



MEMORANDUM

TO Authority for Consumers & Markets

DATE
REFERENCE
FROMFebruary 20, 2024
BGD-2024-029

SUBJECT Report congestion revenues TenneT TSO B.V. for the period January 2023 - December 2023

REPORT



DECISION



1. Introduction

TenneT TSO B.V. ("TenneT") provides this report in order to comply with the requirements as defined in the Use of Congestion Income methodology ("UCI methodology") in accordance with the Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity ("Regulation").

This report contains the following information:

- Realised congestion revenues and withdrawals for the period January 1, 2023 – December 31, 2023.

The withdrawals from the auction proceeds comply with the purposes mentioned in the Regulation.

2. Realised congestion revenues and withdrawals for the period January 1, 2023 – December 31, 2023

2.1 General information

The Foundation for the Management of Allocated Funds from the National High-Voltage Grid (Stichting Beheer Doelgelden Landelijk Hoogspanningsnet) ("The Foundation") is a foundation established under Dutch law for the management of the "allocated funds" received from TenneT in its capacity as administrator of the National EHV Grid. These allocated funds comprise proceeds of imbalance settlements (not within scope of this report) and proceeds from market-based allocation of cross-border electricity transfer capacity (including proceeds from explicit or implicit auctions of interconnector capacity). TenneT is not allowed to use the allocated funds for other objectives than set forth in the Regulation.

In accordance with article 19.2 of the Regulation congestion revenues shall be used for the following purposes:

2. The following objectives shall have priority with the respect to the allocation of any revenues resulting from the allocation of cross-zonal capacity:

- a) guaranteeing the actual availability of the allocated capacity including firmness compensation; or*
- b) maintaining or increasing cross-zonal capacities through optimisation of the usage of existing interconnectors by means of coordinated remedial actions, where applicable, or covering costs resulting from network investments that are relevant to reduce interconnector congestion.*

And as stated in article 19.3 of the Regulation:

3. Where the priority objectives set out in paragraph 2 have been adequately fulfilled, the revenues may be used as income to be taken into account by the regulatory authorities when approving the methodology for calculating network tariffs or fixing network tariffs, or both. The residual revenues shall be placed on a separate internal account line until such a time as it can be spent for the purposes set out in paragraph 2.

The allocated funds are invested within the boundaries of the treasury statute of The Foundation when they are temporarily placed on a separate internal account as prescribed in the Regulation. The treasury statute of TenneT Holding B.V. also applies to The Foundation. The statute contains principles which cover specific areas such as interest rate risk, liquidity risk, the use of derivatives, and the investment of excess liquidity. The return on these investments is added to the congestion receipts.

In 2023 the management of the allocated funds was executed by The Foundation. The overview of congestion revenues provided in this report reconciles with the financial administration of TenneT. The figures for the congestion revenues 2023 have been used for the statutory annual accounts of TenneT for the year 2023.

2.2 Overview realised congestion revenues and withdrawals

The movement schedule for the congestion revenues during the period January 1, 2023 – December 31, 2023 is included in the overview below:

