23 Cross-border Trading

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Abstract

Within the integrated market of Norway, Sweden, Finland, and Denmark – the Nordic region – cross-border trading is handled implicitly in the day-ahead market clearing. The capacity on all connections between the four countries, and partly also the capacity on the connections between Denmark and Germany, is included in the Nordic price calculation. This chapter aims to describe how the exchange of power across the borders between the Nordic countries comes about and how the Nordic model ensures socioeconomic utilization of generation and transmission resources within the Nordic region, allocating the power flow from the surplus areas to the deficit areas.

Keywords: electricity trading, cross border, Nordic power exchange

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23.1 Introduction

Within the integrated market of Norway, Sweden, Finland and Denmark – the Nordic region – cross-border trading is handled implicitly in the day-ahead market clearing. The capacity on all connections between the four countries, and partly also the capacity on the connections between Denmark and Germany, is included in the Nordic price calculation. This chapter aims to describe how the exchange of power across the borders between the Nordic countries comes about and how the Nordic model ensures a socioeconomic utilization of generation and transmission resources within the Nordic region, allocating the power flow from the surplus areas to the deficit areas.

Transmission capacity that is not utilized in the day-ahead market is made available for the intraday market. Throughout Finland, Sweden, Denmark, Germany, and soon also Norway, participants can buy or sell power across the borders until 1 hour before delivery.

Capacity limitations on transmission lines may cause price differences between the countries. In the financial market there are instruments that give the participants the opportunity to hedge their risk against a Nordic Elspot reference price, called the system price, and in addition the area price differences that may occur via so-called contracts for difference (CfD). The financial contracts linked to the system price and the complementary CfD are described in this chapter.

23.2 The Nordic Power Exchange – The Nord Pool Group

The Nord Pool Group operates marketplaces for trading and clearing physical-delivery and financially settled power contracts in the Nordic region. Together the Nord Pool Group provides Europe’s most liquid wholesale marketplace for power. Its main physical market, the day-ahead Elspot Market, accounts for about 70% of the Nordic region’s power consumption (and production).

The Nord Pool Group comprises the parent company Nord Pool ASA with its wholly owned subsidiaries Nord Pool Clearing ASA and Nord Pool Consulting AS.2 Nord Pool Spot AS and its wholly owned Nord Pool Finland Oy are also part of the Nord Pool Group. Nord Pool ASA is owned 50-50 by Statnett SF and Svenska Kraftnät, the Norwegian and Swedish transmission system operators (TSO). Nord Pool Spot AS is owned by the four Nordic TSOs and Nord Pool ASA, with equal shares of 20% each.

Nord Pool ASA provides a marketplace where exchange members can trade financially settled electricity contracts, futures, forwards, and options up to 6 years ahead. Nord Pool ASA also offers trading with European Union Allowances, Certified Emissions Reductions, and Swedish green electricity certificates. All con-

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2 As of December 21, 2007 press release: OMX is acquiring Nord Pool ASA’s clearing and consulting operations and international derivatives products and establishing a business unit for international energy derivatives headquartered in Oslo.