



**APX**  
**Power NL Market Instrument Specifications**

APX Power B.V.  
Atlas Arena Amsterdam  
Australia Building, 3<sup>rd</sup> floor  
Hoogoorddreef 7  
1101 BA Amsterdam  
The Netherlands  
T +31 (0)20 305 4000  
F +31 (0)20 305 4001

## INTERPRETATIONS

In these Power Market Instrument Specifications, unless the context requires otherwise:

- a. words in the singular may be interpreted as including the plural and vice versa;
- b. the word "including" is to be construed as: "including without limitation";
- c. a derivative term of any defined term shall be construed in accordance with the relevant definition;
- d. capitalised terms in these Power Market Instrument Specification shall have the meaning given to such terms in the Power Market Rules and/or the Clearing Rule book, unless otherwise defined herein;
- e. a reference to any specific legal requirement shall be construed, at any particular time, as including a reference to any modification, extension or re-enactment (before or after the date of the Membership Agreement) of that legal requirement in force at that time;
- f. references to any Dutch legal concept shall, in respect of any jurisdiction other than the Netherlands, be deemed to include the concept which in that jurisdiction most closely approximates the Dutch legal concept;
- g. these Power Market Instrument Specifications have been drawn up in the English language. In the event of any discrepancy between the English text of these Power Market Instrument Specifications and any translation thereof, the English language version shall prevail;
- h. headings are used or made for convenience only and shall not affect the interpretation of any provisions of these Power Market Instrument Specifications; and
- i. where reference is made to a time or deadline, it shall be understood to mean the Central European Time (CET), unless expressly stipulated otherwise in this Power Market Instrument Specifications.

## DEFINITIONS

- Annex: any document attached to the Instrument Specifications;
- Backup Matching Algorithm DAM: the algorithm described in Annex 2 attached hereto;
- Coupled Situation DAM: a situation in which the APX Power NL DAM is coupled with the day-ahead markets included in the European Price Coupling and where the market results (MCP, MCV, Transactions) are determined by using the Market Coupling Algorithm DAM;
- Decoupled Situation DAM: the situation in which the market results (MCP, MCV, Transactions) are determined by using the Backup Matching Algorithm;
- European Price Coupling: Market Coupling of European power day-ahead markets, as defined by the ACER roadmap;
- Exceptional Situation DAM: any abnormal and/or irregular situation in the Matching Process of the APX Power NL DAM, due to for example technical disturbances or technical interruptions or exceptional market situations or any situation which forces APX to delay or to deviate from the procedure described under section 2.3 of the Power NL Instrument Specifications;
- Market Coupling Algorithm DAM: the algorithm described in Annex 1 attached hereto;
- MCT DAM: The Market Closing Time for the APX Power NL DAM;
- Partial Coupled Situation DAM: a situation in which the APX Power NL DAM is coupled with some, but not all, of the the day-ahead markets included in the European Price Coupling and in which the market results (MCP, MCV, Transactions) are determined by using the Market Coupling Algorithm.

## **1. MARKETS**

The APX Power NL Market is composed of the following Markets:

- Power NL Day-Ahead Market (hereafter “Power NL DAM”);
- Power NL Intra-day Market (hereafter “Power NL IDM”).

## 2. DAY-AHEAD MARKET

### 2.1 INSTRUMENT SPECIFICATIONS

Each day, Instruments as detailed hereafter, will be released for trading. Eligible Instruments for trading will be entered into the Trading System by APX's operations department.

The specific characteristics of the Instruments listed for trading on the Power NL Day-Ahead Market are detailed in the following clauses.

