Unofficial translation

Fingrid Oyj

Background document on changes in the aFRR terms and conditions applying to independent aggregators 2/2024



1 Introduction

Fingrid Oyj (hereinafter Fingrid) is responsible for maintaining a continuous power balance in Finland and for the national imbalance settlement. Fingrid procures reserves used to manage the balance of the power system in marketplaces that it operates. Equal terms and conditions apply to all balance responsible parties and balancing service providers. Fingrid proposes these terms and conditions, and the Energy Authority confirms them in accordance with Article 18 of Commission Regulation (EU) 2017/2195 establishing a guideline on electricity balancing (EBGL).

Amendments to the Electricity Market Act (497/2023) in Finland entered into force on 1st June 2023, introducing changes to the terms and conditions applying to aFRR providers. The proposal calls for an addition to the terms and conditions for aFRR providers to the effect that a Balancing Service Provider may be an open supplier, balance responsible party or owner of a Reserve Resource, an independent aggregator or a contractual Balancing Service Provider. In addition, the proposal calls for the introduction of a method for calculating the compensation associated with independent aggregation required by the Electricity Market Act (497/2023). This method is hereinafter referred to as the compensation model.

The proposed compensation model aims to be equitable from the standpoints of independent aggregators, balance responsible parties, and open suppliers. It should also have the minimum possible impact on the balance responsible party responsible for the power balance of the reserve resource and on the open supplier (electricity supplier) responsible for the procurement (purchases/sales) of the Reserve Resource's electricity. The proposed compensation model compensates the balance responsible party of the end customer's open supplier for the costs of balancing energy delivered by an independent aggregator at the defined reference price. The proposed reference price is the day ahead market price of Finland during the relevant imbalance settlement period. In addition, imbalances caused by the delivery of balancing energy are adjusted in the power balance of the Reserve Resource's balance responsible party.

The proposed compensation model provides the opportunity for the balance responsible parties and open suppliers (electricity suppliers) of the reserve resources to take into account the compensation (costs and incomes) allocated to the balance responsible parties due to the up- and down-regulation delivered by an independent aggregator towards the open suppliers. Fingrid or Fingrid's service provider shall provide the balance responsible party with a breakdown of the imbalance adjustments caused by the operations of an independent aggregator, itemised for each open supplier. In this way, the balance responsible party and the open supplier may agree to reallocate the compensation allotted to the balance responsible party to the open suppliers in accordance with bilateral agreements. Neither Fingrid nor Fingrid's service provider eSett Oy (hereinafter referred to as eSett) have contracts with electricity suppliers and thus Fingrid or eSett cannot allocate the invoicing of compensation fees directly towards the electricity suppliers.

Under the proposed independent aggregation model, the independent aggregator shall assume the role of a Balancing Service Provider. The independent aggregator shall not have a role of a balance responsible party and shall not have a contract with



a party acting as a balance responsible party. However, the independent aggregator shall be financially responsible for the imbalances it causes to the power system. As a balancing service provider, the independent aggregator shall always strive to deliver the activated balancing energy. However, if the aFRR balancing energy delivered by the independent aggregator during the imbalance settlement period differs from the aFRR balancing energy activated during the imbalance settlement period, the independent aggregator shall be financially responsible for the difference between the balancing energy activated during the imbalance settlement period and the balancing energy delivered during the imbalance settlement period. In this case, eSett shall allocate the cost of the Regulation Imbalance incurred to the power system to the independent aggregator at the Regulation Imbalance price as part of the independent aggregator's invoicing.

The proposed amendments to the terms and conditions for aFRR suppliers will allow Balancing Service Providers to aggregate Reserve Resources into the same Reserve Unit and aFRR bid from different balances. The aggregation of different balances requires the adoption of a new form of information exchange between the Balancing Service Provider and Fingrid's service provider (eSett) to enable imbalance settlement and the correction of imbalances. New information exchange requirements have been drafted to support the consultation (Draft of changes to Fingrid's Reserve Trading and Information Exchange guideline).

The proposed amendments to the terms and conditions for aFRR suppliers are expected to be adopted in late 2024. The introduction of the independent aggregation model requires changes to several different data systems. The adoption schedule will be revised as the technical implementation progresses.

