State of electricity intraday markets in the Energy Community

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Introduction

1. About ECRB

The Energy Community Regulatory Board (ECRB) operates based on the Energy Community Treaty. As an institution of the Energy Community the ECRB advises the Energy Community Ministerial Council and Permanent High Level Group on details of statutory, technical and regulatory rules and makes recommendations in the case of cross-zonal disputes between regulators.

ECRB is the independent regional voice of energy regulators in the Energy Community. Its mission builds on three pillars: providing coordinated regulatory positions to energy policy debates, harmonizing regulatory rules across borders as well as sharing regulatory knowledge and experience.

2. Background

One of the key role of ECRB is to promote the best regulatory practices through guidance and recommendations to national regulatory authorities (NRAs) aiming at harmonising regulatory mechanisms, in particular those implemented across borders.

The importance of spot market is becoming crucial in the environment where the penetration of intermittent renewables is increasing and there is a need for short term optimisation, not only on the national markets, but also on cross-zonal basis. While day-ahead market provides an important price signal for efficient use of resources, the intraday market enables market participants to further optimise and balance their portfolio. In addition, liquid intraday national markets and intraday cross-zonal access are risk-reducing factors for investment in renewable sources. The experience from the EU markets shows that with the increase of volume exchanged on intraday the volume exchanged on the balancing mechanism reduced significantly.

3. Methodology and scope

The present report assesses the state of intraday national market and cross-zonal access in the Energy Community. The aim of this activity is to identify the mechanisms applied and in particular the intraday market schedule and potential gaps. It specifically investigates to which extent gate closure deadlines set by the transmission system operators (TSOs) are harmonized amongst them and with intraday cross-zonal capacity allocation. The report analyses the intraday market schedule and identifies the gaps which need to be harmonised in order to make the market more efficient. Data reflect the state of development in the Contracting parties in the third quarter of 2018.

Information displayed in this report is based on data is provided by TSOs collected by NRAs.

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1. The Energy Community comprises the EU and Albania (AL), Bosnia and Herzegovina (BiH), North Macedonia (MK), Georgia (GE), Kosovo* (KS), Moldova (MD), Montenegro (MN), Serbia (RS) and Ukraine (UA). Armenia, Turkey and Norway are Observer Countries. Throughout this document the symbol * refers to the following statement: This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Advisory Opinion on the Kosovo declaration of independence.
4. Acronyms

D-1 Day-ahead market – means the time-frame of the market until the day-ahead market gate closure time, where products are traded and/or services used prior to the day of delivery and/or use.

FCFS First come first served – refers to continuous capacity allocation, where the criteria for winning or obtaining capacity is not economic but rather linked with the time of submission of offer.

GCT Gate closure time – means the point in time until which market activity and submission of orders can take place and/or represents the deadline for submitting schedules to the TSO.

GOT Gate opening time – refers to the point in time from which market activity and submission of offers for capacity allocation can take place.

H-1 Hour-ahead – means the time-frame of the market until the gate closure time, where products are traded and/or services used an hour prior to delivery hour (or any settlement period/market unit).

H-0:15 Fifteen minutes-ahead – means the time-frame of the market until the gate closure time, where products are traded and/or services used 15 minutes prior to delivery hour (or any settlement period/market unit).

ID Intraday market – means the time-frame of the market after D-1 GCT for submission of schedules to the TSO, where products are traded and/or services used prior to delivery (usually on the same day, therefore defined as intraday).
Findings

1. Overview

As a general observation almost all Contracting Parties allow for intraday schedules to be submitted to TSOs by market participants. This is for both the national market and cross-zonal access.

The intraday national markets are mainly bilateral, except for North Macedonia and Ukraine that have a centralised intraday platform in operation.

Intraday cross-zonal access is mainly a characteristic of Western Balkans’ Contracting Parties, whereas there is no intraday cross-zonal access in Ukraine and Moldova. Also, in Ukraine Moldova and Georgia there is no intraday market mechanism in place.

On the markets where intraday cross-zonal allocation is applied, the use of capacity is mandatory. In exceptional cases, such as in the rules applied by the Serbian TSO, EMS, intraday capacity allocation may be excluded based on pre-defined regulatory rules.

There is no specifically coordinated or joint capacity calculation applied for the intraday timeframe but non-allocated and unused capacity is allocated on intraday timeframe. It needs to be further envisaged if the TSOs apply netting of schedules when calculating the available transmission capacity for intraday.

Scheduling after D-1 GTC and before ID GOT may be allowed on exceptional cases to correct potential mismatches.

