**The smartEn Map 2024 Wholesale Markets**

**Questionnaire**

**Introduction**

Dear Reader,

The objective of the following questionnaire is to gather information on the participation of Decentralised Energy Resources in wholesale electricity markets in the country of your activity, in particular Day-Ahead and Intraday Markets. Your replies will be used as a source for the drafting of the 2024 smartEn Map.

The questionnaire will follow five sections for each country:

* Access to wholesale markets
* Maturity of the wholesale markets
* Participating technologies and traded volumes
* Benefits observed
* Roadmap

Please answer the following questions as detailed as possible and provide sources if relevant (for example newly introduced legislation or links for us to further investigate).

Please send your contribution to Quentin Donnette ([quentin.donnette@smarten.eu](mailto:quentin.donnette@smarten.eu)). We thank you for your collaboration!

**Organisation responding**: Estonian Competition Authority

**Country for which you are responding**: Estonia

**Please see ticked answers in green.**

Access to wholesale markets

*Please mark those participants with access to Day-ahead markets*

☐ Suppliers

☐ Independent aggregators

☐ Large consumers

☐ Energy communities

Comment: Independent aggregators legally have access to DA market, but framework for demand response in DA market is still under development (compensation mechanism, market model etc), therefore independent aggregators do not participate in DA market.

*Please mark those participants with access to Intraday Markets*

☐ Suppliers

☐ Independent aggregators

☐ Large consumers

☐ Energy communities

Comment: Independent aggregators legally have access to ID markets, but framework for demand response in ID market is still under development (compensation mechanism, market model etc), therefore independent aggregators do not participate in ID market.

*Are the Day-Ahead or Intraday markets linked to local flexibility markets in any way? (e.g., GOPACS in The Netherlands)*

☐ Yes

☐ No

Comment:

*Are SOs allowed to purchase products for congestion management and/or voltage in DA/ID markets?*

☐ Yes

☐ No

Comment:

#### Do any of the markets include locational information in the bids (either for buying or selling)?

☐ Yes

☐ No

Comment:

#### How is demand-side flexibility participating?

☐ Direct access through explicit trading by aggregators, suppliers or consumers

☐ Through a dynamic retail tariff

☐ Implicitly reflected in a non-dynamic retail tariff

☐ Others (please specify)

Comment:

Independent aggregators are participating on balancing market only at this time. Framework for participating in ID and DA markets is under development currently.

#### Can DR be provided as demand reduction and turn-up (e.g., upwards and downwards bids)?

☐ Yes

☐ No

Comment: See previous comment.

#### Does the country you are replying for have a legal framework for independent aggregators?

☐ Yes

☐ No

Comment: The legal framework is established, but the national legislation (Electricity Market Act) will be complemented this year to be in line with the Directive (EU) 2019/944.

#### Does the country you are replying for comply with the Electricity Market Design 2019 in terms of compensation models available / efficiency and symmetry of activations?

☐ Yes

☐ No

Comment: The national legislation (Electricity Market Act) will be complemented this year to be in line with the Directive (EU) 2019/944.

*Are there any requirements to be (or delegate to) a Balance Responsible Party to access wholesale markets?*

☐ Yes

☐ No

Comment:

#### What are the technical requirements to participate in wholesale markets? (e.g., minimum bid size, pooling/portfolio requirements, etc.)

1. The amount of the BRP’s guarantee to ensure the fulfillment of the obligations assumed by the balance agreement is 31,955 euros, which must be valid during the validity of the balance agreement and at least four months after the end of the balance agreement

### **§ 20.** Guarantees of balance provider (Electricity Market Act <https://www.riigiteataja.ee/en/eli/529052024004/consolide> )

 (1) A balance provider provides the system operator with bank guarantees which meet the requirements provided by the network code on the functioning of the electricity market and which secure unconditional performance of all the obligations of the balance provider in respect of the system operator. Such guarantees are permanent guarantees and variable guarantees.  
[RT I, 29.06.2018, 2 – entry into force 27.04.2019]

 (2) A balance provider provides a permanent guarantee in the amount prescribed in the network code on the functioning of the electricity market. (See point a) – 31,955 euros)  
[RT I, 29.06.2018, 2 – entry into force 27.04.2019]

