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BEHANDELD DOOR	[redacted]
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AANTAL BIJLAGEN	3

BETREFT Derogatie-aanvraag voor 2021 voor operationele veiligheid overeenkomstig artikel 16(9) van de Verordening (EU) 2019/943

Geachte mevrouw Bijlenga,

Hierbij ontvangt u een aanvraag voor een derogatie overeenkomstig artikel 16, negende lid, van de Verordening (EU) 2019/943 van het Europees parlement en de Raad van 5 juni 2019 betreffende de interne markt voor elektriciteit (hierna: Verordening (EU) 2019/943). De derogatie is noodzakelijk om de operationele veiligheid te handhaven met inachtneming van de verplichting zoals opgelegd aan de transmissiesysteembeheerders overeenkomstig artikel 16, achtste lid, van de Verordening (EU) 2019/943 om een minimaal niveau van beschikbare capaciteit voor zoneoverschrijdende handel te hanteren.

De derogatie wordt aangevraagd voor de periode van 1 januari 2021 t/m 31 december 2021.

In december 2019 heeft ACM een vergelijkbare derogatie verleend conform artikel 16(9) van Verordening (EU) 2019/943 voor de periode 1 januari 2020 t/m 31 december 2020. Op verzoek van ACM heeft TenneT een Engelstalige *explanatory note* opgesteld waarin de belangrijkste wijzigingen van deze derogatieaanvraag ten opzichte van de huidige derogatie zijn toegelicht. Deze notitie, alsmede een versie met 'track changes' zijn ook bijgevoegd bij deze brief.

U wordt verzocht na raadpleging van de relevante regulerende instanties deze derogatie te verlenen krachtens artikel 16, negende lid, van de Verordening (EU) 2019/943. Wij vertrouwen erop u hiermee voldoende te hebben geïnformeerd en zijn uiteraard desgewenst bereid om de aanvraag nader toe te lichten.

Hoogachtend,
TenneT TSO B.V.

[redacted]

[redacted]
Head Regulation NL

Request of TenneT TSO B.V. for derogation from the minimum level of capacity to be made available for cross-zonal trade

in accordance with Article 16(9) of Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity (recast)

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15 July 2020

Contents

THE DUTCH TRANSMISSION SYSTEM OPERATOR TENNET TSO B.V. TAKING INTO ACCOUNT THE FOLLOWING,

Whereas

(1) Article 16(8) of the Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity (recast), hereinafter the "Regulation 2019/943", prescribes that TSOs shall not limit the volume of interconnection capacity to be made available to market participants as a means of solving congestion inside their own bidding zone, or as a means of managing flows resulting from transactions internal to bidding zones. The same article also defines that this requirement shall be considered to be complied with if a minimum level of available capacity for cross-zonal trade is reached. For borders using a flow-based approach, this level is set to 70% of the capacity respecting operational security limits of internal and cross-zonal critical network elements taking into account contingencies (hereinafter referred to as "CNECs"). Transitory measures, such as action plans pursuant to Article 15 of the Regulation 2019/943 or derogations pursuant to Article 16(9) of the same regulation, allow a step-wise approach for reaching this minimum capacity, ultimately by 31 December 2025.

(2) In December 2019, the Ministry of Economic Affairs and Climate Policy of the Netherlands has established an action plan pursuant to Article 15 of Regulation 2019/943. In accordance with Article 15(2) of Regulation 2019/943, the action plan has established a linear trajectory for the minimum capacity available for cross-zonal trade to be compliant with Article 16(8) of Regulation 2019/943 (hereinafter referred to as "linear trajectory").

(3) Article 16(9) of Regulation 2019/943 prescribes that upon request of transmission system operators in a capacity calculation region (hereinafter "CCR"), the relevant regulatory authorities may grant a derogation from Article 16(8) of Regulation 2019/943 on foreseeable grounds where necessary for maintaining operational security. The derogation shall be granted for no more than one year at a time, or, provided that the extent of the derogation decreases significantly after the first year, up to a maximum of two years. The extent of such a derogation shall be strictly limited to what is necessary to maintain operational security and shall avoid discrimination between internal and cross-zonal exchanges.

(4) In October 2019, TenneT TSO B.V. (hereinafter referred to as "TenneT") applied for two derogations in accordance with article 16(9) of Regulation 2019/943. In anticipation of a decision of the Ministry of Economic Affairs and Climate Policy of the Netherlands to establish an action plan pursuant to Article 15 of Regulation 2019/943, TenneT retracted one of the two applications for derogation on 18 December 2020. The other application for a derogation was approved by the Dutch national regulatory Authority for Consumers and Markets (hereinafter "ACM") on 20 December 2020, for the duration of 1 year from 1 January 2020 until 31 December 2020.

(5) The Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on Capacity Allocation and Congestion Management (hereinafter referred to as the "CACM Regulation") and the Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation (hereinafter referred to as the "SOGL Regulation") require TSOs to deliver some methodologies which are key to managing the flows in the electricity grid via coordinated capacity calculation and coordinated application of remedial actions. These key methodologies are:

   a. The Day-Ahead Capacity Calculation Methodologies for the CCRs in which TenneT is a represented member, as referred to in Article 21 of the CACM Regulation;

   b. The operational security coordination methodology as referred to in Article 76 of the SOGL Regulation (hereinafter referred to as "SOGL 76 methodology");

c. The coordinated redispatching and countertrading methodology as referred to in Article 35 of the CACM Regulation (hereinafter referred to as “CACM 35 methodology”); and

d. The redispatching and countertrading cost sharing methodology as referred to in Article 74 of the CACM Regulation (hereinafter referred to as “CACM 74 methodology”).

Acknowledging that none of these key methodologies from the CACM Regulation and SOGL Regulation are implemented yet, TenneT cannot rely on these methodologies as a structural basis in order to reach the linear trajectory or the minimum capacity provided for in Article 16(8) of Regulation 2019/943 per 1 January 2021.2021 Also, it is not foreseen that all of the key methodologies listed above will be implemented before 31 December 2021.

(6) Article 16(3) of Regulation 2019/943 prescribes that regional coordination centers (hereinafter "RCCs") shall carry out a coordinated capacity calculation in accordance with Article 16(4) and Article 16(8) of Regulation 2019/943. Article 16(3) of Regulation 2019/943 also prescribes that where RCCs conclude that those available remedial actions in the CCR or between CCRs are not sufficient to reach the linear trajectory or the minimum capacities provided for in paragraph 16(8) of Regulation 2019/943 while respecting operational security limits, they may, as a measure of last resort, set out coordinated actions reducing the cross-zonal capacities accordingly.

However, acknowledging the fact that the RCCs are not yet carrying out the coordinated capacity calculation as not all of the coordinated capacity calculation methodologies are fully implemented in the CCRs in which TenneT is a represented member, TenneT cannot yet rely on the RCCs to:

a. Conclude whether or not those available remedial actions in the CCR or between CCRs are sufficient to reach the linear trajectory or the minimum capacities provided for in paragraph 16(8) of Regulation 2019/943; and

b. Set out coordinated actions to reduce the cross-zonal capacities accordingly if necessary to respect operational security limits.

(7) Article 16(4) of Regulation 2019/943 prescribes that counter-trading and redispatch, including cross-border redispatch, shall be used to reach the minimum capacity provided for in Article 16(8) of Regulation 2019/943. However, this article stipulates that the application of cross-border measures is subject to the implementation of a redispatching and counter-trading cost sharing methodology. This methodology is also not yet implemented in the CCRs in which TenneT is a represented member.

