

# Agent of Last Resort

AOLR Operating  
Procedure 02 -  
AOLR  
Operations

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## DOCUMENT HISTORY

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## RELATED DOCUMENTS

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SEMOpx Exchange Rules	Draft	05/05/2017	SEMOpx

# **1. INTRODUCTION**

## **1.1 Background and Purpose**

This Procedure details the AOLR obligations and requirements in order to facilitate eligible Participants to trade in the Ex-Ante Markets.

## **1.2 Scope of Procedure**

This Procedure sets out the process for the calculation of Forecast Trading Quantities, Orders and Physical Notifications by the Agent of Last Resort (AOLR) on behalf of eligible Generator Units registered for the service. It details the obligation of the AOLR to submit orders and report the results back to the Participant.

The following items are in the scope of this Agreed Procedure:

- (a) Calculation and submission of Trading Volume, Offers for the Ex-ante markets; and
- (b) Data publication and Reporting.

The following are outside the scope of this Procedure:

- (a) TSO submission of Forecast data;
- (b) Credit Cover requirements for Ex-Ante Trading;
- (c) Submission of parameters; and
- (d) Technical requirements for interacting with the AOLR portal..

The data transactions within the scope of this Procedure, are those calculated and submitted by the AOLR to SEMOpX, on behalf of eligible Generator Units, and the relevant notification messages following such transactions.

This Procedure is governed by the AOLR Contract. In the event of any conflict between a Participant's obligations set out in the AOLR and this Procedure, the AOLR Contract shall take precedence.

It is not intended that there be any inconsistency or conflict between section 2 "Overview" and section 3 "Procedural Steps". However, in the event of any inconsistency or conflict, section 3 "Procedural Steps" shall take precedence.

## **1.3 Definitions**

Words and expressions defined in Part B Glossary of the Trading and Settlement Code and the SEMOpX Rules Glossary shall have the same meanings when used in this Procedure unless the context otherwise requires or unless otherwise defined herein at Appendix 1 "Definitions and Abbreviations".

References to particular sections relate internally to this Procedure unless specifically noted.

## **1.4 Compliance with Procedure**

Compliance with this Procedure is required under the terms set out in the AOLR Contract.

## **1.5 Modification of Procedure**

This Procedure may be amended, varied, modified or replaced in accordance with the AOLR Contract.

## 2. OVERVIEW

### 2.1 Calculation of AOLR Forecast Trading Quantities

The AOLR will produce Forecast Trading Quantities based on data submitted by Participants and, where applicable, the latest TSO Forecasts available at any given point in time.

Participants can directly influence the quantities that will be submitted in the Ex-Ante Markets by choosing the forecast data that they consider best represents their trading expectations. This is done with the use of Registration data and Trading Parameters as detailed in AOLR Operating Procedure 1 “Registration and Data Management”.

This will produce the following results for each option selected in each Ex-ante market segment:

<b>Participation Type</b>	<b>AOLR Forecast Trading Quantities</b>
Participant Availability Forecast	Forecast data submitted by the Participant is used according to the Market Allocation percentages selected
TSO Availability Forecast	Forecast data submitted by the TSOs is used according to the Market Allocation percentages selected
Other	Default profile submitted by the Participant is used according to the Market Allocation percentages selected

The calculation of Forecast Trading Quantities will be carried out according to the following events:

- (a) An automated time trigger for the DAM at a configurable time proposed to be 09:00 D-1 ahead of DAM Gate Closure;
- (b) Automated time triggers for the IDM at configurable times (to be set at times prior to the SEMOpx IDM Auctions);

The output of these calculations will be submitted to the respective Ex-ante Markets where conditions set out in sections 2.2 and 2.3 below are fulfilled.

