METHODOLOGY ON CROSS-ZONAL CAPACITY CALCULATION AND ALLOCATION WITH RUSSIA

Among:

AS “Augstsprieguma tīkls”
Elering AS

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CONTENTS

1. GENERAL TERMS

1.1. Methodology on cross-zonal capacity calculation and allocation with Russia (hereinafter referred to as “the Methodology”) is set to define Cross-Zonal Capacity calculation, provision and allocation rules between Baltic States and Russia.

1.2. Cross-Zonal Capacities with the Russia shall be calculated using the coordinated Net Transmission Capacity approach in a way that it enables the achievement of the following objectives:

1.2.1. Ensuring Operational Security of the interconnected power systems;

1.2.2. Producing results in a transparent and replicable manner;

1.2.3. Ensuring that Cross-Zonal Capacities with Russia in day-ahead electricity market of the Baltic States are provided and allocated in a most optimal and reasonable manner.

1.3. The time used in this document is Eastern European Time (EET) during winter and Eastern European Summer Time (EEST) during summer unless stated otherwise.

1.4. Capacity calculation with Russia shall be performed by AS "Augstsprieguma tīkls".

1.5. Electricity imports from Russia to Latvia shall have a proof of origin that the imported electricity is originated from non-Belarusian producers.

1.6. The Methodology cover Cross-Zonal Capacity calculation for day-ahead time horizon.

2. DEFINITIONS

For the purposes of this Methodology, the following definitions shall have the following meaning:

2.1. **AST** – AS “Augstsprieguma tīkls”, Independent Transmission System Operator of the Republic of Latvia.

2.2. **Baltic States** – the Republic of Estonia, the Republic of Latvia, and the Republic of Lithuania.

2.3. **Baltic CCR**- Baltic capacity calculation region.

2.4. **Baltic TSOs** – the transmission system operators for electricity of the Republic of Estonia, the Republic of Latvia and the Republic of Lithuania.

2.5. **Bidding Zone** – the largest geographical area (zone) within which market participants are able to exchange energy without capacity allocation.

2.6. **BRELL TSOs** –TSOs operating in BRELL Loop.

2.7. **BRELL agreement** – the document, signed among Belarusian, Russian, Estonian, Latvian and Lithuanian system operators and network owners, which defines main rules and principles for synchronous operation of the Belorussian, Russian, Estonian, Latvian and Lithuanian (or BRELL Loop) power systems.

2.8. **Rules on planning of electric energy and power exchange in the BRELL Loop** – the document, approved among Belarusian, Russian, Estonian, Latvian and Lithuanian system operators, which defines annual, monthly, two days ahead, day ahead planning data extent and exchange procedure among BRELL TSOs.

2.9. **Instruction for parallel operation in the cross-border interconnection (BRELL)** – the document approved among Belarusian, Russian, Estonian, Latvian and Lithuanian system operators that defines parallel power systems operation conditions in the Cross-Border Interconnection. It includes interconnection description, interconnection transfer capacities, interconnection normal and emergency state operations and system protection description.

2.10. **Methodical guidelines for stable operation in BRELL Power Loop** – the document, approved among Belarusian, Russian, Estonian, Latvian and Lithuanian system operators, which defines main system stability requirements to be taken into account by calculation of TTC in all BRELL Loop interconnections.

2.11. **BRELL Loop** – transmission networks of the power systems of the Baltic States, the Republic of Belarus and the Russian Federation (Central and North-Western parts).

2.12. **Capacity allocation** – the attribution of Cross-Zonal Capacity.

2.13. **Capacity Calculator** – TSO responsible for calculation of Trading Capacity with Russia. Capacity calculation with Russia shall be performed by AS"Augstsprieguma tīkls".

2.14. **Cross-Border Interconnection** – is a physical transmission link (e.g. tie-lines) which connects two power systems.

2.15. **Cross-Zonal Capacity** – the capability of the interconnected system to accommodate energy transfer between Bidding Zones.

2.16. **Day-Ahead Firmness Deadline** – the point in time after which Cross-Zonal Capacity becomes firm.

2.17. **Common Grid Model** – data set agreed between BRELL TSOs describing the main characteristic of the power system (generation, loads and grid topology) and rules for changing these characteristics during the capacity calculation process.

