All TSOs' proposal for common settlement rules applicable to all intended exchanges of energy as a result of the reserve replacement process, frequency restoration process with manual and automatic activation and the imbalance netting process pursuant to Article 50(1) of Commission Regulation (EU) 2017/2195 establishing a guideline on electricity balancing

18 December 2018

Content

All TSOs' proposal for common settlement rules applicable to all intended exchanges of
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ALL TSOS, TAKING INTO ACCOUNT THE FOLLOWING:

Whereas

(1)   This document is a common proposal developed by all Transmission System Operators (hereafter referred to as "**TSOs**") regarding the methodologies for the TSO-TSO settlement of the intended exchanges of energy as the result of the reserve replacement process, frequency restoration process with manual and automatic activation and imbalance netting process in accordance with Article 50(1) of the Regulation (EC) 2017/2195 establishing a guideline on electricity balancing (hereafter referred to as the "**EBGL**"). This proposal is hereafter referred to as the "**SP**".

(2)   The SP takes into account the general principles and goals set in the EBGL, the Regulation (EC) 2017/1485 establishing a guideline on electricity transmission system operation (hereafter referred to as the "**SOGL**"), Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management (hereafter referred to as the "**CACM**") as well as Regulation (EC) No 714/2009 of the European Parliament of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity (hereafter referred to as the "**Electricity Regulation**").

(3)   The goal of the EBGL is the integration of balancing markets while contributing to operational security. To facilitate this goal, it is necessary to develop implementation frameworks for European platforms for the exchange of balancing energy from frequency restoration reserves with manual and automatic activation, replacement reserves and the imbalance netting process pursuant to Article 19 to 22 of the EBGL. Additionally, Article 30 of the EBGL formulates the requirements regarding the pricing of balancing energy and cross-zonal capacity used for the exchange of balancing energy

(4)   Article 50 of the EBGL constitutes the legal basis for this proposal:

"1. By one year after the entry into force of this Regulation, all TSOs shall develop a proposal for common settlement rules applicable to all intended exchanges of energy as a result of one or more of the following processes pursuant to Articles 146, 147 and 148 of Commission Regulation (EU) 2017/1485 [SO], for each of the following:

(a)   the reserve replacement process;

(b)   the frequency restoration process with manual activation;

(c)   the frequency restoration process with automatic activation;

(d)   the imbalance netting process.

2.   Each TSO-TSO settlement function shall perform the settlement in accordance with the settlement rules pursuant to paragraph 1.

[…]

5. The common settlement rules in accordance with paragraph 1 shall at least contain the provisions that the intended exchange of energy is calculated on the basis of the following criteria:

(a)   over periods agreed among relevant TSOs;

(b)   per direction;

(c)   as the integral of the calculated power interchange over the periods pursuant to paragraph 5(a).

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6. The common settlement rules of intended exchanges of energy in accordance with paragraphs 1(a), 1(b) and 1(c) shall take into account:

(a) all balancing energy prices established pursuant Article 30(1);

(b) the methodology for pricing of cross-zonal capacity used for the exchange of balancing energy pursuant Article 30(3).

7. The common settlement rules of intended exchanges of energy in accordance with paragraph 1(d) shall take into account the methodology for pricing of cross-zonal capacity used for operating the imbalance netting process pursuant Article 30(3)."

(5)   The SP fulfils the objective stated in Article 3 of the EBGL as follows:

(a) The SP fulfils the requirements of Article 50(1):

(b) The SP contributes to the objective of consistent functioning of day-ahead, intraday and balancing markets as stated in Article 3(1)(d) of the EBGL since the proposed methodology is consistent with the day-ahead congestion income distribution proposal.

(c) The SP contributes to the objectives stated in Article 3(1)(e) of the EBGL since the settlement methodology is non-discriminatory as it does not favour a specific technology to provide balancing energy.

(d) The SP contributes to the objectives stated in Article 3(1)(f) of the EBGL and Article 3(1)(g) of EBGL since the integrated balancing energy market combined with lowered entry barriers facilitate the participation of demand response, energy storage and renewable energy sources.

(e) The SP contributes to the objective set out in Article 3(2)(h) since this methodology takes into consideration all the European balancing process and the technical specifications that emanate from them.

(f) The SP contributes to the objective stated in Article 3(2)(a) since this methodology applies the principles of proportionality and non-discrimination through the definition of specific settlement rules for different process.

(g) In conclusion, the SP meets the objectives of the EBGL.