(8) In order to be compliant with the Regulation 2019/943, given the limitations that several key methodologies for managing the flows in the electricity grid are not yet implemented and operational as set out in paragraph 5-7, and given that the current derogation in accordance with Article 16(9) of Regulation 2019/943 only applies until 31 December 2020, TenneT decided to apply again for a derogation from Article 16(8) of Regulation 2019/943. This derogation is applied for on the basis of two foreseeable grounds.

(9) The first ground to request a derogation is the foreseeable externality that loop flows on Dutch CNECs cannot be contained to an acceptable level as they are not under the control of TenneT, which contributes in creating an operational security risk if the minimum capacity provided for in Article 16(8) of Regulation 2019/943 would be applied:

a. From Article 16(8) of Regulation 2019/943 it can be understood that the maximum acceptable level of loop flows is defined as the amount of loop flows which, together with the reliability margins and the internal flows, uses 30% of capacity of a CNEC respecting their operational security limits.

b. Historical analyses of data from the period January 2017 until July 2019 have shown that the average level of loop flows on Dutch presolved CNECs is usually above 30% of the total power flow and can amount up to almost full capacity usage on specific hours, which is exceeding the level that would allow meeting the requirements set in Article 16(8) of the Regulation 2019/943.

c. Loop flows created in neighbouring bidding zones are a consequence of their grid topology in combination with a sub-optimal generation and load distribution which cannot expected to be contained by using the redispatch potential available in the Netherlands. Phase Shifting Transformers located at the North-Eastern border of the Netherlands can help partially limiting the loop flows, but even an optimised utilisation of these transformers is not expected to be sufficient to contain the level of loop flows historically observed.

d. Considering that that several Member States implemented an action plan in accordance with Article 15 of the Regulation 2019/943 among which the Federal Republic of Germany, TenneT expects that identified structural congestions in neighboring bidding zones will not disappear on short term. Consequently, loop flows are expected to continue to remain above an acceptable level according to Article 16(8) of Regulation 2019/943, at least for the duration of this derogation.

(10) The second ground to request a derogation is the foreseeable possible lack of redispatching potential to allow TenneT to comply with Article 16(8) of Regulation 2019/943 without endangering operational security when the grid is in an outage situation:

a. Considering that the grid investment plan in the Netherlands includes upgrades of existing corridors, situations of long duration outages are expected to occur with a certain frequency and are, as such, considered as foreseeable.

b. These grid investments are required to keep the grid fit for purpose considering the future energy mix as a result of set climate goals (e.g. Klimaatakkoord, dd. 28 June 2019) and in order to comply with the obligations on the minimum capacity to be made available for cross-zonal trade as set by Regulation 2019/943.

c. In a planned or unplanned outage situation, the grid capacity is reduced and internal flows on the remaining critical network elements increase compared to the grid situation where the outage is not present.

d. It can occur that the available internal redispatching potential is insufficient to comply with Article 16(8) of Regulation 2019/943 while coping with the increased level of internal flows due to the outage situation.

e. The fact that the day-ahead capacity calculation methodologies for the Core, Hansa and Channel CCRs as referred to in Article 21 of the CACM Regulation are not yet implemented, prevents that TenneT can rely on RCCs to conclude that available remedial actions in the CCR or between CCRs are not sufficient to reach the linear trajectory while respecting operational security limits in accordance with Article 16(3) of the Regulation 2019/943

f. The fact that the SOGL 76 methodology and CACM 35 methodology are not yet in place and are not expected to be in place before 31 December 2021, prevents TenneT to structurally rely on cross-border remedial actions. Especially in situations with (locally) limited domestic redispatch potential, cross-border remedial actions can provide efficient measures to maintain operational security. Existing bilateral redispatching contracts do

not enable a structural use due to the manual procedures involved and the limited visibility on the future availability of redispatching potential.

g. The request for derogation in outage situations is expected to become less relevant in the future thanks to the implementation of the methodologies listed in paragraph 5 which will give more structural redispatching possibilities.

(11) This request for derogation is compliant with the Regulation 2019/943, more specifically Article 16(9), since:

a. The grounds to request this derogation are foreseeable, as set out in paragraph 8 to 10.

b. The derogation is required to maintain operational security as set out in paragraph 8 to 10.

c. The extent of the derogation is strictly limited to what is necessary:

i. Acknowledging the limitations by the absence of the CACM and SOGL methodologies listed in paragraph 5, the redispatch potential structurally available to TenneT will be used to solve congestions in the day-ahead timeframe after the day-ahead market coupling took place. Only if the operational security cannot be maintained (amongst others due to a lack of redispatch potential), the capacity for cross-zonal trade set in the capacity calculation process is reduced.

ii. The methodological approach described in 0 allows taking assumptions as late as possible in the capacity calculation process, that is, with the most accurate information related to the grid situation. This approach reduces the extent of the derogation compared to an approach where fixed values would have been defined and included directly in the derogation. The methodological approach avoids under- or overestimating the actual need for a derogation. Indeed, a fixed value approach would lead to unnecessary security margins considering the variety of situations to be covered, the intrinsic uncertainty of grid operation and the lack of visibility on the intentions of neighbouring Member States regarding their approach for implementing Article 16 of Regulation 2019/943, and possibly Article 15 of the same regulation. Given the fact that loop flows follow a variable pattern by nature, the inefficiency of a fixed value approach would be significant and structural.

d. The derogation avoids undue discrimination between internal and cross-zonal exchanges: the methodological approach as described in Article 3 ensures that, even in presence of loop flows above an acceptable threshold, the accepted level of internal flows accounted for in the capacity calculation is reduced in order to avoid discrimination between internal and cross-zonal exchanges in case the minimum capacity available for cross-zonal trade is below the level as set by the linear trajectory.

SUBMITS THE FOLLOWING REQUEST FOR DEROGATION FROM THE IMPLEMENTATION OF THE MINIMUM LEVEL OF CAPACITY TO BE MADE AVAILABLE FOR CROSS-ZONAL TRADE FOR APPROVAL TO THE AUTHORITY FOR CONSUMERS AND MARKETS

Article 1. Subject matter and scope

(1) This request for derogation is a request of TenneT to derogate from the implementation of the minimum capacity available for cross-zonal trade as established in Article 16(8) and in accordance with Article 16(9) of the Regulation 2019/943.

(2) This request for derogation is based on two different reasons to deviate from the minimum levels of capacity to be made available for cross-zonal trade as set by Article 16(8) of Regulation 2019/943: (i) loop flows above an acceptable level, as detailed in d and justified in paragraph 9 of the whereas section and (ii) outages, as detailed in (7) and justified in paragraph 10 of the whereas section.

(3) The minimum capacity available for cross-zonal trade taking into account this request for derogation, will be implemented for as long as operational security limits can be respected. The state of The Netherlands shall ensure that, in accordance with Article 15(2) of Regulation 2019/943, without prejudice to derogations granted under Article 16(9) of Regulation 2019/943, the cross-zonal trade capacity is increased on an annual basis until the minimum capacity provided for in Article 16(8) of Regulation 2019/943 is reached. Deviations will be reported to ACM on a monthly basis along with a justification on which foreseeable ground(s) the deviation was required in order to respect operational security limits.