### 2.2 APX POWER NL DAM HOURLY

<b>Delivery point and process</b>	Delivered as day-ahead contract to the Dutch national transmission system operator TenneT, via a balance responsibility agreement between the Member and TenneT, where deliveries made or taken are scheduled against the Clearing House.
<b>Pricing</b>	Euros and Euro cents per MWh
<b>Price tick</b>	One Euro cent per MWh, 0.01 €/MWh
<b>Volume tick</b>	0.1 MWh i.e. 100 kWh
<b>Minimum lot size</b>	0.1 MWh
<b>Contract Price Range</b>	The price of Power NL DAM Hourly Instruments shall be expressed in €/MWh. The minimum price of any Power NL DAM Hourly Instrument shall be -500.00 €/MWh. The maximum price of any Power NL DAM Hourly Instrument shall be 3,000.00 €/MWh.
<b>Instrument expiry</b>	The ability to trade hourly Instruments in the Power NL DAM ceases at 12.00 CET on the day immediately preceding the day of delivery. Instruments expire at 16:00 CET on the Trading Day, at which time daily settlement commences.
<b>Instrument series</b>	Instruments eligible for trading will be all 24* individual hours of the delivery day, which shall be the day immediately following the day of trading.  * Exceptions: 23 hours are listed on the day of change to summertime (March), 25 hours are listed on the day of change to wintertime (October).

### 2.3 TRADING

Instruments listed for trading on the Power NL DAM are traded by DAM auction in accordance with the relevant provision of the Power Market Rules. The algorithm, price determination rules and allocation rules applicable to the Power NL DAM are explained in detail in the respective algorithms published on the APX Website.

The standard trading schedule for the Instruments specified in clause 2 of these Instrument Specifications will be the following, subject to change at the discretion of APX:

<b>From</b>	<b>To</b>	<b>Phase</b>	<b>Remarks</b>
00:00	00:30	Idle	Idle period during which the Trading System is not accessible

00:30	12:00 noon	Pre-trade	Order accumulation period
12:00 noon	13:50 at the latest	Auction	Matching of purchase Orders and selling Orders. All Transactions concluded during the auction will be executed at the same auction price for the Instrument (MCP).
13:50 at the latest	00:00	Post-trade	Period to carry out post-trade administration; Order accumulation period


## 2.4 EXCEPTIONAL SITUATION DAM

In the event of an Exceptional Situation DAM, APX may deviate from the provisions set out in section 2.3 of these Instrument Specifications by taking for one or more days one or more of the following measures:

- a) modify the MCT DAM and/or the time limit for the notification of the (preliminary) market results (MCP, MCV, Transactions);
- b) allow the Trading Members to submit new Orders and/or to modify or cancel already submitted Orders on the Trading System; in such event APX shall publish a new MCT DAM;
- c) apply the “Second Auction” procedure as described in section 2.4.1 of the Power NL Instrument Specifications; in such event APX shall publish a new MCT DAM;
- d) revert to a Partial Coupled Situation DAM; in such event APX shall publish a new MCT DAM;
- e) revert to a Decoupled Situation DAM; in such event APX shall publish a new MCT DAM.

The occurrence of any Exceptional Situation DAM shall be communicated to the Members as soon as possible. APX shall use its best effort to provide this information at the latest at 13.50h CET on the concerned trading day.

The measures taken by APX in case of an Exceptional Situation DAM shall be communicated to the Members as soon as possible.

### **2.4.1 Decoupled Situation DAM**

In the event of an Exceptional Situation DAM, APX may, in order to assure the proper functioning of the Power NL DAM, in accordance with the Power Instrument Specifications, apply the “second auction” procedure according to the following process.

APX calculates (or receives from an external entity if MC is applied) an indicative MCP for each Instrument eligible for the Auction, based on the situation of the Order Book at the time of calculation, taking MC into account if applicable.

If for at least one Instrument the indicative MCP is lower than -150 €/MWh or higher than 500 €/MWh, or if a coupled DAM has a similar situation, a Request for Quotes (hereafter “RfQ”) is sent out to all Authorized Users by e-mail and via the Trading System and the MCT DAM is delayed as communicated in the in the RfQ.

