

General Balance Group Regulations

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Contents of the General Balance Group Regulations

The General Balance Group Regulations regulate the establishment and management of a balance group as well as the handling of schedule messages of the BGM and the limitations relating thereto. They also specify the procedures for dealing with schedule differences and the monitoring of compliance with capacity rights. Finally, they contain provisions relating to the settlement of imbalance energy and determine the remuneration and payment conditions for services provided or to be provided between Swissgrid and the BGM within the context of the Balance Group Contract.

The technical requirements and procedures applicable to the balance groups are contained in the Technical Balance Group Regulations, which likewise form part of the Balance Group Contract.

1 Establishing a balance group

1.1 Requirements for establishing a balance group

To initiate a registration process within the meaning of Clause 3.1 of the Balance Group Contract, the following requirements must be met cumulatively and in full by the applicant in addition to the information listed therein. The contact of the BGM in the registration process is the Swissgrid contact office for general queries:

- A. submission of the signed application form, completed in full and correctly by a person who has representation authority;
- B. presentation of legally valid proof of the applicant's status as a legal entity (generally by means of a registry extract or comparable proof in German or English); for foreign BGMs Swissgrid is entitled to set the requirements individually;
- C. provision of suitable collateral at the request of Swissgrid (as per Clause 2.4);
- D. payment of registration fee of € 6,250;
- E. assurance of the applicant's availability and capacity to act during the schedule coordination period, as described below in Clause 0;
- F. assurance from the BGM's bank that it has set up a SEPA direct debit mandate (Single Euro Payments Area Direct Debit Business-to-Business Mandate, «SEPA DD B2B») with Swissgrid. The SEPA DD B2B form (one copy for Swissgrid, one copy for the bank) published on the Swissgrid website (www.swissgrid.ch) must be completed in this respect. By way of exception and only by agreement with Swissgrid, BGMs whose bank do not support SEPA DD B2B in Switzerland can also use the direct debit (direct debit authorisation) method. The direct debit form is provided by Swissgrid and must be completed in this respect;
- G. confirmation of the plausibility values calculated by Swissgrid for BGMs with metering points as defined by Clause 2.1;
- H. If an applicant intends to make deliveries of electrical energy between the Swiss control area and the Austria control area (external trade), it must inform Swissgrid in the application form;
- I. If an applicant intends to make deliveries of electrical energy between the Swiss control area and French control area in the context of participation in the French balancing market, it must inform Swissgrid in the application form and also provide proof that it has access to production or consumption capacities in the Swiss control area for control energy use or reserve supplies and ensures their use at short notice;

Once the applicant has submitted all the above documents to Swissgrid and met all the requirements specified in 3.1 of the Balance Group Contract, Swissgrid will check them within ten working days after

receipt of the application and inform the applicant of any shortcomings. Incomplete or incorrectly completed documents may be corrected by the applicant within a period of 30 days after being requested to do so by Swissgrid. By submitting the application, the applicant undertakes to automatically pay the registration fee. If the registration fee is not paid, the registration of the balance group in question will not be completed. In such an event, the registration fee will still be payable.

Before the balance group is activated, Swissgrid will perform a trial run (BG Acceptance Test) with the applicant. Further information can be found in the Technical Balance Group Regulations.

The registration process should have been completed within a period of six months at the latest following receipt of the application form. If the registration process could not be completed within six months due to missing details not provided by the applicant, the applicant is called upon to provide Swissgrid with a binding date for the submission of all required details and documents as well as the completion of the tests. Failing this, Swissgrid will return all previously submitted documents to the applicant and end the registration process. The registration fee is non-refundable. If another application is submitted following this, the registration fee will need to be paid again.

1.2 Activation of a balance group

To activate a balance group the following conditions must be satisfied:

- Fulfilment of all the requirements specified in Clause 1.1
- Credit of the registration fee pursuant to Clause 1.1
- Receipt of the collateral by Swissgrid
- Submission of the plausibility values within the meaning of Clause 2.1
- Successful completion of the trial run (BG Acceptance Test)
- Confirmation by the BGM's bank that the SEPA direct debit mandate pursuant to Clause 1.1 has been set up

Once these conditions have been satisfied, Swissgrid returns a countersigned copy of the Balance Group Contract to the applicant and activates the balance group of the applicant, or of the now BGM, on the binding activation date agreed. Balance groups are always activated on the first calendar day of the month.

1.3 Contact offices

The BGM must provide details of the following contact offices on the application form and keep them updated. The contacts must meet the following requirements:

- The contact office for **general queries** must be available during normal office hours and be able to respond to queries made by Swissgrid within two working days of receipt.
- The contact office for **financial queries** must be available during normal office hours and be able to respond to requests from Swissgrid relating to billing and payment terms within two working days of receipt.
- The contact office for ECP and sFTP queries must be available during normal office hours and be able to respond to queries made by Swissgrid within two working days of receipt.
- The contact office for **operational queries** must be available by phone and e-mail and be ready to take action during the agreement time for schedules submitted by the BGM within 30 minutes of receipt of the positive Intermediate Confirmation Report (ICNF), so as to be able to provide corrected schedules due to schedule differences or to subsequently respond to the application of the schedule difference rules. In particular, the contact office must be available and ready to take action as long as the balance group has open intraday positions. The languages of communication are German and English. In the event of a fault in or failure of its means of communication, the BGM must notify Swissgrid (or vice versa) without delay to agree on alternative means of communication and/or coordinate subsequent action.
- The BGM shall ensure that a contact office is set up to send the imbalance data for imbalance energy volume. This has to be either an e-mail address assigned to an organisational unit and not to a particular person or an FTPS interface. If a third party is authorised, additional contact details of the authorised representative must be supplied.

Swissgrid contact offices:

- The contact office for **operational queries** is available 24 hours a day, 365 days a year. The telephone number and e-mail address will be disclosed to the BGM when the Balance Group Contract is concluded. Phone calls are recorded by Swissgrid. The BGM agrees to the recording being made and to the recordings being used.
- The contact office for **general queries** is available during Swissgrid office hours. The phone numbers and office hours are published on the Swissgrid website (www.swissgrid.ch)

1.4 Changes to the details of the BGM

Swissgrid must be notified of changes to the details of the BGM via the customer portal for the Balance Groups 10 days before the change occurs. This also applies to changes of telephone numbers or to details relating to end consumption or production, i.e., if a BGM indicated at registration that it would not supply any end customers but now intends to do so in future. In this case, Swissgrid must be informed in advance. Swissgrid provides notification of when the change will take effect.

The reported changes will not take effect until they have been approved by Swissgrid. This means in particular that commencement of a delivery to an end customer that has not previously been performed is only permitted if it has been authorised by Swissgrid.

1.5 Changes to the Swissgrid contact offices

Swissgrid publishes its up-to-date contact details on the Swissgrid website (www.swissgrid.ch). Swissgrid provides e-mail notification of any changes to the contact offices of the BGM.

1.6 Authorisation

For the management of schedule messages and the receipt of imbalance data, the BGM can delegate its responsibilities to an authorised representative provided it is ensured that the rights and obligations from this Balance Group Contract are met. The BGM shall be liable to Swissgrid for the proper execution of the Contract by any authorised representative.

The BGM must provide Swissgrid with proof of authorisation. It requires a written assurance that the obligations, in particular availability and ability to act in accordance with Clause 0, will be fulfilled by the authorised representative. The BGM, however, remains responsible to Swissgrid for ensuring that the obligations are fulfilled. Swissgrid shall provide the BGM with a corresponding form that is mandatory and has to be furnished with the legally valid signature of the BGM.