The collateral requirement for the independent aggregator is proposed to be introduced in stages. At the start of commissioning, a fixed collateral requirement of €40,000 is used. The proposed collateral requirement formula is estimated to be fully implemented in February-March 2025.

The proposed changes to the terms and conditions for aFRR suppliers applying to Contractual Balancing Service Providers and Independent Aggregators will not lead to any changes to Balancing Service Providers already operating in the aFRR reserve, unless these Balancing Service Providers start to aggregate reserve resources from multiple balance responsibilities.

- 2 List of proposed changes to the terms and conditions (main points) (ID FG-2024/171)
- 2.1 Requirements for Balancing Service Providers, chapter 4
 - Proposed amendment: In the future, a Balancing Service Provider may be an open supplier or balance responsible party of a Reserve Resource, an independent aggregator, a contractual balancing service provider, or a combination of the above



- Background: Article 17 of EU Directive 2019/944 specifies that each market participant engaged in aggregation, including independent aggregators, is entitled to enter electricity markets without the consent of other market participants. Fingrid's proposed independent aggregation model for the aFRR reserve product does not require the consent of the Reserve Resource's balance responsible party or supplier. Fingrid shall apply the compensation model if a Balancing Service Provider is an independent aggregator of a Reserve Resource. In addition, the Balancing Service Provider (authorized by the Reserve Resource owner) or Reserve Resource owner shall have the opportunity to make an agreement with the balance responsible party and open supplier of the Reserve Resource on the provision of the Reserve Resource to the aFRR reserve, in which case it shall be a contractual balancing service provider. Fingrid shall not apply the compensation model to contractual balancing service providers as they are not independent aggregators. A Balancing Service Provider may aggregate Reserve Resources for which it is an independent aggregator, contractual balancing service provider, or open supply chain party (the electricity supplier or balancing service provider of a Reserve Resource). In addition, the Balancing Service Provider may aggregate Reserve Resources from different balances by combining them in the same aFRR capacity and energy bid. A Reserve Resource of a Balancing Service Provider may be production, consumption, or energy storage facility.
- Proposed amendment: An independent aggregator shall be financially responsible for the Regulation Imbalances that it causes, leading to imbalances in the power system. The independent aggregator shall not assume the role of a balance responsible party.
 - Background: Under the proposed independent aggregation model, the independent aggregator shall assume the role of a Balancing Service Provider. The independent aggregator shall not be a balance responsible party and shall not have a contract with the party acting as the balance responsible party. However, the independent aggregator shall be financially responsible for the imbalances it causes to the power system.
 - The Balancing Service Provider must always strive to deliver the activated balancing energy. However, if the aFRR balancing energy delivered by the independent aggregator during the imbalance settlement period differs from the aFRR balancing energy activated during the imbalance settlement period, the independent aggregator shall be financially responsible for the difference between the balancing energy activated during the imbalance settlement period and the balancing energy delivered during the imbalance settlement period. eSett shall allocate the cost of the independent aggregator's Regula-



tion Imbalance to the independent aggregator at the Regulation Imbalance price as part of the independent aggregator's billing (Figure 1).

- Proposed amendment: An independent aggregator shall be obliged to maintain balance responsibility information for Reserve Resources and report it to Fingrid or Fingrid's service provider
 - Background: Up-to-date balance responsibility information is a pre-requisite for imbalance settlement. Under the independent aggregation model, the balance responsibility information for reserve resources is used to calculate compensation fees and imbalance adjustments according to the compensation model. An authorisation function is planned for the Datahub to allow Balancing Service Providers to access the balance responsibility information for a Reserve Resource with the end customer's consent. Only accounting points in the distribution network are in Datahub. The deployment of the Datahub authorisation functionality is planned for late 2024. Draft of changes to Fingrid's Reserve Trading and Information Exchange guideline includes a description of the authorisation functionality.
- Proposed amendment: If a contractual balancing service provider or open supplier aggregates Reserve Resources from several balances, they shall be obliged to maintain balance responsibility information for the Reserve Resources and report the information to Fingrid or Fingrid's service provider
 - Background: Up-to-date balance responsibility information is a prerequisite for imbalance settlement and imbalance adjustments