 (3) A balance provider provides a variable guarantee in the amount equal to the amount payable for the balancing electricity purchased by the balance provider over a period of time equal to one and a half times the period which is provided by the network code on the functioning of the electricity market as the base period for money transactions related to the balance (hereinafter, ‘transaction period’) and which precedes the provision of the variable guarantee or decision on amending the guarantee, less the amount payable for balancing electricity purchased from the balance provider over the same period of time.  
[RT I, 29.06.2018, 2 – entry into force 27.04.2019]

 (4) If it is not possible to determine the amount of a variable guarantee according to the method mentioned in subsection 3 of this section, the system operator determines the amount of the variable guarantee based on the amount payable for the balancing electricity likely to be purchased by the balance provider over a period of time equal to one and half times the transaction period, less the amount payable for the balancing electricity likely to be purchased from the balance provider over the same period of time, and taking into account the economic reliability of the balance provider.

 (5) The system operator determines the amount of the variable guarantee to be provided by a balance provider and, if necessary, modifies that amount according to the provisions of subsections 2–4 and 6 of this section.

 (6) Where this is requested by the balance provider, the system operator reduces the amount of the variable guarantee if the amount to be determined under subsection 3 or 4 of this section would, at the moment of reduction, be significantly lower than the amount last determined as the amount of the balance provider’s variable guarantee. The system operator increases the amount of a variable guarantee if the amount to be determined under subsection 3 or 4 of this section would, at the moment of increase, be significantly greater than the amount last determined as the amount of the balance provider’s variable guarantee.

 (7) A balance provider maintains any permanent or variable guarantee as valid for the amount prescribed in the network code on the functioning of the electricity market or determined by the system operator in accordance with this Act.  
[RT I, 29.06.2018, 2 – entry into force 27.04.2019]

 (8) Detailed conditions for the provision of permanent and variable guarantees and for the determination of and making changes to guarantee amounts are prescribed in the network code on the functioning of the electricity market.  
[RT I, 29.06.2018, 2 – entry into force 27.04.2019]

BRPs need to have following means of communication: telephone, e-mail, mobile phone.

Minimum bid size is: 1 MW in balancing market and 0,1 MW in DA and ID markets.

#### Do you consider technical requirements to be:

☐ Inadequate and a barrier to access

☐ Mostly inadequate and worth accessing the market for some actors

☐ Mostly adequate except for some situations

☐ Adequate for the participation of all actors

Comment:

#### What are the administrative requirements to participate in wholesale markets?

Comment: BRPs need to have following means of communication: telephone, e-mail, mobile phone.

#### Is there a requirement to provide a collateral by the service provider? How much is it and do you consider it a significant barrier to access the market?

☐ Yes

☐ No

Comment: The fees are discussed with customers only. Although, NRA does not have any complaints from market participants regarding the fees. (<https://www.nordpoolgroup.com/en/trading/Rules-and-regulations/>)

#### Do you consider bureaucratic requirements to be:

☐ A barrier to access the market

☐ Slowing down or overcomplicating the process to the extent that it would be difficult to access the market

☐ Mostly adequate and in line with other markets

☐ Easy to follow and not hindering participation of any type of actor

#### How is the activation measured?

☐ Smart meter (boundary meter)

☐ Sub-meter or dedicated measurement device

☐ Other

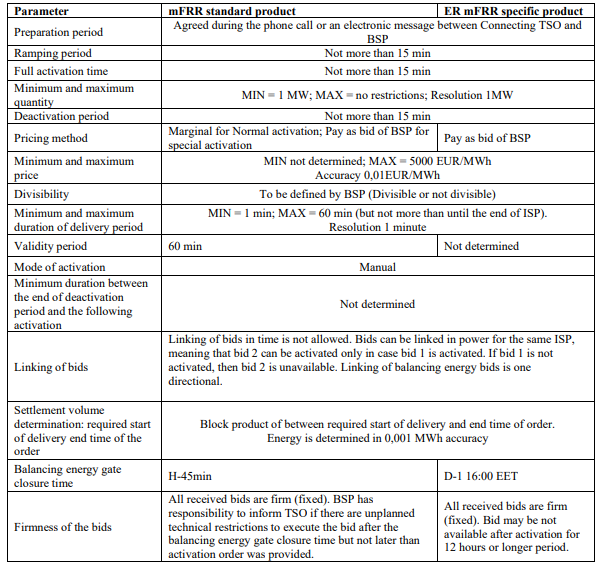
Comment:

*Is a prequalification process required for participating? If yes, please describe it and provide your interpretation of its suitability for Demand-Side Flexibility.*

☐ Yes

☐ No

Comment: Please find the standard product requirements for participating in balancing market. No such conditions for DA and ID market. We do not see that such conditions are too restrictive or could hinder the development of DSR.



*What is the minimum bid size*?

☐ 5MW and higher

☐ 1MW (in balancing market; 0,1 MW in DA/ID market)

☐ 500kW

☐ 200kW and lower

☐ Not applicable

*If participation of Demand-Side Flexibility through explicit activations is not possible in the country of your responses, what are the necessary steps to overcome the barriers:*

Comment: In order to bring DSR through explicit activations to DA and ID markets, national legislation shall be amended (already in process) and rules for demand side response shall be developed, when national legislation is amended.

Maturity of the wholesale markets

*To assess the level of maturity of the DA and ID markets, please provide the following information for 2023:*

* The number of products available: 4

<https://www.nordpoolgroup.com/en/trading/Day-ahead-trading/Order-types/>

* The granularity of products (e.g., 15min products): 1 hour products

* Market concentration (e.g., number of participants bidding in the wholesale markets, number of participants being activated): about 18 – 20 market participants

Participating technologies and traded volumes

#### Please mark the technologies with access to Day-ahead markets

☐ Residential or small-scale Solar PV

☐ Other distributed generation

☐ Small-scale battery storage (aggregated)

☐ Utility scale storage

☐ Demand Response from commercial and industrial consumers

☐ Demand Response from households (through aggregators or suppliers)

Comment:

#### Please mark the technologies with access to Intraday Markets

☐ Residential or small-scale Solar PV

☐ Other distributed generation

☐ Small-scale battery storage (aggregated)

☐ Utility scale storage

☐ Demand Response from commercial and industrial consumers

☐ Demand Response from households (through aggregators or suppliers)

Comment:

*Is it possible to distinguish the types of assets participating to wholesales markets, notably generation or demand assets?*

☐ Yes

☐ No

*If yes, please describe the types of decentralised energy resources (i.e. distributed generation, energy storage facilities and demand response) participating in wholesale markets. Does it vary between Day-Ahead and Intraday markets?*

Comment:

*How many independent aggregators or aggregators are registered to participate in wholesale markets in the country you are replying for?*

Comment: 4

*What are the amounts of explicitly activated volumes from demand-side resources?*

Comment: 2437 MWh (in 2022). Data from 2023 is yet to come from TSOs. However, this is only in Balancing Markets. No DSR in DA or ID markets.

Benefits observed

#### If Demand-Side Flexibility is active in the wholesale market, is there a measurable reduction in wholesale prices?

☐ Yes

☐ No

Comment:

#### What is the average discount in consumer bills if they participate in wholesale markets through implicit flexibility compared to consumers that do not?

Comment: -

#### What is the average value (in €) for 1 MW of flexibility?

Comment: -

### Roadmap

#### Are there any trials or regulatory sandboxes that would allow any of these technologies to access wholesale markets?

☐ Yes

☐ No

If yes, please provide background to the sandbox or trial:

*Is there a national plan for the implementation of the following aspects that might facilitate the access of DSF to wholesale markets?*

☐ Independent aggregator framework

☐ Access to wholesale markets

Comment:

*Could you provide a timeline for the roadmap?*

Comment: By the end of 2024 or beginning of 2025 to have established framework for DSR participation in ID and DA markets.

*In your opinion, would this roadmap be sufficient for opening wholesale markets to DSF? If not, what is lacking?*

Comment: It should be sufficient.

*Do you have any further comments on the measures that were introduced or are going to be introduced in your country?*

Comment: -