Existing authorisations will continue to be valid, as far as they fulfil the current requirements of Swissgrid. In case of doubt, Swissgrid will require a new authorisation.

2 Consumption forecast, production and pump power forecast, limitation and collateral

According to Clause 4.2 the BGM is endeavouring to ensure that a zero power balance is essentially maintained or to contribute to actively balance the Swiss control area. To check compliance with this, Swissgrid is entitled to verify the schedule message by the BGM based on the following rules.

In addition, the BGM must comply with the limits assigned to it within the meaning of Clause 2.2 and provide Swissgrid with the appropriate collateral as defined by Clause 2.4.

2.1 Verification of the consumption forecast as well as production and pump power forecast

2.1.1 Submission of the consumption forecast (CONS) as well as production and pump power forecast (PROD / PUMP)

BGMs with metering points are obliged to send the forecast for their consumption and their production and pump power the Swiss control area (CONS, PROD and PUMP) to Swissgrid.

The consumption forecast (CONS) and the pump power forecast (PUMP) of the BGM has to be provided according to the guidelines for «LPA/BG¹» and the production forecast according to the guidelines for «PPA/BG²», as defined in the key documents of the Association of Swiss Electricity Companies (VSE).

The consumption forecast (CONS) and the pump power forecast (PUMP) of the BGM are part of the Load profile aggregate (LPA/BG), the production forecast is part of the production profile aggregate (PPA/BG).

In the context of the consumption forecast to be determined, the pump power should and redispatch and control energy should not be included.

The production and pump power forecasts (PROD / PUMP) are to include "batteries without final consumption".

The guidelines for sending the consumption, production and pump power forecasts and the relevant technical requirements are dealt with in the Technical Balance Group Regulations.

Swissgrid validates the consumption forecast (CONS) as well as the production and pump power forecasts on the basis of plausibility values and applies the limits according to Clause 2.2.2.

Swissgrid only uses the PROD and PUMP time series for monitoring in the various time periods and would contact the relevant balance group by telephone in the event of large open positions, four eyes principle.

The CONS, PROD and PUMP time series may only contain forecast data. In the context of post-scheduling, it is not permissible to adjust these time series based on the first measured values from EGS and LGS. However, a retroactive correction of forecasts as a result of information received subsequently is permissible until the end of the post-scheduling.

¹ Load profile aggregate / balance group

² Production profile aggregate / balance group

2.1.2 Calculating the plausibility values

The plausibility values are based either

- A. on empirical production and consumption values from the last twelve months (load profile aggregate and input profile total) or
- B. from a plausible estimate: balance groups for which Swissgrid has so far not received any historical load profile aggregate and input profile total values prepare a plausible estimate of the minimum and maximum feed-in and feed-out values and make these available to Swissgrid as part of the registration and change process without being requested to do so. Swissgrid accepts estimates that have a sufficiently reliable basis. Swissgrid reserves the right to check this estimate cyclically based on the metering data and to make adjustments if necessary, about which the BGM will be informed in advance.

Provided they are entitled to do so, pump and power plant shares of balance groups will be considered in the plausibility values $PROD_{Min}$ and $PROD_{Max}$. Long term energy supply contracts in particular will not be considered as pump and power plant shares. The BGM has an obligation towards Swissgrid to provide it with a legally valid proof of the pump or power plant share that justifies the set-off. Corresponding pump and power plant shares must be confirmed by the power plant operator. A mandatory condition is that the BGM must be able to access the shares at all times and that the shares must be located in the Swiss control area.

Furthermore, the BGM must report its own pump capacities to Swissgrid in advance so that the $PROD_{Min}$ can be adjusted.

$$PROD_{Min} = IPT_{Min} - PUMP_{Max} - PU_{Shares}$$

$$PROD_{Max} = IPT_{Max} + PP_{Shares}$$

$$CONS_{Min} = LPA_{Min}$$

$$CONS_{Max} = LPA_{Max} - PUMP_{Max}$$

IPT_{Max} & IPT_{Min} = max. and min. value of the input profile total (IPT) of the last twelve months based on quarter hourly values

LPA_{Max} & LPA_{Min} = max. and min. value of the load profile aggregate (LPA) of the last twelve months based on quarter hourly values

PP_{Shares} = power plant shares

PU_{Shares} = pump shares

$PUMP_{Max}$ = own pump capacity

The identified plausibility values are made available to the BGM for cross-checking and must be confirmed. The BGM may apply for an adjustment of the plausibility values provided he can prove why the existing plausibility values will no longer be applicable in the future. Adjusted plausibility values are only valid after they have been expressly confirmed by Swissgrid.

2.1.3 Validation of the schedule registration based on plausibility values

The schedule registration is continuously validated based on the plausibility values $PROD_{Min}$, $PROD_{Max}$, $CONS_{Min}$ and $CONS_{Max}$.

The consumption time series may not exceed $CONS_{Max}$ and not fall below $CONS_{Min}$.

The production time series must not exceed $PROD_{Max}$ and, if $PROD_{Min}$ is positive, must not fall below this value. Furthermore, the pump time series must not fall below the absolute value of $PROD_{Min}$.

Generally Swissgrid does not inform the BGM if the plausibility values are breached. Swissgrid will only contact the BGM if the values are exceeded to a large extent or repeatedly.

2.2 Limitation of an unbalanced schedule message/restriction of the open position

Within the scope of the schedule messages, Swissgrid shall grant the BGM the right, depending on the following time periods, to submit a limited open position.

2.2.1 Definition of open position

To define the term open position, a distinction must be made between balance groups without metering points (without physical feed-in and/or feed-out) and balance groups with metering points (with physical feed-in and/or feed-out).

2.2.1.1. Balance groups without metering points (without physical feed-in and/or feed-out)

An open position is a positive or negative balance from a comparison (in the sense of a summation) of all registered accepted time series from the TPS (trade responsible schedule) schedule document received from the BGM per time interval. If an accepted and not yet matched time series is adjusted by Swissgrid (manual intervention, copy from counterpart schedule time series or application of a market rule), the amended time series applies.

2.2.1.2. Balance groups with metering points (with physical feed-in and/or feed-out)

Swissgrid calculates the open position on the basis of the schedule submission (including CONS time series, exclusive PROD- and PUMP time series) and the $PROD_{Min}$ and $PROD_{Max}$ values. If an accepted and not yet matched time series is adjusted by Swissgrid (manual intervention, copy from counterpart schedule time series or application of a market rule), the amended time series applies.

The following types of behaviour will lead to an open position:

In the TPS schedule document, the BGM submits trading schedules together with the consumption forecast (CONS). If the sum total of all trading schedules together with the consumption forecast per time interval shows a deficit (normal case), this must be covered by production. If the deficit is larger than the $PROD_{Max}$ value, the excess share is regarded as the open position.

The same applies to a surplus that may result from the sum total of trading schedules and the consumption forecast. This surplus must be covered by negative production/pump power. If the surplus is larger than the $PROD_{Min}$ value, the excess share is regarded as the open position.

Therefore, the following applies:

$$- \text{Limit (1, 2 or 3)} - PROD_{Max} \leq \text{LimitcheckTPS} \leq \text{Limit (1, 2 or 3)} - PROD_{Min}$$

LimitcheckTPS = sum total of all time series from the TPS schedule document received from the BGM per time interval (including CONS).

