

Memorandum

To: Board of Directors in Nord Pool Spot AS
From: Market Surveillance
Date: 06.12.2011

STATNETT - BREACH OF MARKET CONDUCT RULES

1. EXECUTIVE SUMMARY

<i>Market participant</i>	Statnett SF
<i>Affected markets</i>	Nordic power market / Elspot market
<i>Incident description</i>	On 17 September 2011 Statnett SF (“Statnett”) sent an erroneous Elspot nomination to Nord Pool Spot AS due to an internal mistake. The nomination resulted in 912.9 MW too much electricity purchased in each hour at any given price for all 24 hours Sunday 18 September 2011.
<i>Rulebook reference:</i>	MCR section 4.1 (prohibition on market manipulation) and MCR section 3.1 and 3.5 (disclosure requirements)
<i>Recommendation:</i>	Written warning

2. MATTERS OF FACT

2.1 General

Nord Pool Spot AS (“NPS”) operates the Nordic electricity market with delivery of physical electricity (the “Physical Market”). The Physical Market consists of the “Elspot” day-ahead auction and the “Elbas” continuous intra-day market used mainly for adjustment purposes. Elspot auctions are held for each calendar day of the year, on the immediate preceding trading day, and participants in the Elspot market submit orders to sell or purchase electricity through Elspot nominations for each hour of the applicable day and for each price area.

Statnett is a direct participant at NPS Physical Market and is under an obligation to act in accordance with the Market Conduct Rules (“MCR”) issued by NPS. The department “Landssentralen” is submitting orders in Elspot on behalf of Statnett. Statnett is also responsible for the Balancing market, including the balancing settlement (“Balanseavregningen”).

2.2 The Nomination

On 17 September 2011 Statnett submitted an Elspot nomination (the “Nomination”) to NPS for the auction with delivery date 18 September 2011 (the “Auction”). The nomination was erroneous, in that it was not compliant with Statnett’s intended nomination due to a mistake by Statnett, and resulted in Statnett buying 912.9 MW too much electricity independent of price in the Norwegian price area NO2 for each hour in the Auction. Market Surveillance (“MS”) has investigated the circumstances prior to and succeeding the Nomination with the aim of establishing whether Statnett was in breach of the MCR.

MS was made aware of the incident through an e-mail sent from Statnett 26 September 2011. Based on information gathered in further e-mail correspondence, in addition to a meeting with Statnett, the UMM published about the incident, as well as information derived from the Electronic Trading System (the "ETS"), MS has established the following facts:

- The Norwegian TSO, Statnett, is balance responsible for losses in the main grid. The account used for the Nomination is only used by Statnett to purchase losses based on a flow prognosis for the HVDC link to Denmark (Skagerrak). In the Nomination, instead of buying the expected loss of 37.1 MWh/h which would occur with a flow of 950 MWh/h, Statnett purchased a volume of 950 MWh/h for all 24 hours Sunday 18 September 2011.
- In the spreadsheet used for the Nomination, there were two columns next to each other; one for the flow prognosis and one for the calculated losses. By mistake, the operator at "Landssentralen" entered the flow prognosis where the calculated losses should have been.
- Statnett had not implemented any upper and lower limits for the Nomination on this account. This has now been implemented. When received by NPS, the Nomination was not detected by the reasonability check conducted by the trading desk.
- At 12:39 CET the system price was published on NPS' website and immediately to all NPS' participants in the Auction through the ETS, in addition to various other forms of publication.
- After the price was published Statnett received the trading results of the Auction according to normal procedure. Statnett did not verify that the results were correct, and therefore they did not discover that the results deviated from the intended nomination.
- On Monday 26 September "Landssentralen" at Statnett was notified by "Balanseavregningen". On Monday 26 September at 21:46 CET "Landssentralen" then contacted MS by e-mail, informing about the erroneous Nomination (Attachment 1).
- In the morning on Tuesday 27 September MS contacted Statnett and asked them to consider whether the erroneous Nomination was subject to the disclosure requirements. On Tuesday 27 September at 12:58 CET an UMM regarding the incident was published by Statnett (Attachment 2).
- Both the system price and the area prices from the Auction were used for settlement of transactions in both the Physical Market and the Financial Market.
- On 18 November Market Surveillance had a meeting with Statnett. Statnett was informed about MS' views on the incident and was informed about the possible outcome of the investigation.