2.2 Requirements for a Reserve Unit, chapter 5

Proposed amendment: As part of the process of technical verification and prequalification for the automatic Frequency Restoration Reserve (aFRR), the Balancing Service Provider must present accounts of the balancing energy delivered and the associated Reference Power for each balancing object and a breakdown for each balance responsibility, as well as a description of how the Balancing Service Provider maintains the Balance Responsibility Information for its Reserve Resources. The calculation of the balancing energy delivered and the associated accounts of Reference Power and the maintenance of the Balance Responsibility Information must meet the requirements of the document, 'Technical requirements and prequalification process for the automatic Frequency Restoration Reserve (aFRR)'. At any time, Fingrid shall be entitled to ask the Balancing Service Provider for additional information on the accounts of the balancing energy delivered and the associated reference power, as well as a description of how the Balancing Service Provider maintains the Balance Responsibility



Information for its Reserve Resources. The Balancing Service Provider shall provide the requested additional information within 30 days.

- Background: The balancing energy delivered and the associated details on the balance responsibility are used in imbalance adjustments and the compensation model related to independent aggregation. Fingrid must have the right to verify the balancing energy delivered and request additional information from the Balancing Service Provider.
- 2.3 Aggregation of Reserve Resources, chapter 6
 - Proposed amendment: Obligation to provide balance responsibility information
 - Background: Balance responsibility information is a prerequisite for imbalance settlement
- 2.4 Reporting and monitoring of reserve maintenance, chapter 9.1
 - Proposed amendment: The Balancing Service Provider shall provide Fingrid or Fingrid's service provider with information on the balancing energy delivered and the associated balance responsibility information at its own expense in accordance with Fingrid's instructions, 'Reserve Trading and Information Exchange'. Fingrid or Fingrid's service provider shall use the Balancing Service Provider's reported details on balancing energy delivered and balance responsibility information to determine the compensation fees related to the independent aggregation compensation model and the implement imbalance adjustments.
 - Background: Information on the balancing energy delivered and the associated balance responsibility information are a prerequisite for imbalance settlement.
 - Proposed amendment: The Balancing Service Provider must report preliminary information on the balancing energy delivered and balance responsibility information to Fingrid or Fingrid's service provider within two days (no later than D+2 10:00 CET/CEST) and final information on the balancing energy delivered and information on the balance responsibility within 13 days (no later than D+13 12:00 CET/CEST). The obligation to report the balancing energy delivered shall apply to Balancing Service Providers acting as independent aggregators or Balancing Service Providers that aggregate Reserve Resources from several different balances, with the exception of shared power plants.
 - Background: Nordic Imbalance Settlement (NBS) specifies the closing time for preliminary imbalance settlement information as D+2 10:00 CET/CEST and for final imbalance settlement information as D+13 12:00 CET/CEST.



- Proposed amendment: Fingrid shall be entitled to ask the Balancing Service Provider for additional information on the accounts of the balancing energy delivered and a description of how the Balancing Service Provider maintains the balance responsibility information for its Reserve Resources.
 - Background: Imbalance settlement is based on information on the activated balancing energy provided by the Balancing Service Provider to Fingrid or Fingrid's service provider. For this reason, Fingrid must have the right to request additional information. Up-to-date balance responsibility information is a prerequisite for allocating imbalance adjustments and compensation under the independent aggregator model to the right parties during imbalance settlement.
- Proposed amendment: If the balancing energy delivered by a contractual balancing service provider with Reserve Resources from multiple balances does not correspond to the activated balancing energy, the Balancing Service Provider shall be obliged to report the Balance Responsible Party of the Regulation Imbalance to Fingrid or Fingrid's service provider.
 - O Background: As this provision concerns a contractual balancing service provider, there are bilateral agreements with the balance responsible parties of the Reserve Resources and the suppliers. In the case of contractual balancing services, if an imbalance is caused to the power system, the liability lies with the balance responsible party whose balance has caused the deviation. An imbalance caused by a contractual balancing service provider shall be allocated to the balance of the correct Balance Responsible Party by reporting the Balance Responsible Party of the Regulation Imbalance. The imbalance price shall be allocated to the balance responsible party's imbalance calculated during imbalance settlement.
 - The balancing service provider must always endeavour to deliver the activated balancing energy. In this case, the delivery will not cause an imbalance in the power system. If an imbalance is caused by a contractual balancing service provider that aggregates Reserve Resources from several different balances, the provider shall be obliged to report the Balance Responsible Party of the Regulation Imbalance.
 - The content of the report on the Balance Responsible Party of the Regulation Imbalance is described in Draft of changes to Fingrid's Reserve Trading and Information Exchange guideline.
- Proposed amendment: In the case of a Balancing Service Provider that aggregates Reserve Resources, both as the balance responsible party or open supplier of Reserve Resources and as an independent aggregator, if the balancing energy delivered does not correspond to the balancing energy activated from the Balancing Service Provider, the



Balancing Service Provider shall be obliged to report the Balance Responsible Party of the Regulation Imbalance to Fingrid or Fingrid's service provider in accordance with Fingrid's instructions, 'Reserve Trading and Information Exchange'.