(4) This request for derogation is made to ACM in accordance with Article 16(9) of Regulation 2019/943.

(5) Ultimately 1 July 2021, TenneT shall submit a report to ACM detailing the developments on methodologies and projects that shall provide a long-term solution to the issue that this derogation seeks to address, in accordance with Article 16(9) of Regulation 2019/943.

Article 2. Definitions and interpretation

(1) For the purpose of this request for derogation, the terms used in this document shall have the meaning of the definitions included in Article 2 of the day-ahead capacity calculation methodology for the Core CCR as referred to in Article 21 of the CACM Regulation (hereinafter referred to as "Core DA CCM") and the Central-Western Europe (hereinafter referred to as "CWE") Flow-Based Market Coupling Approval Package.

(2) In this derogation request, unless the context requires otherwise:

a. The singular indicates the plural and vice versa;

b. The table of contents, headings and examples are inserted for convenience only and do not affect the interpretation of this derogation request;

c. Any reference to legislation, regulations, directive, order, instrument, code or any other enactment shall include any modification, extension or re-enactment of it then in force.

Article 3. Methodological approach for derogation

(1) The approach used in this request for derogation defines principles and calculation rules including, where needed, mathematical formulas. These principles and calculation rules are applied to the day-ahead capacity calculation process as applied in the CWE coordination area,, or as applied in the Core CCR once the day-ahead capacity calculation process in Core CCR is fully implemented.

(2) More specifically, the methodological derogation takes the common grid models (24 in total, 1 for each hour) delivered as part of the day-ahead capacity calculation process as basis and applies the following principles:

a. After the initial flow-based calculation, the loop flows are calculated and the resulting minimum capacity available for cross-zonal trade is applied on the Dutch CNECs as detailed in d. For the avoidance of doubt, if the loop flows are below the acceptable level defined in paragraph 2 of d, the minimum capacity remains equal to the minimum capacity provided for by the linear trajectory.

b. During the verification/validation phase, operational security limits are assessed. This implies the detection of congestion and the relieve of congestion through the application of remedial actions, non-costly and costly. For this reason, the capacity domain used during the verification/validation phase shall include the application of the derogation on loop flows pursuant to d.

c. As long as operational security limits of the transmission system can be respected, the minimum capacity resulting from the intermediate flow-based calculation is provided to the day-ahead market. If operational security limits of the transmission system cannot be respected, the available capacity for cross-zonal trade is reduced to a level that respects these operational security limits.

d. The minimum capacity available for cross-zonal trade on each CNEC shall in any case respect commonly coordinated minimum values as defined in paragraph 6 of Article 4.

Article 4. Loop flows

(1) The application of a derogation for loop flows above an acceptable level entails the following steps:

a. Step 1: define the acceptable level of loop flows LF_{accept} per CNEC, as further detailed in paragraph 2.

b. Step 2: calculate the loop flows LF_{calc} per CNEC, as further detailed in paragraph 3.

c. Step 3: define the minimum capacity for cross-zonal trade taking into account the results of the previous steps, as further detailed in paragraphs 4 to 6.

(2) Article 16(8) of Regulation 2019/943 prescribes that the total amount of 30% can be used for the reliability margins, loop flows and internal flows on each critical network element. This derogation defines the acceptable level of loop flows (LF_{accept}) for the different types of critical network elements as follows:

a. Cross-border critical network elements: the acceptable level of loop flows is equal to the difference between 30% of the capacity of a CNEC respecting their operational security limits and the corresponding reliability margins of these CNECs.

b. Internal critical network elements: in order to avoid discrimination between internal and loop flows, it is considered that the acceptable level of loop flows is equal to half of the difference between 30% of the capacity of a CNEC respecting their operational security limits and the corresponding reliability margins of these CNECs.

(3) The loop flows LF_{calc} are calculated in the day-ahead capacity calculation process as follows:

a. The common grid model (hereinafter "CGM") used during the initial flow-based calculation shall be used.

b. The zero-balanced grid model is obtained by shifting the net positions of the common grid model CGM to zero:

$$F_0 = F_{ref} - \mathbf{PTDF}\,\overrightarrow{NP}_{ref}$$

With:

i. F_0: flow derived from the zero-balanced common grid model, to approximate a situation without any commercial exchange between bidding zones within the region for which the capacity calculation is performed.

ii. F_{ref}: flow per CNEC in the CGM.

iii. *PTDF*: power transfer distribution factor matrix for all bidding zones in the region for which the capacity calculation is performed and all CNECs.

iv. NP_{ref} : net positions per bidding zone of the region for which the capacity calculation is performed, as included in the CGM.

c. Apply flow decomposition to derive the loop flows and internal flows on each CNEC using Full Line Decomposition (FLD) method.[2] As the capacity available for cross-zonal trade is calculated in F0, loop flows are defined as a share of F_0.

d. For a given CNEC, LF_{calc} is equal to the sum of loop flows computed following paragraph c, divided by the maximum capacity of that CNEC according to its operational security limits.

(4) For a given CNEC, the minimum capacity to be made available for cross-zonal trade $MACZT_{min}$ is then equal to:

$$MACZT_{min} = MACZT_{target} - max\left(0; LF_{calc} - LF_{accept}\right)$$

Where $MACZT_{target}$ refers to the level of minimum capacity to be made available for cross-zonal trade on the given CNEC according to the linear trajectory.

(5) The minimum capacity for cross-zonal trade to be made available for commercial exchanges inside a capacity coordination area (MCCC), results from the minimum capacity $MACZT_{min}$ as defined in previous paragraph reduced by cross-zonal flows assumed to result from commercial exchanges outside the capacity coordination area (MNCC) following the method as defined in Article 17(4) of the Core DA CCM.

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[2] A detailed explanation of the FLD method is published in "CIGRE Science & Engineering, issue 9 (CSE 009)"

(6) As a result of this derogation, the minimum capacity for cross-zonal trade on each CNEC shall not be below 20% of the maximum capacity of that CNEC according to its operational security limits.

(7) TenneT will publish data on the effects of the application of the formulas in this article as part of the regular publications on the results of the day-ahead capacity calculation process as applied in the CWE coordination area, or as applied in the Core CCR once the Core DA CCM is fully implemented.

(8) In accordance with Article 1(3), deviations from the formulas in this article will be reported to ACM on a monthly basis along with a justification why the deviation was required in order to respect operational security limits.

Article 5. Outages

(1) In principle, even when one or several critical network elements are in outage, TenneT shall aim to apply the same minimum capacity available for cross-zonal trade as defined pursuant to d, by using if needed non-costly and costly remedial actions. For the purpose of this article, critical network elements shall include cross-border HVDC cables and their converter stations.

(2) In case operational security limits cannot be respected when one or several critical network elements are in outage, the available capacity for cross-zonal trade on these network elements is reduced to the level that respects the relevant operational security limits. In case of a reduction, this will be reported to ACM along with a justification in accordance with Article 1(3).

Article 6. Extent and duration of the derogation

(1) The derogation regarding loop flows in accordance with Article 4 shall be applicable to all Dutch CNECs included in the CWE and Core day-ahead capacity calculation process.

(2) e derogation regarding outages in accordance with Article 5 shall be applicable to all Dutch CNECs included in the CWE and Core day-ahead capacity calculation process and to all cross-border HVDC cables and their convertor stations.

(3) This derogation shall apply for the duration of one year, as of its approval by ACM, starting from 1 January 2021.