Description	Unit	2023	2019/943 reference	UCI art. 3.1 reference
Opening balance congestion revenues 2023	EUR	(28.161.697)		
NorNed				
Plus: transmission right revenues NorNed auction	EUR	(48.143.339)		
Plus: outcome NorNed bonus-penalty scheme relative availability	EUR	(1.799.641)		
Minus: costs network losses	EUR	1.676.217	19.2a	viii. c)
Minus: costs for balancing and reserve power	EUR	1.297.693	19.2a	viii. c)
Net addition NorNed	EUR	(46.969.070)		
Cobra-cable				
Plus: transmission right revenues COBRA auction	EUR	(60.435.783)		
Minus: firmness compensation costs	EUR	2.049.137	19.2a	ii.
Minus: remuneration of non-nominated Long-Term Transmission Rights	EUR	16.546.216	19.2a	iv.
Minus: costs network losses	EUR	11.119.827	19.2a	viii. c)
Net addition Cobra-cable	EUR	(30.720.603)		
Interconnectors NL-DE				
Plus: transmission right revenues interconnectors NL-DE	EUR	(151.327.578)		
Minus: contribution TenneT towards auction costs	EUR	695.986		
Minus: firmness compensation costs	EUR	22.502	19.2a	ii.
Minus: remuneration of non-nominated Long-Term Transmission Rights	EUR	32.764.275	19.2a	iv.
Net addition interconnectors NL-DE	EUR	(117.844.815)		
Interconnectors NL-BE				
Plus: transmission right revenues interconnectors NL-BE	EUR	(86.119.675)		
Minus: contribution TenneT towards auction costs	EUR	695.986		
Minus: firmness compensation costs	EUR	21.903	19.2a	ii.
Minus: remuneration of non-nominated Long-Term Transmission Rights	EUR	19.795.632	19.2a	iv.
Net addition interconnectors NL-BE	EUR	(65.606.153)		
Other additions / withdrawals				
Plus: net income from participation TenneT GmbH & Co. KG	EUR	(18.859)		
Plus: net addition interest revenues	EUR	(3.011.194)		
Minus: overhead costs Stichting Doelgelden	EUR	182.540		
Minus: redispatch critical branches	EUR	132.361.448	19.2a	i.
Minus: interest costs	EUR			
Minus: surplus CI spent for electricity customers support	EUR			
Net other additions / withdrawals	EUR	129.513.935		
Reduction of transmission tariffs				
Minus: congestion revenues used for reduction of allowed revenue for	EUR			
Part attributed to costs resulting from ongoing investments that are relevant to reduce interconnector congestion	EUR		19.2b	vi.
Part attributed to costs resulting from past investments that are relevant to reduce interconnector congestion	EUR		19.2b	vii.
Part used as income taken into account for calculating network tariffs	EUR	-	19.3	
Mutation congestion revenues	EUR	(131.626.706)		
Closing balance congestion revenues 2023	EUR	(159.788.403)		

2.3 Disclosures to overview realised congestion revenues and withdrawals

2.3.1 Receipts and withdrawals NorNed

Congestion income

In accordance with the ACM decision dated November 14, 2007 (reference: 102746) the capacity of the NorNed cable becomes available for the market through an auction. The congestion revenues are equally divided between TenneT and its counterpart Statnett SF. The TenneT part of these receipts has been added to the congestion revenues since the start of NorNed. After the repair of the outage of the NorNed cable of May 6, 2022 restrictions are applied to sustain the operations. As of October 17, 2022 the NorNed cable has a reduced maximum transmission capacity of 620MW instead of 700MW. In addition, measures were introduced to reduce intraday flow direction changes.

Energy & capacity expenses

TenneT has withdrawn an amount of EUR 1.7 million regarding grid losses for the NorNed cable and an amount of EUR 1.3 million regarding balancing and reserve power for the NorNed cable in 2023. These costs correspond to cost category viii c) of article 3.1 of the UCI methodology. These costs are directly related to the priority objectives included in article 19.2a of the Regulation as these are necessary to provide the cross-zonal capacity.

Availability incentive NorNed

In accordance with the ACM decision 101783_2-76 TenneT is obliged to add a malus to the congestion revenues in the situation that the availability of the NorNed cable is below the predefined limits. Based on the proposal of TenneT for the settlement of this bonus/malus for 2023 dated January 30, 2024, TenneT is obliged to add an amount of EUR 1.8 million to the congestion revenues with regard to the availability of the NorNed cable during 2023. This malus is explained by lower availability due the restrictions that are applicable for the NorNed cable since October 17, 2022.

2.3.2 Receipts and withdrawals COBRA

Congestion income

In accordance with the ACM decision dated October 17, 2019 (reference: ACM/UIT/519787) the capacity of the COBRA cable becomes available for the market through an auction. The congestion revenues are equally divided between TenneT and its counterpart Energinet. The TenneT part of these receipts has been added to the congestion revenues since the start of COBRA. Gross revenues are reported. As a result the

costs for firmness compensation (category ii of article 3.1 of the UCI methodology) and for remuneration of Long-Term Transmission Rights ("LTTR") (category iv of article 3.1 of the UCI methodology) are reported on separate line items in the report.

