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DONG Energy response on the CEER consultation on regulatory aspects of the integration of wind generation in European electricity Markets

As we refer to the CEER public consultation on the regulatory aspects of the integration of wind generation in European electricity Markets, DONG Energy approves the CEER consultation's importance in a market where wind generation face a forecast of great achievement.

EU's 3rd Liberalisation package and the targets for 2020 and 2030 for wind Energy emphasises the importance of taking a wide-ranging view upon not only the wind generation but also the European electricity markets and the integration of these markets – across borders.

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General comments

With the growing production capacity from wind generation a surplus of production capacity will start to make its influence on the European electricity market. It is the opinion of DONG Energy that it is very important to start looking upon the future role of traditional generation in a market where the increasing market share of wind generation changes the role for traditional generation. From being the primary source of generation, the traditional generation will in the future play the part of the back-up resource of generation.

For the traditional generators this means e.g. less hours of production and changed economical circumstances where the ability to cover the fixed costs for the traditional generation units in the future will cause termination of units. In order to balance the termination of traditional generation units with the deployment of wind generation, it is an important exercise of the TSO's to find the correct balance between the termination and the deployment and the underlying economics that impel these termination and deployment decisions.

It is the opinion of DONG Energy that the electricity markets in all matters will benefit from a well functioning intraday market allowing as close as possible to real time trade. In this context we don't believe in wind generation needs extra shortened Gate Closure Times (GCT), but we believe in the overall market benefits from short GCT. DONG Energy has experienced the unsuitableness of different GCT's between cross border markets and therefore DONG Energy strongly supports a European harmonisation of GCT. This support is under reservation that the general GCT is harmonised to a time as close as possible

to real time. Further we support the conclusion of the importance of having cross border interconnectors in order to re-optimize the generators portfolio on the intraday markets – even across markets.

In light of the above DONG Energy also strongly supports the work done within the ERGEG framework of the 10-year electricity network development plan. Congestion management is a prerequisite for a successful implementation of the wind generation, mainly when it comes to a cross border optimisation where excess generation in one area can be applied in another area with different conditions. This will result in a better economy for the wind generators and boost the incentives for further investments in wind generators.

As DONG Energy supports the congestion management initiatives outlined in the report we also support the concept of an offshore supergrid. It is though very important that all supergrid investments are evaluated thoroughly on their social welfare benefits. Further we find it very important that the supergrid concept and the evaluations are viewed and evaluated in relation to the 10-year electricity network development plan.

Comments addressed to the Questions for Public Consultation

Question 1: How will the expected growth in wind generation affect the markets in which you operate? What are the key challenges you foresee?

DONG Energy believes that in Northern Europe, off shore wind farms will stand for the majority of the future deployment of wind generation. Hence a main challenge is to strengthen the offshore and onshore transmission net to bring this electricity to the markets that need it the most. In other words we believe the work of eliminating transmission congestion is the most important challenge. Since not all capacity reductions are based on physical limitations DONG Energy strongly recommends to embrace congestion management and capacity allocation to the scope of this report, in order to maximize the market's access to the existing capacity.

DONG Energy finds it important that the guidelines on capacity allocation and congestion management take into consideration the social welfare costs of day ahead reservations for ancillary services and ramping reservations on day ahead and intraday markets. We believe that proper administration and correct grid management shall maximise the overall social economic welfare. Hence, we advocate for transparency and suggest all constraints suggested by a TSO to be evaluated on its social economic welfare costs.

Question 2: What are the implications for market rules? Can you identify changes which would better facilitate integration of wind generation, including management of intermittency?

Transparency is a prerequisite for a well functioning power market. Following, market rules must be imbued with transparency as an overriding principle in order to obtain a clear and manageable set of conditions for competition within the market. The setup must imply that all market participants provide any

information to the market that may influence on the power price. It is essential that these market rules apply equally for all producers as well as transmission owners. Further it is preferable if the same rules apply across borders for neighbouring market areas. When this apply for market rules regarding production capacity and like information equal to Nord Pool's Urgent Market Messages, other conditions may occur in other fields where it may be important for the market player only to publish aggregated data in order not to reveal information about specific positions in the market.

Question 3: Would moving the market's gate-closure closer to real-time facilitate the deployment of wind generation? Would this have any adverse consequences on the functioning of the electricity power system?

There is no doubt that the quality of the forecast for a wind farm's output increases as time approaches the gate closure, which could significantly reduce variability, increase accuracy and aid the balancing of the system and result in a more efficient system.

Despite less distinct the same can be said about traditional generation - the shorter the gate closure time the more knowledge is present when planning and scheduling the production and the better optimization. DONG Energy believes in equal market rules for all market participants including the same gate-closure time for all market participants. Additionally we believe in the benefits of GCT as close to real time as possible.

Question 4: Are emerging cross-border congestion management models compatible with wind generation? Should further attention or priority be given to intraday capacity allocation mechanisms and markets, in light of the issues associated with forecasting wind generation?

