



Independent Aggregation

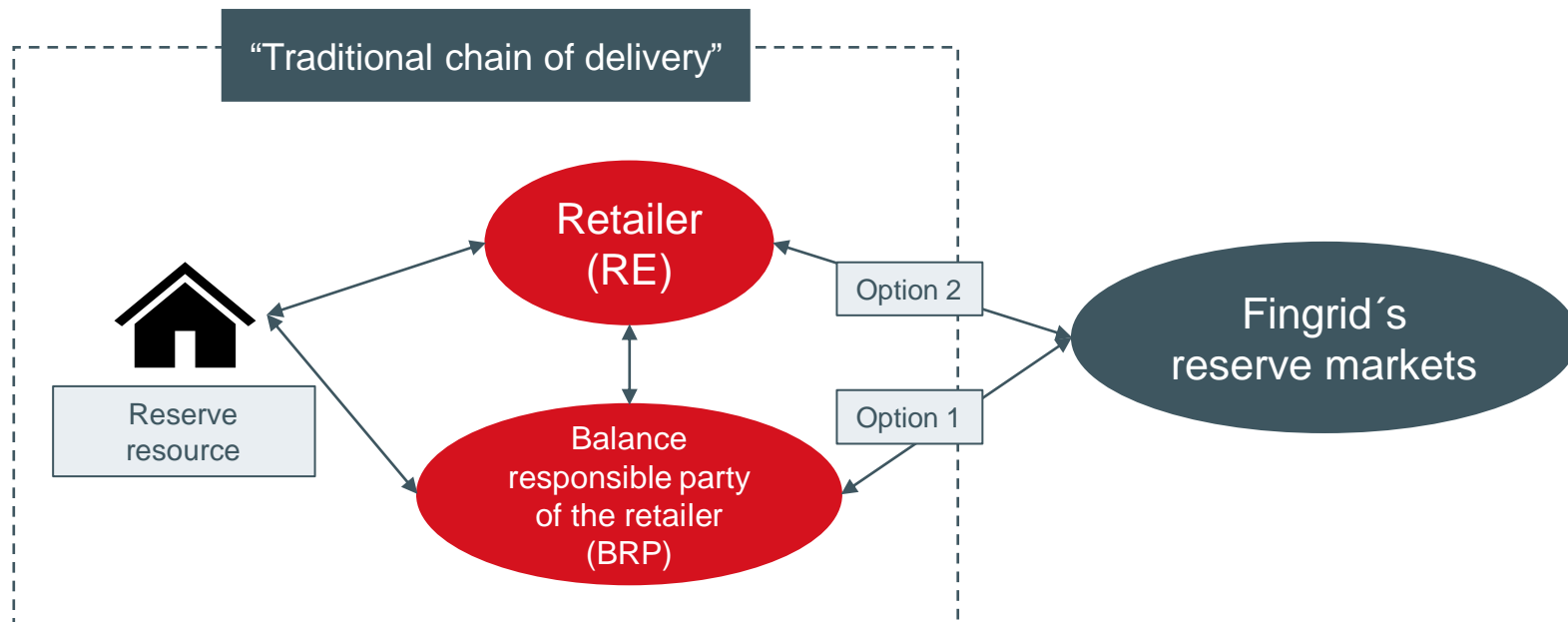
General information

06/2024

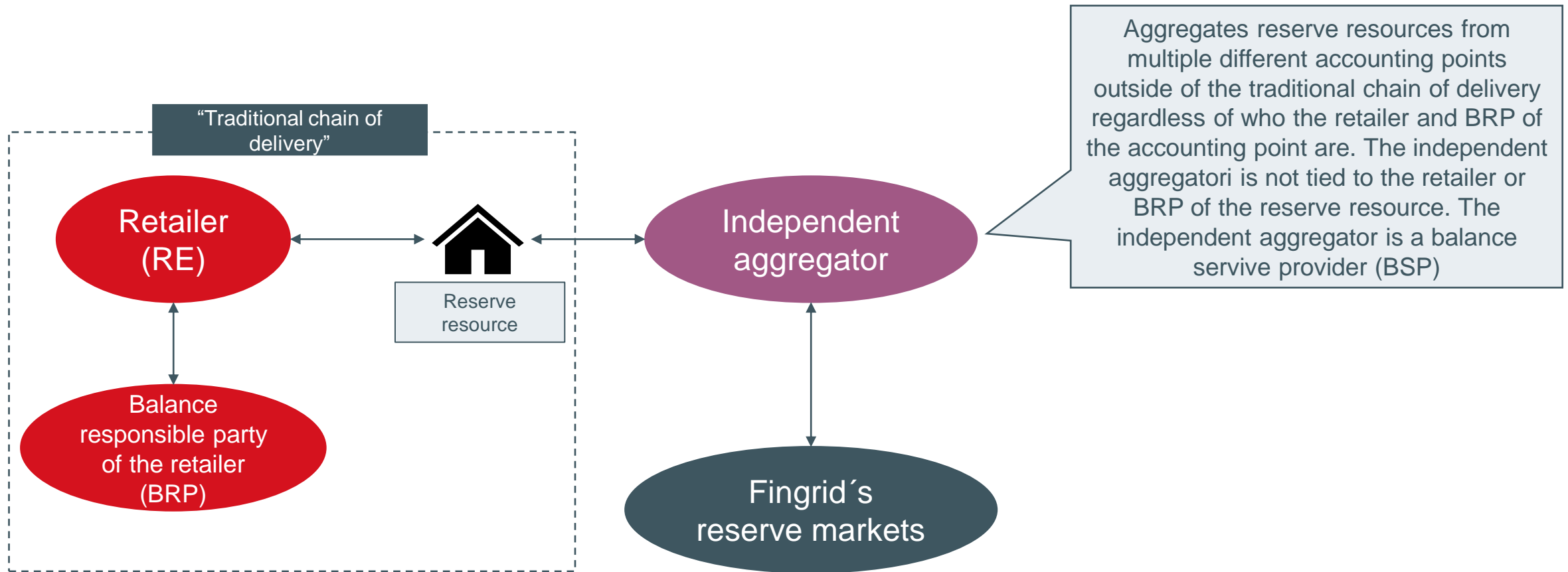
FINGRID

Aggregation

- Aggregation is referred to in the Electricity Market Act (497/2023, 3§) as an activity that combines several end-user loads or electricity production for sale, purchase, or auction in the electricity market
 - Aggregation is currently allowed in all marketplaces in the traditional chain of delivery
 - Traditionally aggregations means aggregation of reserve resources within the traditional chain of delivery, i.e. the aggregator acts as the retailer or the balance responsible party of the reserve resource
 - An independent aggregator and a contractual balance service provider aggregate reserve resources outside of the traditional chain of delivery