Positive value = surplus/long

Negative value = deficit/short

The open position arises from the deviation from the described band.

The BGM is also obliged to ensure that the above-mentioned production/pump power matches the production and pump capacity that is installed.

2.2.2 Limitation of the open position

In the context of limiting the open position, a distinction has to be made between three consecutive phases during which an open position is tolerated up to a quantified value (power in MW). Swissgrid will only take appropriate action, which may extend to suspension within the meaning of Clause 14.1 of the Balance Group Contract, if the BGM has an open position based on its schedule messages that exceeds the predefined tolerance ranges (limits) within the respective phase (limit 1 to 3).

1. Limit 1 «DA to D-2h»:

This limit applies to the open position in the respective quarter of an hour after the conclusion of the day-ahead process («DA») and after applying the market rules up to two hours before the physical delivery («D»).

2. Limit 2 «D-2h to D-15min»:

This limit applies to the open position in the respective quarter of an hour after two hours up to 15 minutes before the physical delivery («D»).

3. Limit 3 «D-15min until end of PS»:

This limit applies to the open position in the respective quarter of an hour starting from 15 minutes before the physical delivery («D») and after the application of the intraday market rules. For balance groups, this limit must be adhered to until completion of the Post-Scheduling Adjustment Process.

Schedule messages of balance groups may be completely rejected in the Post-Scheduling Adjustment Process if the open position exceeds limit 3 with taking into account $PROD_{Min}$ and $PROD_{Max}$, and the open position increases compared with the last schedule message.

Within the scope of the schedule messages in the Post-Scheduling Adjustment Process of balance groups with metering points, Swissgrid checks the plausibility of the change in open position compared with the consumption and the production of the balance group. In case of schedule submissions that are not consistent with the information regarding consumption and production of the balance group, Swissgrid may take suitable action that may extend to suspension of the balance group.

Within the scope of the phases described above, the following threshold values apply:

Limit set number	Limit 1: DA until D-2h [MW] (long/short)	Limit 2: D-2h until D-15 min [MW] (long/short)	Limite : D-15 min until end of PS [MW] (long/short)	Collateral [EUR]
1	10	10	10 *	100 000
2	25	10	10 *	200 000
3	50	25	10 *	400 000
4	100	25	10	550 000
5	200	50	20	850 000
6	300	75	30	1 100 000
7	400	100	50	1 400 000

* This limit set may not be used to contribute to actively balance the Swiss control area; there is an obligation to ensure a zero power balance. The reason for this is the insufficient collateral deposited for these limit sets, which represents too high a risk for Swissgrid.

D = delivery/ time of physical delivery

DA = day-ahead

PS = post-scheduling

For balance groups without metering points and with pump and/or power plant shares $PROD_{Min}$ and $PROD_{Max}$ will be considered when verifying that Limit 1 and Limit 2 are met³. In this way a smooth processing of schedules based on pump and power plant shares can be ensured.

In the course of registration, the BGM selects a limit from the table above and provides the corresponding amount of collateral (within the meaning of Clause 2.4) to Swissgrid.

If there are objective reasons (e.g. jeopardising the secure operation of the transmission grid), Swissgrid reserves the right to temporarily set the thresholds in all limit sets and in all limits (1, 2, 3) to 10 MW. In such a case, the balance groups would be informed of the start of the ban on actively balance the Swiss control area via e-mail and an automatic telephone message (DAKS), to the contact point for operational questions, with a lead time of at least two days before the new thresholds come into force. These come into force at time D 00:00. The lifting of this temporary measure will also be communicated by e-mail and an automatic telephone message (DAKS).

2.2.3 Amendment of the limit

The limit selected by the BGM may in principle be adjusted by both parties at a later date. This is particularly an option for Swissgrid should the BGM behave contrary to the terms of the Contract.

If the BGM would like to adjust the limit, Swissgrid may refuse an adjustment in justified cases, in particular in case of breach of the contract by the BGM. The new limit does not apply until Swissgrid has confirmed it and the corresponding collateral has been provided. In case of an increase of the limit, the amendment normally will be done within five working days after receiving the amended collateral. In case the limit is

³ $-Limit1/2 - PROD_{Max} \leq Open\ Position \leq Limit1/2 - PROD_{Min}$ where a negative open position means a deficit and a positive open position means a surplus. The exceedance arises from the deviation from the described band.

decreased the amendment normally will be done within five working days. The adjusted lower collateral can be handed in at a later point in time.

2.3 Penalisation

In the event that the limit 3 assigned to the BGM is exceeded, Swissgrid is entitled, regardless of appropriate action and the possibility of suspension according to Clause 14.1 of the Balance Group Contract, to penalise the BGM according to the following rules. Any open positions will be disregarded up to the amount of the deviations listed in the table above within the meaning of the tolerated open position.

2.3.1 Exceeding the limit for the cut-off time intraday (internal transactions) for all balance groups

If the open position of a BGM exceeds the limit for the cut-off time (limit 3), Swissgrid is entitled to initiate the following measures or impose a penalty.

Stage	Measure
1. Stage	If the BGM exceeds the limit 3 assigned to it for the first time or after 6 months have elapsed since the violation of the first level, a warning is sent to the BGM.
2. Stage	If the BGM again exceeds the limit 3 assigned to it within 6 months of the violation of the first level, the BGM will be charged an additional penalty in the amount of the open position minus the limit 3 assigned to it, multiplied by the applicable balancing energy price. imbalance energy
3. Stage	If the BGM again exceeds the limit 3 assigned to it within 6 months of the breach of the second level, the BGM will be charged an additional penalty in the amount of the open position minus the limit 3 assigned to it, multiplied by twice the applicable imbalance energy price imbalance energy.
4. Stage	If the BGM again exceeds the limit 3 assigned to it within 3 months of the violation of the third level, the BGM will also be charged a penalty in the amount of the open position minus the limit 3 assigned to it, multiplied by five times the valid imbalance energy price. If the BGM again exceeds the limit 3 assigned to it within 1 month of the breach of the fourth level, the BGM will be charged an additional penalty in the amount of the open position minus the limit 3 assigned to it, multiplied by five times the applicable imbalance energy price. imbalance energy

Overview:

Penalty level	Amount of the penalty	End of the penalty level according to
1	Warning	6 months
2	1 x limit 3 exceeding x imbalance energy price	6 months
3	2 x limit 3 exceeding x imbalance energy price	3 months
4	5 x limit 3 exceeding x imbalance energy price	1 month
$\text{Limit 3 exceeding [MWh]} = \text{open position} - \text{limit 3}$ $\text{imbalance energy price [EUR/MWh]}$		

The respective next stage is reached if at least one exceedance occurs again in a quarter of an hour per schedule day. Repeated exceedances within the same schedule day will not lead to the next stage being reached (day-specific). The basis for the schedule check and the application of the above penalties is the schedule status for the cut-off time intraday (internal trades) for the respective quarter of an hour.

The applicable imbalance energy price is determined according to Clause 7.1.. The settlement is performed on a quarterly hour basis using the imbalance energy price depending on the concrete positive or negative open position. The absolute price will be applied (without sign)

Billing is per month within the scope of the monthly billing of the imbalance energy and is shown separately.

2.3.2 Special provisions in connection with exceeding limit 3

For balance groups, limit 3 applies at the time of the cut-off time intraday (internal transactions) until the end of the post-scheduling process.