Abbreviations

The list of abbreviations used in this SP is following:

- aFRR: frequency restoration reserves with automatic activation

- aFRP: automatic frequency restoration process

- BEPP: balancing energy pricing period

- CBMP: cross-border marginal price

- CZC: cross-zonal capacity

- EBGL: guideline on electricity balancing

- IN: imbalance netting

- INP: imbalance netting process

- LFC: load-frequency control

- mFRR: frequency restoration reserves with manual activation

- mFRP: manual frequency restoration process

- MWh: megawatt hour

- NRA: national regulatory authority

- RR: replacement reserve

- RRP: reserve replacement process

- SOGL: guideline on electricity transmission system operation

- SP: settlement proposal

- TSO: transmission system operator

SUBMIT THE FOLLOWING SP TO ALL REGULATORY AUTHORITIES:

Article 1
Subject Matter and Scope

(1) The SP is the common proposal of all TSOs in accordance with Article 50(1) of the EBGL. Where an LFC area consists of more than one monitoring area, only the TSO appointed in the LFC area operational agreement as responsible for the implementation and operation of the European platforms pursuant Articles 19, 20, 21 and 22 of the EBGL shall apply the SP.

(2) The SP defines the methodology to determine settlement amounts of all intended exchanges of energy as a result of reserve replacement process pursuant to Article 144(1) of the SOGL (hereafter referred to as "RRP"), imbalance netting process pursuant to Article 146(1) of the SOGL (hereafter referred to as "INP"), automatic frequency restoration process (hereafter referred to as "aFRP") and manual frequency restoration process (hereafter referred to as "mFRP") pursuant to Article 145(1) of the SOGL. Only the TSOs obliged to implement and to use the European platforms for the exchange of balancing energy in accordance with Articles 19, 20, 21 and 22 of the EBGL are required to comply with the requirements set forth by this SP for the settlement of the resulting intended exchange of balancing energy.

(3) The SP defines how the settlement amounts determined are settled between TSOs and how the balancing congestion income is calculated and distributed among TSOs.

Article 2
Definitions and Interpretation

(1) For the purposes of the SP, the terms used shall have the meaning given to them in Article 2 of the Electricity Regulation, Article 3 of SOGL and Article 2 of the EBGL.

In addition, in the SP the following terms shall apply:

a) 'aFRR-Platform' means European platform for the exchange of balancing energy from frequency restoration reserves with automatic activation;

b) 'aFRR balancing border' means a set of physical transmission lines linking adjacent LFC areas of participating TSOs. The optimisation algorithm calculates the automatic frequency restoration power interchange for each aFRR balancing border. For the purposes of the optimisation, each aFRR balancing border has a mathematically defined negative and positive direction for the automatic frequency restoration power exchange.

c) 'balancing border' means an RR, mFRR or aFRR balancing border.

d) 'balancing congestion income' means an income generated by the exchange of balancing energy between different uncongested areas and the resulting different CBMPs.

e) 'balancing energy pricing period' (hereafter referred to as "BEPP") means a time interval for which cross-border marginal prices (hereafter referred to as "CBMP") are calculated.

f) 'CBMP' means the cross-border marginal price calculated in accordance with the pricing proposal.

g) 'cross-border capacity limits' means the limits determined in accordance with the implementation frameworks for the exchange of balancing energy from replacement reserves, from frequency restoration reserves with manual and automatic activation as well as for the imbalance netting process.

h) 'demand' means a TSO demand for activation of any balancing standard product bids

i) 'direct activation' means a mFRR-Platform process that can occur at any point in time to resolve large imbalances within the Time To Restore Frequency

j) 'intended exchange of balancing energy' means intended exchanges of energy as a result of the reserve replacement process, the frequency restoration process with manual activation, the frequency restoration process with automatic activation or the imbalance netting process.

k) 'IN-Platform' means the European platform for the imbalance netting process;

l) 'implementation framework' means the proposal for the European platforms pursuant to Article 19, 20, 21 and 22 of the EBGL

m) 'net border balancing income' means the balancing congestion income allocated per balancing border as defined in Article 7 of this proposal.

n) 'mFRR-Platform' means European platform for the exchange of balancing energy from frequency restoration reserves with manual activation;

o) 'mFRR balancing border' means a set of physical transmission lines linking adjacent bidding zones, where an LFC area consists of more than one bidding zone, or LFC areas of participating TSOs. The optimisation algorithm calculates the cross-border manual frequency restoration power exchange for each mFRR balancing border. For the purposes of the optimisation, each mFRR balancing border has a mathematically defined negative and positive direction for the manual frequency restoration power interchange.