The RfQ indicates:

- The Instruments/hours for which the indicative MCP is lower than -150 €/MWh or higher than €500/MWh;
- The new MCT DAM.

The reopening of the order books may be used to correct an abnormal market condition. However, it does not guarantee that the condition will be resolved.

#### **2.4.2 Decoupled Situation DAM**

In a Decoupled Situation DAM the Market Coupling Algorithm DAM shall not be used to determine the market results (MCP, MCV, Transactions). As fall back APX shall in such case use the Backup Matching Algorithm DAM to create market results (MCP, MCV, Transactions). APX may furthermore apply the “second auction” procedure as described in section 2.4.1 of the Power NL Instrument Specifications.

#### **2.4.3 Partial Coupled Situation DAM**

In a Partial Coupled Situation DAM the Market Coupling Algorithm DAM shall be used to determine the market results (MCP, MCV, Transactions). APX may furthermore apply the “second auction” procedure as described in section 2.4.1 of the Power NL Instrument Specifications.

### **2.5 ORDER TYPES AND EXECUTION CONDITIONS**

The availability of Order types is as follows:

<b>Order types</b>	<b>Pre-trade / Auction</b>
Limit Order	Yes
Market Order	No
Block Order	Yes

A Block Order must relate to Instruments with regard to the same delivery day. The volume may vary for all Instruments a Block Order relates to.

The availability of execution conditions is as follows:

<b>Execution conditions</b>	<b>Pre-trade / Auction</b>
Good 'till Date	No
All-or-None	No
Fill-and-Kill	No
Fill-or-Kill	No
Linked	Yes; Block Orders
Exclusive	Yes; Block Orders

### **2.6 SYSTEMS**

APX will be operating the Power NL DAM by means of the Trading System.

The codes for the Power NL DAM Instruments are as follows:

<b>Instrument</b>	<b>Code</b>
-------------------	-------------

DAM Hourly*	NL 1H yymmdd – H”N”
-------------	---------------------

\* The number “N” in the Instrument Code, identifies the relevant hour of the delivery Day. For instance, the Instrument NL 1H060622-H08 refers to delivery on 22<sup>nd</sup> of June 2006 from 07:00 to 08:00 CET.

Members are advised to refer to the EuroLight® trader user manual, for further information on how to set user preferences and view preferences. Configuring these settings is required in order to have the Instruments that are eligible for trading listed and tradable. Furthermore, these settings may influence the reports provided by the EuroLight® trader client.

## 2.7 FEES

Please find the applicable Fees as published on the APX Website.

APX may decide to offer fee-rebate schemes to liquidity providers, rewarding fulfilment of agreed-upon performance obligations that support market liquidity and resilience.



### 3. INTRA-DAY MARKET

#### 3.1 INSTRUMENT SPECIFICATIONS

Each day, Instruments as detailed hereafter, will be released for trading. Eligible Instruments for trading will be entered into the Trading System directly or by APX operations department.

The specific characteristics of the Instruments listed for trading on the Power NL Intra-day Market are detailed in the following clauses.

There are two categories of Instruments listed for trading on the Power NL Intra-Day Market:

- Instruments that apply to deliveries to be made or taken the Day following the Trading Day, hereafter referred to as “Day-Ahead Instruments”.
- Instruments that apply to deliveries to be made or taken on the Trading Day, hereafter referred to as “Intra-Day Instruments”.

The trading schedules that apply to each of the above-mentioned Instruments categories are detailed in clause 3 of these Instrument Specifications.

The Power NL Intra-Day Market is composed of two market segments:

- Power NL Intra-Day 1H, which is available for trading on the EuroLight Trading System and is provides implicit access to the available transmission capacity on the Belgian-Dutch border;
- Power NL NN Intra-Day 1H, which is available for trading on the Elbas Trading System and is provides implicit access to the available transmission capacity on the NorNed cable;

The specific characteristics of the Instruments listed for trading on these market segments of the Power NL Intra-Day Market are detailed in the following clauses.