### 2.2 Trade in the Day-Ahead Market

Prior to the DAM Gate Closure, and anytime the Generator Unit’s Trading Parameters are updated post initial DAM submission but before DAM gate closure, the AOLR will determine the trading requirements in terms of quantities and prices to submit for each Generator Unit subject to the following criteria:

If Forecast Trading Quantities are greater than the Minimum Trading Quantity, then prepare Orders for DAM as follows:

- (a) Quantity set to:  $(\text{Forecast Trading Quantities} * \text{Market Allocation}_{\text{DAM}}) * \text{DAM Trading Period}$
- (b) Max offer price set to AOLR Price Trading Range Upper
- (c) Min offer price set to AOLR Price Trading Range Lower

The AOLR will submit such Simple Orders to the SEMOpx. Orders that are rejected will trigger notification of error messages to both AOLR and the affected Generator Units.

Results of the orders cleared in the DAM will be published on the SEMOpx website.

Once the DAM trading position is known, the AOLR will calculate Physical Notifications for submission to the TSOs. This is detailed in section 2.4 of this Procedure.

### 2.3 Trade in Intraday Market

Prior to each IDM Auction Gate Closure, the AOLR will determine the trading requirement in terms of quantities and prices to submit for each Generator Unit subject to the following criteria:

- (a) Quantity set to  $((\text{Forecast Trading Quantities} * \text{Market Allocation}_{\text{IDM}_x}) * \text{IDM Trading Period}) - \text{Sum}(\text{Quantity Allocated in previous auctions})$
- (b) Max offer price set to AOLR Price Trading Range Upper
- (c) Min offer price set to AOLR Price Trading Range Lower

If the new calculated Forecast Trading Quantity is greater than the Minimum Trading Quantity, then Simple Orders will be submitted to SEMOpx.

Intraday trading will take account of updated forecast data (either from Participant or TSO submission). The Market Allocation values are considered as cumulative values. Therefore, if a Participant wants to trade 50% of their forecast in the DAM and a further 25% in IDM<sub>1</sub> auction, the AOLR will consider that 75% of the forecast should be traded by IDM<sub>1</sub> auction. As such, when determining the amount to be allocated in IDM<sub>1</sub> auction this will include forecast updates post DAM even if they would appear to allocate more than the original 25% setting when compared with the original DAM submission.

The table below is intended to demonstrate how the trading requirement is determined in consecutive auctions with an increasing Forecast Trading Quantity and the assumption that the trading requirement is cleared in each auction. As can be seen, the trading requirement for IDM<sub>1</sub> is greater than 20% of the Forecast Trading Quantity for this auction (32% in this example) but when taking account of the change in the forecast data, the trading requirement is higher based on trading that would have happened in the DAM had the updated forecast been known.

Market Segment	Market Allocation	Cumulative Market Allocation	Forecast Trading Quantity	Trading Requirement
DAM	60%	60%	2	1.2
IDM <sub>1</sub>	20%	80%	2.5	0.8
IDM <sub>2</sub>	10%	90%	2.6	0.34
IDM <sub>3</sub>	10%	100%	2.75	0.41

The AOLR will submit such Simple Orders to the SEMOpx. Orders that are rejected will trigger notification of error messages to both AOLR and the affected units.

Results of the orders cleared in the IDM will be published on the SEMOpx website.

Once the IDM trading position is known, the AOLR will calculate Physical Notifications for submission to the TSOs. This is further detailed in section 2.4 of this AP.

## **2.4 Submission of Physical Notifications to TSO**

Following the publication of each accepted DAM or IDM trade, the AOLR will update the trading position of each Generator Unit in order to represent the Participant's total target quantity of trades for that unit across all the Ex-Ante Markets. The AOLR will submit PNs after each DAM or IDM auction that reflect the total actual traded quantities for each Trading Period from the auctions that have been completed.

The PNs for each units after each Market are calculated as follows:

- (a) DAM PNs set to DAM accepted traded quantity;
- (b) First IDM PNs set to : current IDM accepted traded quantity + DAM accepted traded quantity;
- (c) All subsequent IDMs PNs set to : current IDM accepted traded quantity + previous IDMs accepted traded quantity + DAM accepted traded quantity;

These will be submitted to the TSO as per the T&SC requirements. Details with regards to the validation or rejection of PNs shall also be provided via the AOLR portal to Participants in respect for its registered Units.

Submission of Physical Notifications to the TSO is not mandatory for non-dispatchable Generator Units.

