EnerTEF

TEF DSO Node

TEF DSO is a future-ready testing environment that aims to support Distribution System Operators (DSOs) integrate AI-driven solutions into their existing infrastructures. This includes interoperability with modern automation architectures and orchestration layers, that in turn allow real-world testing for service providers aiming to tailor their products to the needs of DSOs.

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Services

01 AI State Estimation

Estimates utilization, power flow, current flow and the voltage magnitude of all grid elements based on measurements, billing information, grid model and weather data.

For the planning and operating of distribution grids the DSO needs to know the usage of his grid. (The result of the ai-state-estimation is the utilization, power flow, current flow and the voltage magnitude of all grid elements giving the DSO the needed information for all planning and operating purposes.)

02 AI State Estimation Forecast

Estimates utilization, power flow, current flow and the voltage magnitude of all grid elements based on measurements, billing information, grid model and weather data.

For the planning and operating of distribution grids the DSO needs to know the usage of his grid. (The result of the ai-state-estimation is the utilization, power flow, current flow and the voltage magnitude of all grid elements giving the DSO the needed information for all planning and operating purposes.)

03 AI-Enhanced Model-Based Ancillary Services

This service allows to improve the accuracy and prediction capability of the dynamic models used in model-based control systems used by DSOs.

Model-based control systems are used for many applications including EMS, flexibility services, and congestion management. However, the model has uncertainties and might give inaccurate predictions.

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