

# Prediction of future bidding zone configuration in Norway

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## BACKGROUND

According to §5 of provisions for system responsibility in the power system (FoS), Statnett shall define bidding zones (Elsport/Elbas areas) as part of managing:

- Major and long-term operational congestions occurring in the regional and central grid system.
- Foreseen energy deficit situations in defined geographical areas.

Bidding zone configuration is also the subject of chapter 2 of COMMISSION REGULATION (EU) 2015/1222, Guideline on capacity allocation and congestion management (CACM). While CACM is not yet adopted in Norwegian law, Statnett intends to comply with the regulation as long as it is not in conflict with the current provisions for system responsibility.

Statnett has found that the best way to provide predictability on this issue is to make a prognosis on how we foresee the area division for the next years. We will update the prognosis when needed. The detailed information about individual changes will be published in separate Exchange Informations.

This prognosis will cover the expected changes from 2018 to approximately 2021. Failures, energy deficit situations, changes in commissioning dates or other new information could change the prognosis or lead to area configurations not mentioned in the prognosis.

The issues discussed in this prognosis are:

1. Elhub
2. NO4-NO3
3. Southern Norway
4. Implementation of network codes
5. Flow based capacity management

## **1. ELHUB**

The introduction of a datahub for electricity metering data in Norway (Elhub) requires an eight-month period where structural data, including the bidding zone configuration, are kept unchanged. Because of this, we have decided that there will be no planned changes of Norwegian bidding zones between September 1<sup>st</sup> 2018 and May 1<sup>st</sup> 2019. Extraordinary changes due to energy deficit situations are not affected by this decision.

## **2. NO4-NO3**

The last prognosis for future bidding zones (2015) concluded that the commissioning of large-scale wind power in the northern part of NO3 would require a northwards shift of the interface between NO4 and NO3. A new assessment of the grid conditions in the area shows that the proposed change will not be necessary. The interface between NO4 and NO3 will therefore remain at 420 kV Tunnsjødal-Namsos and 300 kV Tunnsjødal-Verdal until further notice.

## **3. SOUTHERN NORWAY**

The last prognosis for future bidding zones also outlined a need for adjustment of the bidding zones related to the upgrade of the AC grid in southern Norway towards 2020. Introduction of a sum restriction for the HVDC connections in NO2 was suggested as an alternative. The need for capacity reductions for this purpose has been lower than expected since the last prognosis. The analysis of the future situation with a reinforced AC-grid and HVDC-connections to Germany and Great Britain also indicates only limited bottleneck issues in the Norwegian AC grid. Based on this information we do not consider the advantages sufficient for a temporary adjustment of the bidding zones, or for introducing a sum restriction.

## **4. IMPLEMENTATION OF NETWORK CODES**

The first data collection process for the technical report outlined in CACM article 34 was started in February 2018. Depending on the findings in the report, Acer may request the launch of a bidding zone configuration review, which in turn may lead to changes in the bidding zone structure. ENTSO-Es web page has more information on this process.

Certain parts of the Network Codes and related regulations can potentially influence the bidding zone structure in Norway, for example the request for minimum capacities and the question of allowing internal limitations to influence cross border capacity. Considering the lack of progress in the European discussion on this matter we assume that a rapid change of bidding zone structure based on network code requirements is unlikely.

## **5. FLOW BASED CAPACITY MANAGEMENT**

The European network code Capacity Allocation and Congestion Management (CACM) states that Flow Based Capacity Management is the preferred method for capacity calculations. The Nordic TSOs, including Statnett, is working to specify the required methodology according to the code within the specified timeframes. We have not yet conducted any separate studies to identify the most efficient area structure within the Flow Based framework. If such a study is launched within the time frame of this prognosis, more information will be published separately.

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