Article 7. Language

The reference language for this derogation request is English.

Article 8. Confidentiality

The information provided by TenneT to ACM for this derogation request does not have to be treated as confidential unless stated or agreed otherwise.

MEMORANDUM

TO	Autoriteit Consument en Markt	**CLASSIFICATION**	C1 - Public Information
		DATE	July 15, 2020
		REFERENCE	REG-N 20-039 Bijlage 2
		FROM	[redacted]

SUBJECT Explanatory note on changes of derogation request 2021 compared to 2020

FOR INFORMATION ■

FOR DECISION-MAKING ☐

1. Background

In December 2020, upon request of TenneT TSO B.V (hereinafter 'TenneT'), ACM granted TenneT a derogation for one year from the minimum level of capacity to be made available for cross-zonal trade, in accordance with article 16(9) of Regulation (EU) 2019/943 (hereinafter the "current derogation"). The current derogation is valid for the period 1 January 2020 to 31 December 2020. Now, TenneT requests ACM to grant a comparable derogation (hereinafter the "derogation request") for the period 1 January 2021 to 31 December 2021.

This note provides an overview and explanation of the elements which are different in this derogation request, compared to the current derogation.

2. Overview of main changes

Changed element	Explanation	Paragraph / section affected
Removal of the request for a derogation for performing a parallel run for the purpose of developing, testing and executing now processes and tools	The parallel run for the purpose of developing, testing and executing new processes and tools was a one-time effort required for implementing the relevant provisions from Regulation (EU) 2019/943, and was finished by TenneT per 1 April 2020. Therefore, a derogation for this purpose is no longer deemed necessary and thus not included in this derogation request.	Removal of whereas (9) and Article 6 of the current derogation
Inclusion of references to the decision of the Ministry of Economic Affairs and Climate Policy of the Netherlands to establish an action plan and a linear trajectory for the minimum capacity available for cross-zonal trade	At the time the current derogation was submitted to ACM (October 2019), only references could be made to a possible future decision of the Ministry of Economic Affairs and Climate Policy of the Netherlands on the establishment of an action plan. In December 2019, the Ministry indeed established an action plan and a linear trajectory. In the derogation request updates have been made to explicitly refer to this decision and the linear trajectory.	Whereas 2, 9(d), and 11(d) Article 3(2)(a) and 4(4)

Changed element	Explanation	Paragraph / section affected
Inclusion in whereas of decisions of ACM to grant a derogation for the year 2020	This decision of ACM to grant the current derogation is relevant for this derogation request as it clarifies that this derogation request is not the first derogation that TenneT applies for. Also, it is indicated that one of the two submitted applications for a derogation was retracted by TenneT.	Whereas 4
Inclusion of CCR Hansa and CCR Channel day-ahead capacity calculation methodologies as key methodologies to manage flows in the electricity grid	The DA CCM of CCR Hansa and CCR Channel are also key methodologies to manage flows in the electricity grid, and should therefore be mentioned as well. By doing so, whereas 5 is also made more consistent; In the current derogation in whereas 5(a), only a reference to the DA CCM of CCR core was made, while for the other key methodologies in whereas 5(b-d) no reference to a specific CCR was made.	Whereas 5(a)
Inclusion of reflection on article 16(3) of Regulation (EU) 2019/943	This paragraph is added in order to justify why the procedures from article 16(3) of Regulation (EU) 2019/943 cannot (yet) be relied upon by TenneT as a measure of last resort in case of insufficient remedial actions, and that therefore a derogation is required	Whereas 6 and 10(e)
Clarified the general principle that TenneT is committed to provide a minimum level of capacity for cross-zonal trade	The principle that TenneT is committed to provide a commonly coordinated minimum level of capacity (e.g. 20% minRAM in CWE FB DA Capacity Calculation) was already included in the current derogation in article 4(6), but it was not explicitly included in the methodological approach of article 3. This commitment is now explicitly included in the derogation.	Article 3(2)(d)
Adjusting the loop flow provisions to ensure compatibility with both the current CWE and the future Core day-ahead capacity calculation process.	In the current derogation, the formulas explicitly refer to the day-ahead capacity calculation taking place in the CWE region. As it is expected that the CWE day-ahead capacity calculation will be replaced by the day-ahead capacity calculation in CCR Core during 2021, several elements had to be adjusted such that the provisions from the derogations are compatible with and will apply to both capacity calculation processes.	Article 3(2)(b), 4(3), 6(1), and 6(2)

Changed element	Explanation	Paragraph / section affected
Change of grid model used to calculate loop flows	In the Core day-ahead capacity calculation process, limited time is available to perform loop flow calculations after the automated coordination of remedial actions. Hence, loop flows need to be calculated based on the initial grid model. Analyses have shown only marginal differences in calculated loopflows are to be expected.	Article 3(2)(a)
Renamed parameters in formula on minimum capacity resulting from the loop flow derogation	Several parameters are renamed to better reflect the parameter names as used by ACER in its recommendation No 01/2019, and to clarify the relationship between the linear trajectory of the action plan and the loop flow derogation	Article 4(4)
Clarifying the scope of the outage derogation w.r.t. HVDC cables and their convertor stations (NorNed, COBRAcable, BritNed).	Given that in the current derogation the focus is mostly on the loop flow derogation and the CWE flow-based capacity calculation process, it was not sufficiently clear that the HVDC cables and converter stations which constitute borders for coordinated NTC capacity calculation processes are also in the scope of the derogation.	Article 5(1) and 6(2)
Inclusion of unplanned outages as possible reason to deviate from the minimum level of capacity to be made available for cross zonal trade	Regulation (EU) 2019/943 is unclear on whether the occurrence of an unplanned outage is a justified reason to deviate from the minimum level of capacities which are to be provided for cross-zonal trade. Just as for planned outages, TenneT considers unplanned outages a valid reason to deviate as this effect of the outage does not depend on whether an outage is planned or unplanned; in both a planned and unplanned outage situation, the physical grid capacity is reduced and internal flows on the remaining critical network elements are increased compared to the grid situation where the outage is not present. Therefore, TenneT made some changes to the derogation request to clarify that unplanned outage can also be a valid reason for a reduction for reasons of operational security. Of course, such a reduction is subject to relevant provisions from the Regulations and this derogation ensuring that all available effective non-costly and costly remedial actions have been applied, and that reductions are duly reported to ACM.	Whereas 10(c), and Article 5(2)

Changed element	Explanation	Paragraph / section affected
Clarification and additional specifications of reporting obligations as result of the derogation request	TenneT clarified on how it will report to ACM on the impact of the derogation: • Inclusion of a provision that TenneT will submit a report to ACM on the progress with methodologies and projects that shall provide a solution to the issue that the derogation seeks to address, including a specific timeline for the report; • Inclusion of new provision that all data on the effects of the loop flow derogation will be published as part of the regular publications on the results of the day-ahead capacity calculation process (in accordance with current voluntary practice for CWE FB DA CC on jao.eu); and • Specified that TenneT will additionally report to ACM in case of deviations from the formulas in the loop flow derogation of article 4	Article 1(5) Article 4(7) Article 4(8)

All changes other than listed above, should be regarded as general improvements to the text but not as changes to the content of the derogation.