DONG Energy supports the recent steps of cross-border congestion management at EU within the scope of the 10 Year Development Plan. Such a harmonised approached on capacity calculation methodologies amongst European TSOs will aid an overall optimization of means and resources.

With regard to a liquid intraday market we see this as the most important place for a wind generator to handle the imbalances from the fluctuations caused by unpredictable wind patterns.

The more liquid day-ahead and intra-day markets – the better the opportunity to react on hourly surplus and deficit conditions and to minimize overall balancing costs. This will help to reduce the costs of integrating wind generation to the markets.

By this reason DONG Energy welcomes initiatives that support physical cross-border trading and establishment of international interconnectors as e.g. taken by the Florence Forum, based on principles of implicit auctions.

Question 5: Should wind generation be subject to the same balancing obligations and the same types of charges as other types of generation?

In principle, yes. DONG Energy believes in equal rights for all market

participants regardless of their means of generation.

With a Gate Closure Time close to real time the imbalance caused by the intermittent wind power will be significantly reduced. Additionally, with the enforcement of the interconnectors the effect of the imbalance of one wind generator will be somewhat equalized by other wind generators in a large liquid market.

Question 6: Should TSOs engage in research and development (R&D) to address issues associated with a large share of wind generation included in the network? If so, how should the regulatory framework require or support this?

As announced in the work programme for 2010 and the 10 year development plan ENTSO-E will prepare a R&D plan for prioritized research fields. DONG Energy supports the pan European approach to coordination of the future electricity system including R&D.

Question 7: Should wind generators face the same types of network charges as other new generators, calculated using the same methodology? What is needed to provide a sufficient incentive for generation in choosing where to locate? What is needed to provide an appropriate balance of risk among market players? When should this not be the case?

While it may be meaningful in certain markets to subject all generators to the same network charges, DONG Energy believes that the cost for wind generators of connecting to the grid must take account of the particularities of wind generation. Further DONG Energy believes that wind generators should be located where the best wind conditions for wind generation is found with the appropriate considerations taken to the environment. As CEER rightly points out, wind generation conditions are often superior in remote locations, be it on land or offshore, thus raising the costs of connecting to the grid, at times at rates far higher than can be covered by the level of support offered to the generator. This warrants some sort of socialised cost allocation for grid connection.

Question 8: Broadly, what is the appropriate allocation of responsibilities, risk and cost among market players in developing new network infrastructure (e.g. ahead of or in response to new generation connections)? Should this be different for wind generation? Where is harmonisation required?

DONG Energy believes that it is the role of TSOs to be proactive in developing and planning the network on a long term approach. The planning of network development must consider planned and existing installations of both renewable sources and in traditional generation. As earlier stated it is important that the investments all are evaluated on their social welfare benefits. Additionally it is important – and the responsibility of the TSO's to ensure a short time to market for the needed transmission.

Question 9: Do you agree that the “supergrid” issues for regulators identified in 5.1 are relevant? Is there anything else European regulators should be considering?

DONG Energy agrees that the supergrid issues and evaluations are relevant for

the regulators of EU to consider. There are as listed in the report numerous considerations to address for the regulators, e.g. differences in regimes, ownership, and costs and benefits.

As earlier emphasised DONG Energy finds that a comprehensive supergrid or a single transmission or interconnector all must be thoroughly evaluated on its social welfare benefits. The results and calculations should be open for the public to revise and comment upon.

Question 10: Is the current ownership structure of the offshore lines or their regulatory framework a potential issue for the integration of offshore network? Are there other considerations affecting this ownership structure?

DONG Energy believes the areas that CEER has identified for further analysis are warranted. As one additional comment, DONG Energy submits that any arrangement whereby the ownership of the cable connecting the offshore wind farm to the grid is split off from the wind generator, be it in the context of a traditional transmission line or a multilateral network (supergrid), must be accompanied by necessary incentives for the cable owner to properly maintain and swiftly repair transmission failures. Not doing so would inflict unnecessary risks and hence costs to the generator.

Question 11: Do you agree that the Regional Initiatives should be used to address the issues associated with the development of the regional projects? What challenges does this present?

DONG Energy supports ERGEG's 10-year electricity network development plan and especially the pan-European approach of identifying and planning the congestion management. This approach is a balanced approach between a pan-European and the Regional Initiatives, and according to DONG Energy the favoured way.

Question 12: What other issues should European regulators consider in relation to the integration of wind generation?

As stated by DONG Energy in the beginning of this answer we believe a crucial issue is the future role of the traditional generation units.

The shift from being the fundamental source of power to the back-up source of power calls for a strategy of how the future composition of production units shall look like. Traditional power units will be forced to close down as their share of the market will decrease, leaving them with only few hours of production. With the fixed costs unchanged, the contribution to these costs measured per production hour will multiply.

In markets where the production from a traditional generation unit is offered the market at the unit's marginal costs, the pointed change will demand a revision of this procedure.

DONG Energy believes these challenges caused by the integration of wind generation in European electricity markets calls for attention from the European regulators.



None of the above comments from DONG Energy are confidential.

For further information or questions please contact:

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