Energy & capacity expenses

TenneT has withdrawn an amount of EUR 11.1 million regarding grid losses for the COBRA cable in 2023. These costs correspond to cost category viii c) of article 3.1 of the UCI methodology. These costs are directly related to the priority objectives included in article 19.2a of the Regulation as these are necessary to provide the cross-zonal capacity.

2.3.3 Receipts and withdrawals interconnectors NL-DE and NL-BE

Congestion income

The long term auctions of transmission rights for the interconnectors NL-DE and NL-BE are performed by JAO. The annual and monthly capacity is allocated by means of explicit auctions. At such auctions, the market party acquires long term transmission rights. The European transmission system operators have created shared rules governing the explicit auctions for allocating annual and monthly capacity. TenneT receives 50% of the congestion revenues on the Belgian and German borders.

The daily capacity is allocated to market parties through an implicit allocation mechanism. The power exchanges and the involved TSOs organise this by means of day-ahead market coupling. Per June 8, 2022 day ahead flow based market coupling was introduced in the Core Capacity Calculation Region. As a result the distribution of the auction proceeds between the involved TSO's, which is performed by JAO, has also been changed. In the methodology used in CWE market coupling the so called "socialization" of Long Term Transmission Rights (LTTR) remuneration was used. This means that the day ahead congestion income is first distributed on borders, then on each border this income is reduced by LTTR remuneration for that border. If the result is negative (net negative congestion income) the missing money is taken from other borders with positive net congestion income. As a coordinated process for long term capacity allocation in the Core region is currently not yet there, a socialization principle as previously known in the CWE region is not yet applied in the Core region. This means that some TSOs may not be able to cover LTTR remuneration obligations for some time frames on their borders from Day Ahead congestion income but they will have to do it from Long Term congestion income or other sources. For the year 2023 the LTTR remuneration costs only slightly (EUR 0.2 million) exceeded the Day Ahead congestion income in one month. The net balance of Day Ahead congestion income less LTTR remuneration costs is therefore still positive in 2023.

Gross revenues are reported. As a result the costs for firmness compensation (category ii of article 3.1 of the UCI methodology) and for remuneration of Long-Term Transmission Rights ("LTTR") (category iv of article 3.1 of the UCI methodology) are reported on separate line items in the report.

Operational costs for the execution of the auctions for interconnection capacity

TenneT has withdrawn an amount of EUR 0.7 million for the interconnectors NL-DE and an amount of EUR 0.7 million for the interconnectors NL-BE regarding operational costs for the execution of the auctions for the other interconnectors in 2023. These costs are necessary to generate the congestion income on these borders and should therefore be netted with the gross congestion income. For the purpose of transparency TenneT reports these amounts separately in the overview.

2.4 Other additions / withdrawals

2.4.1 Participation in TenneT Germany

Per February 2020 the funding structure for the participation of The Foundation in TenneT GmbH & Co KG has been restructured. As a result the invested amount has been reduced and per year end 2023 The Foundation has 2,000 Class B shares and a share premium of EUR 26.4 million in TenneT TSO Duitsland B.V. As part of this restructuring the existing call and put option agreements are amended in order to protect the allocated funds and to ensure their immediate availability to The Foundation. All proceeds and costs related to the above mentioned structure have been added / withdrawn from the congestion revenues. In 2023 the total net proceeds that are added to the congestion revenues amount to EUR 0.0 million (rounded).

2.4.2 Operational costs of The Foundation

An amount of EUR 0.2 million (rounded) has been withdrawn in 2023 for operational costs of The Foundation for the management of the allocated funds. These costs are necessary to process the congestion income on these borders and should therefore be netted with the gross congestion income. For the purpose of transparency TenneT reports these amounts separately in the overview.

2.4.3 Interest revenues

An amount of EUR 3.0 million has been added in 2023 for interest received over the balance congestion revenues.

