

Nord Pool European Market Coupling Operator AS, Benchmark Statement

Nordic System Price

April 2021

The Nordic System Price – Benchmark Statement

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Benchmark Administrator: Nord Pool European Market Coupling Operator AS

1. Introduction

Nord Pool European Market Coupling Operator AS (“Nord Pool EMCO”) is part of Nord Pool Group (“Nord Pool”) which consist of the parent company Nord Pool Holding AS and its two subsidiaries Nord Pool EMCO and Nord Pool AS and their respective subsidiaries.

Nord Pool EMCO is Benchmark Administrator of the Nordic System Price (hereafter “System Price”) for the Nordic Day-ahead market for electricity.

This benchmark statement is created in accordance with Article 27 of Regulation (EU) 2016/1011 of the European parliament and of the council on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds and amending Directives 2008/48/EC and 2014/17/EU and Regulation (EU) No 596/2014 - the European Benchmark Regulation (the EU BMR).

Nord Pool EMCO is not regulated by any financial authority. Nord Pool EMCO is regulated by the National Energy Regulatory Authority - RME¹. Nord Pool EMCO is authorised by Finanstilsynet² in Norway as the Benchmark Administrator in accordance with the EU BMR Article 34.

¹ RME – ‘Reguleringsmyndigheten for Energi’ - part of NVE – the Norwegian Water Resources and Energy Directorate

² Finanstilsynet - The Financial Supervisory Authority of Norway

2. Benchmark Statement

	Relevant EU BMR or RTS provision	Requirement	Nord Pool EMCO's Response
General Disclosure Requirements			
1	RTS Art 1, 1(b)	The benchmark statement shall state: (b) where available, the international securities identification number (ISIN) of the benchmark or benchmarks; alternatively, for a family of benchmarks, the statement may provide details of where the ISINs are publicly accessible free of charge;	ISIN number is not assigned to the System Price.
2	RTS Art 1, 1(c)	The benchmark statement shall state: (c) whether the benchmark, or any benchmark in the family of benchmarks, is determined using contributions of input data;	Since the System Price is a regulated index based on order data from regulated NEMOs it is considered that there are no contributors of input data as referred in Article 15 of the EU BMR. The Nordic regulated NEMOs are in accordance with the 'Nordic MNA Proposal' – decided by Nordic regulatory authorities ³ - obliged to make available their aggregated and anonymized orderbooks for calculation of the System Price.
3	RTS Art 1, 1(d)	The benchmark statement shall state: (d) whether the benchmark or any benchmark in the family of benchmarks qualifies as one of the types of benchmarks listed under Title III of Regulation (EU) 2016/1011, including the specific provision by virtue of which the benchmark qualifies as that type.	The System Price is a commodity benchmark and a regulated data benchmark by virtue of point 24(a)(iv) of Article 3(1) of Regulation (EU) 2016/1011.

³ Nordic TSOs' proposal for Arrangements concerning more than one NEMO in one bidding zone in accordance with Article 45 and 57 of the commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a Guideline on Capacity Allocation and Congestion Management. Point 4.2.6. <http://www.nordicenergyregulators.org/wp-content/uploads/2016/06/Nordic-TSOs-proposal-on-multiple-NEMO-arrangements.pdf>

4	RTS Art 1, 2(a)	In defining the market or economic reality, the benchmark statement shall include at least the following information; (a) a general description of the market or economic reality;	A description of the System Price and the Nordic Day-ahead market is available on Nord Pool's website .
5	RTS Art 1, 2(b)	In defining the market or economic reality, the benchmark statement shall include at least the following information: (b) the geographical boundaries, if any, of the market or economic reality;	The System Price reflects the Nordic day-ahead market and is calculated based on orderbooks from the Nordic bidding zones and calculated flows in Single Day-Ahead Coupling ⁴ ("SDAC") on the interconnectors towards countries neighbouring any of the Nordic countries, Norway, Sweden, Finland, and Denmark. This is further described in System Price methodology published on Nord Pool's website .
6	RTS Art 1, 2(c)	In defining the market or economic reality, the benchmark statement shall include at least the following information: (c) any other information that the administrator reasonably considers to be relevant or useful to help users or potential users of the benchmark to understand the relevant features of the market or economic reality, including at least the following elements insofar as reliable data on these elements is available: <ul style="list-style-type: none"> (i) Information on actual or potential participants in the market; (ii) An indication of the size of the market or economic reality. 	The basis for the calculation of the System Price are the complete orderbooks for the Nordic Day-ahead wholesale market where buyers and sellers of electricity participate in a joint auction to match orders for delivery the following day. The Nordic Day-ahead market is coupled to the European Day-ahead markets via the Single Day-ahead Coupling (SDAC) Approximately 90% of the Nordic electricity consumption is bought and sold in the Day-ahead market. Yearly consumption of electricity in the Nordic countries was in 2020 app 378 TWh.
7	EU BMR Art 27, 2(g)	A benchmark statement shall contain at least: (g) the identification of potential limitations of the benchmark,	The data used for calculation of the System Price comes from regulated Nominated Electricity