Attachment 1: E-mail correspondence with Statnett starting Monday 26 September.

Attachment 2: The UMM regarding the incident, published Tuesday 27 September at 12:58 CET.

3. LEGAL DELIBERATION

3.1 Legal Basis

MS deems that the relevant sections of the MCR are section 4.1 regarding market manipulation, section 3.1 d) and section 3.5, both regarding disclosure requirements.

3.2 Market Manipulation

3.2.1 General

It must be assessed whether the Nomination was in breach of the prohibition against market manipulation. Pursuant to MCR section 4.1

“Members shall not engage in Market Manipulation as defined in Enclosure I”.

We will first discuss whether the objective criteria for market manipulation in the Physical Market are fulfilled, and then discuss the subjective elements applicable to Statnett’s relevant actions.

3.2.2 Objective Criteria

The prohibition against market manipulation in the MCR generally establishes a purely effect-based regime, as it is the potential effect of the applicable conduct which is decisive in whether market manipulation has occurred. One of the key purposes of the market manipulation prohibition and the way it is drafted is to preserve the integrity of the market as such, and to facilitate an orderly price discovery and determination by the market.

Pursuant to the MCR Enclosure 1, section 1.1 a) the prohibition against market manipulation applies to any “Transactions or Orders to trade”, where MCR enclosure 1, section 4.1 letter b), defines “Orders to trade” as

“orders for Exchange Trading in Listed Products, other orders relating to Listed Products, and orders to trade electricity in the Nordic electricity market.”

It is clear that the Nomination qualifies as “Order[s] to trade [...] electricity in the Nordic electricity market” and thus can trigger the prohibition against market manipulation.

The next question is whether market manipulation has actually taken place. MCR Enclosure 1, section 1.1 a) defines what constitutes market manipulation, whereby the Nomination would have to

“(i) [...] give, or are likely to give, false or misleading signals as to the supply of, demand for or price of a Listed Product; or

(ii) secure the price of one or several Products at an abnormal or artificial level”

MS notes that whereas alternative (i) only requires a potential effect caused by “manipulative signals”, alternative (ii) requires that an actual effect of securing [...] at an abnormal or artificial level is achieved. Other than this the two alternatives overlap, and MS deems that it is difficult to imagine any scenario where alternative (ii) could have any independent application where the criteria of alternative (i) are fulfilled. In the discussion below, main emphasis will be made on alternative (i).

In relation to MCR section 1.1. a) it must be considered whether Statnett’s Nomination gave or was likely to give “false or misleading signals” to the market as to the demand of electricity in the market.

The actual Nomination did not give the market any direct “signals”, as Elspot nominations are only known by NPS and the individual participant. However the result of Elspot nominations are given to the market through the distribution of the trading results of the auctions, i.e. through the system price, the area prices and volumes for the Auction. MS is however of the opinion that there is no requirement under the market manipulation prohibition that the actual Nomination is visible as a direct signal to the market as long as the Nomination had the effect, or potential effect, of causing false or misleading signals as to affecting the system price, area prices and/or volumes. Whether such effect materializes directly e.g. by the publication of the actual Nomination, or indirectly e.g. by impacting the system price, area prices or volumes of the Auction, is in other words without relevance to whether market manipulation has occurred.

MS deems that the Nomination as such was “false or misleading” because it did not signal an actual intent by Statnett to buy electricity volumes at the applicable prices for which Statnett was awarded transaction volumes in the Auction. In this respect, MS deems that it is not relevant whether or not the obligations resulting from the Nomination were actually fulfilled by Statnett or not, with the effect that the Nomination therefore – and in this particular matter – resulted in conveying only information about “real” transactions. MS deems that in order to

not be false or misleading, the Nomination would have to reflect an actual intention by Statnett to buy the applicable electricity volumes at the prices indicated by the Nomination at the time when it was submitted.

