Second report of Elia System Operator SA detailing the methodology and projects that shall provide a long-term solution to the operational security risk which the derogation granted to Elia System Operator SA seeks to address, 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)

30 Jun 2022

Contents

Whereas

(1) Article 16(9) of Regulation 2019/943 prescribes that upon request of transmission system operators in a capacity calculation region, the relevant regulatory authorities may grant a derogation from the requirement of Article 16(8) of Regulation 2019/943 ("CEP70 requirement") 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 undue discrimination between internal and cross-zonal exchanges.

(2) Elia System Operation SA has submitted a request for derogation on Sep 15, 2020 for all Belgian CNECs participating to the day ahead capacity calculation process in CWE based on the foreseeable ground *"loop flows above an acceptable level"*, for 1 year starting from the 1st of January 2021.

(3) Following consultation of other NRAs and a public consultation, this request for derogation has been granted by the Belgian NRA (CREG) in its decision (B)2136 on Dec 10, 2020.

(4) Article 16(9) of Regulation 2019/943 prescribed that "Where a derogation is granted, the relevant transmission system operators shall develop and publish a methodology and projects that shall provide a long-term solution to the issue the derogation seeks to address.

(5) Elia System Operation SA presented the content of the report to the Belgian NRA and stakeholders during the System Operation & European Market Design Working Group that was held on Jun 21, 2021.

ELIA REPORTS ON THE LONG-TERM SOLUTIONS THAT ALLEVIATE THE FORESEEABLE GROUNDS JUSTIFYING THE DEROGATION GRANTED TO ELIA FOR THE PERIOD JAN 1 2022 TILL DEC 31 2022

Article 1.   Overview of required long-term solutions

(1) The following CACM and SOGL methodologies are to be implemented in the Core CCR to alleviate the foreseeable ground on excessive loopflows:

    a. The day-ahead capacity calculation methodology 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;

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

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

(2) **Contribution of the Core DA CCM (pursuant to CACM Art. 20) is twofold**

    a. Article 10(5) of the Core DA CCM offers each Core TSO the possibility to individually define the initial setting of its own non-costly and costly remedial actions, based on the best forecast of their application and with the aim to reduce the loop flows on its cross-zonal CNECs below a loop flow threshold that avoids undue discrimination. The same loop flow threshold is also considered as a constraint in the non-costly remedial action optimiser, as described in Article 16 of the Core DA CCM. This is important in the Belgian context as the Belgian PSTs contribute to the reduction of loop flows;

    b. Article 20 of the Core DA CCM enables "coordinated validation", implying there will be a process that consolidates the prediction and usage of available remedial action on Core level. This creates a necessary visibility on the ability to maintain operational security in a coordinated way when applying the minimum 70% requirement. This is important in the Belgian context. Firstly, because the local remedial action potential is insufficient to alleviate the impact of loop flows. Secondly, because there is no guarantee that the implementation of the action plan to enable the minimum 70% requirement in the Federal Republic of German will in itself reduce loop flows below an acceptable level.

(3) **Contribution of the Core SOGL 76 and CACM 35 methodologies:** if Elia faces congestions as a result of the application of the CEP70 requirement, SOGL 76 and CACM 35 should allow finding solutions in a coordinated way in the Core region to relieve these congestions. The fact that the SOGL 76 methodology and CACM 35 methodology are not yet in place prevents Elia to rely on cross-border remedial actions as existing bilateral redispatching contracts do not enable an efficient use due to the manual procedures involved and the limited visibility on the future availability of redispatching potential.

(4) **Contribution of the Core CACM 74 methodology:** in addition to the implementation of SOGL 76 and CACM 35, which alleviate operational security risk, CACM 74 should enable a fair cost sharing, ensuring that the TSOs of the bidding zone(s) at the origin of the loop flows above an acceptable level bear the costs of the remedial actions, in accordance with the polluter-pays principle as described in Article 16(13) of Regulation 2019/943.

Article 2.   Implementation roadmap of the long-term solutions

(1) Below table summarizes the latest available information regarding the implementation of the four Core methodologies listed in Article 1:

Methodology	Status	Currently foreseen implementation date
Core DA CCM	Operational since Jun 8th 2022	
Core DA CCM: coordinated validation	To be started	A proposal for implementation is due 18 months after go-live thus by Dec 2023. Implementation at the earliest in 2024
Core SOGL 76 + CACM 35	Implementation ongoing	Apr 2024
Core CACM 74	Implementation ongoing	Apr 2024

Article 3.   Conclusion

(1) As from day 1 of the go-live of Core DA CC, Elia makes use of the possibility to reduce excessive loopflows by adapting the taps on the Belgian PSTs. Below image illustrates that up to 8 taps (half the operational range) on the PSTs are used, enabling a reduction of excessive loopflows up to 10% of Fmax. This reduction translates into an increase of the minRAM target applied on Belgian CNECs as per the methodological approach incorporated in the derogation.

PST strategy: results BD Jun 9 – Jun 14

Positive value = loopflow north to south direction

PSTs	%MTUs at -8
Zandvliet 1	74
Zandvliet 2	72
Van Eyck 1	69
Van Eyck 2	46
Monceau	0
Aubange	10
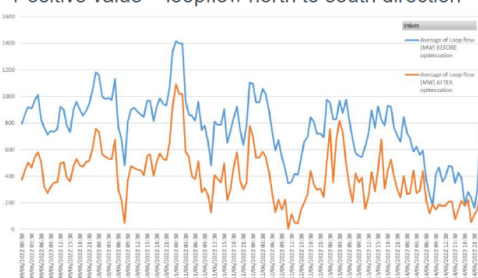
Highest LF in % of Fmax across the 380kV lines: **~10% reduction**

Percentile	Before optimization	After optimization
25%	0	0
50%	0	0
75%	10	7
90%	18	12
95%	24	15

- Most loopflows pass through Zandvliet. To balance between Zandvliet and VanEyck, the optimizer will use more often the extreme position of Zandvliet

(2) In the years to come, the implementation of the remaining listed Core methodologies is to be further monitored as it is driving the evaluation of the need for derogation for excessive loopflows. As this implementation is not expected to be completed before 2024, Elia will submit in 2022 a request for derogation for excessive loopflows for the period Jan 1st 2023 until Dec 31st 2023.