2.18. **Contingency Analysis** – a computer based simulation of contingencies.

2.19. **D-1** – the day prior to the day on which the energy is delivered.

2.20. **D-2** – the day before the day prior to the day on which the energy is delivered.

2.21. **Data Exchange Rules** – the Baltic TSOs' agreement on mutual application of common operational planning and terms and conditions for data exchange procedures.

2.22. **Day-Ahead Market** – the market timeframe where commercial electricity transactions are executed the day prior to the day of delivery of traded products.

2.23. **Elering** – Elering AS, Transmission System Operator of the Republic of Estonia.

2.24. **Force Majeure** – any unforeseeable or unusual event or situation beyond the reasonable control of a TSO, and not due to a fault of the TSO, which cannot be avoided or overcome with reasonable foresight and diligence, which cannot be solved by measures which are from a technical, financial or economic point of view reasonably possible for the TSO, which has actually happened and is objectively verifiable, and which makes it impossible for the TSO to fulfil, temporarily or permanently, its obligations in accordance with CACM and/or this Methodology.

2.25. **Firmness** – a guarantee that Cross-Zonal Capacity rights will remain unchanged and that compensation is paid if they are nevertheless changed.

2.26. **N-1 Situation** – the situation in the transmission system in which a single contingency has happened.

2.27. **Market Operator (MO)** – the operator of day-ahead and intraday electricity markets in the Baltic States.

2.28. **NTC** – Net Transmission Capacity of the designated Cross-Border Interconnections is the maximum Trading Capacity, which is permitted in transmission Cross-Border Interconnections compatible with Operational Security standards and taking into account the technical uncertainties on planned network conditions for each TSO.

2.29. **NRA** – National regulatory authority of Republic of Latvia and/or Republic of Estonia.

2.30. **Operational Security Limits** – the acceptable operating boundaries: thermal limits, voltage limits, frequency, dynamic and steady state stability limits.

2.31. **Operational Security** – the transmission system capability to retain a normal state or to return to a normal state as soon and as close as possible, and is characterised by thermal limits, voltage constraints, short-circuit current, frequency limits and stability limits.

2.32. **Remedial Actions** – any measure applied by a TSO or several TSOs, manually or automatically, in order to maintain Operational Security.

2.33. **Russia Kaliningrad area** – a part of the Russian power system located in the Kaliningrad region.

2.34. **Shift Key** – means a method of translating a net position change of a given power system into estimated specific injection increases or decreases in the Common Grid Model. Shift Key is settled as generation, renewable generation and load.

2.35. **TRM** – Transmission Reliability Margin which shall mean the reduction of Cross-Zonal Capacity to cover the uncertainties within capacity calculation.

2.36. **TSO** – a transmission system operator for electricity.

2.37. **TTC** – Total Transfer Capacity of the designated Cross-Border Interconnections is the maximum transmission of active power, which is permitted in transmission Cross-Border Interconnections compatible with Operational Security standards applicable for each TSO.

2.38. **Trading Capacity with Russia** – the total trading capacity between the Russian Federation (excluding Kaliningrad area) and the Baltic States which is compatible with Operational Security standards and take into account the technical uncertainties on planned network conditions for each TSO of the synchronous area.

2.39. **SDAC** – as the Single Day-Ahead Coupling is the implementation of the Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on Capacity Allocation and Congestion Management ("CACM Regulation"), it requires cooperation of all transmission system operators ("TSOs") and all nominated electricity market operators ("NEMOs") at European level within the scope of the CACM Regulation.

3. TOTAL TRANSFER CAPACITY (TTC) CALCULATION METHODOLOGY

3.1. The TTC calculation methodology shall be applied for following Cross-Border Interconnections: Lithuania – Latvia, Estonia-Latvia – Russia, Estonia – Russia.

3.2. The Cross-Border Interconnection TTC assessment shall follow the methodological principles in the Methodical guidelines for stable operation in BRELL Loop, as well as in national regulations and standards implemented and agreed in the Instruction for parallel operation in the Cross-Border Interconnections between TSOs involved, while taking into account the intra- and intersystem Operational Security.