p) 'pricing proposal' (hereafter referred to as "PP") means the proposal for the methodology to determine prices for balancing energy activated for different activation purposes and cross-zonal capacity in accordance with Article 30(1) and Article 29(3) of the EBGL.

q) 'participating TSO' means any TSO using one of more of the European platforms to exchange RR, mFRR, aFRR and/or for the INP.

r) 'price indeterminacy' means that there is no unambiguous intersection point between the consumer and supply curves.

s) 'RR-Platform' means European platform for the exchange of balancing energy from replacement reserves;

t) 'RR balancing border' means a set of physical transmission lines linking adjacent bidding zones, of participating TSOs. The optimisation algorithm calculates the cross-border reserve replacement power exchange for each RR balancing border. For the purposes of the optimisation, each RR balancing border has a mathematically defined negative and positive direction for the manual frequency restoration power interchange.

u) 'standard aFRR balancing energy product' means the standard product for balancing energy from frequency restoration reserves with automatic activation;

v) 'standard mFRR balancing energy product' means the standard product for balancing energy from frequency restoration reserves with manual activation;

w) 'standard RR balancing energy product' means the standard product for balancing energy from replacement reserves;

x) 'uncongested area' means the widest area, constituted by bidding zones and/or LFC areas, where the exchange of balancing energy and the netting of demands is not restricted by the cross-border capacity limits calculated in accordance with the implementation frameworks for the exchange of balancing energy from replacement reserves, from frequency restoration reserves with manual and automatic activation as well as for the imbalance netting process.

In the SP, unless the context requires otherwise:

a) the singular indicates the plural and vice versa;

b) headings are inserted for convenience only and do not affect the interpretation of the SP; and

c) any reference to legislation, regulations, directives, orders, instruments, codes or any other enactment shall include any modification, extension or re-enactment of it when in force.

d) any reference to an Article without an indication of the document shall mean a reference to the SP.

Article 3
Settlement amounts due to the intended exchange of balancing energy

The settlement amount of each participating TSO resulting from the exchange of balancing energy from RR, mFRR, aFRR and INP is equal to the sum of the following components:

(a) the product of the exchanged volumes determined in accordance with Article 4 of this SP as the result of the exchange of balancing energy from RR, mFRR with scheduled activation, mFRR with direct activation and aFRR and the settlement prices determined in accordance with Article 5 of this SP and;

(b) the settlement amounts as the result of the activation of standard RR and mFRR balancing energy product bids for system constraint activation purposes defined in accordance with Article 29(3) of the EBGL and determined in accordance with Article 6 of this SP;

(c) the settlement amounts as the result of balancing congestion income determined in accordance with Article 7 and Article 8 of this SP;

(d) the settlement amounts as the result of different prices in one uncongested area in accordance with Article 9 of this SP.

(e) the product of the settlement prices and the exchanged volumes as the result of the exchange of balancing energy from the imbalance netting process determined in accordance with Article 10 of this SP.

Article 4
Volumes of intended exchanges of balancing energy

(1) The activation optimisation function of the RR-Platform shall calculate the intended exchange of balancing energy from RRP for each BEPP and for each RR balancing border as the product of the replacement reserve power interchange value and the respective BEPP.

(2) The activation optimisation function of the mFRR-Platform shall calculate the intended exchange of balancing energy from mFRP with scheduled activation type for each BEPP and for each mFRR balancing border as the product of the manual frequency restoration power interchange value and the respective BEPP.

(3) The activation optimisation function of the mFRR-Platform shall calculate the intended exchange of balancing energy from mFRR with direct activation type for each mFRR balancing border. The balancing energy volume of a direct activation to be settled between TSOs, in accordance with the specified standard exchange profile defined in accordance with mFRRIF is distributed over two BEPPs. For the subsequent BEPP the assigned amount equals 15 minutes multiplied by the manual frequency restoration power interchange value. The remaining volume is attributed to the first BEPP.

(4) The activation optimisation function of the aFRR-Platform shall calculate the intended exchange of balancing energy from aFRP for each BEPP and aFRR balancing border as the product of the automatic frequency restoration power interchange value and the respective BEPP.

(5) The activation optimisation function of the IN-Platform shall calculate the intended exchange of balancing energy from INP the time period defined in accordance with Article 10(2) and per IN border as the integral of the imbalance netting power interchange in accordance with Article 146 of SOGL for this BEPP.