The basis for the penalty is the highest exceedance per time interval and per schedule day.

2.3.3 Exceptions

In the following cases Swissgrid will refrain from issuing a penalty if they have led to a limit being exceeded:

1. Direct intervention in power plant deployment by Swissgrid in a critical grid situation
2. Delegation of control power

In the following cases Swissgrid may refrain from issuing a penalty if the BGM sends a corresponding request to the contact office for general queries within 14 days (unless otherwise stipulated below) after the event that caused the limit to be exceeded:

1. Outage of the schedule systems on the part of the BGM (combined with the obligation to report immediately to the contact office for operational queries, but no later than two hours after the outage of the schedule systems) and written report. In addition the BGM is obliged to be balanced after the post scheduling adjustment.
2. Production failure at the BGM combined with the obligation to supply sufficient proof. This also applies if other balance groups are affected by the production failure.
 - Outage > 100 MW: proof of the REMIT message
 - Outage < 100 MW: proof of the production failure and written report
3. If limit 3 is demonstrably exceeded because the $PROD_{Max}$ or $PROD_{Min}$ values were not updated. The request for the waiver of the penalty should be submitted to Swissgrid (contact office for general queries) within 14 days. The correction of the $PROD_{Max}$ or $PROD_{Min}$ values must occur within three working days. They will be considered according to the Clause 2.1.
4. If the exceeding of limit 3 demonstrably took place because of a deviating control pooling delivery for the control energy request. The request for the waiver of the penalty must be sent together with details about the time when the exceedance took place.

2.4 Collateral

Swissgrid may request appropriate collateral to safeguard its claims. The BGM must supply the required collateral without delay. This applies to both the provision of collateral prior to activation of the balance group and to a subsequent claim within the scope of an activated balance group.

The BGM agrees to Swissgrid gathering information related to the Contract, in particular for carrying out a credit rating. In addition, the BGM is obliged, at the request of Swissgrid, to provide Swissgrid with any additional information it may require for making further assessments of creditworthiness, such as annual reports, etc. Clause 3.3 of the Balance Group Contract remains unaffected.

2.4.1 Type of collateral

The BGM must provide the collateral by means of an irrevocable bank guarantee, payable at the first request and without objection. The warrantor has to be a credit institution, that neither belongs to the enterprise of the balance group nor is it connected in any way under company law. The bank guarantee must be issued by a credit institute that has at least one of the following credit ratings:

Moody's	Baa1;
Standard & Poors	BBB+;
Fitch Ratings	BBB+; or

an equivalent rating from another equivalent credit rating agency.

The BGM shall submit proof of the rating to Swissgrid. If the credit institute has several ratings, the lowest shall apply in each case. If the rating of the credit institute worsens under the aforementioned minimum requirements, the BGM shall provide collateral that conforms to the terms of the Contract within 14 days from publication. The bank guarantee must have a minimum term of two years and comply in terms of its content with the guidelines published on the Swissgrid website (www.swissgrid.ch) or be issued via SWIFT.

If the BGM has already deposited collateral with Swissgrid as part of a different contract relation, Swissgrid may agree with the BGM to adjust the existing collateral.

In the event that the bank providing the guarantee defaults, the BGM shall immediately provide a new bank guarantee.

2.4.2 Amount of collateral

The amount of collateral is a combination of the following specifications pursuant to Clauses 2.4.2.1 and 2.4.2.2. Should the balance group of the BGM not contain any metering points, Clause 2.4.2.1 shall apply on its own.

2.4.2.1. Amount of collateral from the limits

The amount of collateral is determined based on the open position granted to the BGM and the amounts relating to it, which can be found in the table in Clause 2.2.2.

2.4.2.2. Increase in collateral for balance groups with metering points

For balance groups with metering points (with physical feed-in and/or feed-out), the BGM has to provide further collateral in addition to the collateral for covering the risks arising from the open position, which is calculated according to the following formula⁴:

Collateral = calculation of the average value of the initial bills over twelve months (exclusively credits) multiplied by the factor three (billing cycle of three months)

For balance groups that newly stipulate physical feed-in and/or feed-out, the following applies:

The collateral is derived from the expected load and production using the following formula in accordance with the master data specification:

$$\text{Collateral} = \frac{\text{Max}(\text{Last}_{Avg}, \text{Prod}_{Avg}) \times 24 \times 365 \times DA \times AE \text{ Short}_{Avg}}{4}$$

The following applies:

Average deviation (DA) = 0.03

Average imbalance energy price short of the respective previous year (AE Short_{Avg})

After twelve months the amount of collateral will be calculated and adjusted according to the guidelines for existing balance groups with metering points within the meaning of this Clause. In addition, Swissgrid can make an adjustment if it has irrefutable knowledge that indicates an implausible load and/or production estimate of the BGM or if the average monthly claims exceed 100,000 €.

The following applies additionally to existing and new BGMs:

The amount of collateral is rounded up to a full 50,000 € and levied accordingly.

⁴ Only if the total amount per month is a credit note in total, this month is not taken into account in the formula

If the collateral formula produces an amount of less than 100,000 €, no additional collateral will be levied on top of the collateral according to Clause 2.4.2.1.

Swissgrid will review the appropriateness of the amount of collateral periodically and adjust it according to Clause 2.4.3.

2.4.3 Adjustment and renewal of collateral

Should the collateral-related limits of the BGM, the amount of collateral according to Clause 2.4.2.2 or other collateral-related factors change, Swissgrid is entitled to review the appropriateness of the amount of collateral at any time (in each case according to Clause 2.4.2.1 and 2.4.2.2 per se). In addition, Swissgrid checks the respective amount when the collateral provided expires.

From a deviation of +/-25% in relation to the collateral provided (excluding Clause 2.4.2.1) Swissgrid may recalculate the amount of collateral within the meaning of the stipulations of Clause 2.4.2

In addition, Swissgrid or the BGM can have the amount of collateral adjusted according to the following descriptions. This is only valid for BGs with metering points.

Increase option

If the following criteria occur, an adjustment of the the amount of collateral can be made on the basis of a case-by-case assessment:

- a. if the highest single monthly invoice amount in the relevant period deviates more than factor 2x from the calculated average of the last 12 months, or
- b. if the Swissix Day Ahead energy price in the monthly average deviates by a factor of 2x or more from the rolling annual average (this increase option cannot be applied selectively, this is either applied for all or no one)

If criterion A. and/or B. occurs, Swissgrid may decide and demand an increase in the collateral calculated in accordance with Section 2.4.2.2 up to a maximum of the factor of the triggering criterion a. or b.. If no increase is made when the criteria occur, this does not automatically equate to a waiver of the increase in the security of the BG from Swissgrid. This can also be demanded subsequently to the triggering circumstance, but up to a maximum of 6 months after determining the occurrence of criterion A. or B..

Decrease option:

A reduction in the collateral may be called by BGM if the following conditions are met:

- If during 6 consecutive months the deposited collateral is at least 50% higher than the collateral calculated according to the calculation logic from section 2.4.2.2, an adjustment to the original calculation logic according to section 2.4.2.2 can be requested

Should the BGM fail to settle any subsequent claim within 14 days, Swissgrid may according to Clause 14.1 of the Balance Group Contract suspend the BGM until adequate collateral has been provided

The BGM is also obliged to renew the bank guarantee it has provided on time. The renewed bank guarantee must have been received by Swissgrid three months before the existing bank guarantee expires and must have a minimum term of two years. If Swissgrid has not received the new bank guarantee three months before the expiry date, the balance group will be suspended until the new bank guarantee has

been received. Once the new bank guarantee has been received, Swissgrid will need up to three working days to check the details and reactivate the balance group.

