well spreading as the best practices (regarding both content and processes) will be crucial.

ACER's role may finally need to be extended so as to be entrusted with a supervisory role of ENTSOs' work (processes and content) should the governance and the functioning of the ENTSOs (particularly the ENTSO-E) not be more transparent.

The role of the ENTSO-s

The ENTSOs have been tasked by Regulation (EC) N°714/2009 with the responsibility to draft network codes. This process is a new approach never experienced before in the sector: a technical body with specific responsibilities and interests in the organization and functioning of the sector is given extended influence and power at EU level in preparing the rules to apply to all relevant stakeholders. It indeed requires a proper governance of the bodies whom the task has been delegated.

Regarding electricity, even though ENTSO-E must act within a given framework (Framework Guidelines prepared by ACER and approved by the European Commission, a consultation process with stakeholders, final approval of texts by EC through comitology etc.), the process remains confusing as to whether ENTSO-E acts in public interest of EU citizens – of the whole EU electrical system – or in the interest of the TSOs it represents. Indeed we should not forget that ENTSO-E was created by merger of

both regional technical TSOs association and ETSO, former association lobbying for TSOs' interests. This confusion has led to both process mismatches and content issues. (This is not the case in gas with the existence of both ENTSO-G and GIE).

Today, ENTSO-E, as well as ENTSO-G, have capitalized important experience and knowledge regarding network codes. EDF believes that it would be worth preserving these organizations while looking for improvements in a very pragmatic approach within the frame of the 3rd Energy Package.

EDF believes that:

- The conflicting situation of ENTSO-E could be addressed by a governance decision to **split the TSO trade association from the ENTSO-E role defined by the 3rd Energy Package**. Should TSOs want to remain in a lobbying position, they should be encouraged to respond to consultation on their own or through a separate lobbying association but not through ENTSO-E.
- It would be worthwhile that **ENTSO-E be inspired / adopts good practices developed by ENTSO-G**: to ensure proper consultation processes all along the developing process of the draft (not only at the end when the text is finalized) and with communication of updated and complete versions of the texts, clear and transparent evaluation of the comments received (notably those rejected).
- We would recommend (i) **including in the ENTSOs' drafting teams experienced market stakeholders** from the early phase in the process to improve the understanding or (ii) **establishing Stakeholder Committees** under the guidance of the drafting teams for each and every network code. TSOs indeed have the best knowledge of their grids, but grid users have developed an expertise too. Indeed, they have the best knowledge of their own facilities and their expertise is as valuable as the ENTSOs' one when developing the network code. We also recommend to not limit too much the discussions only to the European trade associations but also to keep a minimum of dialogue open with market participants who would be in a better position to provide evidence and justification on very specific issues.

EDF also believes that the monitoring of network codes' implementation is a task for national and European regulators and cannot be left to the sole TSOs who already play a large part in writing down the rules. This is particularly important for Member States where the role of drafting the implementation of national NC implementing rules may be transferred to TSOs is contemplated. Such situations would undeniably create a situation of conflict of interests situation should the TSOs also be tasked with monitoring the implementation of the NC. A Monitoring role carried out by ACER and the NRAs will obviously better contribute to favor a common understanding and ensure the consistent implementation of network codes across Europe.

Appropriate regulatory oversight of new entities

Many network codes are creating new entities that indeed should fall under regulatory oversight as they will have to produce some rules applicable to all. At least we would recommend (i) a high level of

transparency for the governance and the functioning of these entities and (ii) a fair composition of those groups, with the presence of stakeholders in operational committees defining the guidelines and preparing the decisions (not just information transmission).

ACER's role in an expanding market

Increased cooperation among EU national regulators is already a goal in itself. Considering the diversity of resources devoted to NRAs and ACER, priority should be given to this primary objective before looking for cooperation beyond EU borders. In fact, dedicated organizations already exist today (MedReg for the Mediterranean, ECRB for the Energy Community).

As regards the situation of Switzerland, an institutional solution should be found to keep or even strengthen the discussions in order to keep them on board regarding the works done in relation to the integration of the European energy markets.

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ANNEX I

How to ensure capacity adequacy?

Member States may want to ensure that the market, both now and on a permanent basis, is capable of triggering investment in enough capacity to guarantee the balance between supply and peak demand at a controlled risk level. Nevertheless, if capacity adequacy is needed for a secure market functioning, energy-only markets cannot not guarantee it, neither explicitly nor implicitly.