Independent aggregator in reserve markets



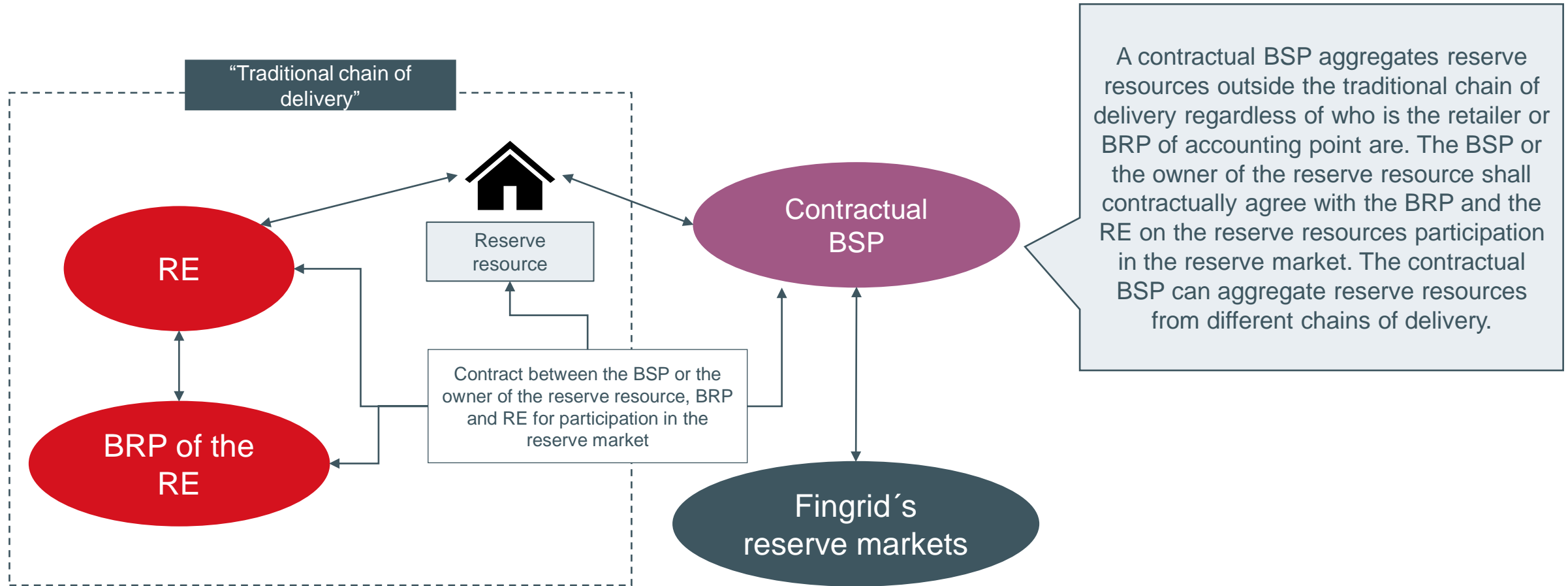
Independent aggregation in Fingrid's reserve markets

Status June 2024

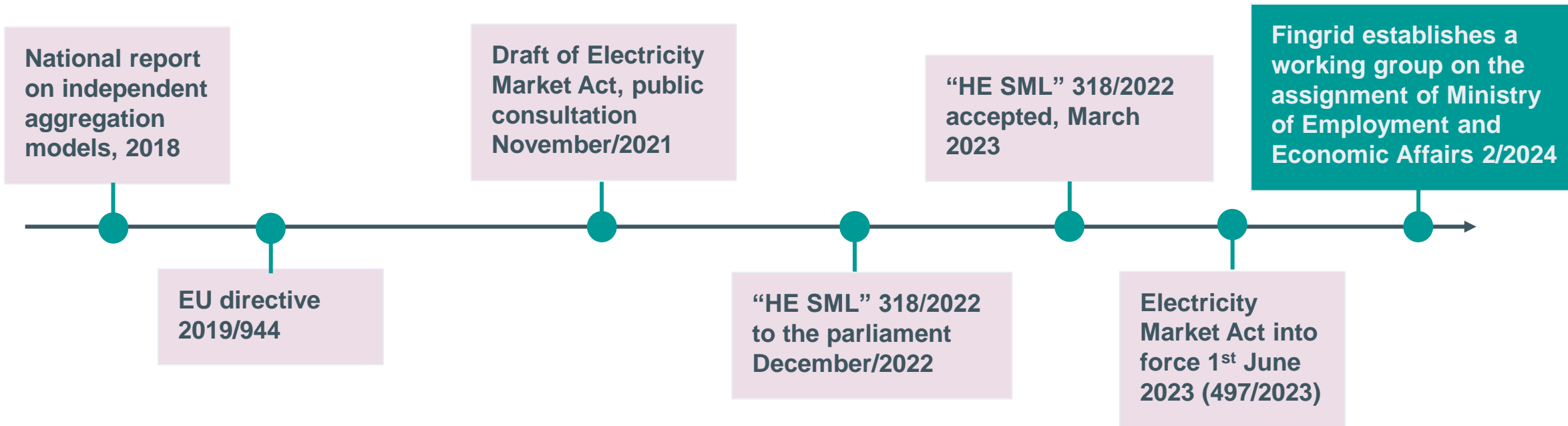
FCR-D	FCR-N	FFR	aFRR
<ul style="list-style-type: none">• Independent aggregation allowed since 1st January 2017• Minimum bid size: 1 MW• Capacity fee to the balance service provider (BSP)• No energy correction nor compensation<ul style="list-style-type: none">➤ Activation has low impact on energy• Independent aggregator does not have a balance responsible party (BRP).	<ul style="list-style-type: none">• Independent aggregation allowed since 1st January 2018• Minimum bid size: 0.1 MW• Capacity fee to the balance service provider (BSP)• Energy correction and compensation<ul style="list-style-type: none">➤ Balancing energy is corrected, and energy compensation is fully paid to the balance responsible party (BRP)• Independent aggregator does not have a balance responsible party (BRP).	<ul style="list-style-type: none">• Independent aggregation allowed since 12th May 2020• Minimum bid size: 1 MW• Capacity fee to the balance service provider (BSP)• No energy correction nor compensation<ul style="list-style-type: none">➤ Activation has low impact on energy• Independent aggregator does not have a balance responsible party (BRP).	<ul style="list-style-type: none">• Independent aggregation estimated to be allowed in March/April 2025

