EUROPEAN COMISSION – CONSULTATION ON AN EU STRATEGY FOR LNG AND GAS STORAGE

Consultation Period: 8 July – 30 September

GENERAL COMMENT

The EDF group provides a common and single answer for the consultation on an EU strategy for LNG (questions 1-12).

For the consultation on an EU strategy for gas storage, given the national dimension of the topic, EDF and Edison provide separate answers (questions 13-23).

QUESTIONS RELATED TO GAS STORAGE – ANSWERS FROM EDF

EDF welcomes the opportunity to answer European Commission's public consultation on the strategy for the gas storage.

As a preliminary comment EDF would like to:

- stress that a liquid and well-functioning market is necessary to ensure the continuity of supply but does not spontaneously deliver the level for security of supply aimed at by national authorities;
- recall the need to seek the implementation of regulatory arrangements ensuring storages compete in a flexibility market (LNG terminals, DSR contracts etc) in order to provide the targeted level of security of supply at the lowest cost;
- underline that the best way to allocate storage products would be through auctions since it allows (i) the allocation of storage capacities at a market price and (ii) the filling of storages without storage obligations being necessary provided that reserve prices are low enough.

Question 13: *What opportunities or challenges do the supply projections for different sources, in particular LNG and pipeline gas and low carbon indigenous sources, present for the use of gas storage / for gas storage operators?*

The use of gas storage is driven by market participants' assessment of the different values (system, insurance and arbitrage) of storage facilities. EDF considers that gas storages can take advantage of opportunities – but also face challenges - in relation to these values as already demonstrated in our response to the public consultation on CEER's vision on the regulatory arrangements for the gas storage market (October 2014):

- System value: since storage enables the optimization of existing infrastructures and thus contributes to minimize the overall gas network costs. Besides, the increased need for gas system flexibility and the variability of gas fired power station demand (notably triggered by intermittent RES) should increase the extrinsic system value of storage as a flexibility provider, particularly fast cycle storage facilities.

- Insurance value: since suppliers are subject to minimum "security of supply standards" as defined in article 4 of the Directive 2010/994/EC, they ultimately value the insurance provided by storage facilities to fulfill the continuity of supply of protected customers. However in a well-functioning market, we believe that other flexibility tools can compete with storage facilities to provide secure hedges.

- Arbitrage value: notably to hedge the summer/winter spread even though this latter is decreasing, thus potentially reducing the arbitrage value of storage.

Question 14: *Are, in your view, current market and regulatory conditions adequate to ensure that storages can fully play their role in addressing supply disruptions or other unforeseen events (e.g. extreme cold spells)?*

As mentioned previously, the Directive 2010/994/EC sets minimum security of supply standards aiming at addressing supply disruptions and other unforeseen events such as extreme cold weather periods. In this framework, the current Directive leaves Member States free to set up their own measures to implement and enforce the minimum aforementioned supply standard.

EDF believes that the appropriate market and regulatory conditions to ensure security of supply highly depend on the national context (available infrastructures, diversification of supply sources, market maturity). Therefore, we deeply believe that the regulatory arrangements need to be left to national authorities.

EDF considers that both the European and national regulatory arrangements need to consider all the different tools and infrastructures that can deliver the targeted supply standard. Furthermore we notice that some Member States have more stringent requirements (e.g. France) than those foreseen in the aforementioned Directive: we believe that more transparency on how the supply standard is actually defined is needed.

Although we admit the critical role of storages, we disagree with arrangements that only consider storage (e.g. storage obligations in France) to address disruptions or unforeseen events. Indeed, the notion of flexibility stands for the ability of market participants to deliver the appropriate amount of gas in the system in case of demand/consumption variation (e.g. within day or seasonal variation) or in the event of particular types of hazards (e.g. cold snaps or adverse weather conditions) in order to ensure the continuity of gas supply.. In particular, EDF is convinced about the important role of LNG terminal but also demand side response of customers (where technically feasible) as flexibility tools to ensure the right level of security of supply. As already demonstrated in the LNG questionnaire, EDF considers that LNG can provide flexibility to the system in a similar way to storage. We also deem important to promote the use of market-based mechanism in a competitive framework.