3.3. Methodical guidelines for stable operation in BRELL Loop is used as a basis and reviewed by TSOs, for ensuring the collective secure operation with neighboring interconnected TSOs.

3.4. The Cross-Border Interconnection TTC shall be determined by proceeding N-1 Contingency Analysis with respect of Operational Security Limits of BRELL Loop and Control Area of Baltic TSOs.

3.5. The cross-border TTC calculation shall be carried out by using as input the following mutually coordinated data and information:

3.5.1. Base case - Common Grid Model, which includes power transmission equipment model of BRELL Loop and scenario describing net positions for each of Control Area of Baltic TSOs and Russian/Belorussian power systems, valid for given calculation purposes;

3.5.2. Generation, renewable generation and load Shift Key;

3.5.3. Critical Network Elements;

3.5.4. Outage cases;

3.5.5. Contingency List;

3.5.6. Remedial action List.

3.6. Determining the TTC values, TSOs and Capacity Calculator can take into account ambient temperatures for different seasonal periods to provide Operational Security.

3.7. If neighbouring TSOs determine different TTC values for the same Cross-Border Interconnection, the lowest value shall be used as a coordinated value.

3.8. **Generation and load Shift Key**

3.8.1. Proportional generation Shift Key strategy shall be normally applied. However, shifting strategy per power system area shall be the responsibility of each involved TSO, which has to be communicated with other TSOs and Capacity calculator before commencing TTC calculation process in case of deviation from proportional generation Shift Key strategy. The TSOs shall exchange Shift Keys for generation and renewable generation and also provide it to Capacity Calculator.

3.8.2. Capacity Calculator and TSOs shall apply load Shift Key whenever the generation Shift Key shall not be sufficient for determination of TTC. The TSOs shall exchange Shift Keys for load.

3.9. **Remedial actions**

3.9.1. TSOs shall to exchange with each other and provide to Capacity Calculator information on available and applicable remedial actions that shall be used in capacity calculation process, e.g. information on available emergency power reserves and available balancing reserves.

4. TRANSMISSION RELIABILITY MARGIN (TRM) CALCULATION METHODOLOGY

4.1. The Transmission Reliability Margin (hereinafter referred to as "TRM") is a capacity margin needed for secure operation of interconnected power systems considering the planning errors, including the errors due to imperfect information from Russia and Belarus operators at the time the transfer capacities have been computed.

TRM determination

4.2. Statistical data

For determining of the TRM values for each Cross-Border Interconnection, the statistical data of historically planned and factual power flows (historical physical flows) for aforementioned interconnections is used with the time step of 1 minute. If there are no archive data with the time step of 1 minute, then smallest time step, which is available in the archive data, can be used. For the capacity calculation planning phase TRM calculation uses statistical archive data (both planned and factual power flows are taken from archive – in order to compare historically planned flows with historical physical flows) from last year. In cases, where topology changes or other network conditions have substantial impact to power flows compared to last year, the data from last month, last week or last day is used.

Deviations shall be calculated as a difference between Cross-Border Interconnection actual power flows and planned power flows.

4.3. TRM determination approach

TRM shall be determined as the arithmetic average value plus standard deviation. Arithmetic average value of the deviation is determined for the above statistical data set and added to the same data set standard deviation:

$$TRM = \frac{\sum_{i=1}^{n} X_i}{n} + \sqrt{\frac{\sum_{i=1}^{n} (X_i - \overline{X})^2}{n-1}} \quad (1)$$

where:

X_i – data sets of the i-th element, defined as deviation of factual power flow from planned power flow over Cross-Border Interconnections;

$\overline{X}$ – arithmetic average value of Xi $\frac{\sum_{i=1}^{n} X_i}{n}$;

n – number of elements in the data set.

TRM shall be rounded to the nearest integer.

4.4. In case if after evaluation of different network states in previous planning period, as well as historical market outcomes and power systems' balances, and taking into account planned changes in state of power systems can be concluded that actual power flows will be smaller than TTC value, TRM value of 0MW for AC-interconnection can then be used.

4.5. When TRM calculation of this Methodology does not produce results that are in line with Operational Security, then TRM can be increased until all Operational Security limits are met.

