

FlexPlan

Advanced methodology and tools taking advantage of storage and FLEXibility in transmission and distribution grid PLANning

Demo version of the planning tool

D3.3

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| Distribution Level | CO (PU: this file) |
| Responsible Partner | N-SIDE |
| Checked by WP leader | Maxime Hanot (N-SIDE) – WP3 Leader Date: 19/12/2022 |
| Approved by Project Coordinator | Gianluigi Migliavacca (RSE) Date: 20/12/2022 |



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Issue Record

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| Version | Date | Author(s) | Notes |
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| 1.0 | 19/12/2022 | Maxime Hanot (N-SIDE) | |

About FlexPlan

The FlexPlan project aims at establishing a new grid planning methodology considering the opportunity to introduce new storage and flexibility resources in electricity transmission and distribution grids as an alternative to building new grid elements. This is in line with the goals and principles of the new EC package *Clean Energy for all Europeans*, which emphasizes the potential usage of flexibility sources in the phases of grid planning and operation as alternative to grid expansion. In sight of this, FlexPlan creates a new innovative grid planning tool whose ambition is to go beyond the state of the art of planning methodologies, by including the following innovative features: integrated T&D planning, full inclusion of environmental analysis, probabilistic contingency methodologies replacing the N-1 criterion as well as optimal planning decision over several decades. However, FlexPlan is not limited to building a new tool but it also uses it to analyse six regional cases covering nearly the whole European continent, aimed at demonstrating the application of the tool on real scenarios as well as at casting a view on grid planning in Europe till 2050. In this way, the FlexPlan project tries to answer the question of which role flexibility could play and how its usage can contribute to reduce planning investments yet maintaining (at least) the current system security levels. The project ends up formulating guidelines for regulators and for the planning offices of TSOs and DSOs. The consortium includes three European TSOs, one of the most important European DSO group, several R&D companies and universities from 8 European Countries (among which the Italian RSE acting as project coordinator) and N-SIDE, the developer of the European market coupling platform EUPHEMIA.

Partners



Executive Summary

The demo version of the FlexPlan planning tool is available at the following URL:

<https://flexplan.eu.n-side.com/>

If you want to access and test this demo version of the FlexPlan software, please send an email to flexplan@n-side.com in order to receive credentials.

The goal of this reduced version is to give the possibility to external stakeholders such as TSOs, DSOs and regulators to access and test the tool with reduced data visibility and capabilities. Compared to the full version, the demo version of the FlexPlan planning tool allows you to run and analyze simulations with up to 20 buses (AC or DC buses).

If you need to be trained on how to use the FlexPlan planning tool, please refer to D3.2 Planning tool user documentation¹. If you want to understand how this planning tool has been designed and developed, please refer to D3.1 Planning tool software, including GUI².

Finally, if you want to report comments about the FlexPlan planning tool or if you are interested to get access to the full version of the FlexPlan software, please also contact flexplan@n-side.com.

¹ https://flexplan-project.eu/wp-content/uploads/2022/11/D3.2_20221026_V1.0.pdf

² https://flexplan-project.eu/wp-content/uploads/2022/11/D3.1_20221108_V1.0.pdf