Request of TenneT TSO B.V. for ~~a~~ derogation from the minimum level of capacity to be made available for cross-zonal trade

in accordance with Article 16(9) of Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity (recast)

~~**31 October 2019**~~

15 July 2020

Contents

THE DUTCH TRANSMISSION SYSTEM OPERATOR TENNET TSO B.V. TAKING INTO ACCOUNT THE FOLLOWING,

Whereas

(1) Article 16(8) of the Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity (recast), hereinafter the "Regulation 2019/943", prescribes that TSOs shall not limit the volume of interconnection capacity to be made available to market participants as a means of solving congestion inside their own bidding zone, or as a means of managing flows resulting from transactions internal to bidding zones. The same article also defines that this requirement shall be considered to be complied with if a minimum level of available capacity for cross-zonal trade is reached. For borders using a flow-based approach, this level ~~(hereinafter referred to as the "70% requirement")~~ is set to 70% of the capacity respecting operational security limits of internal and cross-zonal critical network elements taking into account contingencies (hereinafter referred to as "CNECs"). Transitory measures, such as action plans pursuant to Article 15 of the Regulation 2019/943 or derogations pursuant to Article 16(9) of the same regulation, allow a step-wise approach for reaching this minimum capacity, ultimately by 31 December 2025.

~~(1)~~(2) In December 2019, the Ministry of Economic Affairs and Climate Policy of the Netherlands has established an action plan pursuant to Article 15 of Regulation 2019/943. In accordance with Article 15(2) of Regulation 2019/943, the action plan has established a linear trajectory for the minimum capacity ~~to made~~ available for cross-zonal trade to be compliant with Article 16(8) of Regulation 2019/943 (hereinafter referred to as "linear trajectory").

(3) Article 16(9) of Regulation 2019/943 prescribes that upon request of transmission system operators in a capacity calculation region (hereinafter "CCR"), the relevant regulatory authorities may grant a derogation from ~~the 70% requirement~~Article 16(8) of Regulation 2019/943 on foreseeable grounds where necessary for maintaining operational security. The derogation shall be granted for no more than one year at a time, or, provided that the extent of the derogation decreases significantly after the first year, up to a maximum of two years. The extent of such a derogation shall be strictly limited to what is necessary to maintain operational security and shall avoid discrimination between internal and cross-zonal exchanges.

~~(2)~~(4) In October 2019, TenneT TSO B.V. (hereinafter referred to as "TenneT") applied for two derogations in accordance with article 16(9) of Regulation 2019/943. In anticipation of a decision of the Ministry of Economic Affairs and Climate Policy of the Netherlands to establish an action plan pursuant to Article 15 of Regulation 2019/943, TenneT retracted one of the two applications for ~~a~~ derogation on 18 December 2020. The other application for a derogation was approved by the Dutch national regulatory Authority for Consumers and Markets (hereinafter "ACM") on 20 December 2020, for the duration of 1 year from 1 January 2020 until 31 December 2020.

~~(3) Article 16(4) of Regulation 2019/943 prescribes that counter-trading and redispatch, including cross-border redispatch, shall be used to reach the 70% requirement. However, this article stipulates that the application of cross-border measures is subject to the implementation of a redispatching and counter-trading cost sharing methodology. This methodology is not yet implemented in the capacity calculation regions in which TenneT TSO B.V. (hereinafter referred to as "TenneT") is a represented member.~~

~~(4)~~(5) The Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on Capacity Allocation and Congestion Management (hereinafter referred to as the "CACM Regulation") and the Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation (hereinafter referred to as the "SOGL Regulation") require TSOs to deliver some methodologies which are key to managing the flows in

the electricity grid via coordinated capacity calculation and coordinated application of remedial actions. These key methodologies are:

a. The Day-Ahead Capacity Calculation Methodologiesy for the Core Capacity Calculation RegionCCRs in which TenneT is a represented member, as referred to in Article 21 of the CACM Regulation; (hereinafter referred to as "Core DA CCM");

b. The operational security coordination methodology as referred to in Article 76 of the SOGL Regulation (hereinafter referred to as "SOGL 76 methodology");

c. The coordinated redispatching and countertrading methodology as referred to in Article 35 of the CACM Regulation (hereinafter referred to as "CACM 35 methodology"); and

d. The redispatching and countertrading cost sharing methodology as referred to in Article 74 of the CACM Regulation (hereinafter referred to as "CACM 74 methodology").

Acknowledging that none ofall these key methodologies from the CACM Regulation and SOGL regulation Regulation are not yet implemented yet, TenneT cannot rely on these methodologies as a structural basis in order to implement reach the linear trajectory pursuant to Article 15(2) of Regulation 2019/943 or the minimum capacity provided for in 70% requirementminimum capacity available for cross-zonal trade as set by the linear trajectory described in the Dutch action plan in accordance with Article 15(2) of Regulation 2019/943, Article 16(8) of Regulation 2019/943 per 1 January 2021.20202021 on a structural basis. Also, it is not foreseen that all of the key methodologies listed above will be implemented before 31 December 2021.

(6) Article 16(3) of Regulation 2019/943 prescribes that Rregional coordination centrescenters (hereinafter "RCCs") shall carry out a coordinated capacity calculation in accordance with Article 16(4) and Article 16(8) of Regulation 2019/943. Article 16(3) of Regulation 2019/943 also prescribes that where RCCs conclude that those available remedial actions in the CCR or between CCRs are not sufficient to reach the linear trajectory pursuant to Article 15(2) of Regulation 2019/943 or the minimum capacities provided for in paragraph 16(8) of Regulation 2019/943 while respecting operational security limits, they may, as a measure of last resort, set out coordinated actions reducing the cross-zonal capacities accordingly.

However, acknowledging the fact that the RCCs are not yet carrying out the coordinated capacity calculation as not all of the coordinated capacity calculation methodologies are fully implemented in the CCRs in which TenneT is a represented member, TenneT cannot yet rely on the RCCs to:

a. eConclude whether or not those available remedial actions in the CCR or between CCRs are sufficient to reach the linear trajectory pursuant to Article 15(2) of Regulation 2019/943 or the minimum capacities provided for in paragraph 16(8) of Regulation 2019/943; and

b. sSet out coordinated actions to reduce the cross-zonal capacities accordingly if necessary to respect operational security limits.

(5)(7) Article 16(4) of Regulation 2019/943 prescribes that counter-trading and redispatch, including cross-border redispatch, shall be used to reach the minimum capacity provided for in Article 16(8) of Regulation 2019/943. However, this article stipulates that the application of cross-border measures is subject to the implementation of a redispatching and counter-trading cost sharing methodology. This methodology is also not yet implemented in the CCRs in which TenneT is a represented member.

(6)(8) The rationale and objectives of this derogation have been studied and discussed between TenneT, the Dutch national regulatory Authority for Consumers and Markets (hereinafter "ACM"),

and the Dutch State. In order to be compliant with the Regulation 2019/943, given the limitations that several key methodologies tofor managing the flows in the electricity grid are not yet implemented and operational as set out in paragraph 5-7, and given that the current derogation in accordance with Article 16(9) of Regulation 2019/943 only applies until 31 December 2020, TenneT decided to apply again for a derogation from the 70% requirementArticle 16(8) of Regulation 2019/943. This derogation is applied for on the basis of threetwo foreseeable grounds.