4.6. TRM is being re-calculated once per year or if operational/planning conditions necessitate (e.g. changes in patterns of planned or factual power system regime) before every NTC calculation process.

5. NET TRANSMISSION CAPACITY CALCULATION FOR CROSS-BORDER INTERCONNECTION ESTONIA-RUSSIA

5.1. Capacity of Estonia-Russia Cross-Border Interconnection used for capacity calculation with Russia is determined by following formula:

$$NTC_{EE\text{-}RU} = TTC_{EE\text{-}RU} - TRM \quad (2)$$

where:

$NTC_{EE\text{-}RU}$ – Net Transmission Capacity of Estonia-Russia Cross-Border Interconnection;

$TTC_{EE\text{-}RU}$ – Total Transfer Capacity of the Estonia-Russia Cross-Border Interconnection in the Estonia direction according Instruction for parallel operation in the cross-border interconnection BRELL;

TRM – Transmission Reliability Margin in Cross-Border Interconnection.

6. NET TRANSMISSION CAPACITY CALCULATION FOR CROSS-BORDER INTERCONNECTION ESTONIA, RUSSIA - LATVIA

6.1. Capacity of Estonia, Russia - Latvia Cross-Border Interconnection used for capacity calculation with Russia is determined by following formula:

$$NTC = MIN\left(\left(\left(TTC_1 + \sum_{i=1}^{n} K_i \cdot P_i\right) - TRM\right); TTC_2 - TRM\right) \quad (3)$$

where:

TTC_1 – Total Transfer Capacity after (N-1) Situation has occurred from actual power system network status according to Instruction for parallel operation in the Cross-Border Interconnection between Estonian, Russian and Latvian power systems. The value of TTC_1 is independent on influence of ambient temperatures – values at 0 (zero) temperature shall be used;

TTC_2 – Total Transfer Capacity value for actual power system network status, according to Instruction for parallel operation in the Cross-Border Interconnection between Estonian, Russian and Latvian power systems. The value of TTC_2 is dependent from the influence of

ambient temperature of particular capacity calculation time period to transmission line conductors;

P_i – all available amount of assured emergency power reserves for respective power system i *(shall be provided by respective TSO for coming year until 1st of December to the Capacity calculator and to respective TSO's)*

n – number of power systems;

K_i – reserve power distribution coefficients considering location of the assured emergency power reserve P_i and down regulation according to Table 1 of this Methodology. Amount of down regulation power in percentage represents the amount of down regulation in the area on the one side of the cross-border as a proportion to the up regulation in the area presented in Reserves location columns. Distribution coefficients are pre-agreed among Baltic TSOs and calculated by load flow calculations considering the impact of activations for physical flow distribution. Down regulation reflects, in general, the ability of generators to decrease generation, subject to technical constraints of individual generating units as well as required necessary reserve for down regulation in the whole system;

TRM –Transmission Reliability Margin in Cross-Border Interconnection.

Table 1. Reserve power distribution coefficients.

Amount of down regulation power (%)	Cross-Border Interconnections	Reserves location			
		Lithuania	Latvia	Belarus	Estonia
100	Estonia-Russia → Latvia	0,62	0,74	0,45	
	Latvia →Russia-Estonia				0,74
50	Estonia-Russia → Latvia	0,48	0,60	0,31	
	Latvia →Russia-Estonia				0,52
0	Estonia-Russia → Latvia	0,34	0,45	0,16	
	Latvia →Russia-Estonia				0,29

7. NET TRANSMISSION CAPACITY CALCULATION FOR CROSS-BORDER INTERCONNECTION LITHUANIA - LATVIA

7.1. Capacity of Lithuania - Latvia Cross-Border Interconnection used for capacity calculation with Russia is determined by following formula:

$$\mathrm{NTC} = (\mathrm{TTC}_1 + \sum_{i=1}^{n} \mathrm{K}_i \cdot P_i) - \mathrm{TRM} \quad (4)$$

where:

$$(\mathrm{TTC1} + \sum_{i=1}^{n} \mathrm{K}_i \cdot P_i) \leq \mathrm{TTC} \quad (5)$$

where:

TTC_1 – Total Transfer Capacity after (N-1) Situation has occurred from actual power system network status according to Instruction for parallel operation in the Lithuania-Latvia Cross-Border Interconnection;