- our to deliver the activated balancing energy. In this case, the delivery will not cause an imbalance in the power system. In this case, the regulation imbalance may have been caused by either the reserve resources of the balance responsible party or the open supplier and/or by the reserve resources of the independent aggregator, i.e. the balance responsible party and/or the independent aggregator is financially responsible for the regulation imbalance. If the aforementioned Balancing Service Provider causes imbalances, it shall be obliged to report the Balance Responsible Party of the Regulation Imbalance to Fingrid or Fingrid's service provider if the regulation imbalance is the responsibility of the balance responsible party.
- Proposed amendment: The Balancing Service Provider shall notify Fingrid if its activities as an Independent Aggregator, Contractual Balancing Service Provider, Balance Responsible Party or Open Supplier of a Reserve Resource change or cease. The Balancing Service Provider is obliged to notify Fingrid of the changes in writing no later than 14 days before the change takes effect.
 - Background: Fingrid must be aware of the Balancing Service Provider's role and actions in the reserve market, i.e. whether the Balancing Service Provider operates as an independent aggregator in the aFRR market, as a contractual Balancing Service Provider, or as the balance responsible party or as an open supplier of the Reserve Resource. The requirements for the Balancing Service Providers depend on the role and actions of the Balancing Service Provider.

2.5 Reporting and monitoring of reserve maintenance, chapter 9.4

- Proposed amendment: Breakdown of imbalance adjustments by open supplier under the compensation model
 - Background: According to the amended Finnish Electricity Market Act (497/2023), an independent aggregator must compensate for the costs incurred by its customer's open supplier or the balance responsible party of such a supplier due to the balancing energy delivered by the aggregator. If the compensation is not allocated to the open supplier of the Reserve Resource, the independent aggregator's operations may cause the open supplier to incur costs. A breakdown according to the Open Supplier (i.e., the specific electricity supplier) allows compensation to be allocated to a Reserve Resource's electricity suppliers in accordance with a bilateral agreement between the balance responsible party and the electricity supplier.



- Proposed amendment: Fingrid or Fingrid's service provider shall report imbalance adjustments to the balance responsible party and open supplier in accordance with Fingrid's instructions, 'Reserve Trading and Information Exchange'.
 - O Background: The balance responsible party and electricity supplier (open supplier) of a reserve resource must be able to view the information relevant to their operations. The balance responsible party and supplier must be able to view the completed aFRR balancing energy supplies in their portfolio so that the balance responsible party and electricity supplier can take these into account in their operations, for example, in future trading forecasts and avoid reverse adjustments at the time of use. Fingrid or Fingrid's service provider shall report the preliminary volumes of Balancing Energy to the balance responsible party within two days and the final information no later than within 13 days.

2.6 Energy processing, chapter 10

- Proposed amendment: Activated and delivered balancing energy
 - Background: Energy processing is performed according to either activated or delivered aFRR balancing energy, depending on the role of the Balancing Service Provider. The Balancing Service Provider's role determines which party is responsible for imbalances between the delivered and activated balancing energy.
 - For the independent aggregator role, imbalance adjustments shall be made for the balance responsible parties of the Reserve Resources according to the balancing energy delivered by the independent aggregator (Figure 1).
- Proposed amendment: Delivered Balancing Energy refers to the Balancing Energy caused by the delivery of the automatic Frequency Restoration Reserve. The balancing energy delivered shall be based on information that the Balancing Service Provider reports to Fingrid. The Balancing Service Provider shall determine the balancing energy delivered for Imbalance Adjustments for each Imbalance Settlement Period.
 - Background: The delivered balancing energy is used to correct the imbalances of a Reserve Resource's balance responsible party if the Balancing Service Provider is an Independent Aggregator or the Balancing Service Provider aggregates Reserve Resources from more than one balance.
- In addition, if the Balancing Service Provider reports a Regulation Imbalance for which the Reserve Resource's Balance Responsible Party is responsible when submitting the information on the Balance Responsible Party of the Regulation Imbalance to Fingrid or Fingrid's service provider, the Regulation Imbalance reported by the Balancing



Service Provider shall be taken into account during national imbalance settlement as part of the Imbalance Adjustment of the Reserve Resource's Balance Responsible Party.