The Serbian and Kosovan* electricity markets operate in a single bidding zone mode on all the market timeframes, including intraday, with EMS performing the allocation of all cross-zonal capacity. This operation mode is disputed by the Kosovan* TSO, KOSTT.2

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2 In this report the electricity markets of Kosovo* and Serbia are treated as single bidding zone and referred to RS&KS zone.
2. Detailed findings

Findings are grouped and presented in tabular form as below.

**TABLE 1: Close of day-ahead & opening of intraday national market**

<table>
<thead>
<tr>
<th>Contracting Party</th>
<th>GCT of the D-1 market</th>
<th>Is ID market allowed after D-1 GCT? GOT for ID?</th>
<th>GCT of the ID market</th>
<th>Centralised platform in place for exchanging electricity on ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>AL</td>
<td>D-1, 14:00</td>
<td>Yes</td>
<td>H-1</td>
<td>No</td>
</tr>
<tr>
<td>BiH</td>
<td>D-1, 15:30</td>
<td>Yes, ID opens from D-1, 18:00</td>
<td>H-1</td>
<td>No</td>
</tr>
<tr>
<td>GE</td>
<td>No ID market</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KS*</td>
<td>D-1, 13:00</td>
<td>Yes, ID opens after D-1 GCT</td>
<td>H-2</td>
<td>No</td>
</tr>
<tr>
<td>MK</td>
<td>D-1, 15:45</td>
<td>Yes, ID opens from D-1, 18:00</td>
<td>H-1</td>
<td>Yes, MEPSO's MMS</td>
</tr>
<tr>
<td>MD</td>
<td>No ID market</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MN</td>
<td>D-1, 18:00</td>
<td>Yes</td>
<td>H-1</td>
<td>No</td>
</tr>
<tr>
<td>RS</td>
<td>D-1, 14:30</td>
<td>Yes, ID opens from D-1, 18:00</td>
<td>H-1</td>
<td>No</td>
</tr>
<tr>
<td>UA</td>
<td>No ID market</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TABLE 2: Access to cross-zonal capacity**

<table>
<thead>
<tr>
<th>Contracting Party</th>
<th>GCT of the D-1 cross-zonal nominations</th>
<th>ID capacity allocation</th>
<th>GOT and GCT for ID cross-zonal allocation?</th>
<th>Allocation mechanism</th>
</tr>
</thead>
<tbody>
<tr>
<td>AL</td>
<td>D-1, 14:00</td>
<td>Only on borders with MN and Greece</td>
<td>GOT: D-1, 18:00 GCT: H-1</td>
<td>AL-MN: Continuous FCFS (no price) AL-GR: Auctions and auction price are applied</td>
</tr>
<tr>
<td>BiH</td>
<td>D-1, 15:30</td>
<td>Yes, all border</td>
<td>GOT: D-1, 18:00 GCT: H-1</td>
<td>Continuous FCFS No price</td>
</tr>
<tr>
<td>GE</td>
<td>No ID cross-zonal access</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KS*</td>
<td>See footnote 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MK</td>
<td>D-1, 15:45</td>
<td>Only on the border with RS&amp;KS zone</td>
<td>GOT: D-1, 18:00 GCT: H-2</td>
<td>Continuous FCFS No price</td>
</tr>
<tr>
<td>MD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MN</td>
<td>D-1, 14:30</td>
<td>Yes, all borders</td>
<td>GOT: D-1, 18:00 GCT: H-1</td>
<td>Continuous FCFS No price</td>
</tr>
<tr>
<td>RS</td>
<td>D-1, 15:30</td>
<td>Yes, except on the border with Bulgaria</td>
<td>GOT: D-1, 18:00 GCT: H-3 for auctions</td>
<td>Continuous FCFS No price RS-Romania: Four auctions per day and auction price is applied</td>
</tr>
<tr>
<td>UA</td>
<td>No ID cross-zonal access</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Conclusions and Recommendations

The report identifies that mechanisms for intraday trades exist in all Western Balkan Contracting Parties. In Ukraine, Moldova and Georgia intraday trading between market participants is not possible.

On some borders there is no intraday capacity allocation which does not enable market participants utilise resources in the most efficient manner.

Considering the above, ECRB recommends the following to the national regulatory authorities:

1. Development and implementation of intraday market in Ukraine, Moldova and Georgia.

2. Allocation of intraday cross-zonal capacity between the bidding zones where intraday allocation is not applied. This is namely: Ukraine – Moldova, Ukraine (Bursthyn Island) – neighbouring EU Member States, Serbia – Bulgaria, North Macedonia – Greece and North Macedonia – Bulgaria.

3. Further coordination and assessment, taking into account the views of market participants, of the need to harmonise the intraday market schedule and allocation model as a step towards intraday market coupling.