Question 15: *As an alternative to mandatory reserves, how could market based instruments ensure adequate minimum reserves?*

EDF would like to answer this question in a security of supply perspective since we believe this is the very purpose of ensuring "minimum reserves".

First, EDF doubts that the level of security of supply that would spontaneously emerge from functioning markets would actually correspond to the level targeted by public authorities. Indeed most of customers (e.g. households) are not able, in case of an emergency situation, to choose between consuming gas or being curtailed depending on their willingness-to-pay (since they pay a fixed rate) and their own arbitrage. These reasons explain why minimum supply standards are foreseen by Directive 2010/994/EC for protected customers to ensure a continuity of gas supply. In order to deliver the level of security of supply decided by public authorities, two types of regulatory measures could be envisaged: a price regulation, with incentives and penalties (e.g. the Value of Lost Load) or a quantity regulation, with obligations to hold a certain amount of flexibility tools.

In that respect, EDF considers that the appropriate regulatory framework (through price or quantity regulation) must (i) be chosen by national authorities since security of supply is a national prerogative (ii) favor market-based mechanisms and competition between different sources of flexibility and (iii) be transparent to avoid any kind of competition distortion. Besides – where quantity regulation applies (like in France) – obligations should not only focus on storage but should also take into account all other flexibility sources. Thus market participants are able to choose between different sources of flexibility, according to their own merit order, to achieve the targeted level of security of supply in a cost-efficient way.

However, in cases where the obligation of continuity supply of can only be fulfilled by the subscription of storage capacities, we believe that prices charged by storage operators must be set by the regulator. EDF recalled this principle in its contribution to the French administration's public consultation (April 2015) related to the change of third party access to storage. Although EDF regrets that the French administration did not make a proposal to take into account other flexibility sources (LNG terminals, demand side response etc.), EDF agrees with the proposal to move the regulatory framework from a negotiated TPA towards a regulated TPA for those capacities needed to deliver the targeted level of security of supply for protected customers. In particular – and since the French administration only seems to take storage into account to meet the continuity of supply obligation – EDF supported the regulatory arrangement which was based on storage capacities allocated through auctions along with a compensation mechanism recovered *via* transmission tariffs (whose goal is to guarantee the revenues of SSOs). Indeed EDF considers that the auction mechanism will allow (i) the allocation of storage capacities at a market price and (ii) the filling of storages provided that reserve prices are low enough (thus we believe that storage obligations are not necessary anymore to ensure security of supply). We consider that this mechanism will reveal the market value of storage compared to other assets providing flexibility.

In the French context, EDF also supported that the regulated perimeter – and consequently the allowed revenue for storage operators – should be determined on the basis of those facilities that

are necessary to provide security of supply to protected customers. Indeed, regulating all storage capacities including those that are not necessary to ensure security of supply would actually unduly increase storage costs for final customers.

Question 16: *Do you have any analysis or view on what an optimal level/share of storage in a Member State or region would be? What kind of initiatives, if any, do you consider necessary in terms of infrastructure development in relation to storage?*

EDF deems that there is no single optimal share of storage because each country is different in terms of its energy mix, indigenous resources, import dependency, seasonal demand ratio, ability to cover seasonal modulation needs and peak demand, structure of gas demand (households, industry, power generation…), characteristics of the existing storage facilities (seasonal or fast-cycle storage). We thus do not support a "one size fits all" option. As already mentioned, EDF believes that the optimal level of storage needs to emerge from the competition between different sources of flexibility tools that are able to deliver the appropriate amount of gas in case of demand/consumption variation or specific hazards. We believe that such a competition is the only way to reach the economic optimum leading to overall cost reduction.

Question 17: *Do you think, in addition to the existing TEN-E Regulation, any further EU action is needed in this regard?*

EDF considers that no further action is required in addition to the existing TEN-E Regulation and Connecting Europe Facility. We believe that main concern today is to optimize the use of the existing infrastructures providing flexibility.

