Energy and Climate Exchange Series - Energy Market Developments in the Nordic Countries

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Following a now familiar Energy and Climate Exchange format, the event gathered three speakers with backgrounds in regulation, industry and academia to share their views on recent developments in the Nordic energy market.

Timo Partanen of the Energy Markets Authority spoke first, highlighting some specificities of the Nordic market with a particular focus on Finland. The basic setup of Nord Pool is a hydro-dominated, implicit auction market. 80% of the region's energy is consumed and traded within Nordpool. Finland imports a constant and reliable amount of energy from Russia – 1300MW each day. These imports are affected by Russian capacity charges which apply during the morning and afternoon hours. Looking forward, Finland's most updated energy and climate strategy seeks to increase the share of renewables in both supply and demand, including having renewables make up 10% of transport. There is also a goal to increase self-sufficiency.

Gunnar Lundberg, chairman of the Eurelectric Markets Committee opened his talk with an overview of the success factors of Nord Pool. A key point is that Nord Pool was formed out of an already existing power pool (at least from the 1960s) with pre-existing rules such as a middle price for the power exchange. The Internal Energy Market for wider Europe does not have this advantage. Commenting on the wider future of the Nord Pool market, he pointed out that the current energy system is already carbon free, so it is worth questioning the move towards more renewables. On the one hand, increased production from renewables could lead to greater energy consumption; however, the Nordic countries already have the highest energy consumption levels across the world other than Canada. It could be the case that the extra electricity could be exported, but this runs into problems such as the limits to transmission capacity, unresolved bottlenecks within potential recipient countries, and the reluctance of Nordic customers to essentially be subsidising renewables for other markets.

Sharing the academic view, Sven Olof-Fridolfsson of the Research Institute of Industrial Economics added a few points to the broad description of Nord Pool: market concentration is very low and support schemes for renewables such as feed-in tariffs are a key feature. Another success factor is an effective day-ahead market whose efficiency is enhanced by the support of financial markets and appropriate instruments. He provided one line of argument against completely liberalised cross-border transmission. Transmission can be viewed as a natural monopoly, which would thus need to be regulated. In this case, regulation might be best done at the national level.

A few themes recurred in the general discussion: Who should benefit from bottleneck rents, and how does their existence impact investment decisions and cross-border transmission? How could the Mankala system, whereby energy users (e.g energy intensive industrial companies) have an ownership stake in the energy producer, be extended to countries other than Finland? How could potential Nordic over-production be dealt with? In answering the preceding questions, could Nord Pool be replicated in wider Europe with an appropriate set of rules? In view of a general trend of Nordic efficiency, the conclusion remained unclear.

Event notes by Amma Servaah