P_i – all available amount of assured emergency power reserves for respective power system i *(shall be provided by respective TSO for coming year until 1st of December to the Capacity calculator and to respective TSO's)*

K_i – reserve power distribution coefficients considering location of the assured emergency power reserve P_i and down regulation according to Table 2 of this Methodology. Amount of down regulation power in percentage represents the amount of down regulation in the area on the one side of the cross-border as a proportion to the up regulation in the area presented in Reserves location columns. Distribution coefficients are pre-agreed among Baltic TSOs and calculated by load flow calculations considering the impact of activations for physical flow distribution. Down regulation reflects, in general, the ability of generators to decrease generation, subject to technical constraints of individual generating units as well as required necessary reserve for down regulation in the whole system;

n – number of power systems;

TTC – Total Transfer Capacity in actual power system network status according to Instruction for parallel operation in the Lithuania-Latvia Cross-Border Interconnection;

TRM – Transmission Reliability Margin in Cross-Border Interconnection.

Table 2. Reserve power distribution coefficients.

Amount of down regulation power, %	Cross-Border Interconnections	Reserves location			
		Lithuania	Latvia	Belarus	Estonia
100	Latvia→Lithuania	0,88		0,72	
	Lithuania→ Latvia		0,88		0,62
50	Latvia→Lithuania	0,61		0,44	
	Lithuania→ Latvia		0,72		0,46
0	Latvia→Lithuania	0,34		0,16	
	Lithuania→ Latvia		0.55		0,29

8. TRADING CAPACITY CALCULATION RULES WITH RUSSIA

8.1. Trading Capacity with Russia is determined by modelling of physical power flows within the BRELL Loop by taking into account NTCs of Cross-Border Interconnections: Russia-Estonia; Estonia-Latvia -Russia; Lithuania-Latvia and TTC of Cross-Border Interconnection Lithuania-Belarus.

8.2. Modelling of physical power flows performed by using Common Grid Model. The Common Grid Model is formed based on Rules on planning of electric energy and power exchange in the BRELL Loop as well as on requirements of ENTSO/E Common Grid Model Exchange Standard.

8.3. Day ahead Trading Capacity calculation with Russia shall be performed by the Capacity Calculator based on two days ahead planning data according to Rules on planning of electric energy and power exchange in the BRELL Loop and planning data provided by Baltic TSOs as the best estimated scenario for the next day. As a rule, for the best estimated scenario data according to Table 3 of these Methodology shall be used. While performing Day ahead Trading Capacity calculation with Russia Estonian power system balance shall be defined according following principles:

Table 3. Scenario data.

Power system	Monday (working day)	Tuesday-Friday (working days)	Saturday	Sunday	Public holidays
Lithuania, **Latvia** **Estonia**	Last Friday's balance plan	Yesterday's balance plan	Last Saturday's balance plan	Yesterday's balance plan	Last Sunday's or the closest last public holiday's balance plan
Russia*	D-2 balance plans	D-2 balance plan	D-2 balance plan	D-2 balance plan	D-2 balance plan
Belarus*	D-2 balance plans	D-2 balance plan	D-2 balance plan	D-2 balance plan	D-2 balance plan

*- *If due to time differences for the last hours in D-2 balance plans from Russia and Belarus weren't provided then missing hours for D-2 balance plans for Russia and Belarus shall be equal to the last provided hour.

8.3.1. If Estonian balance according to the Table 3 of these Methodology exceeds NTC of the Estonia,Russia-Latvia Cross-Border interconnection, the Estonian balance will be reduced in the power flows calculations down to the NTC of Estonia,Russia-Latvia Cross-Border Interconnection;

8.3.2. If Estonian balance according to the Table 3 of these Methodology is less than $k*NTC_{EE,RU-LV}$, (where: k – coefficient showing average arithmetic average value plus standard deviation of hourly Net Transmission Capacity utilization for the last 7 days; $NTC_{EE,RU-LV}$ - NTC of the Estonia, Russia-Latvia Cross-Border Interconnection) the Estonian balance will be set to $k*NTC_{EE,RU-LV}$. Coefficient k is calculated for four-time stamps by 6 hours per capacity calculation day. Coefficient k is calculated according to the following formula:

$$\boldsymbol{k} = \frac{\sum_{i=1}^{n} \boldsymbol{X_i}}{\boldsymbol{n}} + \sqrt{\frac{\sum_{i=1}^{n} (\boldsymbol{X_i} - \overline{\boldsymbol{X}})^2}{\boldsymbol{n-1}}} \qquad (6)$$