Article 5
Settlement price and of the intended exchange of balancing energy

The settlement price for the intended exchange of energy as result from RRP, mFRP with scheduled activation and direct activation and aFRP including implicit netting for each participating TSO and for each BEPP shall be equal to the CBMP of the corresponding standard balancing energy product bids of the corresponding bidding zone or LFC area.

Article 6
Settlement of the intended balancing energy activated for system constraints purposes

(1) The total settlement amount of the intended exchange of balancing energy resulting from the activation of standard RR and mFRR balancing energy product bids for system constraints activation purpose for each BEPP shall be determined per platform and is equal to the sum of the following components:

   (a) the product of:

      i. the volume of the standard balancing energy product bids selected and/or satisfied elastic demands for system constraints activation purpose defined in accordance with Article 29(3) of the EBGL and attributed to this BEPP;

      ii. and the difference between the balancing energy price with which the bid will be remunerated as defined by the pricing methodology in accordance with Article 30(1)(b) of the EBGL or the price of the elastic demand and the CBMP of the bidding zone or LFC area of the standard balancing energy product bids selected and/or satisfied elastic demands for system constraint purposes defined by the proposal in accordance with Article 30 of the EBGL.

   (b) costs resulting from the non-intuitive balancing energy flows on the borders due to selection of bids for system constraints purpose.

(2) Without prejudice to the methodology developed in accordance with Article 74(1) of CACM or Article 76 of SOGL, the total settlement amount determined in accordance with paragraph 1 shall be divided among the TSOs that have requested the activation of bids for system constraints activation purpose proportionally to the impact of the requested activation of bids for system constraints on the balancing energy exchange on the concerned border or set of borders The additional cost resulting from the change of the selected standard balancing energy product bid volume due to activation of system constraints purposes shall not increase the settlement amount of all TSOs that have not requested the activation for this system constraints purpose.

(3) In case of the TSO submitting elastic positive demand, this TSO should not pay more than the price of each elastic demand

(4) In case of the TSO submitting elastic negative demand, this TSO should not receive less than the price of each elastic demand

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Article 7
Process and calculation of balancing congestion income

(1) Each platform shall calculate and collect the balancing congestion income per balancing border generated by the exchange of balancing energy product bids from RR, mFRR and aFRR respectively. Each platform shall ensure that collected balancing congestion income is transferred to the TSOs or entities appointed by TSOs no later than two weeks after the date of the settlement. In the distribution of the balancing congestion income to the relevant TSOs or entities appointed by TSOs the rules set forth in Article 8 of this proposal shall be respected.

(2) For each BEPP the balancing congestion income generated on each balancing border, in each direction of the balancing energy flow and for each platform shall be equal to the difference between:

(a) the balancing energy volume imported on the balancing border multiplied with the CBMP determined for the importing area, and

(b) the balancing energy volume exported on the balancing border multiplied with the CBMP determined for the exporting area.

Article 8
Sharing keys for balancing congestion income distribution on the border

(1) For the balancing borders where balancing congestion income was calculated in accordance with the calculation of balancing congestion income set forth in Article 7 of this proposal, the TSOs on each side of the balancing border shall receive their share of net border balancing income based on a 50%-50% sharing key. In specific cases the concerned TSOs may also use a sharing key different from 50%-50%. Such cases may involve, but are not limited to, different ownership shares or different investment costs. The percentages for these specific cases, as well as the underlying reasons are defined in Annex 1 to this proposal.

(2) In case the balancing border consists of several interconnectors with different sharing keys, on which are owned by different TSOs, the net border balancing income shall be assigned first to the respective interconnectors on that balancing border based on each interconnector's contribution to the allocated capacity. The parameters defining the contribution of each interconnector will be agreed by the TSOs on the balancing border. They shall be published in a common document by ENTSO-E on its web page. The balancing congestion income assigned to each interconnector shall subsequently be shared between the TSOs on each side of the interconnector using the principles described in paragraph 1 of this article whereas the exemptions for specific interconnectors are also defined in Annex 1 to this proposal.

(3) The final balancing congestion income attributed to each TSO shall consist of balancing congestion income calculated pursuant to paragraph 1 to 3 of this article.

(4) In case specific interconnectors are owned by entities other than TSOs, the reference to TSOs in this article shall be understood as referring to those entities.