2.4.4 Redispatch costs related to critical branches

The Regulation requires TSOs to optimise cross-border capacity of the interconnections and the transmission networks affecting cross-border flows, while complying with safety standards of secure network operation. As a result guaranteeing the actual availability of allocated capacity and maintaining or expanding capacity of the interconnections and of the transmission networks affecting cross-border flows contributes to the purposes laid down in the EU legislation. In accordance with article 19.2a of the Regulation and cost category i) of article 3.1 of the UCI methodology these activities can be funded from the revenues resulting from the allocation of interconnection (hereinafter cross-border congestion revenues). TenneT has withdrawn an amount of EUR 132.4 million regarding redispatch costs related to critical branches in 2023. These costs are mainly related to the required outage periods for the execution of projects for the increase of the capacity of critical branches in combination with costs for safeguarding security limits in the Netherlands. The interconnectors and relevant parts of the transmission network that are affected by cross-border flows are identified as 'critical branches' (also known as Critical Network Elements, CNEs) in accordance with the implemented Flow Based Allocation Methodology. In the following situations TenneT is using cross-border congestion revenues to fund the costs of solving congestions on critical branches (both upward and downward adjustment of transported volumes by means of redispatch and/or countertrade):

- I. If planned non-availability of a critical branch is required to enable the increase of capacity of the critical branch.
- II. If the critical branch is temporarily not available.
- III. If there is an unplanned outage of a critical branch.
- IV. If the scheduled transport on the critical branch exceeds security limits.

These situations are further explained in the following sections:

- I. Expansion of capacity of critical branches

TenneT is planning to increase the capacity of a significant number of critical branches. It is expected that these capacity increases require certain periods of planned non-availability (planned outage) for these critical branches as the expansion work needs to be conducted with these branches disconnected from the operating network.

Naturally TenneT plans to perform these activities when the market does not require this capacity, however TenneT expects that this will not be possible in all situations. Increasing the capacity of existing branches is a complex process which requires relatively long periods in which the relevant assets are disconnected from the operating network.

Any costs arising from the application of costly measures such as redispatch and/or countertrade to allow investments in the increase of capacity of critical branches are funded through the cross-border congestion revenues, as they contribute to the primary goals of the regulation to increase and

maintain the cross-border capacity.

II. Temporary non-availability of a critical branch (planned outage)

In case a critical branch is temporarily not available due to planned work, for instance maintenance, it will be disconnected from the operating network. As the work contributes to maintain the cross border and/or critical branch capacity, the associated redispatch and/or countertrade costs will be funded from the cross-border congestion revenues.

III. Temporary not foreseen non-availability (unplanned outage)

In case there is unforeseen non-availability of a critical branch, TenneT needs to take action to ensure that the network returns to a normal state which is characterised by operational security limits. These measures contribute to maintaining the planned use of the critical branch and thus to guaranteeing the already allocated cross-border capacity. Any costs arising from these measures can thus be funded from the cross-border congestion revenues.

IV. Scheduled transport on the critical branch exceeds operational security limits

It is the intention of the Flow Based Methodology to maximise cross-border capacity provided to the market, while respecting a secure operation of the transmission grid. The flow based market coupling algorithm respects actual limitations in the transmission grid and takes them into account while calculating the cross-border capacity. This is a complex process which applies amongst other things Flow Reliability Margins (FRM) and takes into account the already allocated long term transmission capacity (LTA inclusion).

The FRM for instance is determined based on statistical methods. The method does not consider the 10% of most extreme deviations when setting the margin. This could result in overloads on specific critical branches in the operational time frame even when the methodology aims not to provide more capacity than is physically secure. The allocated capacity could also breach the operational security limits for a number of other reasons for instance due to the LTA inclusion.

These examples demonstrate that even with the application of the Flow Based Methodology it is still possible to have overloads on critical branches in the operational time frame.

As TenneT should comply with the operational security limits these overloads may result in redispatch or other actions in the day-ahead, intra-day or real timeframe. The costs of the associated actions will be funded with cross-border congestion revenues, as they contribute to guaranteeing already allocated cross-border capacity.

The redispatch costs related to critical branches can be allocated to the abovementioned categories as follows:

Cat.	Description	Amount 2023 (in EUR million)	
I	Expansion of capacity of critical branches	EUR	61.7
II	Temporary non-availability of a critical branch (planned outage)	EUR	11.7
III	Temporary not foreseen non-availability (unplanned outage)	EUR	-
IV	Scheduled transport on the critical branch exceeds operational security limits	EUR	59.0
Total		EUR	132.4