#### 3.2 POWER NL INTRA-DAY 1H

<b><i>Delivery point and process</i></b>	Delivered as Power day-ahead or Power intra-day contract to the Dutch national transmission system operator TenneT, via a balance responsibility agreement between the Member and TenneT, where deliveries made or taken are scheduled against the Clearing House.
<b><i>Pricing</i></b>	Euros and Euro cents
<b><i>Price tick</i></b>	One Euro cent per MWh, €/MWh 0.01
<b><i>Volume tick</i></b>	0.1 MW i.e. 100 kW
<b><i>Minimum lot size</i></b>	0.1 MWh
<b><i>Contract Price Range</i></b>	The price of Power NL Intra-Day 1H Instruments shall be expressed in €/MWh. The minimum price of any Power NL Intra-Day 1H Physical Instrument shall be €/MWh -/- 9,999.99. The maximum price of any Power NL Intra-Day 1H Instrument shall be €/MWh 9,999.99.
<b><i>Instrument expiry</i></b>	Notwithstanding the ability to trade provided by the trading schedules detailed in clause 3 of this Instrument Specifications, Instruments expire 5 minutes prior to the associated deliveries taking effect.
<b><i>Nomination process</i></b>	Members are required, following the conclusion of a Transaction, to modify their E-Programme accordingly.

<b>Instrument series</b>	Instruments eligible for trading will be all 24* individual hours of the delivery day, which shall be either the Trading Day or the Day immediately following the Trading Day.  * Exceptions: 23 hours are listed on the day of change to summertime (March); 25 hours are listed on the day of change to wintertime (October).
--------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

### 3.3 POWER NL NN INTRA-DAY 1H

<b>Delivery point and process</b>	Delivered as Power day-ahead or Power intra-day contract to the Dutch national transmission system operator TenneT, via a balance responsibility agreement between the Member and TenneT, where deliveries made or taken are scheduled against the Clearing House.
<b>Pricing</b>	Euros and Euro cents
<b>Price tick</b>	Ten Euro cent per MWh, €/MWh 0.10
<b>Volume tick</b>	0.1 MW i.e. 100 kW
<b>Minimum lot size</b>	0.1 MWh
<b>Contract Price Range</b>	The price of Power NL Intra-Day 1H Instruments shall be expressed in €/MWh. The minimum price of any Power NL Intra-Day 1H Physical Instrument shall be €/MWh -/- 99,999.90. The maximum price of any Power NL Intra-Day 1H Instrument shall be €/MWh 99,999.90.
<b>Instrument expiry</b>	Notwithstanding the ability to trade provided by the trading schedules detailed in clause 3 of this Instrument Specifications, Instruments expire 5 minutes prior to the associated deliveries taking effect.
<b>Nomination process</b>	Members are required, following the conclusion of a Transaction, to modify their E-Programme accordingly.
<b>Instrument series</b>	Instruments eligible for trading will be all 24* individual hours of the delivery day, which shall be either the Trading Day or the Day immediately following the Trading Day.  * Exceptions: 23 hours are listed on the day of change to summertime (March); 25 hours are listed on the day of change to wintertime (October).

### 3.4 TRADING

Instruments listed for trading in the Power NL Intra-Day Market are traded continuously in accordance with the relevant provisions in the Power Market Rules and furthermore in accordance with the trading schedules here below.

