

Statkraft position paper on the design of capacity mechanisms

Statkraft continuously analyses the link between tremendous growth in RES and rapidly declining operating hours of conventional generation. The level of reliability of supply will decline over time if substantial amount of conventional power plants are decommissioned. Statkraft understands the political desire to create a “safety net” for society and therefore supports the implementation of capacity mechanisms as an integral part of the energy transition (“Energiewende”), that will replace the current legal restrictions to close down power plants (“Stilllegungsverbot”) as soon as possible.

The introduction of capacity mechanisms will come at a cost. A market wide capacity mechanism for Germany could cost up to 2 billion Euro per year, which is roughly 10% of the total subsidies for RES and is comparable to the costs for the upgrading of the high voltage grid.

On the proper design of capacity mechanisms, Statkraft has the following view:

1. Arrange for low cost and environmental friendly back-up capacity

The increased phase out of gas fired generation causes concern. This development obstructs efforts to turn towards low emission technologies as fast as possible. It is also a waste of resources to abandon the cheapest source of conventional generation in terms of fixed and standby costs. Gas fired generation should however not be subsidized, but a technology independent environment must reward cheap capacity at low emissions.

Statkraft is a strong supporter of a well functioning carbon market (ETS) as a tool to achieve reduction targets for greenhouse gas emissions. At the same time, the current renewable support schemes result in such a strong increase in installed renewable capacity, that carbon prices are low and ETS has no impact. If policy makers do not strengthen the ETS, one should consider using capacity mechanisms to directly support environmental friendly and flexible generation capacity, targeted to balance the intermittency of RES.

2. Keep capacity mechanisms open for interconnector capacity.

Special attention must be given to the importance of more interconnector capacity across Europe:

- Capacity mechanisms have a tendency of being national solutions, due to autarky thinking, and therefore discriminate interconnection vs. local balancing and back-up capacity.
- The linking of the hydro dominated Nordic system (which is energy constrained) and the continental system (which is capacity constrained) with new interconnectors, is currently the lowest-cost-solution for the integration of renewable generation.

It is therefore crucial to keep capacity mechanisms open to existing and new interconnector capacity. As the connection to the Nordic system is of special relevance, the development of more cables to Norway (additionally to the already planned NORD.LINK/NorGer cable) should be taken into account.

3. Minimize the regulatory uncertainty for market participants.

The capacity mechanisms need to be as light and as market based as possible and fully transparent in its detailed design and functioning (e.g. on the treatment of intermittent generation, of storage and of Demand Side Management options).

In parallel to implementing capacity mechanisms, clear policy standards for the desired level of reliability need to be set and published and monitoring of the actual level of reliability needs to be performed (preferably in cooperation with neighboring countries).

4. Implement carefully designed market-wide capacity mechanisms.

Given the political desire to ensure a high level of reliability of supply, Statkraft supports the introduction of market-wide capacity mechanisms as they provide a structural solution. A lot of experience with such models has been obtained in several markets. Lessons learned from these markets must be used in the detailed design. A capacity payment in Germany of 15 Euro/kW/year would result in a yearly cost of less than 10% of the total renewable support bill. Capacity mechanisms that provide support to only new capacity must be avoided.

“Direct capacity payment schemes” can serve as a simple model, that are easier to implement and can cover a transition period.

The “capacity obligations” and “capacity auction” approaches as chosen by respectively France and the UK, could also be workable. However, the “reliability contracts” approach may have a negative impact on the energy market by introducing a de-facto price cap and hence drying out of forward markets