(7)(9) The first foreseeable ground to request a derogation is an the foreseeable externality, being that loop flows on Dutch CNECs cannot be contained to an acceptable level as they are not under the control of TenneT, which contributes in creating an operational security risk if the 70% requirementminimum capacity provided for in Article 16(8) of Regulation 2019/943 would be directly be applied per 1 January 2020:

a. From Article 16(8) of Regulation 2019/943 it can be understood that the maximum acceptable level of loop flows is defined as the amount of loop flows which, together with the reliability margins and the internal flows, uses 30% of capacity of a CNEC respecting their operational security limits.

b. Historical analyses of data from the period January 2017 until July 2019 have shown that the average level of loop flows on Dutch presolved CNECs is usually above 30% of the total power flow and can amount up to almost full capacity usage on specific hours, which is exceeding the level that would allow meeting the requirements set in Article 16(8) of the Regulation 2019/943.

c. Loop flows created in neighbouring bidding zones are a consequence of their grid topology in combination with a sub-optimal generation and load distribution which cannot expected to be contained by using the redispatch potential available in the Netherlands. Phase Shifting Transformers located at the North-Eastern border of the Netherlands can help partially limiting the loop flows, but even an optimised utilisation of these transformers is not expected to be sufficient to contain the level of loop flows historically observed.

d. Considering that the possibility forthat several Member States to implementimplemented an action plan in accordance with Article 15 of the Regulation 2019/943 and the fact that a structural congestion report has been handed in toamong which the German SFederal tateRepublic of Germany, TenneT expects that identified structural congestions in neighboring bidding zones will not disappear on short term. Consequently, loop flows are expected to continue to remain above an acceptable level according to Article 16(8) of Regulation 2019/943, at least for the duration of this derogation.

(8)(10) The second foreseeable ground to request a derogation is the foreseeable possible lack of redispatching potential to allow TenneT to follow comply with the 70% requirementArticle 16(8) of Regulation 2019/943 without endangering operational security when the grid is in an outage situation:

a. Considering that the grid investment plan in the Netherlands includes upgrades of existing corridors, situations of long duration outages are expected to occur with a certain frequency and are, as such, considered as foreseeable.

b. These grid investments are required to keep the grid fit for purpose considering the future energy mix as a result of set climate goals (e.g. Klimaatakkoord, dd. 28 June 2019) and toin order to comply with the obligations on the minimum capacity to be made available for cross-zonal trade as set by Regulation 2019/943 increase capacity available for cross-zonal trade while avoiding an increase of congestions on CNECs in the future.

c. In a planned or unplanned outage situation, the grid capacity is reduced and internal flows on the remaining critical network elements increase compared to the grid situation where the outage is not present.

d. It can occur that the available internal redispatching potential is insufficient to ~~meet the~~ comply with Article 16(8) of Regulation 2019/943 ~~70% requirement~~ while coping with the increased level of internal flows due to the outage situation.

e. The fact that the day-ahead capacity calculation methodologies for the Core, Hansa and Channel CCRs as referred to in Article 21 of the CACM Regulation are not yet implemented, prevents that TenneT can rely on RCCs to conclude that available remedial actions in the CCR or between CCRs are not sufficient to reach the linear trajectory while respecting operational security limits in accordance with Article 16(3) of the Regulation 2019/943

~~e.~~f. The fact that the SOGL 76 methodology and CACM 35 methodology are not yet in place and are not expected to be in place before 31 December 2021, prevents TenneT to structurally rely on cross-border remedial actions. Especially in situations with (locally) limited domestic redispatch potential, cross-border remedial actions can provide efficient measures to maintain operational security. Existing bilateral redispatching contracts do not enable a structural use due to the manual procedures involved and the limited visibility on the future availability of redispatching potential. ~~RCCs~~

~~f.~~g. ~~Requests~~The request for derogation ~~due to~~in outage situations ~~are~~is expected to become less ~~frequent~~relevant in the future thanks to the implementation of the methodologies listed in ~~the previous~~ paragraph 5 which will give more structural redispatching possibilities.

~~(9) The third foreseeable ground to request a derogation is the operational security risk introduced by the development of new tools and processes. The minimum capacity available for cross-zonal trade as set by the 70% requirement or a linear trajectory in accordance with Article 15(2) of Regulation 2019/943 in case of an established and implemented action plan, would have to be applied by the development of new processes and tools to offer higher capacities for cross-zonal trade to the market in combination with the introduction of new tools and processes enabling the implementation of this request for derogation:~~

~~a. The implementation of the minimum capacity available for cross-zonal trade should lead to more capacity given to the market which is expected to require a more extensive application of remedial actions, in accordance with Article 16(4) of Regulation 2019/943. The operational experience for processes with an extensive application of remedial actions is currently limited.~~

~~b. This request for derogation, which applies a methodological approach as detailed in Article 3, leads to the need to develop additional tools to correctly account for the effect of the loop flows above an acceptable level in accordance with Article 4. The application of a linear trajectory in case of an established action plan in accordance with Article 15 of Regulation 2019/943, leads to the need to enhance these tools to correctly determine the minimum capacity available for cross-zonal trade per CNEC including time to acquire sufficient experience and stabilize the tools to ensure the quality and stability of the results, which in turn are needed to ensure operational security.~~

~~c. In general, the overall effect on capacities offered to the market and on the extent of application of remedial actions can be assessed only when the situation in all countries having an influence on each other's grid is known. As of 1st January 2020, action plans pursuant to Article 15 of Regulation 2019/943 and derogations pursuant to Article 16(9)~~

~~of Regulation 2019/943 may be applied by different Member States. The application of these measures and/or their extent is currently unknown by TenneT. Therefore TenneT is not in a position to ensure that its grid operators will have the relevant and required experience to ensure operational security as of 1st January 2020.~~

~~d. While the development of these new tools is ongoing at the time of the submission of this request for derogation, the short time between the publication of Regulation 2019/943 and the entry into force of the 70% requirement, together with:~~

~~i. the discussions related to the interpretation of the Regulation 2019/943 at national, regional and European level;~~

~~ii. the discussion related to the requirements of a structural congestion report at national level;~~

~~iii. the study performed by TenneT on request of the ACM on the extent in which the 70% requirement is met for the capacity made available for cross-zonal trade in the day-ahead market~~

~~did not allow TenneT to anticipate much on the development of these tools. An additional period of 3 months is required to develop, stabilize and acquire experience with the tools and as such secure the quality and stability of the results, which in turn is needed to maintain operational security.~~

~~To mitigate the identified operational security risk, TenneT requests a transition period to acquire the required experience on the processes and to complete the implementation and testing of the tools to ensure the quality and stability of the processes and results. During this period, a so-called parallel run approach shall be applied, as described in Article 6.~~

~~(10)~~(11) This request for derogation is compliant with the Regulation 2019/943, more specifically Article 16(9), since:

a. The grounds to request this derogation are foreseeable, as ~~developed~~ set out in paragraph ~~4~~ 8 to ~~8~~10.

b. The derogation is required to maintain operational security as set out in paragraph ~~4~~ 8 to ~~8~~10.

c. The extent of the derogation is strictly limited to what is necessary:

   i. Acknowledging the limitations by the absence of the CACM and SOGL methodologies listed in paragraph ~~4~~5, the redispatch potential structurally available to TenneT will be used to solve congestions in the day-ahead timeframe after the day-ahead market coupling took place. Only if the operational security cannot be maintained (amongst others due to a lack of redispatch potential), the capacity for cross-zonal trade set in the capacity calculation process is reduced.