2.4.4 Utilisation of collateral

Swissgrid may use the collateral provided if the BGM fails to meet its payment obligations on time (especially the obligation to pay the imbalance energy and/or any penalties due to non-compliance with the allocated limit) and does not pay even within the scope of a term of payment set after default has occurred (reminder).

In such a case, Swissgrid may make a subsequent demand for the used collateral under the conditions of Clause 2.4.3.

2.4.5 Return of collateral

If the Balance Group Contract is terminated by a party, the collateral is returned by Swissgrid if the BGM has fulfilled all the obligations set out in this Balance Group Contract. The return of collateral is only possible after all schedules and any correction bills have been settled in full. The BGM agrees that no resultant claims (e.g. within the meaning of default damages) may be asserted.

2.5 Maximum power from photovoltaics system

The PVmax. data collection records to the best of our knowledge and belief the maximum AC power of all photovoltaic systems that feed into the balance group. This corresponds to the estimated sum of the AC rated outputs of all PV inverters that contribute to the feed-in to the balance group and thus corresponds to the theoretical maximum feed-in by PV to the respective balance group. The data must be collected for all balance groups with metering points. The data must be regularly updated via the Swissgrid customer portal in line with additions and service provider changes.

3 Schedule management

3.1 General

As soon as the balance group has been activated, the BGM is entitled to submit schedule messages.

A schedule message may only contain schedule time series for a single balance group.

Schedule messages must be submitted by the BGM or one of its authorised representatives. Responsibility for ensuring that schedule messages comply with all the conditions stated in the Balance Group Contract, in these General Balance Group Regulations and in the Technical Balance Group Regulations, and which are necessary for proper management, lies solely with the BGM, even in cases where management is carried out by an authorised representative.

The BGM must ensure that the schedule messages it submits do not contain power values for a schedule time unit which conflict with the capacity rights it has acquired in the context of an allocation procedure.

The BGM must respond immediately if any of the schedule messages submitted by the BGM or individual schedule time series are rejected, or if adjustments are made by Swissgrid due to schedule difference rules.

Details of the form, content, submission, time periods, examination and coordination of schedule messages can be found in the Technical Balance Group Regulations. The right to agree specific provisions with control areas adjoining the Swiss control area is reserved. Such provisions are published on the Swissgrid website (www.swissgrid.ch).

3.2 Possible trades

Two trade types are differentiated between in the context of schedule management:

external trades

internal trades

3.2.1 External trades

The balance group allows the BGM to manage deliveries of electrical energy between its balance group in the Swiss control area and a balance group assigned to it⁵ in a neighbouring control area using schedule messages with external schedule time series.

3.2.2 Internal trades between BGs

The balance group allows the BGM to manage deliveries of electrical energy between its balance group and the balance group of another BGM within the Swiss control area. This is achieved by means of schedule messages with internal schedule time series.

⁵ 1:n nominations are also possible at individual control area borders in Switzerland.

3.2.3 Internal trades for the processing of ancillary services and power reserve by Swissgrid

For the processing of ancillary services and power reserve with generating units within the own balance group:

The BGM processes deliveries of electrical energy between its balance group and the Swissgrid balance group through the balance group. This is achieved by means of schedule messages with internal schedule time series.

For the processing of ancillary services and power reserve with generating units from other balance groups:

Swissgrid processes supplies of electrical power between the ASP's or the provider of reserve's balance group and the corresponding Swissgrid balance group through the balance group of an ASP or provider of reserve with generating units that are not assigned to this balance group. This is achieved by means of schedule messages with internal schedule time series.

When processing the request for ancillary services and power reserves from generating units from a balance group other than the balance group of the ASP or provider of reserve, the compensation takes place through an exchange of the electrical energy requested as per schedule between the balance group to which the generating unit belongs and the corresponding Swissgrid balance group. In doing so, Swissgrid guarantees the correctness of the data on which the schedule exchange is based. In the event of reasonable requests, Swissgrid will check the offline monitoring data and, upon request in justified cases, will make the offline monitoring data available in the agreed granularity.

3.3 Submission and examination of schedule messages

All schedule messages submitted to Swissgrid by the BGM are subjected to a formal examination.

Swissgrid notifies the BGM of the results of this examination. Schedule messages that do not satisfy the required conditions are rejected.

3.4 Requirements for coordinating schedule messages

Schedule coordination in the context of external trade presupposes that consistent schedule messages are also submitted in good time to the relevant transmission system operators (TSOs) in the neighbouring control areas and that the corresponding counterpart schedule messages are submitted to Swissgrid in good time by said TSOs.

Schedule coordination in the context of internal trade presupposes that all counterpart schedule messages are submitted to Swissgrid in good time by the relevant BGMs.

3.5 Coordination of schedule messages

In the case of external trade, schedule coordination is taken care of by Swissgrid jointly with the relevant TSO in the neighbouring control area. This involves comparing the schedule time series from the schedule message of the BGM with the corresponding schedule time series of the TSO.

In the case of internal trades, Swissgrid assumes sole responsibility for schedule coordination. This involves comparing the schedule time series from the schedule message of the BGM with the corresponding schedule time series of the other BGM.

3.6 Schedule difference rules

Swissgrid notifies the BGM of any schedule differences after coordination. The BGM may correct the schedule messages within the defined time periods specified in the Technical Balance Group Regulations.

If it is not possible to correct schedule differences within the defined time periods, Swissgrid applies the schedule difference rules described in the Technical Balance Group Regulations.

If application of the schedule difference rules to individual schedule time series results in the energy balance of the balance group not having a zero balance position, the corresponding imbalance energy is billed to the BGM. The BGM has the option of minimising the imbalance energy volume of its balance group through Post-Scheduling Adjustments (cf. Technical Balance Group Regulations).

Any liability by Swissgrid for the application of schedule difference rules or for their (direct or indirect) effects on the BGM or other players is excluded.

4 Maintenance of grid security

4.1 Allocation procedure

4.1.1 Allocation of capacity rights

The allocation procedure can be managed by Swissgrid, the TSO of a neighbouring control area or another body that has been charged with doing so by Swissgrid and/or the TSO.

Participation in an allocation procedure is open to all BGMs in principle, provided the applicable allocation rules have been complied with and the relevant contracts have been concluded.

Details of the allocation procedures are published on the Swissgrid website (www.swissgrid.ch).

4.1.2 Compliance with capacity rights

When a schedule message is prepared, the BGM must comply with the capacity rights to which it is entitled in accordance with the terms of the Technical Balance Group Regulations. If the regulations that are applicable to the respective allocation procedure (auction rules) conflict with other provisions, the auction rules take precedence over the terms of the Technical Balance Group Regulations.

Swissgrid, the TSO in a neighbouring control area and/or one of its authorised bodies monitor compliance with the terms of the Technical Balance Group Regulations and/or the provisions contained in the respective auction rules that pertain to compliance with capacity rights by the BGM. If the BGM's schedule time series fails to comply with these provisions, the schedule time series will be rejected and/or the provisions in the Technical Balance Group Regulations apply.

