IMPACT ASSESSMENT FOR THE OUTAGE OF THE AVELIN GAVRELLE LINE

Paris, 06/09/2021

CONTEXT

In the CWE Consultative Group, accordingly to the market message on 11/11/2019 it was agreed that TSOs would perform a Light Standard Procedure for Assessing the Impact of Changes (Light SPAIC) for grid outages with a duration exceeding 6 weeks.

A Light SPAIC analysis consists of a comparison of flow-based domains for 7 typical “reference” days, selected by the relevant TSO(s) in the period between 12 and 8 weeks preceding the outage, in order to estimate the impact of a change in grid topology.

INTRODUCTION

RTE plans the outage of the 400kV line Avelin-Gavrelle 1 which will be replaced by two new lines between Avelin and Gavrelle substations. The capacity of this line is reduced to 0 MW during the outage which is currently planned to start on 13/09/2021 (week 37) and is expected to end on 16/12/2021 (week 50) with:

- the commissioning of a new line Avelin – Gavrelle 2 on 19/11/2021
- the commissioning of a modified line Avelin-Gavrelle 1 with higher capacity on 16/12/2021.

This light SPAIC focus on the period between the initial outage and the first commissioning.

Element Name	EIC
[FR-FR] Avelin - Gavrelle 1	17T-FR-00000002E

The most recent information regarding the outage period can be retrieved from the Entso-e Transparency website (transparency.entsoe.eu).
This document provides some background to the results of the performed Light SPAIC analysis.
In line with the CWE Light SPAIC methodology, the analysis made here gives the relevant Flow-Based parameters of the historical FB domain and the domain obtained by updating the historical grid with the planned outage.

METHODOLOGY BEHIND THE SPAIC

The new Flow-Based domains and CNECs, corresponding with the most probable grid topology during the outage period applied to all reference days are simulated and presolved elements, min/max NP & volumes are extracted.

The data of the simulation results is joined to this document.

PUBLISHED DATASETS

The table below summarizes the standard outputs of a SPAIC analysis that were agreed upon, including a reference to the joined datasets indicating where the corresponding information can be found.

#	Expected output	Description	Dataset
1	Description change and features of the typical days	A qualitative description of the foreseen change, period and expected high-level impact resulting from this. A description of the main quantitative features of the 7 typical days	Foreseen change: Cover Note Description of the typical days: Dataset 5
2A	Capacity calculation indicators Dataset ***historical*** • PTDF matrices + RAM for each typical day • Min/max Net positions • Volume	This is the dataset that is used as a reference	• PTDF matrices + RAM: Dataset 1 – Sheet "2a - Historical" • Min/Max NP: Dataset 2 – Sheet "2a - Historical" • Volume: Dataset 3 – Sheet "2a - Historical"
2C	Capacity calculation indicators Dataset ***including change*** • PTDF matrices + RAM for each typical day • Min/max Net positions • Volume	This is the dataset that is updated, including all methodological changes that are known at the time of the study	• PTDF matrices + RAM: Dataset 1 – Sheet "2c - SPAIC" • Min/Max NP: Dataset 2 – Sheet '2c – SPAIC" • Volume: Dataset 3 – Sheet '2c – SPAIC"

ADDITIONAL KEY TO INTERPRET THE RESULTS

The Avelin – Gavrelle line is particularly relevant for the capacity calculation and can be presolved in the CWE capacity calculation in the following configuration:

- Export from UK to France
- Export from CWE zone to France.

In the reference days selected by the common methodology, exports from UK to France are rarely encountered, therefore the values and indicators of this SPAIC before/after the change are quite similar. Flow-Based domains can even be slightly increased as this outage decrease the sensitivity to exchanges of some other branches usually presolved.