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# FORTUM'S COMMENTS ON EUROPEAN COMMISSION'S INTERIM REPORT OF THE SECTOR INQUIRY ON CAPACITY MECHANISMS

## 1 GENERAL

Fortum welcomes the opportunity to present its comments to the interim report of the sector inquiry on capacity mechanisms that was launched in spring 2015.

Fortum is a Finnish utility (transparency register **ID 03501997362-71**) with a vision to be the forerunner in clean energy. We provide our customers with electricity, heat and cooling as well as other energy solutions that improve present and future life. Already 64% of our electricity generation is CO2 free. Our main markets are the Nordic and the Baltic countries, Russia, Poland and India. In 2015, we employed some 8,000 energy sector professionals, and our sales were EUR 3.5 billion. Fortum's share is listed on Nasdaq Helsinki. www.fortum.com.

Fortum supports the European Commission's policy in the area of electricity market design. Fortum has contributed to the Commission's Sector Inquiry on Capacity Mechanisms by answering questions concerning Poland and Sweden.

The European electricity sector is experiencing rapid and steep changes on its path towards a decarbonised energy system. Continuous political intervention mostly crafted through national measures and the emergence of large volumes of electricity insensitive to market dynamics and price signals have severely damaged the functioning of electricity markets. The deployment of intermittent generation has raised and is raising major challenges to market integration, system operation and grid development as they are developing at a much slower pace than variable RES capacities. In this context, the ability of electricity markets to deliver cost effectively on the energy transition is reaching its limits.

Fortum believes that the state aid inquiry -and competition powers at large- should play a significant role in reinstating functioning markets and reverting the spiraling effects of national policies. A level-playing field of competing technologies, a European carbon pricing combined with dynamic and innovative retail markets are best equipped to offer a new deal to customers.

Security of supply should be addressed with the least interventionist measures and be made compatible with the development of European electricity markets. Energy policies conscious of their markets' potentials and ability to deliver mature RES technologies constitute an essential vector of transformation. Furthermore, wider regional markets, active demand response, investment in transmission grid and the use of smart grid should be bring an essential contribution to security of supply. Fortum believes that strategic reserves are least distortive and should be preferred over full-scale mechanisms.

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## 2 CAPACITY ADEQUACY ASSESSMENTS AND RELIABILITY STANDARDS

Fortum agrees with the European Commission that regional adequacy assessments based on common methodologies should be used in determining the capacity adequacy. The adequacy assessments and reliability standards need to be based on probabilistic methods taking into account full contributions from market-based demand response and the stochastic generation from wind and other non-firm power.

Regional adequacy assessments need to include expected capacity contributions from other regions. As technical failures in power plants and grids are usually non-correlated, a bigger regional system with strong interconnections needs a lower reserve margin against technical failures than a purely national system.

The reliability standards should be based on the value of lost load, but as this value differs between consumers and cannot thus be determined exactly, the standards can be based on commonly agreed values based on stakeholder consultation. It must also be taken into account that both commercial capacity in the day-ahead and intraday markets, as well as the balancing reserves contracted by the system operators contribute to the overall security of power supply.

## 3 DIFFERENT TYPES OF CAPACITY MECHANISMS

Fortum agrees with the European Commission that volume-based mechanisms are better suited as possible capacity instruments than price-based mechanisms. Fortum supports the basic principle that electricity prices in the short-term and forward markets should give the signal for investments in new and existing capacity.

Fortum disagrees with the interim report concerning the role of strategic reserves. Strategic reserves have been successfully used in Sweden and Finland to guarantee the functioning of the day-ahead market. This increases trust in the market functioning and enables thus market-based investments based on the commercial market prices. Strategic reserve consists of power plants that would otherwise usually have been mothballed or closed down. Thus it does not as such affect the capacity that is commercially offered to the market.

Strategic reserve can however also be used as a permanent solution if the day-ahead market cannot be otherwise always cleared. Older reserve units can be gradually replaced through competitive bidding by other units retiring from market-based operation, as has occurred in Sweden and Finland. In other words, strategic reserves can provide a valid solution if they are well-designed (i.e. address rare system adequacy events, do not interfere with the energy markets and their size remains limited.

Fortum considers that tenders for new capacity should only be used as a last resort mechanism in very special cases after all market tools have been exhausted. Tenders can severely destroy trust in markets and thus hinder market-based investments and the development of dynamic demand response, as well as ruin the profitability of existing capacity.

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## 4 CROSS-BORDER PARTICIPATION IN CAPACITY MECHANISMS

Fortum agrees with the European Commission that the contribution from cross-border capacities needs to be rewarded in capacity mechanisms. This should be possible for both market-wide mechanisms and for strategic reserves.

Fortum considers that capacities should be allowed to participate only in one capacity mechanism for the same time period. The system-wide benefits from non-correlated peak demands, RES generation levels and failure situations can be taken into account in the capacity dimensioning by reducing the required capacity in each national mechanism by estimating how much mutual power deliveries are available between countries in national peak situations. Furthermore, criteria underpinning the cross-border participation of capacities should be well-calibrated and be common to the regional market in concern. Supervision from the European Commission is necessary to make sure that the criteria are sound, objective and proportionate and do not unduly restrict the potentials of foreign participation. In this respect, if and where capacity markets are justified by a regional assessment, cross-border participation will only reach its optimal if it stems from a regional capacity mechanism.

Strategic reserves in Sweden and Finland are intended to secure the functioning of the day-ahead market by avoiding purchase bid curtailments. This prevents cascading of the day-ahead market deficits to shortages in the intraday and balancing markets where deficits could lead to forced load shedding. Thus strategic reserves are used based on the day-ahead market results before the intraday and balancing markets. If it is estimated that free cross-border capacity is always available during peak situations, strategic reserves can be contracted and imported from other countries. This can be the case if the exporting country has not enough commercial capacity for full market-based exports, but retired or mothballed capacity exists to be contracted as strategic reserve.

## 5 OTHER COMMENTS ON THE STAFF WORKING DOCUMENT

Fortum appreciates that the European Commission calls for improvements in the energy-only market (like scarcity price signals, demand response, option-type hedging products, adequate balancing market instruments for the TSOs, market-based cross-border import possibilities) and requires that possible capacity mechanisms should not replace better market reforms and should be based on demonstrated necessity of intervention, based on regional probabilistic adequacy assessments.

It could be mentioned more clearly that demand response has an active role in the market clearing, so that there needs not to be generation capacity "to meet demand at all times", but that demand in the market can voluntarily react to prices to match the available generation capacity. In this way, generation capacity is not any more a "public good", but active consumers can choose how much they use electricity depending on the hourly market price level. On the other hand, the actual real-time market at second and minute level is organised through the TSO balancing markets and the contracted balancing reserves, and thus this real-time balancing is a "public good" organised by the TSOs.

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The staff working document seems to prefer smaller bidding zones for solving internal grid congestions and for reducing needs for locational capacity mechanisms. Fortum rather prefers grid investments and more transparent counter-trading / redispatching, as well as technical measures, like phase-shifting transformers to solve the loop-flow problems and increase commercial trading capacity. E.g. in Italy, the zonal pricing system does not enable effective demand response, as demand-side prices are levelled across the country.

It is positive that transmission investments are preferred over national and locational capacity mechanisms. However, the document links transmission investments to commercial signals from the electricity market. According to the EU power market rules, grid investments by monopoly TSOs should however be based on EU-wide socio-economic benefits and not only on commercial profitability for the investor. The energy market regulators should see that adequate grid investments are done by the TSOs. Locational problems can also be solved through commercial re-dispatching and balancing reserves without a need for specific capacity mechanisms.

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