Article 9
Settlement related to price differences in an uncongested area

In mFRR-Platform or RR-Platform, where different prices in one uncongested area occur because the optimisation algorithm of the AOF combines optimisation priorities which may lead to conflict for determining the CBMP, the respective platform shall calculate the resulting rent as the product of the exchanged volume on the concerned border and the difference of the CBMPs. The resulting rent for each platform shall be equally distributed between the participating TSOs.

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Article 10
Settlement of the intended energy exchanges as the result of the INP

(1) This article applies only to the intended energy exchanges as the result of explicit netting in the framework of the imbalance netting platform established in accordance with Article 22 of the EBGL.

(2) The time period for the calculation of settlement volumes and prices shall be 15 minutes starting right after 00:00 am. The period for the calculation of settlement volumes and prices shall be equal to the BEPP of the aFRR-Platform after all TSOs that have to make the aFRR-Platform and the IN-Platform operational are participating TSOs of the aFRR-Platform but not later than by 1st January 2024.

(3) The INP import and export netting volumes to be settled with each participating TSO will be determined for each settlement period by integrating (adding up) for each settlement period the import and export real time correction values sent by imbalance netting process function.

(4) The IN settlement price shall be determined per participating TSO per MWh for the netted volumes within the INP, per settlement period.

(5) The IN settlement prices of one settlement period shall be calculated according to the following principles:

(a) The values of avoided upward and downward aFRR activations reflect the prices of the balancing energy from aFRR which would have been activated by each participating TSO without the INP. The prices for balancing energy from aFRR are considered as reliable proxy for the value of avoided aFRR activation. The value of avoided aFRR activation shall be calculated ex-post by each participating TSO for import and export separately.

(b) The initial IN settlement price is the weighted average of all values (both upward and downward) of avoided aFRR Activation of all Participating TSOs, weighted with the imported and exported intended energy exchanges as the result of the INP. The initial IN settlement price is used to determine an initial settlement amount of each participating TSO defined as the initial IN settlement price multiplied by the difference between amounts of imported and exported volumes of the respective participating TSO. The initial settlement amount of each participating TSO shall be used to determine an initial financial rent of each participating TSO.

(c) Opportunity cost of one participating TSO are defined for one settlement period as the import value of avoided aFRR Activation multiplied by imported volume minus the export value of avoided aFRR activation multiplied by exported volume of the respective participating TSO and respective settlement period.

(d) The initial rent of each participating TSO is defined as a difference between:

    i.   Opportunity cost of each participating TSO, and

    ii.   The initial settlement amount of each participating TSO.

(6) In case of a negative initial rent of at least one participating TSO and the sum of all initial rents being positive in one settlement period, the settlement prices are subject to an adjustment. Negative rents of the affected TSOs are shifted to zero. Meanwhile, positive rents are reduced proportionally while preserving the IN overall rent. Participating TSOs with equal IN import and export in a given settlement period are excluded from this adjustment. The adjustment results in the following adjustment process in the affected settlement periods for participating TSOs:

(a) The final IN settlement price of participating TSOs with a negative initial rent are calculated by dividing its opportunity cost by the difference between import and export volume of the respective participating TSO and settlement period.

(b) The share of positive initial rent is equal to the initial rent of each a participating TSO with a positive initial rent divided by the sum of all positive initial rents, of each considered settlement period.

(c) The final settlement amount of participating TSOs with a positive initial rent is the initial settlement amount minus the sum of all negative initial rents times the share of positive initial rent of the respective participating TSO

(d) The final IN settlement price of participating TSOs with a positive initial rent is the final settlement amount divided by the difference between import and export volume of the respective participating TSO

(7) In case of a positive initial rent of at least one participating TSO and the sum of all initial rents being negative in one settlement period, the settlement prices are subject to an adjustment. Positive rents of the affected TSOs are shifted to zero. Meanwhile, negative rents are reduced proportionally while preserving the IN overall rent. Participating TSOs with equal IN import and export in a given settlement period are excluded from this adjustment. The adjustment results in the following adjustment process in the affected settlement periods for participating TSOs:

(a) The final IN settlement price of participating TSOs with a positive initial rent are calculated by dividing its opportunity cost by the difference between import and export volume of the respective participating TSO and settlement period.

(b) The share of negative initial rent is equal to the initial rent of each a participating TSO with a negative initial rent divided by the sum of all negative initial rents, of each considered settlement period.

(c) The final settlement amount of participating TSOs with a negative initial rent is the initial settlement amount plus the sum of all positive initial rents times the share of negative initial rent of the respective participating TSO.