- The Balancing Service Provider must always endeavour to deliver the activated balancing energy. In this case, the delivery will not cause an imbalance in the power system. Reporting the Balance Responsible Party of the Regulation Imbalance ensures that in the event that the balancing energy delivered by a Balancing Service Provider and the balancing energy activated from the Balancing Service Provider are not equal, the Regulation Imbalance can be allocated to the party responsible for it. The obligation to report the Balance Responsible Party of the Regulation Imbalance shall only apply to the balancing service provider roles set out in the instructions 'Reserve Trading and Information Exchange' (Draft of changes to Fingrid's Reserve Trading and Information Exchange guideline).
- Proposed amendment: Fingrid or Fingrid's service provider shall report the preliminary volume of delivered balancing energy to the balance responsible party within two days and the final information no later than within 13 days.
 - Background: Nordic Imbalance Settlement (NBS) specifies the closing time for preliminary imbalance settlement information as D+2 10:00 CET/CEST and for final imbalance settlement information as D+13 12:00 CET/CEST.

2.7 Energy fee, chapter 11.2

- Proposed amendment: Independent aggregator compensation model
 - Background: According to the changes to the Electricity Market Act (497/2023), "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. The compensation may also take into account the benefits of independent aggregators to other market participants in the electricity market. However, compensation for the benefit must not exceed the costs incurred by the customer's open supplier or balance responsible party during the period when demand-side management is activated by the independent aggregator. In addition, 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. The transmission system operator responsible for the system is tasked with specifying the method for calculating the compensation referred to in subsection 1. The calculation method should be based on the energy impact of the aggregation services provided by the independent aggregator on the



electricity balance of the customer's open supplier or balance responsible party and the reference price, which may vary from market to market. The calculation method must be equitable and non-discriminatory for electricity market participants and must not prevent demand-side management offered by an independent aggregator from participating in the markets referred to in subsection 1."

- The independent aggregator's operations in the aFRR market may cause a Reserve Resource's balance responsible party and supplier to incur costs if the balancing energy delivered by the independent aggregator is not corrected in the balance responsible party's balance and the cost of the balancing energy is not reimbursed in accordance with the proposed compensation model.
- Fingrid's proposed method of calculating the compensation of an independent aggregator (the compensation model) takes into account the costs or income incurred during the activation of down- or upregulation by an independent aggregator to the open supplier (electricity retailer) of the reserve resource and the imbalance caused by the activation of up- or down-regulation is adjusted in the balance responsible party's electricity balance. A Compensation Fee shall be allocated to the balance responsible party of the reserve resource at the price of the Finnish day-ahead market during the imbalance settlement period in question. In addition, the balance responsible party of the reserve resource will receive a breakdown from Fingrid or Fingrid's service provider, reporting the share of the Imbalance Adjustment and Compensation Fee attributable to each open supplier (the electricity retailer of the reserve resource) in the balance responsible party's balance. Similarly, the open supplier of the Reserve Resource will receive a breakdown from Fingrid or Fingrid's service provider, reporting its share of the adjusted balancing energy allocated to the balance responsible party's balance and its share of the Compensation Fee allocated to the balance responsible party. The balance responsible party may then allocate the Compensation Fee to the electricity supplier in accordance with a bilateral agreement between the balance responsible party and the electricity supplier.
- o Figure 1 illustrates the compensation model. The functioning of the compensation model is justified below using two examples.
 - Example 1: An independent aggregator offers up-regulation (i.e., a reduction in consumption or increase in production of the reserve resource) to the aFRR energy market. The independent aggregator is not responsible for procuring from the electricity market (buying or selling) the energy it sold in the aFRR energy market.
 - Consumption: The electricity supplier of a reserve resource has bought energy from the electricity market for which it does not receive income due to up-regulation delivered by an independent aggregator. In other words, the the end-customer consumes less electricity

than the electricity supplier has bought from the market.