Where:

X_i – data sets of the i-th element, defined as proportion between commercial flow and NTC values on Estonia, Russia-Latvia Cross-Border Interconnection – $\frac{Fcomm_i}{NTC_i}$;

F_{comm} – sum of commercial flows on Estonia, Russia-Latvia Cross-Border Interconnection in direction from Estonia to Latvia for the last 7 days;

NTC – sum of NTC values on Estonia, Russia-Latvia Cross-Border Interconnection in direction from Estonia to Latvia for the last 7 days;

$\overline{X}$ – arithmetic average value of X_i – $\frac{\sum_{i=1}^{n} X_i}{n}$;

n – number of elements in the data set.

Coefficient showing average of hourly Net Transmission Capacity utilization considering utilization dispersion for calculated time stamp of day calculated according formula 6 of these Rules shall be calculated two working days before of each transfer capacity allocation to the electricity market.

In specific outages cases (e.g. HVDC link) coefficient *k* can be calculated considering different input data time period than the last 7 days.

8.4. Trading Capacity from Russia for planning periods shall be calculated based on following principles:

8.4.1. If upon completion of the initial calculation, physical power flows do not exceed the cross-border interconnection capacity (NTC, TTC) values established in Article 8.1 of this Methodology, the Trading Capacity from Russia will be determined by decreasing generation in Latvian power system and increasing generation in swing generator in the Russian power system;

8.4.2. If upon completion of the initial calculation, physical power flows exceed the cross-border interconnection capacity (NTC, TTC) values established in Article 8.1 of this Methodology, the Trading Capacity from Russia will be determined by decreasing generation in swing generator in the Russian power system and increasing generation in Latvian power system.

8.5. Trading Capacity to Russia for planning period shall be calculated based on following principles:

8.5.1. If upon completion of the initial calculation, physical power flows do not exceed the cross-border interconnection capacity values established in Article 8.1 of this Methodology, the Trading Capacity to Russia will be determined by increasing generation in Latvian power system by reducing generation in swing generator in the Russian power system;

8.5.2. If upon completion of the initial calculation, physical power flows exceed the cross-border interconnection capacity values established in Article 8.1 of this Methodology, the Trading Capacity to Russia will be determined by increasing generation in swing generator in the Russian power system by reducing generation in Latvian power system

8.6. Calculations according to the requirements laid down in Article 8.4. and Article 8.5 of this Methodology are completed, when one of the interconnection capacity limits specified in Article 8.1 of this Methodology is reached and none exceed the aforementioned limits. Trading Capacity with Russia is calculated by the following formula:

$$P_{\text{with Russia}} = \text{MIN}\left((NET_{\text{intEE}} + NET_{\text{intLV}} + NET_{\text{intLT}} + NET_{\text{intKAL}}); NTC_{\text{EE-RU}}\right) \quad (7)$$

where:

$P_{\text{with Russia}}$ – Trading Capacity with Russia (directions from or to Russia);

Net_{IntEE} – Estonian energy system balance according to calculation results together with ESTLINK 1 and ESTLINK 2;

Net_{IntLV} – Latvian energy system balance according to the calculation results;

Net_{IntLT} – Lithuanian energy system balance with NORDBALT and LITPOL Link;

Balance values in formula 7 for Trading Capacity calculation in direction from Russia of these Methodology are negative, when power system is in surplus, and values are positive, when the power system is in deficit. Balance values in formula 7 for Trading Capacity calculation in direction to Russia of these Methodology are negative, when power system is in deficit, and values are positive, when the power system is in surplus;

Net_{IntKAL} – Kaliningrad balance according planning data. If Kaliningrad balance is in deficit or if Kaliningrad balance is in surplus in case of Trading Capacity calculation in direction to Russia, Net_{IntKAL} shall be set to 0 MW;

$NTC_{EE\text{-}RU}$–Net Transmission Capacity of Estonia - Russia cross-border interconnection, in capacity determination direction with Russia according formula 2;

8.7. Validation process of the calculated Trading Capacity with Russia is the following:

8.7.1. Capacity Calculator shall calculate the Trading Capacity with Russia according to Articles 8.1-8.6 of this Methodology and deliver following results to TSOs:

a. Trading Capacity from and to Russia;

b. Summary report of restrictive Cross-Border Interconnection and their transmission capacities (NTC, TTC).