Several European countries are likely to face difficulties in ensuring security of power supply at peak times – in the short, medium and long term – resulting in potential shortfalls and hence the possibility of load shedding. Considering the political and economic impacts of power shortages on their citizens and companies, it is legitimate for Member States to make sure capacity adequacy issue is addressed.

The European market, as it is currently designed, assumes that capacity adequacy is implicitly ensured through sufficiently high energy prices to trigger new investments when needed. However, there will be investments in new capacities only when their profitability is anticipated to be secure enough. But capacities do not have sustainable business plans in an energy-only market:

- First, there can be no assurance that the spontaneous flexibility of consumers (interrupting their consumption) can always be sufficient to match the balance between supply and demand. Load-shedding situations must be envisaged (interruption of consumers who have not expressed their willingness to offer demand-response), including household consumers.

A majority of consumers is supplied in the frame of a contract with a fixed rate, and only a part of this rate reflects their continuous willingness to pay. These are not consumers continuously arbitrating and paying a spot price for their supply (no consumer is willing to take such a risk). These are consumers who have a capacity to interrupt their consumption and offer this capacity on the energy market (directly or indirectly through third parties).

- Second, the uncertainties around the price signal and investors response to that price signal.

The level of the price offer for voluntary interruptions of consumption and the wholesale market price resulting from periods of load-shedding are particularly difficult to anticipate. The energy market price during these periods forms both a share of the revenues of all capacities and the total revenues for peak-load capacities, making these consequently also very uncertain.

An additional uncertainty (to the one on the level) is related to the frequency of those revenues which can be close to zero during years without tense situation in the supply-demand equilibrium.

Under these circumstances, the capacity to be decided by investors can hardly be anticipated. The risk might deter them from investing in peak-load capacity or lead them to require a higher profitability, which would lead to a longer duration of load-shedding situations.

This leads to the question of the average duration of load-shedding situations. Nothing can guarantee that the installed capacity spontaneously delivered by the market will result in an average duration of those situations lower than the level defined by the public authorities.

- Third, the acceptability of high spot energy prices.

It is often argued that Europe should increase interconnection capacity, better integrate demand response and correct remaining flaws in energy markets to ensure demand is met. EDF states this does not eliminate the need for ensuring that sufficient capacity is available to meet demand. These measures could reduce the urgency of the issue but will not resolve it. Besides, these measures, especially interconnections, are slow to develop and cannot be considered as a solution to short and medium-term issues.

ANNEX II

Contribution of cross-border capacity

Regarding the participation of generation capacity from other MS to a capacity mechanism when physically possible, EDF takes note the EC's aim to find a solution but believes that there are technical and economic issues that need to be carefully assessed, as well as significant sovereignty issues to be solved.

- First, EDF wishes to remind that, when a country faces a tense supply/demand situation, available interconnection capacities, offered by the TSOs, are generally congested: all plants located in neighbouring countries offer their production but the amount of power flowing across the border is limited by the interconnection capacity. This means that in case of supply/demand tension, a specific power plant located abroad may not be able to contribute to the neighbour's national generation adequacy and has generally speaking no added value, whereas an additional interconnection capacity may do. Therefore, EDF believes that easiest and best way to take into account interconnection in the capacity mechanisms is to decrease national capacity needs in proportion to the expected contribution of interconnections, whose assessment should be based on a large number of scenarios. This so-called "implicit accounting" is mentioned as a possible option in the EC's Communication C(2013) 7243 "Delivering the internal electricity market and making the most of public intervention".
- Second, EDF supports advanced proposals aiming at allowing participation of interconnection capacity in capacity mechanisms, which would preserve an incentive for the TSOs to offer maximum commercial interconnection capacity, and an incentive for the development of new interconnectors.
- Last, EDF understands that regional cooperation on capacity mechanisms can benefit to all stakeholders. However, EDF is of the view that one crucial barrier to the participation of a capacity located in country A to security of supply in country B is country A's sovereignty: in fact, it would involve that, country A accepts not to take into account the plant, in any case (even a black-out), in its own generation adequacy assessment. This requires at least a cooperation agreement between the two Member States to solve this sovereignty issue, and additionally, a careful work on the economic appropriateness and technical implementation of the measure.