The trading schedule for Day-Ahead Instruments as specified in clause 3 of these Instrument Specifications will be the following:

<b>From</b>	<b>To</b>	<b>Phase</b>	<b>Remarks</b>
14:00	00:00	Main trading session Power NL Intra-Day 1H	The continuous Power NL Intra-Day 1H segment will be open for trading 24 hours a day and 7 days a week. The main trading session will commence at 14:00 CET on the day preceding the day of delivery, and from that point onwards continue up until expiry of the relevant Instrument. The main trading session

			comprises of continuous matching of incoming purchase and selling Orders against the opposite side of the central order book. Orders can be entered, amended or cancelled as long as they are open.
12:00	00:00	Main trading session Power NL NN Intra-Day 1H	The continuous Power NL NN Intra-Day 1H segment will be open for trading 24 hours a day and 7 days a week. The main trading session will commence at 12:00 CET on the day preceding the day of delivery, and from that point onwards continue up until expiry of the relevant Instrument. The main trading session comprises of continuous matching of incoming purchase and selling Orders against the opposite side of the central order book. Orders can be entered, amended or cancelled as long as they are open.

The trading schedule for Intra-Day Instruments as specified in clause 3 of these Instrument Specifications will be the following:

<b>From</b>	<b>To</b>	<b>Phase</b>	<b>Remarks</b>
00:00	00:00	Main trading session Power NL Intra-Day 1H and Power NL NN Intra-Day	The continuous Power NL Intra-Day Market will be open for trading 24 hours a day and 7 days a week. Consequently, the main trading session will be 24 hours a day and 7 days a week, and comprises of continuous matching of incoming purchase and sale Orders against the opposite side of the central order book. Orders can be entered, amended or cancelled as long as they are open.


### 3.5 ORDER TYPES AND EXECUTION CONDITIONS

The availability of Order types is as follows:

<b>Order types</b>	<b>Main trading session</b>
Limit Order	Yes
Market Order	No
Block Order	Yes

Block Orders in EuroLight can consist of all open Instruments relating to the same day of delivery; Block Orders in Elbas can consist of all open Instruments. A Block Order must have the same volume for all Instruments it relates to (and will only be matched if the volume can be executed for every Instrument the Block Order relates to).

The matching rules for the Power NL IDM are detailed in Annex 3 to the Power Instrument Specifications.

The availability of execution conditions is as follows:

<b>Execution conditions</b>	<b>Main trading session</b>
-----------------------------	-----------------------------

Good 'till Date	No
All-or-None	No
Fill-and-Kill	Yes*
Fill-or-Kill	Yes
Iceberg	Yes
Linked	No
Exclusive	No

\*Please note that "Fill-and-Kill" is called "Immediate or Cancel" ("IOC") in Elbas.

## 3.6 SYSTEMS

### 3.6.1 Power NL Intra-Day 1H

APX will be operating the Power NL Intra-Day 1H segment utilizing the EuroLight Trading System.

The codes for the Power NL Intra-Day 1H segments Instruments are as follows:

<b><i>Instrument series</i></b>	<b><i>Code</i></b>
1H	NL ID yymmmdd-1H-hh

Where:

- 1H signifies Instruments with respect to hourly delivery periods;
- "yyymmmdd" identifies the relevant delivery day;
- "hh" identifies the relevant hour of the delivery day.

For instance, the Instrument "NL ID 16FEB15-1H 06" refers to delivery on the 15th of February 2016, of a 1H electricity block from 5:00h to 6:00h (hour 6).

Members are advised to refer to the EuroLight trader user manual for further information.

### 3.6.2 Power NL NN Intra-Day 1H

APX will be operating the Power NL NN Intra-Day 1H segment utilizing the Elbas Trading System.

The codes for the Power Intra-Day Market Instruments are as follows:

<b><i>Instrument</i></b>	<b><i>Code</i></b>
PH	PH-yyymmmdd-hh*

Where:

- PH signifies Instruments with respect to hourly delivery periods;
- "hh" identifies the relevant hour of the delivery day;
- "yyymmmdd" identifies the relevant delivery day.

For instance, the Instrument "PH-20160215-06" refers to delivery on the 15th of February 2016, of a 1H electricity block from 5:00h to 6:00h (hour 6).

Members are advised to refer to the Elbas trader user manual for further information.