(d) The final IN settlement price of participating TSOs with a negative initial rent is the final settlement amount divided by the difference between import and export volume of the respective participating TSO

(8) In case of the sum of all initial rents equals zero all individual rents TSOs are shifted to zero. The final IN settlement price of participating TSOs are calculated by dividing its opportunity cost by the difference between import and export volume of the respective participating TSO and settlement period.

(9) Final IN settlement price of participating TSOs excluded from this procedure is equal to the initial IN settlement price.

(10) Where participating TSOs in IN form an optimisation region for aFRR, the settlement amounts resulting from INP shall be distributed based on the aFRR demand and the intended balancing energy exchange resulting from the aFRP.

Article 11
Implementation Timeline

Each TSO shall apply this SP once the TSO is connected to the respective European balancing platform for the exchange of balancing energy in accordance with the Articles 19, 20, 21 or 22 of the EBGL.

Article 12
Publication of the SP

The TSOs shall publish the SP without undue delay after all NRAs have approved the proposal or a decision has been taken by the Agency for the Cooperation of Energy Regulators in accordance with Article 5(7), Article 6(1) and Article 6(2) of the EBGL.

Article 13
Language

The reference language for the SP shall be English. For the avoidance of doubt, where TSOs need to translate the SP into their national language(s), in the event of inconsistencies between the English version published by TSOs in accordance with Article 50 of the EBGL and any version in another language, the relevant TSOs shall be obliged to dispel any inconsistencies by providing a revised translation of the SP to their relevant national regulatory authorities.

Annex 1 to balancing congestion income distribution

Pursuant to Article 8 of this proposal, this annex outlines the specific sharing keys applied for sharing balancing congestion income among TSOs on the balancing border. Two types of specific keys are defined:

a) Specific sharing keys pursuant to Article 8 (1) of this proposal describing a specific sharing key for the whole balancing border (which applies to all interconnectors on that border); and

b) Specific sharing keys pursuant to Article 8 (3) of this proposal describing a specific sharing key for specific interconnectors of a balancing border.

The involved TSOs and entities may differ from those specified in the definition of capacity calculation regions for specific balancing border when entities other than TSOs are present in the border.

Balancing border	Interconnector	Involved TSOs/ Parties	Sharing key applied	Reason
DK2 – DE/LU	All	Energinet.dk, 50Hertz, Vattenfall AB	Hours with congestion from DE/LU to DK2: Energinet.dk: 1/3 Vattenfall: 1/3 50 Hertz: 1/3 Hours with congestion from DK2 to DE: Energinet.dk: 190/585 Vattenfall: 200/585 50 Hertz: 195/585	Ownership shares
GB-NL	BritNed	BritNed, TenneT TSO B.V. NGET	BritNed: 100%; TenneT TSO B.V.: 0%; NGET 0%	Ownership shares
GB-BE	Nemo Link[1]	Elia, Nemo Link Limited, NGET	Elia: 0%; Nemo Link Limited: 100%; NGET: 0%	Ownership shares
SEM-GB	Interconnector IE-GB	EirGrid PLC, NGET	EirGrid: 100% NGET: 0%	Ownership shares
SEM-GB	Interconnector GB-NI	SONI NGET	Moyle Interconnector Ltd: 100% Other entities: 0%	Ownership shares

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[1] In accordance with Schedule 3 of the Tariffs methodology (Z) 141218-CDC-1109/7, issued by CREG, and dated 18 December 2014, as amended from time to time.

		Moyle Interconnector Ltd		
IT-AT	Interconnector Eneco Valcanale	Terna, APG, Eneco Valcanale	Eneco Valcanale: 100% Other entities: 0%	Ownership shares
FR-GB	Interconnector IFA	RTE, NGIC, NGET	RTE: 50%; NGIC: 50%; NGET: 0%	Ownership shares
FR-GB	Interconnector IFA 2	RTE, NG IFA2 Limited NGET	RTE: 50%; NG IFA2 Limited: 50%; NGET: 0%	Ownership shares
FR-GB	Interconnector Eleclink	RTE, Eleclink Limited NGET	RTE: 0%; Eleclink Limited : 100% NGET: 0%	Ownership shares
SE4-DE/LU	Balatic Cable[2]	Baltic Cbale AB, Svenska kraftnät, TenneT TSO GmbH	Baltic Cbale AB : 100% Svenska kraftnät : 0% TenneT TSO GmbH : 0%	Ownership shares

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[2] The Baltic Cable AB is not yet certified as a TSO