8.7.2. Capacity Calculator provide calculations results not later than 8:40 EET/ 9:40 EEST. TSOs shall validate results provided by Capacity Calculator and send validation message to the Capacity Calculator in 20 minutes after Capacity Calculator provide calculations results.

8.7.3. In case if Capacity Calculator receives information on the changes in the power systems and/or TTCs/NTCs of the borders used in calculations of Trading Capacity with Russia, Capacity Calculator is allowed to perform recalculation of Trading Capacity with Russia also after time indicated in point 8.7.2.

8.8. If results are not validated by TSO validator, the TSO validator must deliver its own calculation results and the reasoning for non-validation. The lowest value for Trading Capacity with Russia shall be used. If the calculation results and reasoning for non-validation are not delivered, the Trading capacity with Russia is set equal to calculation results performed by the Capacity Calculator.

9. CAPACITY CALCULATION FALLBACK PROCEDURE

10.1 If Trading Capacity with Russia cannot be calculated, in this case trading Capacity with Russia shall be determined as equal to minimum Trading Capacity with Russia calculated according to Article 8.6 formula 7 by using last working day or last Saturday (Sunday) Trading Capacity calculation data with Russia respectively and applying actual topology status. Capacity Calculator informs respective TSOs on inability to calculate capacities.

10.2 The Previous Day means the previous working day if the single day-ahead capacity calculation process failure has effect on a working day, and the previous weekend day or public holiday, as appropriate, if the capacity calculation process failure has effect on a Saturday, Sunday or public holiday. Working day means days from Monday to Friday, not including legal public holidays which are identified through coordination process with neighboring Capacity Calculators.

10. PROVISION AND ALLOCATION OF TRADING CAPACITY WITH RUSSIA

10.1. Capacity Calculator provide calculated and validated Trading Capacities for relevant trading time frames to MCO for subsequent capacity allocation through implicit auctioning carried out by MCO of the Single Day-Ahead Coupling (hereinafter referred to as "SDAC").

10.2. Trading Capacities with Russia are provided and allocated in day-ahead time frame for Day Ahead Market.

10.3. TSOs have agreed to provide the following Trading Capacities with Russia:

10.3.1. From Russia to Estonia: from Estonia-Russia import Bidding Zone to Estonia Bidding Zone Trading Capacities is provided equal to “0”;

10.3.2. From Estonia to Russia: from Estonia Bidding Zone to Estonia-Russia export Bidding Zone Trading Capacities is provided equal to “0”;

10.3.3. From Russia to Latvia: from Latvia-Russia import Bidding Zone to Latvia Bidding Zone Trading Capacities are provided in accordance with Article 8 of this Methodology;

10.3.4. From Latvia to Russia: from Latvia Bidding Zone to Latvia-Russia export Bidding Zone Trading Capacities are provided in accordance with Article 8 of this Methodology;

11. FIRMNESS

11.1. After the Day-ahead Firmness Deadline, all Cross-Zonal Capacity and allocation constraints are firm for day-ahead capacity allocation unless in case of Force Majeure or Emergency Situation.

11.2. The Day-ahead Firmness Deadline is 60 minutes before Day-Ahead Gate Closure Time unless there is other deadline included in “All TSOs’ Proposal for the day-ahead firmness deadline (DAFD) in accordance with Article 69 of the Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a Guideline on Capacity Allocation and Congestion Management”.

12. IMPLEMENTATION OF THE METHODOLOGY

12.1. The Methodology becomes effective at the next day after NRAs have endorsed the Methodology. The endorsement date shall be considered the last date of the endorsement by relevant NRA.

12.2. The Methodology shall be published on official websites of TSOs within 3 days after NRAs endorsement of the Methodology.