⁴ Single Day-ahead Coupling and Nominated Electricity Market Operators as defined in Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management. CACM.

		including its operation in illiquid or fragmented markets and the possible concentration of inputs.	Market Operators ⁵ (NEMOs) operating in SDAC. It is a well-established and liquid market, and the day-ahead Auction has been operating in the Nordics without interruption since the 90's. Thus, Nord Pool EMCO does not consider that there are any limitations in the operations.
8	RTS Art 1, 3(a)	In defining the potential limitations of the benchmark and the circumstances in which the measurement of the market or economic reality may become unreliable, the benchmark statement shall include at least: (a) a description of the circumstances in which the administrator would lack sufficient input data to determine the benchmark in accordance with the methodology;	The data used for calculation of the System Price comes from regulated NEMOs operating in SDAC. It is a well-established and liquid market. The day-ahead auction has been operating in the Nordics without interruption since the 90's. Back-up solutions have been implemented to ensure that there is a System Price being calculated also in the event of decoupling or other technical incidents. Thus Nord Pool EMCO does not consider that there to be any limitations in the operations.
9	RTS Art 1, 3(b)	In defining the potential limitations of the benchmark and the circumstances in which the measurement of the market or economic reality may become unreliable, the benchmark statement shall include at least: (b) where relevant, a description of instances when the accuracy and reliability of the methodology used for determining the benchmark can no longer be ensured, such as when the administrator deems the liquidity in the underlying market as insufficient;	It is expected that it will always be possible to calculate a reliable System Price. In the very rare situation that no prices, neither from SDAC or the Nordic regional fall-back procedure, have been successfully calculated at 20:00 CET in the evening on the day before delivery, previous days prices will be declared both for area prices and for the calculation of the Nordic System Price.

⁵ Single Day-ahead Coupling and Nominated Electricity Market Operators as defined in Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management. CACM.

10	RTS Art 1, 3(c)	<p>In defining the potential limitations of the benchmark and the circumstances in which the measurement of the market or economic reality may become unreliable, the benchmark statement shall include at least:</p> <p>(c) any other information that the administrator reasonably considers to be relevant or useful to help users and potential users to understand the circumstances in which the measurement of the market or economic reality may become unreliable, including a description of what might constitute an exceptional market event.</p>	<p>The use of previous days price as fall-back for the System Price constitutes an exceptional event.</p> <p>Other types of market events that qualify to affect a reliable System Price calculation could be:</p> <ul style="list-style-type: none"> • situation with extensive rationing of electricity in the market. • under national emergency preparedness situations and war.
11	RTS Art 1, 4	<p>In specifying the controls and rules that govern any exercise of judgement or discretion by the administrator or any contributors in calculating the benchmark or benchmarks, the benchmark statement shall include an outline of each step of the process for any ex post evaluation of the use of discretion, together with a clear indication of the position of any person(s) responsible for carrying out the evaluations.</p>	<p>There is no exercise of judgement or discretion in the input or calculation of the System Price.</p>
12	RTS Art 1, 5	<p>In specifying the procedures for review of the methodology, the benchmark statement shall at least outline the procedures for public consultation on any material changes to the methodology.</p>	<p>Material changes to the methodology for calculating the System Price must be consulted with Stakeholders and with market parties.</p> <p>Procedure for consulting on material changes are further described in the System Price methodology published on Nord Pool's website.</p>
Content			
13	EU BMR Art 27, 1(a)	<p>The benchmark statement shall:</p> <p>(a) clearly and unambiguously define the market or economic reality measured by the benchmark and the circumstances in which such measurement may become</p>	<p>The economic reality – measured by the System Price is specified in the System Price methodology document.</p>