Independent aggregation is not yet possible in the mFRR market. Before it can be introduced in the mFRR and aFRR energy markets, a compensation model must be developed, and improvements need to be done in information systems.

Contractual balance service provider (BSP)



Legislation process of independent aggregation



The Electricity Market Act in Finland (497/2023) requires independent aggregators to compensate the end-user's open supplier or the relevant balance responsible party for the costs incurred during the aggregator's activation of demand-side flexibility in the day-ahead market, intraday market, or balancing energy market. The Act tasks Fingrid with defining the method for calculating compensation (also referred as the compensation model).

Electricity market act (497/2023) states that further regulations may be given as a government decree.
→ Fingrid establishes a working group on the assignment of Ministry of Employment and Economic Affairs. The working group evaluates the practical implementation of independent aggregation. The Ministry of Employment and Economic affairs drafts a government decree based the work of the working group

Itsenäinen aggregointi Fingridin reservimarkkinoilla: termien selitykset

- **Energy fee**
 - FCR-N: Energy fee refers to the payment to the balance responsible party for the activation of the reserve
 - aFRR and mFRR energy market: Energy fee refers to the payment to the balance service provider for the activation of the reserve
 - Up regulation: Fingrid pays the energy fee to the balance service provider
 - Down regulation: Fingrid charges the energy fee from the balance service provider
 - If the down regulation price is negative the payment direction shifts, i.e. Fingrid pays the energy fee to the balance service provider
 - FCR-D and FRR: No energy fee (low impact on energy)
- **Imbalance adjustment**
 - **The balance deviation caused by the activation of reserve resource is corrected for the BRP of the reserve resource**
 - *An imbalance caused by the activation of demand-side management must be corrected in the electricity balance of the customer's open supplier or balance responsible party (unofficial translation) – Amended Electricity Market Act 497/2023, 72 a §*
- **Compensation fee**
 - Compensation Fee refers to the compensation fee charged or paid by Fingrid under the compensation model for Independent Aggregators.
 - Compensation model refers to the reimbursement of the costs incurred during the supply of down- and up-regulation by an Independent Aggregator. The compensation is paid towards the Balance Responsible Party of the Reserve Resource. In addition, an imbalance caused by the delivered balancing energy is adjusted in the Balance Responsible Party's balance with an imbalance adjustment.
 - *independent aggregators shall compensate their customer's open supplier or the relevant balance responsible party for the costs incurred during the aggregator's activation of demand-side management in the day-ahead market, intraday market or balance management market (unofficial translation) – Amended Electricity Market Act 497/2023, 72 a §*