Production: The electricity supplier of a reserve resource has sold less energy to the electricity market than the reserve resource of the end-customer produces due to up-regulation delivered by an independent aggregator. In other words, the end-customer produces more electricity than the electricity supplier has sold to the market.

The situation causes the electricity supplier to incur costs because it cannot sell the energy it has already purchased from the market to its end-customer, or it has sold less energy to the market than the end-customer produces. The balance responsible party is compensated for the incurred cost at the price of the Finnish day-ahead market (spot price) during the imbalance settlement period in question, and the balance responsible party and electricity supplier agree on the allocation of the compensation to the electricity supplier in accordance with their bilateral agreements. The spot price, which is used as the reference price for the Compensation Fee, is an estimate of the cost incurred by the electricity supplier of the Reserve Resource due to the independent aggregator's operations in the aFRR energy market.

- Example 2: An independent aggregator offers down-regulation (i.e., an increase in consumption or decrease in production) to the aFRR energy market. The independent aggregator is not responsible for procuring from the electricity market (buying or selling) the energy it sold in the aFRR energy market.
 - Consumption: The electricity supplier of a reserve resource has not bought energy from the electricity market, however, it receives income for this energy due to down-regulation delivered by an independent aggregator. In other words, the end-customer consumes more electricity than the electricity supplier has bought from the market due to the independent aggregator's delivery of aFRR down-regulation.
 - Production: The electricity supplier of a reserve resource has sold energy to the electricity market for which it receives sales income, but the reserve resource of the end-customer produces less electricity than the electricity supplier has sold to the market due to down-regulation delivered by an independent aggregator.

The situation leads to higher sales income for the electricity supplier because the electricity it has already bought from the market does not correspond to the electricity consumed by the end-customer due to the down-regulation delivered by the independent aggregator or the electricity it has already sold



to the market does not correspond to the electricity produced by the end-customer due to the down-regulation delivered by the independent aggregator. The balance responsible party of the electricity supplier (and of the reserve resource) compensates the independent aggregator at the day ahead market spot price during the imbalance settlement period in question for this sales income accruing to the electricity supplier. The balance responsible party and supplier agree to allocate the Compensation Fee paid by the balance responsible party to the independent aggregator in accordance with their bilateral agreements. The spot price, which is used as the reference price for the Compensation Fee, is an estimate of the sales income accrued by the electricity supplier due to the independent aggregator's operations.

The invoicing of the Compensation Fees is done by Fingrid's service provider (eSett) for the independent aggregator and for the balance responsible parties of the reserve resources of the independent aggregators.

According to the Electricity Market Act (497/2023), "The compensation may take into account the benefits of independent aggregators to other market participants in the electricity market". The Electricity Market Act (497/2023) does not require the benefits to be taken into consideration in the method for calculating compensation. Demand-side management and the benefits it provides can be offered to the market by any of the Balancing Service Providers referred to in the terms and conditions. These include independent aggregators, contractual balancing service providers, open suppliers and balance responsible parties of the reserve resources. All Balancing Service Providers must have equal and non-discriminatory opportunities to participate in the market.

2.8 Regulation Imbalance Fee and fixed weekly fee, chapter 11.3

- Proposed amendment: If a Balancing Service Provider is an independent aggregator, the Balancing Service Provider shall pay Fingrid a fixed Regulation Imbalance Fee for each megawatt hour of Regulation Imbalances in an imbalance settlement period.
 - Background: An independent aggregator is financially responsible for the Regulation Imbalances it causes. If the Balancing Service Provider is not an independent aggregator, the difference between the balancing energy activated from the Balancing Service Provider and delivered by the Balancing Service Provider is allocated to the balance of the Balancing Service Provider's balance responsible party, causing the balance responsible party to incur an imbalance equal to the difference. The balance responsible party's imbalances shall be

subject to a imbalance fee as part of the balance responsible party's imbalance settlement. For independent aggregators, the Regulation Imbalance Fee stated in the terms and conditions shall correspond to the imbalance fee of the balance responsible parties. The imbalance fee is currently EUR 1.15 per MWh. In addition, the Regulation Imbalance Fee creates an incentive for Independent Aggregators to deliver balancing energy according to the activated balancing energy. If a Balancing Service Provider acts as both an independent aggregator and a balance responsible party, the regulation imbalances it causes as an independent aggregator are treated separately from the imbalances it causes as a balance responsible party.