		unreliable;	
14	EU BMR Art 27, 1(b)	The benchmark statement shall: (b) lay down technical specifications that clearly and unambiguously identify the elements of the calculation of the benchmark in relation to which discretion may be exercised, the criteria applicable to the exercise of such discretion and the position of the persons that can exercise discretion, and how such discretion may be subsequently evaluated;	The System Price Methodology describes how the System Price is calculated. There are no elements of the System Price calculation which requires exercise of discretion except from the judgment and decision done in fall-back situation described in point 20.
15	EU BMR Art 27, 1(c)	The benchmark statement shall: (c) provide notice of the possibility that factors, including external factors beyond the control of the administrator, may necessitate changes to, or the cessation of, the benchmark; and	The System Price Methodology sets out procedures for how to handle necessary changes to the calculation of the System Price – including consultation process towards stakeholders and market parties.
16	EU BMR Art 27, 1(d)	The benchmark statement shall: (d) advise users that changes to, or the cessation of, the benchmark may have an impact upon the financial contracts and financial instruments that reference the benchmark or the measurement of the performance of investment funds.	Nord Pool EMCO will inform the market and stakeholders in due time of any change or cessation of the System Price. Specific procedures for information and consultation process are described in the System Price Methodology.
17	EU BMR Art 27, 2(a)	A benchmark statement shall contain at least: (a) the definitions for all key terms relating to the benchmark	All key terms relating to the System Price are defined in Section 3 to this document.
18	EU BMR Art 27, 2(b)	A benchmark statement shall contain at least: (b) the rationale for adopting the benchmark methodology and procedures for the review and approval of the methodology;	The System Price Methodology document describes what the System Price reflects and the methodology for its calculation. The chosen methodology for calculating the System Price is intended to ensure a common benchmark for the Nordic Day-ahead Market. The chosen methodology entails that the calculation is based

			<p>on a larger liquidity pool than if the calculation was based on for instance volumes from single bidding zones. The use of a price which is calculated by assuming no bottlenecks, limits the effect of temporary transmission constraints, and reduces the risk of manipulation.</p> <p>The methodology for calculating the System Price is reviewed and approved when needed and at least yearly. The System Price methodology document chapters 5 and 6 describe the detailed procedures for the review and approval. The procedure includes organization of a public consultation for changes that are likely to have a significant impact of the outcome of the System Price.</p>
19	EU BMR Art 27, 2(c)	A benchmark statement shall contain at least: (c) the criteria and procedures used to determine the benchmark, including a description of the input data, the priority given to different types of input data, the minimum data needed to determine a benchmark, the use of any models or methods of extrapolation and any procedure for rebalancing the constituents of a benchmark's index;	<p>The input data are aggregated and anonymized order book files from NEMOs operating in the Nordic Bidding zones and also certain calculation results (flows on certain interconnectors) from SDAC.</p> <p>No priority is given to any type of these input data. The procedure for calculating the System Price and the possible use of fall-back solution is described in the System Price Methodology.</p>
20	EU BMR Art 27, 2(d)	A benchmark statement shall contain at least: (d) the controls and rules that govern any exercise of judgement or discretion by the administrator or any contributors, to ensure consistency in the use of such judgement or discretion;	<p>There should be no need for any exercise of judgement or discretion in the calculation of the System Price itself.</p> <p>Decision to use the fall-back calculation method for System Price in specific situations is</p>

			<p>dependent on judgment by technical experts and discrete decision by management.</p> <p>Nord Pool EMCO has established an oversight function which will ensure that the published Methodology and corresponding procedures have been followed in the event of any unforeseen incident to the operations of the System Price.</p>
21	EU BMR Art 27, 2(e)	<p>A benchmark statement shall contain at least:</p> <p>(e) the procedures which govern the determination of the benchmark in periods of stress or periods where transaction data sources may be insufficient, inaccurate or unreliable and the potential limitations of the benchmark in such periods;</p>	<p>The System Price methodology describes fall-back procedures for calculation of System Price in the event of technical issues or unforeseen incidents in the SDAC. Common of these is that there are clear provisions for how the System Price will be set and procedures secure that calculation on reliable data is always possible.</p>
22	EU BMR Art 27, 2(f)	<p>A benchmark statement shall contain at least:</p> <p>(f) the procedures for dealing with errors in input data or in the determination of the benchmark, including when a redetermination of the benchmark is required; and</p>	<p>The System Price Strategy and Routines document describes the process for complaints handling and handling of deviations.</p> <p>The System Price Methodology sets out in what situations and how a recalculation of the System Price could occur.</p>
Specific disclosure requirements for regulated-data benchmarks			
23	RTS Art 2(a)	<p>In addition to the information to be included pursuant to Article 1, for a regulated-data benchmark or, where applicable, family of regulated-data benchmarks, the benchmark statement shall state at least the following in its description of the input data:</p> <p>(a) the sources of the input data used</p>	<p>The source of the input data are certain calculation results from the SDAC and orderbook data from NEMOs operating in the Nordic day-ahead market.</p>
24	RTS Art 2(b)	<p>In addition to the information to be included pursuant to Article 1, for a regulated-data benchmark or, where applicable, family of regulated-data benchmarks, the</p>	<p>Article 3, 1 (24)(a)(iv) of Regulation (EU) 2016/1011 applies.</p>