MS concludes that the Nomination fulfil the objective criterion for market manipulation as it was likely to give false or misleading signals to the market as to the demand of electricity and as to the price of electricity. The error implied that Statnett purchased more than 900 MW too much for all 24 hours during 18 September, independent of price. 900 MW is a considerable proportion of the hourly purchase volumes in NO2, which were approximately 3,000 MW. 900 MW is also a considerable proportion of the total turnover at system price which were between approximately 26, 000 MW and 31,000 MW for the Nordic area as a whole. It is the view of MS that such an error was likely to affect prices significantly, and that the incident did in fact have a considerable impact both on the traded volume and the market prices.

3.2.3 *The Relevance of Subjective Elements*

A purely effect-based regime as assumed above means that subjective elements such as intent or negligence of the person(s) responsible are irrelevant. Furthermore, there is not any requirement that the manipulative conduct had any illegitimate purpose as long as a potentially manipulative effect *per se* is created. Also it is strictly speaking not relevant for the application of the market manipulation provisions whether a manipulative conduct causes the person responsible to benefit from the conduct, or whether it causes one or more other participants losses or gains.

The market manipulation prohibition seeks to protect the integrity of the market as such and not individual positions. To this respect, MS notes that the purpose of the market manipulation prohibition is to prevent other participants from receiving and acting on false or misleading information. The cause of the signals and whether there is intent or not is normally not visible to the market, and the integrity of the market is therefore threatened by all false or misleading signals regardless of whether they have been caused by intentional, negligent or excusable behaviour.

A pure effect-based approach without consideration of subjective elements or the actual consequences of the conduct may nevertheless result in situations that are unfortunate from a due process perspective, and where it is furthermore questionable whether such actions should indeed be unlawful or that a sanction for market manipulation would be appropriate.

MS agrees that subjective elements, and the degree of guilt and negligence, are of relevance when applying the prohibition against market manipulation in the MCR, and that in determining whether there is cause for disciplinary actions such elements are both of relevance and importance.

3.2.4 *MS' Assessment of Subjective Elements*

It is always the participant's responsibility to ensure that nominations sent to NPS are correct and valid. The NPS desk tries to detect whether the participants' nominations contains any errors. They have tools for automatic control of all nominations, but this tool is dependent on parameters which have to be adjusted for each account. On the specific account used by Statnett for the Nomination, the parameters were not adjusted in such a way that the erroneous Nomination was detected by the automatic control. NPS receives somewhere between 1,000 and 1,400 nominations each day between 10:00 – 12:00 CET. Due to the large amount of nominations, in addition to the complexity of data and the short period of time, NPS will not always detect erroneous nominations. NPS do not take on responsibility for erroneous nominations submitted by participants.

MS has investigated how erroneous trades have been treated earlier, and this incident is very similar to the incident with erroneous trades conducted by Statkraft on 27 October 2010. The discussion and conclusion are therefore very much alike.

On 27 October 2010 Statkraft Energi AS submitted erroneous Elspot nominations to NPS, which resulted in 4,000 MW too much sale in each hour at any given price in Norway. This was by NPS considered to be a breach of MCR 4.1 regarding market manipulation. For this Statkraft was sanctioned, and received a violation charge of NOK 250,000.

In the case with Statnett, the additional volumes which resulted from the erroneous Nomination were of considerably less magnitude, and the incident can therefore be considered as less severe. There have also been other incidents regarding erroneous nominations in Elspot. In these cases the erroneous volumes which were

purchased/sold were not as large as in the Statnett-incident and/or the degree of negligence has been less severe. This has contributed to that no sanctions have been given for these incidents.

MS deems that the initial cause of the erroneous Nomination, namely the error made when filling out the Nomination internally within Statnett, was caused by a human error which Statnett could have foreseen or prevented. The fact that the Nomination was not detected by NPS' trading desk, and as a consequence that Statnett was not contacted by NPS prior to the Auction, is in this matter not relevant, although it would have been an aggravating factor if NPS had in fact contacted Statnett prior to the auction and Statnett had still upheld the erroneous nomination.

MS has not found indications that Statnett was seeking to intentionally manipulate the Physical Market through the Nomination, nor that Statnett had any illegitimate reasons for the Nomination or for their other actions, nor that Statnett has had any actual or potential financial benefit of the incident in this matter.