### 3.7 FEES

Please find the applicable Fees as published on the APX Website.

APX may decide to offer fee-rebate schemes to liquidity providers, rewarding fulfilment of agreed-upon performance obligations that support market liquidity and resilience.

## **ANNEX 1: Market Coupling Matching Algorithm**

The Market Coupling Algorithm DAM is Euphemia.

The Euphemia algorithm description is available on the APX Group website.

## **ANNEX 2: Backup Matching Algorithm**

In case of Decoupled Situation DAM, the matching algorithm is Cosmos.  
The Cosmos algorithm description is available on the APX Group website.

## **ANNEX 3: Intra-day Market Matching Rules**

This annex describes the rules that are used by the Trading System during the Fixing Process of the Power NL Intra-day Market to match Bids and Offers.

### ***Hourly Orders***

Hourly Orders always concern one single hour. The Orders are matched based on following prioritization criteria:

1. Price of the Order;
2. Time when the Order was left on the market.

The Trading System allows for matching of Orders with countering Order(s), provided that limit price and execution conditions are fulfilled, in accordance with the following high level specifications;

- In case there are two Orders with identical prices, the Order that was submitted first on the trading platform will be prioritized. The volumes of the Orders have no impact on the prioritization. In case the limit prices are overlapping each other, the matching price will be the limit price of the Order that was left on the market first;
- Considering a situation where a Member has left an Offer on the market with a lower asking price than that of the best Bid, the Instrument Price is settled according to the Order that was submitted on the market first;

As an example: a Member submits a Bid with a price of 50€/MWh. Another Member submits its Offer after the Bid has been submitted on the Trading Platform with an asking price of 30 €/MWh. The resulting Instrument Price of the Contract will be 50 €/MWh since the Off-take Order was submitted on the Trading Platform first.

The same logic applies vice versa: if a Member has submitted a Offer with a 30 €/MWh limit price on the Trading Platform and another Member enters a Bid with a 50 €/MWh limit price, the Instrument Price will be the 30 €/MWh limit price since the Offer was submitted on the Trading Platform first.

- The hourly Orders may be matched partially and for example, one Offer can have several countering Bids.

### ***Block Orders***

A Block Order is an Order with respect to one or more consecutive Instruments which specifies the volume that applies to each Instrument included in the Block Order and a limit price.

Block Orders for the Power NL Intra-Day Market must have the same volume for all Instruments. A Block Order must be accepted in its entirety; if accepted the Contract covers all hours and the volume specified in the Block Order.

The Orders are matched based on following prioritization criteria:

1. Price of the Order;
2. Time when the Order was left on the market.

Block Orders can only have one countering Block Order in the matching process and the following criteria must be fulfilled for matching:



- The prices of the two Block Orders must match with each other;
- The quantities of the two Block Orders must be exactly equal (“AON”); and
- The start and end hours of the two Block Orders must be exactly the same.

### ***Implicit Cross Border Capacity Allocation***

The following section is provided for purpose of information only.

The EuroLight Trading System utilized for the Power NL Intra-Day Market includes a capacity management module, which allows for cross border trades to be established between the Power NL Intra-Day Market as operated by APX and the Continuous Intraday Market for Belgian power as operated by Belpex.

The Elbas Trading System utilized for the Power NL Intra-Day Market includes a similar capacity management module, which allows for cross border trades to be established between the Power NL Intra-Day Market as operated by APX and the Elbas Market as operated by Nord Pool Spot, if and insofar the relevant TSOs make available capacity for cross border transmission of power.

The capacity management modules governs the executable cross border Transaction. If cross border interconnection capacity from any market area to another is available, cross border Transactions may occur.

In case cross border Transactions are established, the exchanges or their clearing houses will perform the associated notifications to TenneT and Elia and thereby utilize the cross border capacity.

Members involved in such Transaction(s) are only required to perform the regular local nominations to the relevant TSO and no additional actions are required.