

Margin Model

Nord Pool Risk Management

Valid from 4th August 2020

**NORD
POOL**

Introduction

The aim of the new Margin Model is to produce a collateral requirement that easily and realistically reflects the risk in a member's trading behaviour. The model estimates a requirement that need to be met by the member at all times, in line with Nord Pool's Clearing Rules.

Initial Collateral

Initial Collateral is the requirement that needs to be met before any trading activity starts. Nord Pool estimates the Initial Collateral for all Clearing Members based on the maximum expected net MWh position for a delivery day. This estimate is inserted into the Daily Margin Calculation - giving the Clearing Member an Initial Collateral Call which must be met before trading starts. All members must post collateral as security that they can pay for the contracts they have entered into. Minimum Collateral for all Nord Pool member's is EUR 30.000,-

Collateral Requirement

There are two margin components calculated daily, taking into account the Clearing Member's trading behavior:

The first component is defined as the sum of a Clearing Member's net MWh position (Daily Net Position), multiplied by the risk parameter, times the day factor set by Nord Pool. The Daily Net Position has a lookback period, currently set to 30 days. The second component is the sum of a Clearing Member's net financial position (Daily Settlement Position), times a multiplier set by Nord Pool. The Daily Settlement Position has a lookback period, currently set to 7 days. Note that all parameters and the lookback periods for both the Daily Net Position and the Daily Settlement Position may change, as they are set at Nord Pool's discretion.

$$\text{Collateral Requirement} = \sum \text{Max}_{1-n} (\text{Daily Net position (MWh)} \times \text{Risk Parameter} \times \text{Day Factor}) \\ + \text{Max}_{1-n} (\text{Daily Settlement Position} \times \text{Multiplier})$$

Where the;

- **“Daily Net Position”** is the sum of the volume flow for a specific delivery day, within a specific country, between Nord Pool and the Clearing Member.
- **“Risk Parameter”**, or the Risk Price Parameter is a parameter set on either a net long or a net short position per delivery country, estimated as a worst-case spot price, using three years' lookback and 99.7% confidence interval.
- **“Day Factor”** is a parameter set to account for the Clearing Member's exposure towards Nord Pool over weekends, which can be increased at the discretion of Nord Pool.

- **“Daily Settlement Position”** is defined as the net sum of all payments payable to and from the Clearing Member for a settlement day, as defined in the settlement schedule.
- **“Multiplier”** is a parameter that can be used by the discretion of Nord Pool to increase the collateral call in front of holidays or extraordinary market events.
- **“Max_{1-n}”** defines the lookback period, which is currently set to 30 days for the daily net position, and to 7 days for the daily settlement position

The Daily Net Position can be both a positive and a negative component in the margin calculation, the Daily Settlement Position however, is only a net positive value or it is set to zero (in case the settlement position is net negative per settlement date). Note that the Collateral Requirement will never fall below the minimum requirement of EUR 30.000,-

Example

If you have traded 1000 MWh net buy position in area SE and the risk parameter long is 50 then your daily trading margin will be 1000 MWh x € 50 x 1 = € 50k. On the same there is a new peak in the net invoice payment of EUR 35K. The net invoice payment then stays below EUR 35K for the rest of the period. On day 31 the peak value contributing to the Daily Net Margin (MWh) disappears from the calculation, which further reduces the collateral requirement.

Day	Daily Net Margin (MWh based)	Daily Settlement Margin (Net payment based)	Collateral Requirement
1	50 000 €	45 000 €	95 000 €
2	50 000 €	45 000 €	95 000 €
3	50 000 €	45 000 €	95 000 €
4	50 000 €	45 000 €	95 000 €
5	50 000 €	45 000 €	95 000 €
6	50 000 €	45 000 €	95 000 €
7	50 000 €	45 000 €	95 000 €
8	50 000 €	10 000 €	60 000 €
9	50 000 €	10 000 €	60 000 €
10	50 000 €	10 000 €	60 000 €
N	50 000 €	10 000 €	60 000 €
30	50 000 €	10 000 €	60 000 €
31	20 000 €	10 000 €	30 000 €

Changes in trading pattern highlighted in green. Daily Net Margin goes down after the 30 day lookback period, whilst Daily Settlement Margin is adjusted after a 7 day lookback period.