4.2 Requirement to comply with the limits

The BGM is endeavouring vis-à-vis Swissgrid for ensuring the zero power balance position of the power balance of its balance group and in this respect undertakes to ensure that the sum of feed-ins into the balance group (measured feed-ins and/or scheduled deliveries) and the sum of the feed-outs from the balance group (measured feed-outs and/or scheduled deliveries) are balanced as effectively as possible at all times or to contribute to actively balance the Swiss control area.

The BGM with metering points is obliged to prepare a forecast for its load and production and to update this in the intraday at least once a day (including weekends and public holidays). The resulting changes in relation to its position must be balanced accordingly. On this basis, the BGM optimally ensures the zero power balance position of its balance group.

The Transmission Code specifications pertaining to «operational implementation of schedule changes and load controls» apply.

4.3 Significant load and/or production failures

4.3.1 Procedure in the event of power plant or load failure exceeding 100 MW

In the event of load, pump and/or production failures of more than 100 MW in its balance group, the BGM undertakes to notify Swissgrid without delay (if possible, within 15 minutes but no later than 30 minutes after the start of the event) and to provide information about the specific inflow or outflow point and the power shortfall in MW. The BGM must also inform Swissgrid as quickly as possible from what time and in what quantity the BGM procures reserve energy and when the outage ends. Swissgrid Control is the central point of contact for any information required. Swissgrid and the BGM will coordinate the deployment of reserve power by the BGM or control energy by Swissgrid so as to prevent overcompensation associated with additional control energy deployment.

The BGM is responsible for making sure that imbalances in its balance group as a result of a load, pump and/or production failure are compensated within two hours (deployment of reserve contracts, trades, modified deployment of power plants, etc.) or that they contribute to equalising the overall balance of the Swiss control area.

If the systematic imbalance lasts for more than 24 hours, Swissgrid can deal with this in accordance with Clause 2.3.

4.3.2 Additional procedure in the event of power plant or load failure exceeding 400 MW

The type of partner plant in which a managing partner ensures the operation of the power plant and the transfer of the energy as a BGM by means of scheduling is widespread in Switzerland, and in the event of a power plant failure the BGM of the managing partner is responsible for energy compensation in the initial phase. Each power plant partner is then responsible for compensating the missing energy by activating other power reserves or performing trades. The BGM of the managing partner shall ensure that Swissgrid is informed immediately about the fault as well as the causes and anticipated duration of the failure if known.

The limit of 400 MW was chosen because smaller failures can be counteracted quickly using secondary control and only the loss of large amounts of feed-in or feed-out power needs to be handled in accordance with this procedure.

In coordination with the managing partners and distribution system operators (management of distribution facilities control centre), Swissgrid keeps a list of the grid elements for which this document must be applied in the event of a failure.

4.3.2.1. Responsibilities of the managing partner

The BGM shall ensure that the competent managing partner (power plant) informs Swissgrid about the following without delay:

- A. the amount of production or pump power lost/missing
- B. the anticipated duration of the failure
- C. the compensation options of the managing partner
 - immediately
 - later, from when until when
- D. the time at which the partner programmes will be adapted

The BGM shall ensure that the managing partner informs Swissgrid immediately of any change to these details.

If Swissgrid notices a failure without having received a report from the managing power plant partner, its BGM, Swissgrid shall contact the contact person in accordance with Clause 4.3.3.

4.3.2.2. Responsibility of the power plant partners

The BGM shall ensure that all power plant partners who are not in a position to take responsibility for replacement deliveries at the time defined in accordance with Clause 4.3.3. inform Swissgrid immediately and tell them how much cannot be compensated using their own power or via trades.

That way, Swissgrid can coordinate the deployment of control power.

4.3.2.3. Duty to provide information

If the cause and duration of the failure are not conclusively known, the BGM shall ensure that the managing partner updates Swissgrid every 30 minutes. If the failure occurred in a nuclear power plant, the power plant itself should inform Swissgrid if possible.

4.3.3 Responsibilities and contact persons (single point of contact)

At Swissgrid, the contact point for operational matters (Netzbetriebsführung) is the single point of contact for any information required.

At power plant partners and distribution system operators, the operational 24-hour contact person is responsible for exchanging information. The BGM ensures that the respective operational 24-hour contact person informs Swissgrid at regular intervals about any actions in the trading departments of that company. The contact offices are included in the appendices of the operation agreements.

4.4 Faults in the Swissgrid balance group systems

In the event of a fault in the balance group systems, Swissgrid is entitled to restrict or discontinue the management of schedule messages. If such a fault occurs, Swissgrid shall notify the relevant BGMs without delay and take all economically viable measures to re-establish the conditions necessary for proper management of schedule messages.

Swissgrid will notify the BGM in advance of all work on the balance group systems that is essential for proper operation, insofar as such work is foreseeable, and coordinate subsequent action as far as possible.

4.5 Direct intervention in the dispatching of power plants (DEKWE)

4.5.1 Imbalance energy costs due to a DEKWE if the power plant operator complies with the instructions and processes

The responsible balance group of a power plant affected by a direct intervention in the use of power plants (DEKWE) does not bear any imbalance energy costs arising from the DEKWE if, depending on the type of measure, the following conditions are met by the power plant operator of the power plant affected by the DEKWE in accordance with the "Works Agreement with KWB for Power Plants Directly Connected to the Transmission Grid" (BV KWB):

A. At the DEKWE as a bottleneck-reducing measure:

The power plant operator (KWB) has previously approved all orders and processes

- i. in accordance with the appendix "Interface Manual for Operational Management" of the BV KWB, sections "Congestion Warning Process", "Carry Out Redispatch Nationally" and "Carry Out Redispatch Internationally",
 - ii. according to Annex "Data" of the BV KWB, section "Deadlines, time horizons and temporal resolution of data in availability planning" and
 - iii. complied with in accordance with the appendix "Measures in the event of a threat to stable grid operation" of the BV KWB,
- i.e. the bottleneck warnings were met, the Production Responsible Party Schedules (PPS) and Reserve Responsible Party Schedules (RPS) were reported on time and correctly and the redispatch instructions were met.

B. DEKWE as a tension-supporting measure:

KWB has behaved in accordance with the "Voltage Maintenance" appendix of the BV KWB, i.e. it has either kept the actual voltage within the tolerance band around the target voltage or, alternatively, fed in or out the maximum reactive power available at the current operating point in the correct direction.

C. DEKWE als frequenzstützende Massnahme:

Since the frequency is a problem of the entire synchronous zone of continental Europe, there are no specific requirements for a DEKWE due to the frequency that would have to be met by the KWB and the balance group of a power plant affected by a DEKWE accordingly does not bear any balancing energy costs.

The exemption from imbalance energy costs is ensured by a correction timetable. To this end, Swissgrid coordinates a correction timetable with the BGMS of the affected KWB in the post-scheduling procedure on the next working day. This corrective roadmap corrects the imbalance energy account by the energy supplied or purchased within the framework of the DEKWE and rebalances the affected balance groups according to the DEKWE.

The energy purchased or supplied results from the difference between the operating point specified within the framework of the DEKWE and the planned production of the power plant at the time of the instruction (according to the last PPS available to Swissgrid).

In exceptional cases, e.g. if it is not possible to register a timetable by means of a correction timetable, the exemption from the compensatory energy costs caused by a DEKWE is guaranteed as part of the billing.