		benchmark statement shall state at least the following in its description of the input data: (b) for each source, the relevant type, as listed in Article 3(1)(24) of Regulation (EU) 2016/1011	
Specific disclosure requirements for interest rate benchmarks			
25	RTS Art 3	Specific disclosure requirements for interest rate benchmarks	Not applicable for the System Price
Specific disclosure requirements for commodity benchmarks			
26	RTS Art 4 (a)	for a commodity benchmark or, where applicable, family of commodity benchmarks, the benchmark statement shall at least: (a) indicate whether the requirements of Title II of, or Annex II to, Regulation (EU) 2016/1011 apply to the benchmark, or family of benchmarks as prescribed by Article 19 of that Regulation;	The requirements of Title II of the Regulation (EU) 2016/1011 apply to the System Price.
27	RTS Art 4 (b)	(b) include an explanation as to why Title II of or as the case may be, Annex II to that regulation applies;	The System Price is also a regulated-data benchmark and therefore it is the requirements of Title II that shall apply – as prescribed in Article 19 of the Regulation (EU) 2016/1011.
28	RTS Art 4 (c)	(c) include in the definitions of key terms a concise description of the criteria that define the relevant underlying physical commodity;	The underlying physical commodity is electricity.
29	RTS Art 4 (d)	(d) where applicable, indicate where the explanations are published that the administrator is required to publish under paragraph 7 of Annex II to that Regulation.	Not applicable for the System Price
Specific disclosure requirements for critical benchmarks			
30	RTS Art 5	Specific disclosure requirements for critical benchmarks	Not applicable for the System Price

3. Key terms

Key term	Definition
Bidding zone	A bidding zone is the largest geographical area within which market participants are able to exchange energy without transmission capacity allocation.
CACM	Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management.
MCO	Market Coupling Operation
NEMO	Nominated Electricity Market Operator – as defined in the CACM regulation.
Nordic System Price Area	The sum of the Nordic bidding zones (in Norway, Sweden, Finland and Denmark) viewed as one area without internal grid congestions
OBK	Orderbook is an aggregated and anonymized orderbook from a NEMO operating in one or more of the Nordic Bidding zones in SDAC.
SDAC	Single Day-ahead Coupling – as defined in the CACM regulation.
Social welfare	Economic surplus; the sum of supplier surplus and the consumer surplus for the time period of the calculation – 24 hours.
Underlying commodity for System Price	The underlying commodity for the System Price is electricity traded in the Nordic Day-ahead wholesale market.

4. Disclaimer

This benchmark statement is for information purposes only. This benchmark statement is provided “as is” without representation or warranty of any kind. Even though all reasonable case has been taken to ensure the accuracy or the content, Nord Pool EMCO and/or Nord Pool do not guarantee its accuracy or completeness. Nord Pool EMCO and/or Nord Pool will not be held liable for any loss or damage or any kind of ensuing from using, trusting or acting on information provided in this benchmark statement. All proprietary rights and interest in or connected with this benchmark statement shall vest in Nord Pool EMCO. No part of it may be redistributed in any form without the prior written consent of Nord Pool EMCO.

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About Nord Pool Group

Nord Pool Group (‘Nord Pool’), Europe’s leading power market, delivers efficient, simple and secure trading across Europe. The company offers day-ahead and intraday trading, clearing and settlement to customers regardless of size or location. Today 360 companies from 20 countries trade on Nord Pool’s markets.

Nord Pool operates markets in the Nordic and Baltic regions, Germany, France, the Netherlands, Belgium, Austria and the UK. Nord Pool is a Nominated Electricity Market Operator (NEMO) in 15 European countries, while also servicing power markets in Croatia and Bulgaria. In 2018 Nord Pool had a total turnover of 524 TWh traded power. The company has offices in Oslo, Stockholm, Helsinki, Tallinn, London and Berlin.

Nord Pool has 25 years of power market experience built on offering flexibility, transparency, innovation, greater choice and participation to our customers.