Question 18: *Given uncertainties over future gas demand, how would you assess the risk of stranded assets (and hence unnecessary costs), lock-in effects, the risk of diverting investments from low carbon technologies such as renewables, delaying a transition in energy systems and how would you and weigh those against risks to gas security and resilience? What options exist in your view to reduce the risk of stranded assets?*

EDF's answer focuses here on the possible risk of stranded storages assets. As mentioned in question 16, all different flexibility tools need to compete in order to define the most cost-efficient mix ensuring security of supply. In that respect, EDF believes that market participants will value different flexibility tools depending on their characteristics (e.g. fast cycle storage facilities, LNG send-out capacities and gas level in tanks, etc.) and chose between different sources of flexibility at the lowest cost benefitting *in fine* to final customers.

Therefore, we acknowledge that some storage assets may not be highly valued by market participants and might face decommissioning risks (e.g. low performing storage facilities). We

however believe that it is the role of public authorities to properly define and monitor the regulatory framework concerning the fleet of storage assets in order to better fit market participants' needs. This may also be an opportunity for SSOs to develop innovative products.

Question 19: *What do you think are the most critical regulatory barriers to the optimal use of storage in a regional setting?*

As a general principle, EDF believes that market participants, for their global gas supply strategy, should be able to access cross-border storage without regulatory burdens and thus optimize their use of storage in a regional setting by taking advantage of market opportunities.

However within the context of mandatory storage obligations (like in France), EDF would like to add the following clarification. The French administration (DGEC) determines the level of storage obligations assuming that interconnections are saturated: this means that DGEC believes that in case of huge gas demand, prices will spike and gas will massively flow through interconnections until they are saturated (functioning market). In other words, this "saturation assumption" takes into account implicitly all cross-border flexibility sources (namely cross-border storage or LNG facilities etc) to prevent from counting twice the same supply source. EDF believes that this is a pragmatic way to consider cross-border storage (implicitly) within the French regulatory framework which currently foresees storage obligations.

Question 20: *Do you think ongoing initiatives and existing legislation can tackle the remaining outstanding issues or is there more the EU could do? Do initiatives need to include additional issues further to the ones described here?*

In its answer to EC's consultation on the revision of Regulation 994/2010/EC in April 2015, EDF demonstrated that there were strong differences in terms of security of supply from one country and one region to another. Therefore we emphasized that there were no "one-size-fits all" EU model to tackle all the issues, particularly those related to security of supply. EDF also advocated that any regional approach could be considered on the basis of a voluntary agreement between relevant states.

Question 21: *Do you consider EU-level rules necessary to define specific tariff regimes for storage only or should such assessment be made rather on a national level in view of available measures able to meet the objective of secure gas supply?*

As previously mentioned there are ongoing discussions in France regarding a potential move of the regulatory framework from a negotiated TPA towards a regulated TPA. Should a rTPA be chosen, EDF considers that a regulatory arrangement based on storage capacities allocated through auctions should be preferred. Furthermore, the reserve prices need to be low enough (for instance set at the

level of the marginal operational cost of storage) in order to guarantee that storages are filled at an appropriate level in a world where suppliers do not have the obligation to store gas.

Question 22: *Have you ever encountered, or are you aware of, difficulties in accessing storage facilities? Has this concerned off-site or on-site storage facilities? Please describe the nature of the difficulties in detail.*

EDF did not experience difficulties in accessing storage facilities *per se* but underlines the very heterogeneous offer of storage products in terms of performance. Given that there is an important demand for highly efficient storage products, we believe that the aforementioned auction system will incentivize storage operators to offer more innovative products that would better fit the market's needs.

Question 23: *Have you ever encountered, or are you aware of, difficulties related to feeding LNG gas from the storage site back into the gas network? If so please describe the nature of these difficulties (regulatory provisions, company behavior, technical problems) in detail.*

EDF has not encountered such difficulties.