   ii. The methodological approach described in ~~0~~0~~Article 3~~ allows taking assumptions as late as possible in the capacity calculation process, that is, with the most accurate information related to the grid situation. This approach reduces the extent of the derogation compared to an approach where fixed values would have been defined and included directly in the derogation. The methodological approach avoids under- or overestimating the actual need for a derogation. Indeed, a fixed value approach would lead to unnecessary security margins considering the variety of situations to be covered, the intrinsic uncertainty of

grid operation and the lack of visibility on the intentions of neighbouring Member States regarding their approach for implementing Article 16 of Regulation 2019/943, and possibly Article 15 of the same regulation. Given the fact that loop flows follow a variable pattern by nature, the inefficiency of a fixed value approach would be significant and structural.

d. The derogation avoids undue discrimination between internal and cross-zonal exchanges: the methodological approach as described in Article 3 ensures that, even in presence of loop flows above an acceptable threshold, the accepted level of internal flows accounted for in the capacity calculation is reduced in order to avoid discrimination between internal and cross-zonal exchanges in case the minimum capacity available for cross-zonal trade is below the level as set by the linear trajectory~~70% requirement or as set by a linear trajectory in accordance with Article 15(2) of Regulation 2019/943 in case of an established and implemented action plan~~.

SUBMITS THE FOLLOWING REQUEST FOR DEROGATION FROM THE IMPLEMENTATION OF THE MINIMUM LEVEL OF CAPACITY TO BE MADE AVAILABLE FOR CROSS-ZONAL TRADE FOR APPROVAL TO THE AUTHORITY FOR CONSUMERS AND MARKETS

Article 1. Subject matter and scope

(1) This request for derogation is a request of TenneT to derogate from the implementation of the minimum capacity available for cross-zonal trade as established in Article 16(8) and in accordance with Article 16(9) of the Regulation 2019/943.

(2) This request for derogation is based on ~~three~~two different reasons to deviate from the minimum levels of capacity to be made available for cross-zonal trade as set by Article 16(8) of Regulation 2019/943~~70% requirement~~: (i) loop flows above an acceptable level, as detailed in ~~dd~~Article ~~4~~ and justified in paragraph ~~9~~6 of the whereas section~~,~~ and (ii) outages, as detailed in (7)~~(7)~~Article ~~5~~ and justified in paragraph ~~7~~ 10 of the whereas section ~~and (iii) new processes and tools, as detailed in Article 6 and justified in paragraph 8 of the whereas section.~~.

(3) The minimum capacity available for cross-zonal trade ~~as defined by,~~ taking into account this request for derogation, will be implemented for as long as operational security limits can be respected. ~~In case this derogation shall coincide with an established and implemented action plan, the Dutch State~~ The state of The Netherlands shall ensure that, in accordance with Article 15(2) of Regulation 2019/943, without prejudice to derogations granted under Article 16(9) of Regulation 2019/943, the cross-zonal trade capacity is increased on an annual basis until the minimum capacity provided for in Article 16(8) of Regulation 2019/943 is reached. Deviations will be reported to ACM on a monthly basis along with a justification on which foreseeable ground(s) ~~why~~ the deviation was required in order to respect operational security limits.

(4) This request for derogation is ~~subject to approval by~~made to ACM in accordance with Article 16(9) of ~~the~~ Regulation 2019/943.

(5) Ultimately 1 July 2021, TenneT shall submit a report to ACM detailing the developments on methodologies and projects that shall provide a long-term solution to the issue that this derogation seeks to address, in accordance with Article 16(9) of Regulation 2019/943.

Article 2. Definitions and interpretation

(1) ~~For the purpose of this request for derogation, the terms used in this document shall have the meaning of the definitions included in Article 2 of the Regulation 2019/943, Article 2 of the CACM Regulation, Article 2 of the~~ For the purpose of this request for derogation, the terms used in this document shall have the meaning of the definitions included in Article 2 of the day-ahead capacity calculation methodology for the Core CCR as referred to in Article 21 of the CACM Regulation (hereinafter referred to as "Core DA CCM")~~Core DA CCM~~ and the Central-Western Europe (hereinafter referred to as "CWE") Flow-Based Market Coupling Approval Package.

(2) In this derogation request, unless the context requires otherwise:

a. The singular indicates the plural and vice versa;

b. The table of contents, headings and examples are inserted for convenience only and do not affect the interpretation of this derogation request;

c. Any reference to legislation, regulations, directive, order, instrument, code or any other enactment shall include any modification, extension or re-enactment of it then in force.

Article 3. Methodological approach for derogation

(1) The approach used in this request for derogation defines principles and calculation rules including, where needed, mathematical formulas. These principles and calculation rules are applied to the day-ahead capacity calculation process as applied in the CWE coordination area~~,~~, or as applied in the Core ~~capacity calculation region (~~CCR~~)~~ once the day-ahead capacity calculation process in Core CCR is fully implemented.

(2) More specifically, the methodological derogation takes the common grid models (24 in total, 1 for each hour) delivered as part of the ~~CWE~~ day-ahead capacity calculation process as basis and applies the following principles:

a. ~~During the qualification phase~~After the initial flow-based calculation, the loop flows are calculated and the resulting minimum capacity available for cross-zonal trade is applied ~~to~~on the Dutch CNECs as ~~per the calculation rules explained~~detailed in ~~dd~~Article ~~4~~. For the avoidance of doubt, if the loop flows are below the acceptable level defined in paragraph 2 of ~~dd~~Article ~~4~~, the minimum capacity remains equal to the ~~70% requirement or a lower~~ minimum capacity ~~as defined~~ provided for by ~~the~~the linear trajectory ~~established~~in case of an established and implemented action plan in accordance with Article 15 of Regulation 2019/943.

b. During the verification/validation phase, operational security limits are assessed. This implies the detection of congestion and the relieve of congestion through the application of remedial actions, non-costly and costly. For this reason, the capacity domain used during the verification/validation phase shall include the application of ~~a~~ the derogation on loop flows pursuant to ~~dd~~Article ~~4~~.

c. As long as operational security limits of the transmission system can be respected, the minimum capacity resulting from the ~~qualification phase~~intermediate flow-based calculation is provided to the day-ahead market. If operational security limits of the transmission system cannot be respected, the available capacity for cross-zonal trade is reduced to a level that respects these operational security limits.

d. The minimum capacity available for cross-zonal trade on each CNEC shall in any case respect commonly coordinated minimum values as defined in paragraph 6 of Article 4.

Article 4. Loop flows

(1) The application of a derogation for loop flows above an acceptable level entails the following steps:

a. Step 1: define the acceptable level of loop flows LF_{accept} per CNEC, as further detailed in paragraph 2.

b. Step 2: calculate the loop flows LF_{calc} per CNEC, as further detailed in paragraph 3.

c. Step 3: define the minimum capacity for cross-zonal trade taking into account the results of the previous steps, as further detailed in paragraphs 4 to 6.

(2) Article 16(8) of Regulation 2019/943 prescribes that the total amount of 30% can be used for the reliability margins, loop flows and internal flows on each critical network element. This derogation defines the acceptable level of loop flows (LF_{accept}) for the different types of critical network elements as follows:

a. Cross-border critical network elements: the acceptable level of loop flows is equal to the difference between 30% of the capacity of a CNEC respecting their operational security limits and the corresponding reliability margins of these CNECs.

b. Internal critical network elements: in order to avoid discrimination between internal and loop flows, it is considered that the acceptable level of loop flows is equal to half of the difference between 30% of the capacity of a CNEC respecting their operational security limits and the corresponding reliability margins of these CNECs.