4.5.2 Imbalance energy costs due to a DEKWE in the event of non-compliance with the instructions and processes by the KWB

If the KWB of a power plant affected by the DEKWE has previously submitted the measures referred to in No. 4.5.1 lit. A-C in accordance with the BV KWB, the responsible balance group of a power plant affected by a DEKWE shall bear the imbalance energy costs arising from the DEKWE to the extent of non-compliance with the above-mentioned orders and processes. Depending on the type of measure, this means in particular the following:

- A. In the case of the DEKWE as a congestion-reducing measure, the responsible balancing group bears the imbalance energy costs,
 - i. in the event of a breach of the congestion management warning process to the extent to which the congestion warning was violated, but not more than the amount of the imbalance energy costs incurred.
 - ii. if a redispatch order is not complied with, to the extent that the ordered redispatch has not been complied with.
 - iii. if the notification of the PPS and RPS is not made or is not made in time, in full. If the message of the PPS and RPS is not correct, proportional to the deviation of the message of the PPS and RPS from the actually available power.
- B. In the case of the DEKWE as a voltage-supporting measure, the responsible balancing group bears the imbalance energy costs incurred as a result of the DEKWE in full if one of the two requirements of the DEKWE as a voltage-supporting measure is not complied with.
- C. In the case of the DEKWE as a frequency-supporting measure, there are no prerequisites that must be met and accordingly there can be no breach of contract.

In cases where the responsible balancing group only has to bear the imbalance energy to a certain extent, Swissgrid guarantees the exemption of the responsible balancing group from the imbalance energy costs not caused by it by notifying a corrective timetable that corresponds to the production change by the DEKWE (taking into account the extent of the breach of contract ascertained) and any replacement procurements. The procedure according to Section 4.5.1 is applied analogously.

4.5.3 Coordination and remuneration of replacement procurement at a DEKWE

Swissgrid may also request the responsible balance group of a power plant affected by a DEKWE to participate in balancing the overall balance sheet of the Swiss control area by means of replacement procurement if the KWB concerned has previously complied with all the instructions and processes in accordance with Section 4.5.1. In this case, the responsible balancing group will only take action on the basis of Swissgrid's explicit request for replacement procurement and will offer it according to its ability and assets, if this is possible and reasonable. Swissgrid's request is made by telephone to the contact point for operational questions.

Swissgrid will reimburse the costs incurred for the replacement procurement as follows:

- i. In the event that the relevant balance group is replaced by trading transactions, Swissgrid will be reimbursed for the costs in accordance with proof of the trading transaction.
- ii. In the case of replacement procurement by the responsible balance group from its own production, the average of the (calculated) price for redispatch calls with short lead time and duration (according to the appendix Measures in the event of a threat to stable grid operation to the operating agreement with power plant operators) for the respective hour of the last seven days shall be applied.

4.6 Activating of automatic frequency discharge

In the event of automatic load shedding, the ordinary imbalance energy billing mechanism shall be suspended from the moment of triggering until the notification of the restoration of the normal state of the network in relation to the frequency. This period is determined in accordance with the requirements of the "Works agreement with KWB for power plants directly connected to the transmission grid".

In order to ensure that the balance groups are not charged imbalance energy costs during this period, the imbalance energy price is set at EUR/MWh 0.00. The actual costs of imbalance energy and all ancillary services provided in this context will be borne by Swissgrid.

During the suspension of the settlement mechanism, the balance groups are obliged to comply with the principles of system-serving behaviour.

5 Metering data management

To ensure metering data quality, the BGM compares the imbalance data provided by Swissgrid with the metering data provided by the distribution system operators and the daily schedules supplied by Swissgrid (FCNF). If the BGM detects deviations, it has a vested interest to correct any faults in collaboration with the affected suppliers, power generators and DSOs, and to contribute to future improvements in metering data quality.

The version of the VSE implementation document «Standardised Data Exchange for the Swiss Electricity Market» and «Metering Code Schweiz» published on the Swissgrid website (www.swissgrid.ch), including its appendices, applies for all processes related to metering data management and the transfer of the imbalance data for imbalance energy.

To ensure metering data quality, the Ancillary Service Provider makes suitable procedures accredited by Swissgrid available where necessary that display the control energy delivered by the Ancillary Service Provider in a suitable manner. Where they detect deviations from Swissgrid's request, they shall make an effort, in their own interest, together with Swissgrid to correct faults and contribute to the future improvement of metering data quality.

The parties shall bear the costs resulting from the search for and rectification of errors that are found in the event of an inspection of data requested by the BGM themselves. This means namely that any costs accruing therefrom do not have to be reimbursed by Swissgrid.

6 Determination and billing of the supply of ancillary services and power reserve

6.1 General

A distinction is made between two types in the determination and billing of the supply of ancillary services and power reserve. On the one hand, the ASP or provider of reserve can provide the ancillary service or power reserve through generating units in their own balance group. On the other, the ancillary services or power reserve may also be provided by generating units in other balance groups.

6.2 Determination and billing of the supply of energy from generating units in the Ancillary Service Provider's or the provider of power reserve's balance group

In the case of the supply of energy from generating units in the ASP's or the provider of power reserve's balance group, the contractual provisions of the AS framework agreement or the respective agreement regarding the power reserve apply.

6.3 Determination and billing of the supply of energy from generating units in balance groups other than that of the Ancillary Service Provider or the provider of power reserve

In the case of the supply of energy from generating units in balance groups other than that of the ASP or provider of power reserve, compensation must take place in the balance group in which the generating units are placed.

Swissgrid shall compensate the BGM for the energy requested from their balance group at the applicable Day Ahead Spot Price (Swissix) for that period and offset this amount with the BGM of the ASP .or those responsible for power reserve In the case of a positive control energy or power reserve request, Swissgrid shall reimburse the BGM for energy requested from their balance group accordingly and the BGM of the ASP or those responsible for power reserve shall reimburse Swissgrid the same amount. In the case of a request for negative control energy, the BGM, in whose balance group energy has been requested, shall reimburse Swissgrid for the requested energy, and Swissgrid shall reimburse the BGM of the ASP the same amount. Swissgrid shall invoice these financial compensations to the respective BGM.

7 Calculating and billing the imbalance energy

7.1 Price mechanism for imbalance energy

The imbalance energy price mechanism is a single-price system. In this model, there is a single price for all imbalances, regardless of whether there is too much (surplus) or too little (deficit) energy.

The imbalance price is then calculated according to the following formula:

	Balance group short	Balance group long	Price formula
Under-covered control area (short)	Balance group pays: A	Balance group receives: A	$A = \max (P_{\text{sec}+}; P_{\text{ter}+})$
Over-covered control area (long)	Balance group pays: B	Balance group receives: B	$B = \min (P_{\text{sec}-}; P_{\text{ter}-})$

P_{sec} = defined as the weighted average price of the secondary control energy (aFRR), only be used if activated in the relevant direction ⁶
 P_{ter} = defined as the weighted average price of the tertiary control energy (mFRR), only be used if activated in the relevant direction ⁷
Note: If A or B results in a negative price, the direction of the payment type also changes

Remarks:

- The Swissix day-ahead spot price will be considered for quarter hours where no aFRR and mFRR prices are available or there were exactly the same number of positive and negative orders.
- An additional linear surcharge of 10 EUR per 1 MW will be introduced (scarcity component): This component only takes effect in the event of very high imbalances of the control area, defined as exceeding the total dimensioned amount of the secondary and tertiary reserves and a certain proportion of free bids in Switzerland. The current values (positive and negative) from which the scarcity component takes effect are published on the Swissgrid website (www.swissgrid.ch). The BGMs are informed by e-mail at least one month before each adjustment.
- Swissgrid publishes the provisional imbalance price and the total system imbalance with a delay of approx. 30 minutes in the "Control Area Balance" [file on the Swissgrid website \(www.swissgrid.ch\)](http://www.swissgrid.ch)
- The final quarter hourly imbalance energy prices are published monthly on the Swissgrid website by the 15th working day of the following month

⁶ The procured secondary energy includes all activations of the Secondary balancing energy in the Swiss control area and the procurement of secondary control energy for the Swiss control area from common platforms with other TSOs. The part of the secondary control energy, which is procured on behalf of other TSOs or is procured on behalf of common platforms with other TSOs and is activated in the Swiss control area for balancing needs outside the Swiss control area is not taken into account.