MS is of the opinion that Statnett has displayed negligence both when submitting the actual Nomination, and by not ensuring that there were better routines in place in order to secure that the submitted Nomination was correct and valid. In an e-mail dated 4 October 2011 Statnett describes the routines that were in place for securing that orders regarding grid losses relating to Skagerrak were correct. It is described that there are two columns on the page where the loss at Skagerrak is calculated; "Estimated flow" and "Estimated loss". The columns are marked with colour coding and descriptive headlines. Other than that Statnett has not described any procedures or routines that were in place to ensure that the orders placed in Elspot were correct. For orders representing losses in NO1 – NO5 there were limitations in place to ensure that orders above or below specified limits could not be placed. However, this was not in place for the Nomination representing Skagerrak.

MS is of the opinion that a market participant must have necessary procedures in place that ensure that the Elspot nominations are correct. Further, it is the view of MS that the procedures that Statnett had in place were very limited and not sufficient to ensure the quality of the orders placed. On this background MS concludes that Statnett's negligence has caused a manipulative effect in relation to the applicable products.

3.3 Disclosure Requirements

It must also be assessed whether the incident represents a breach of the disclosure requirements. MS deems that the relevant sections of the MCR in this respect are MCR section 3.1d) and section 3.5.

MCR section 3.1d) states

"3.1 Members shall disclose to NPS any information relating to the Nordic electricity market regarding the Member's own business or facilities of which the concerned owns or controls or has the balance responsibility for in whole or in part, in particular information relevant to facilities for production, consumption or transmission of electricity, regarding:

d) any other information that is likely to have a significant effect on the prices of one or more Products if made public."

MCR section 3.5 states:

"3.5 All information which shall be disclosed pursuant to this Section 3.1 to 3.4 shall be disclosed immediately, and no later than sixty (60) minutes after occurrence of the event which leads to the relevant information by means of an Urgent Market Message (UMM), except as specified in section 3.6"

MS deems that the relevant information is subject to the disclosure requirements from the moment the event that leads to the relevant information occurs.

It is the view of MS that the information was indeed likely to affect prices according to section 3.1d) when it first occurred. Statnett nominated more than 900 MW too much purchase of power independent of price, which was likely to affect prices in the Elspot market. All such information shall be given immediately, and no later than sixty minutes after the occurrence of the event which leads to the relevant information. In this case "Landssentralen" at Statnett was not aware of the incident until approximately one week after the occurrence of the event. Hence, the incident represents a breach on MCR 3.5.

Since Statnett was not aware of the incident until approximately one week after the occurrence of the event, they were of the opinion that they were not obliged to publish a UMM according to the MCR. As concluded above MS is of the opinion that Statnett was obliged to disclose the information according to the MCR. However, in cases where several days have passed from the occurrence of the incident without a UMM having been sent it may be that the information is no longer relevant for the market. If the information is no longer relevant for the market it is the view of MS that it is not necessary to send a UMM.

MS is of the opinion that the rules in this area are unclear, and is currently working on how the rules shall be interpreted for situations where the relevant information is discovered later than 60 minutes after the occurrence of the event. It will also be considered if there is a need for clarifications in the MCR.

4. RECOMMENDATION

MS has concluded that Statnett has breached the prohibition against market manipulation mandated by the MCR. MS is of the opinion that the matter necessitates disciplinary actions from NPS. MS has also concluded that Statnett has breached the disclosure requirements. The breach on the disclosure requirements is however of less significance with respect to the following recommendation.

In the event a participant is in breach of the MCR, NPS may give the participant either (a) an oral warning or (b) a written warning or (c) a violation charge, cf. MCR section 7.1.

The consequence of Statnett's Nomination was that Statnett purchased approximately 900 MW more than intended for every hour of the Auction. Errors of this magnitude are severe, and therefore a sanction should be considered as an appropriate response.

In relation to the market manipulation, MS deems it to be mitigating that Statnett has not displayed any intent or had any illegitimate purpose by the Nomination. Furthermore, Statnett contacted MS themselves and gave information about the incident and has proactively worked to explain the error. Further, they have taken steps to prevent such errors from recurring. Still, MS finds it aggravating that Statnett did not have adequate routines in place in order to prevent such errors and that Statnett did not detect the erroneous Nomination at an earlier point in time. MS also finds it aggravating that the erroneous volume traded was large, and that the incident is likely to have had a significant effect both on the traded volume and the market prices.

Based on an overall assessment MS recommends that Statnett is given a written warning for breach of section 4.1 in the MCR.