## **2.5 Data Publication and Reporting**

Participants will be able to access any data pertaining to AOLR operations with regards to its registered Units on the AOLR portal, where they can log in via a Digital Certificate with username and password.

There will be no set reports provided by the AOLR; however, notification of errors will be issued any time that a specific action, update or submission is unsuccessful.

Participants will be allowed to download any of their own data at any time.

The Regulatory Authorities may request AOLR for a summary of AOLR activities and this may be made public; however, the Regulatory Authorities may choose not to make some or all of the details contained in this summary public if to do so would clearly disclose confidential trading information about a Participant.

Details of reports, messages and notifications available and their format will be published by the AOLR in an AOLR Technical Specifications document.



### 3. PROCEDURAL STEPS

#### 3.1 AOLR Operations

Step	Procedural Step	Timing	Method	By/From	To
1	Participants input Participation Type and Trading Parameters	For Participation Type: 5WD prior to Unit Registration; For Trading Parameters: anytime prior to the next available DAM or IDM Gate Closure	Update AOLR portal	Participant	AOLR portal
2	The AOLR calculates the Forecast Trading Quantity based on the selected options and data from step 1	At automated times prior to DAM and IDM Gate Closure	AOLR sytem	AOLR	AOLR portal
3	The AOLR prepares and submits Orders to SEMOpx	Immediately after Step 2	AOLR system	AOLR	SEMOpx
4	If SEMOpx approves Orders, data will be displayed on the AOLR portal - go to step 5; If SEMOpx rejects orders review notification report and return to step 1 to amend Availability Parameters, else <b>END PROCESS</b> ;	Immediately after step 3	Update or notification on AOLR portal	SEMOpx	Participant and AOLR
5	SEMOpx publishes Market results of successful trades	After DAM or IDM Gate Closure	Update or notification on AOLR portal	SEMOpx	AOLR portal

6	Calculated final trading positions and submit Physical Notifications	Immediately after step 5	AOLR System	AOLR	TSO
7	If Physical Notifications Accepted display results and <b>END PROCESS</b> ; If Physical Notifications rejected review notification report and <b>END PROCESS</b> .	Immediately after step 6	Update or notification on AOLR portal	TSO	Participant and AOLR

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## APPENDIX 1: DEFINITIONS AND ABBREVIATIONS

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### Definitions

<b>Agent of Last Resort</b>	has the meaning given to it in the AoLR Contract
<b>AOLR Minimum Trading Quantity</b>	means the minimum quantity for which an additional trade will be submitted
<b>AOLR Price Trading Range Lower</b>	“€” or “£” to set the min price applicable when creating offers
<b>AOLR Price Trading Range Upper</b>	“€” or “£” to set the max price applicable when creating offers
<b>AOLR Unit Availability</b>	means MW of availability based on Participant forecast
<b>AOLR Unit Capacity</b>	means the maximum MW availability of the Generator Unit
<b>Balancing Market Interface</b>	has the meaning given to it in the Trading and Settlement Code
<b>Default Forecast</b>	means a profile of MW output that can be used in the event that no Participation Type is selected
<b>Forecast Trading Quantities</b>	means the quantity to be traded in the DAM and IDM by the AOLR on behalf of the Participant
<b>Generator Unit</b>	has the meaning given to it in the Trading and Settlement Code
<b>Market Allocation</b>	means % of Forecast Trading Quantities to be submitted into each auction
<b>NEMO Unit ID</b>	means the Generator Unit ID assigned as part of registration under the SEMOpX Exchange rules
<b>Participation Type</b>	means a classification indicating the forecast data to be used in the determination of Forecast Trading Quantities
<b>Unit ID</b>	means the Generator Unit ID assigned as part of registration under the Trading and Settlement Code

### Abbreviations

<b>AOLR</b>	Agent of Last Resort
<b>BMI</b>	Balancing Market Interface

<b>DAM</b>	Day-ahead market
<b>IDM</b>	Intraday market
<b>MO</b>	Market Operator
<b>NEMO</b>	Nominated Electricity Market Operator
<b>TSO</b>	Transmission System Operator