⁷ The procured tertiary control energy includes all tertiary activations in the Swiss control area, the procurement of tertiary control energy for the Swiss control area from common platforms with other TSOs, as well as the procurement of tertiary control energy within the framework of bilateral assistance contracts between Swissgrid and other TSOs. The share of procured tertiary control energy which serves the purpose of Redispatch is not taken into account. The part of the tertiary control energy, which is procured on behalf of other TSOs or is procured on behalf of common platforms with other TSOs and is activated in the Swiss control zone for balancing needs outside the Swiss control zone is also not taken into account.

No correction will be made to the imbalance energy prices seven months after the end of the respective month. If prices are changed retroactively during this period, Swissgrid will inform the balance groups affected by the correction as quickly as possible and publish the new applicable prices.

7.2 Billing imbalance energy

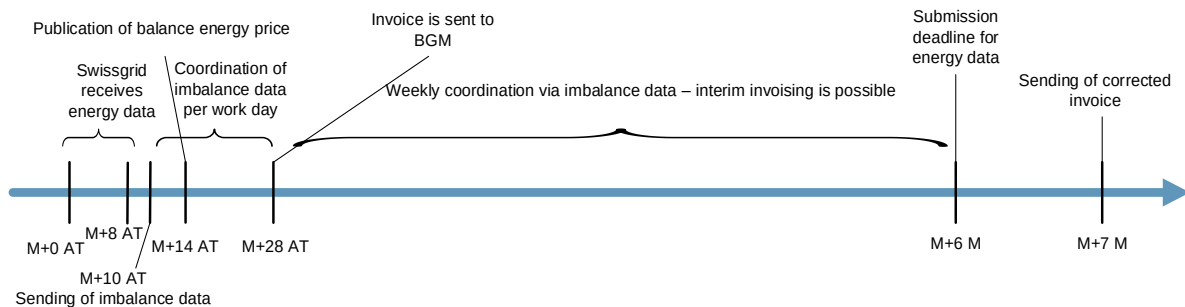
Swissgrid calculates the imbalance data of the BGM's balance group for each 15-minute period, based on the schedule messages (FCNF) in the balance group system and the production and consumption aggregates provided by the distribution system operators. Technical details regarding the imbalance data are taken from the Technical Balance Group Regulations.

For imbalance energy billing, Swissgrid takes into account the ten-minute ramps upon changes to the schedule balance as prescribed by the Swiss Transmission Code and the Synchronous Area Framework Agreement for Regional Group Continental Europe, i.e. if a schedule change is planned, the corresponding variation in power output must take place in a linear fashion if possible over a period of five minutes before and up to five minutes after the schedule interval. Consequently, the imbalance energy balance can deviate from the value in the imbalance data. However, when calculating ramps, secondary control energy and pooling deliveries are not considered, as these control energy schedules already represent the desired delivery profile. Factoring in the ramps does not affect BGM scheduling, i.e. ramps may not be incorporated in the schedules submitted to Swissgrid, as otherwise this would result in the systematic use of control energy by Swissgrid.

Balance groups in which no physical feed-ins or feed-outs have occurred during the billing month always can also have an unbalanced schedule balance due to the possibility of acting in line with the control area. In such cases, the calculation of ramps does not apply. An exception exists for balance groups without physical feed-ins and outputs that provide tertiary balancing energy as part of their participation in the balancing energy market. For these, the calculation of the ramps for the provision of tertiary balancing energy is used

The deficit or surplus imbalance energy of the balance group of the BGM is multiplied by the 15-minute imbalance energy price every 15 minutes separately. The 15-minute credits or billed amounts are then totalled separately for the billing month. A monthly bill is issued for billed amounts and credits.

7.3 Billing process



Billing takes place using the values available on the 28th working day after the month's end irrespective of whether all production and consumption aggregates are available. In exceptional cases, particularly in the case of a considerable imbalance of the balance group, Swissgrid is also entitled to bill at shorter intervals (on an instalment basis). If the required data is not available in full or is not of the required quality, Swissgrid is entitled to make a provisional estimate of the metering data as a substitution and to bill provisionally based on this estimate.

Swissgrid delivers the imbalance energy billing to the BGM electronically in the form of a pdf file to the respective contact office for financial queries by the 28th working day after the corresponding month's end and debits the BGM via SEPA DD B2B or pays a credit.

If the required energy data is not sent to Swissgrid on time, is incomplete or is not of the required quality, the DSO may correct the energy data at any time up to six months after the end of the month (last day of the month).

Corrections must be possible in accordance with the Swiss Code of Obligations even after these six months. In order to conclude the billing process, this should be preferably avoided for smaller corrections. In order to enforce this requirement, any outlay incurred for corrections received outside the six-month period may be billed to the causer. The affected balance group(s) and Swissgrid will claim their costs directly from the balance group or VNB that triggered the correction.

If the energy data changes within the first six months, a corrected invoice will be generated on the basis of the available data. Swissgrid delivers the corrected invoice to the BGM electronically in the form of a pdf file to the respective contact office for financial queries by the seventh month after the corresponding month's end and debits the BGM via SEPA DD B2B or pays a credit for the difference from the previous imbalance energy bill.

At the request of Swissgrid or the BGM, an interim bill may be issued and settled if the difference to the previous imbalance energy billing for a month is greater than EUR 50,000.

The BGM will be sent a detailed report each time billing occurs. This report will contain the following data for every 15-minute period of the month for the BGM's balance group: the schedule data, the energy data and the resulting imbalance data. The report also contains the imbalance energy calculated as per Clause 7.2, the imbalance energy prices and the resulting costs.

8 Remuneration and payment conditions

8.1 Remuneration

Remuneration is in particular:

- A. the registration fee under Clause 1.1 to be paid by the BGM in connection with the establishment of a balance group;
- B. payments for imbalance energy with respect to the balance group of the BGM, which are calculated with the BGM in accordance with Clause 7.3 on a monthly basis.

8.2 Payment conditions (billing/credit amount)

The amount becomes payable by the BGM within ten days of the billing date. Timeliness of payment is determined by when the payment is received (value date). Once the due date has passed, the consequences of default will automatically enter into force. The default interest rate is 5%.

Swissgrid stipulates that bills and billed amounts are to be paid exclusively by SEPA DD B2B on the due date. The BGM authorises its clearing bank and issues the necessary directives and authorisations. In justifiable exceptional circumstances, payment via SEPA DD B2B can be waived for a particular party. All payments must be made by the BGM net and without charges.

All prices in this Contract exclude VAT, which is charged additionally at the applicable rate.

8.3 Delivery of bills and credits

Bills and credits are always sent in electronic form. If, in exceptional circumstances, delivery in paper form is required, the BGM will inform Swissgrid of this.