- Proposed amendment: If the Balancing Service Provider is an independent aggregator, the Balancing Service Provider shall be charged a fixed weekly fee.
 - o Background: An independent aggregator is financially responsible for the Regulation Imbalances it causes. If the Balancing Service Provider is not an independent aggregator, the Balancing Service Provider's balance responsible party is liable for imbalances caused by the Balancing Service Provider. Balance responsible parties are charged a fixed weekly fee as part of the balance service fee. If the Balancing Service Provider is an independent aggregator, the Balancing Service Provider is charged the same fixed weekly fee as a balance responsible party. The fixed weekly fee for balance responsible parties is currently EUR 30 per week. The weekly fee is party-specific. In other words, if a balance responsible party also acts as an independent aggregator in addition to its role as a balance responsible party, only one weekly fee is allocated to the party.
- 2.9 Collateral requirements for independent aggregators, chapter 11.4
 - Proposed amendment: Each independent aggregator must pledge collateral in case the independent aggregator is unable to fulfil its Financial Responsibilities related to Regulation Imbalances.

The collateral requirement for independent aggregators shall be calculated according to the following formula:

Collateral requirement = 3 * (S1 + S2) + X

Where

S1 = average weekly invoiced Regulation Imbalance Fees over the past three weeks, including value-added tax if applicable

S2 = average absolute values of the weekly invoiced sums for Regulation Imbalances over the past three weeks, including value-added tax if applicable



X = EUR 40,000

- Background: An independent aggregator is financially responsible for the Regulation Imbalances it causes. If the Balancing Service Provider is not an independent aggregator, the balance responsible party of the reserve resource is financially responsible for imbalances caused by the Balancing Service Provider. Balance responsible parties must pledge collateral. Similarly, independent aggregators are also required to pledge collateral. The minimum possible amount of collateral requirement for an independent aggregator is EUR 40,000, which corresponds to the minimum collateral requirement for balance responsible parties. S1 and S2 are similar to the collateral requirement for balance responsible parties, except that this calculation refers to Regulation Imbalances instead of imbalances. The proposed collateral requirement applies only to those Balancing Service Providers who act as independent aggregators in the aFRR product. If a Balancing Service Provider acts as both an independent aggregator and a balance responsible party, a single collateral requirement is assigned to the party, which takes into account both the collateral requirement of the independent aggregator and the collateral requirement of the balance responsible party.
- The collateral requirement for the independent aggregator is proposed to be introduced in stages. At the start of commissioning, a fixed collateral requirement of €40,000 is used. The proposed collateral requirement formula is estimated to be fully implemented in February-March 2025. The gradual introduction is based on the system changes required for the introduction of the collateral requirement.
- 2.10 Verification of control properties of reserves, and the Balancing Service Provider's reimbursement obligation, chapter 14.2
 - Proposed amendment: Verification of control properties of reserves
 - Background: A similar change has been added to the terms and conditions regarding the verification of control properties as presented in the consultation of the Automatic Frequency Restoration Reserves Reserve (aFRR) (ID: FG-2024/60) held on January 22-February 22, 2024

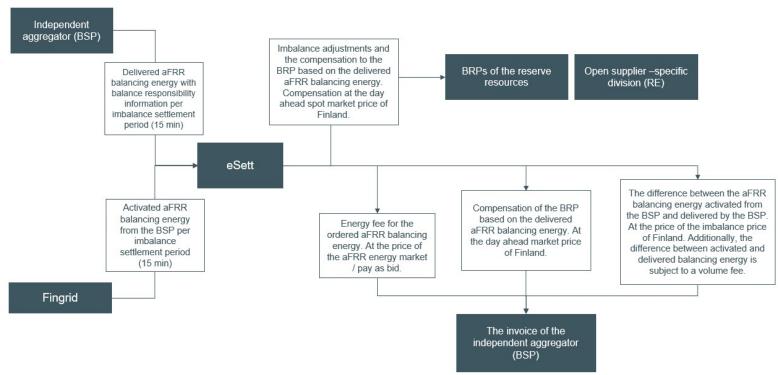


Figure 1. Description of the energy processing and compensation model of the independent aggregator