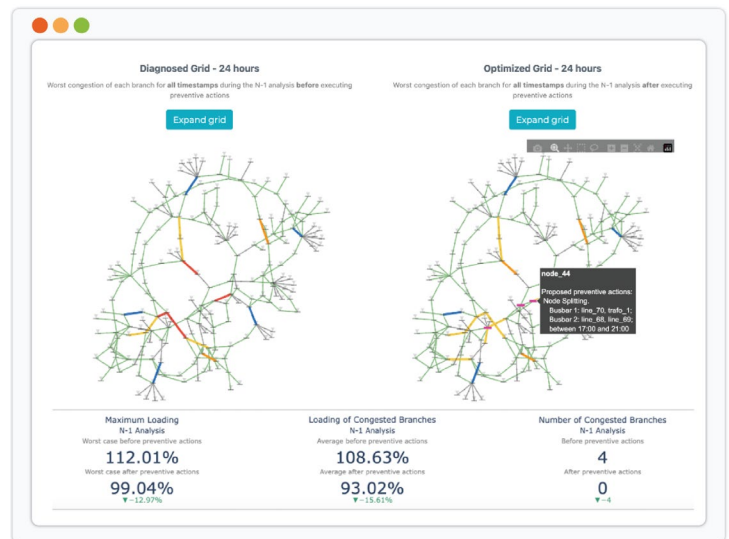


Remedial Action Optimizer

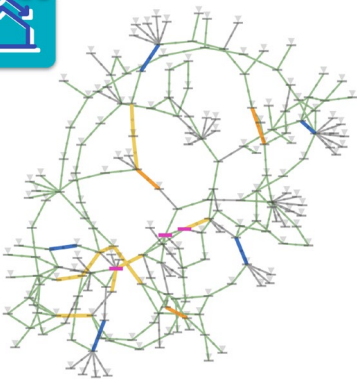
Prevent and Solve Grid Congestion with Optimization

Solution

N-SIDE Remedial Action Optimization (RAO) solution empowers Transmission System Operators (TSOs) and Regional Coordination Centres (RCCs) with optimized remedial actions - including smart topology reconfiguration, redispatch, PST, HVDC setpoints, and more. These actions are tailored for critical operational processes like Operational Security Analysis, Capacity Calculation, and Outage Planning, ensuring a more efficient and reliable grid management. Additionally, Remedial Action Optimization can also be used in offline studies, to estimate congestion costs more accurately or maximize transport capacity.



Get a taste of what our Remedial Action Optimization solution can help you achieve:



Reduce your grid congestion and save on redispatch costs:

Based on 3 years of scenarios with up-to 30% of Renewable Energy Sources (RES) and frequent unexpected line failures:

- Overloaded lines are reduced from 16% (prior to optimization) to 0.35%.
- Lines below 95% loading are increased from 73% (prior to optimization) to 96%.
- The redispatch cost per produced MWh is reduced from 3.33€/MWh to 0.49€/MWh when incorporating topology reconfigurations in addition to using only re-dispatch actions.

Maximize the existing transmission capacity:

Optimizing remedial actions can help to

- Increase the transmission capacity offered to cross-zonal trade during the Capacity Calculation process (for RCCs).
- Operate the grid closer to its limit and unlock more potential transport capacity (for TSOs).
- Ensure the 70% criterion required by the Clean Energy Package (CEP) can be reached from an operational point of view (for TSOs).





Enable the integration of more Renewable Energy Sources (RES)

While RES such as wind and solar contribute to achieving decarbonization objectives, they bring new challenges when integrated in the grid.

Optimizing the remedial actions applied to the transmission grid can enable you to:

- Efficiently cope with the intermittent and distributed nature of RES.
- Proactively anticipate peak periods and mitigate potential issues before they occur.
- Increase overall grid flexibility and reduce RES curtailments thanks to topology optimization.

Improve the outage planning process

By integration our Remedial Action Optimization solution in your outage planning process, you can

- Reduce the impact of planned outages on your transport capacity.
- Relieve incompatibilities between specific planned outages and hence increase the number of outages which can be planned in a given period.
- Easily prepare restoration plans considering your planned outages.



What's next?



Talk with N-SIDE experts about how Remedial Action Optimization can help you.



Get a demo from one of our experts.



Get onboarded by our team with an advisory study or a proof-of-value.

[BOOK A MEETING WITH OUR EXPERTS](#)

About N-SIDE

N-SIDE is a leading partner for Grid Operators and Power Exchanges, providing high-reliability optimization solutions to the most significant and complex power markets and grids worldwide. N-SIDE combines software and advisory services in the field of energy markets and Power System Operations.

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