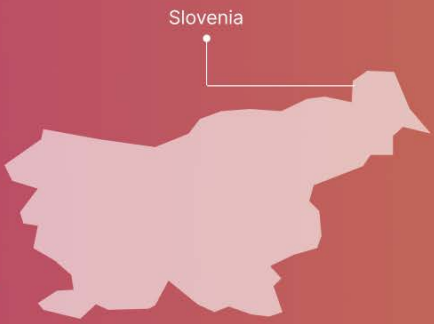
EnerTEF

TEF TSO Node

TEF TSO is dedicated to enhancing the efficient use of equipment and resources through secure and collaborative digital environments. This node aims to promote infrastructure-sharing between operators and external stakeholders, while addressing safety and cybersecurity issues, thus, fostering trust and transparency in critical grid operations.



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Services

01 Real-Time Power Management for TSO-DSO Coordination

Currently the DSOs have multiple requests for 5-20 MW battery energy storage system (BESS) on the 20kV feeder in the primary transformer station.

02 ML-Based Outage Root Cause Identification

SCADA systems produce massive volumes of event logs during both planned and unplanned outages, making it difficult to isolate meaningful signals. This service uses machine learning and GenAI to analyze logs in real time, filtering out noise and highlighting the most informative events. It helps identify likely root causes and generates concise summaries to assist operators during incidents.

03 Dynamic AI-Enhanced Transmission Grid Stability Assessment

This service will leverage AI technologies for evaluation of the grid stability, based on the grid state graphs and evaluation of likelihood of the short circuit events in the neighbourhood of specific node.

04 AI-Driven Fault Detection and Classification in Transmission Grids

This service will leverage AI technologies for rapid detection, localisation, and classification of faults in transmission grids. The analysis will be based on recordings from protection relays, which are essential for accurate event analysis and verification of relay operation.

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