(3) The loop flows LF_{calc} are calculated in the day-ahead capacity calculation process as follows:

a. The common grid model (hereinafter "CGM") ~~enriched with the coordinated application of preventive remedial actions as established~~used during the ~~qualification phase~~initial flow-based calculation shall be used.

b. The zero-balanced grid model is obtained by shifting the ~~CWE~~ net positions of the common grid model CGM to zero:

$$~~F_{0,CWE}~~F_0 = F_{ref} - ~~\mathbf{PTDF_{CWE}}~~\mathbf{PTDF}\ \overrightarrow{NP}_{ref}\ ~~\overrightarrow{NP}_{ref,CWE}~~$$

With:

i. $F_{0,CWE}$[+]: flow derived from ~~a~~ the zero-balanced common grid model, to approximate a situation without any commercial exchange between bidding zones within the ~~CWE region~~region for which the capacity calculation is performed.

ii. F_{ref}: flow per CNEC in the CGM.

iii. ~~$PTDF_{CWE}$~~ $PTDF$: power transfer distribution factor matrix for all bidding zones in the ~~CWE~~ region for which the capacity calculation is performed and all CNECs.

iv. NP_{ref}~~$_{CWE}$~~ ~~: CWE~~ : net positions per bidding zone of~~in~~ the ~~CWE~~ region for which the capacity calculation is performed, as included in the CGM.

~~As the capacity available for cross-zonal trade is calculated in F0, CWE, loop flows should be defined as a share of F_0.~~

c. Apply flow decomposition to derive the loop flows and internal flows on each CNEC using Full Line Decomposition (FLD) method.[2] As the capacity available for cross-zonal trade is calculated in F0, loop flows are defined as a share of F_0.

d. For a given CNEC, LF_{calc} is equal to the sum of loop flows computed following paragraph c, divided by the maximum capacity of that CNEC according to ~~their~~ its operational security limits.

(4) For a given CNEC, the ~~total~~ minimum capacity to be made available for cross-zonal trade $MACZT_{min}$ is then equal to:

[+] ~~As the capacity available for cross-zonal trade is calculated in $F_{0,CWE}$, loop flows should be defined as a share of $F_{0,CWE}$.~~

[2] A detailed explanation of the FLD method is published in "CIGRE Science & Engineering, issue 9 (CSE 009)"

$$\text{minimum Capacity}MACZT_{min} = MACZT_{target}\,70\% - max(0; LF_{calc} - LF_{accept})$$

Where 70% may be lowered in line with aLTMMACZT$_{target}$ refers to the level of minimum capacity to be made available for cross-zonal trade on the given CNEC as defined baccording to y the linear trajectory in case of an established and implemented action plan in accordance with Article 15(2) of Regulation 2019/943, or in case of a granted derogation[3] on the basis of insufficient time available to establish and implement an action plan.

(5) The minimum capacity for cross-zonal trade to be made available for commercial exchanges inside the a CWE capacity coordination area (MCCC), results from the minimum capacity MACZT$_{min}$ as defined in previous paragraph reduced by cross-zonal flows assumed to result from commercial exchanges outside the CWE capacity coordination area (MNCC) following the method as defined in Article 17(4) of the Core DA CCM within the context of the CWE coordination area.

(6) As a result of this derogation, the minimum capacity for cross-zonal trade on each CNEC shall not be below 20% of the maximum capacity of that CNEC according to their its operational security limits.

(7) TenneT will publish data on the effects of the application of the formulas in this article as part of the regular publications on the results of the day-ahead capacity calculation process as applied in the CWE coordination area, or as applied in the Core CCR once the Core DA CCM is fully implemented.

(8) In accordance with Article 1(3), deviations from the formulas in this article , this will be reported to ACM on a monthly basis along with a justification why the deviation was required in order to respect operational security limits.

Article 5. Outages

(1) In principle, even when one or several critical network elements are in outage, TenneT shall aim to apply the same minimum capacity available for cross-zonal trade as defined pursuant to ddArticle 4, by using if needed non-costly and costly remedial actions. For the purpose of this article, critical network elements shall include cross-border HVDC cables and their converter stations.

(2) In case operational security limits cannot be respected when one or several critical network elements are in planned outage, the available capacity for cross-zonal trade of criticalon these network elements is reduced to the level that respects thesethe relevant operational security limits. In case of a reduction, this will be reported to ACM along with a justification in accordance with Article 1(3).

Article 6. New processes and tools

(1) A parallel run will be set up for the day-ahead capacity calculation process in CWE, which means that:

[3] This derogation request is provided as a separate document

a. TenneT will develop and execute new processes and utilise local tools for the calculation of the minimum capacity for cross-zonal trade on its CNECs in accordance with this request for derogation and the 70% requirement or a lower value as defined by a linear trajectory in case of an established action plan in accordance with Article 15 of Regulation 2019/943.

b. TenneT will train their operators in order to ensure that sufficient experience with the new processes and tools is acquired to ensure operational security.

c. The capacity calculation process is run on the basis of a dataset of TenneT, combined with the datasets provided by the other TSOs in CWE:

i. For those TSOs that would also apply a parallel run, the dataset specific for the parallel run will be used. This allows, via the parallel run, to test the combined effect of the implementation of the minimum capacity requirements.

ii. For those TSOs that do not apply a parallel run, the dataset provided to the operational day-ahead flow-based process in CWE will be used.

(2) The progress on the implementation process as well as the results of the capacity calculation process of the parallel run will be reported by TenneT to the ACM on a monthly basis during the parallel run.

(3) During the parallel run, TenneT will continue to apply the currently approved methodology and practices in the CWE region to the operational day-ahead capacity calculation process in CWE. For the avoidance of doubt, the current methodology in the CWE region includes the application of a minimum capacity for cross-zonal trade on each CNEC within the CWE region equal to 20% of the maximum capacity according to the operational security limits.

~~Article 7.~~Article 6. Extent and duration of the derogation

(1) ~~This~~ The ~~request for~~ derogation regarding loop flows in accordance with Article 4 ~~is~~ shall be applicable to all Dutch CNECs ~~participating~~ included in the CWE and Core day-ahead capacity calculation process.

(2) ~~Thes request for~~ e derogation regarding ~~loop flows in accordance with Article 4 and regarding~~ outages in accordance with Article 5 ~~is~~shall be applicable to all Dutch CNECs included in the CWE and Core day-ahead capacity calculation process and to all cross-border HVDC cables and their convertor stations.

~~(2) is requested for one year. However, since these concerns as long as the key methodologies as listed in paragraph 5 of the whereas section are not yet implemented, resulting that the foreseeable grounds as listed in paragraph 9 and 10 of the whereas section will continue to exist~~are reoccurring, this ~~another derogation request for the period beyond 31 December 2022 may be resubmitted at the end of~~during the first derogation period2021. ~~The derogation regarding the parallel run in accordance with Article 6 is requested for 3 months.~~

(3) This derogation ~~will~~ shall apply for the duration of one year, as of its approval by ACM, starting from 1 January ~~2020~~2021~~. until 31 December 2022~~.

Article ~~8~~7. Language

The reference language for this derogation request ~~shall be~~is English.

Article ~~9~~8. Confidentiality

The information provided by TenneT to ACM for this derogation request does not have to be treated as confidential unless stated or agreed otherwise.