# CGMV

Conventional Generator Model Validation Tool

CGMV is a leading edge software for model validation of the conventional power plants. CGMV includes a rich set of different tests and studies which should be performed to validate the response of the models compared with measurements. CGMV also include a comprehensive simulation tool for PMU based model validation. CGMV uses the cutting edge technologies such as artificial intelligence for the purpose of model validation and parameter identification.

Applications

- Conventional power plant model validation and parameter estimation
- Baseline test model validation and parameter calibration
- Parameter calibration using a comprehensive engineering judgment
- Parameter sensitivity analysis
- Disturbance based model validation
- NERC compliance studies (i.e. MOD-25-1, MOD-26-1, MOD-33-1, etc.)
- Control systems tuning
- Noise reduction and fault detection on recorded data
- Other
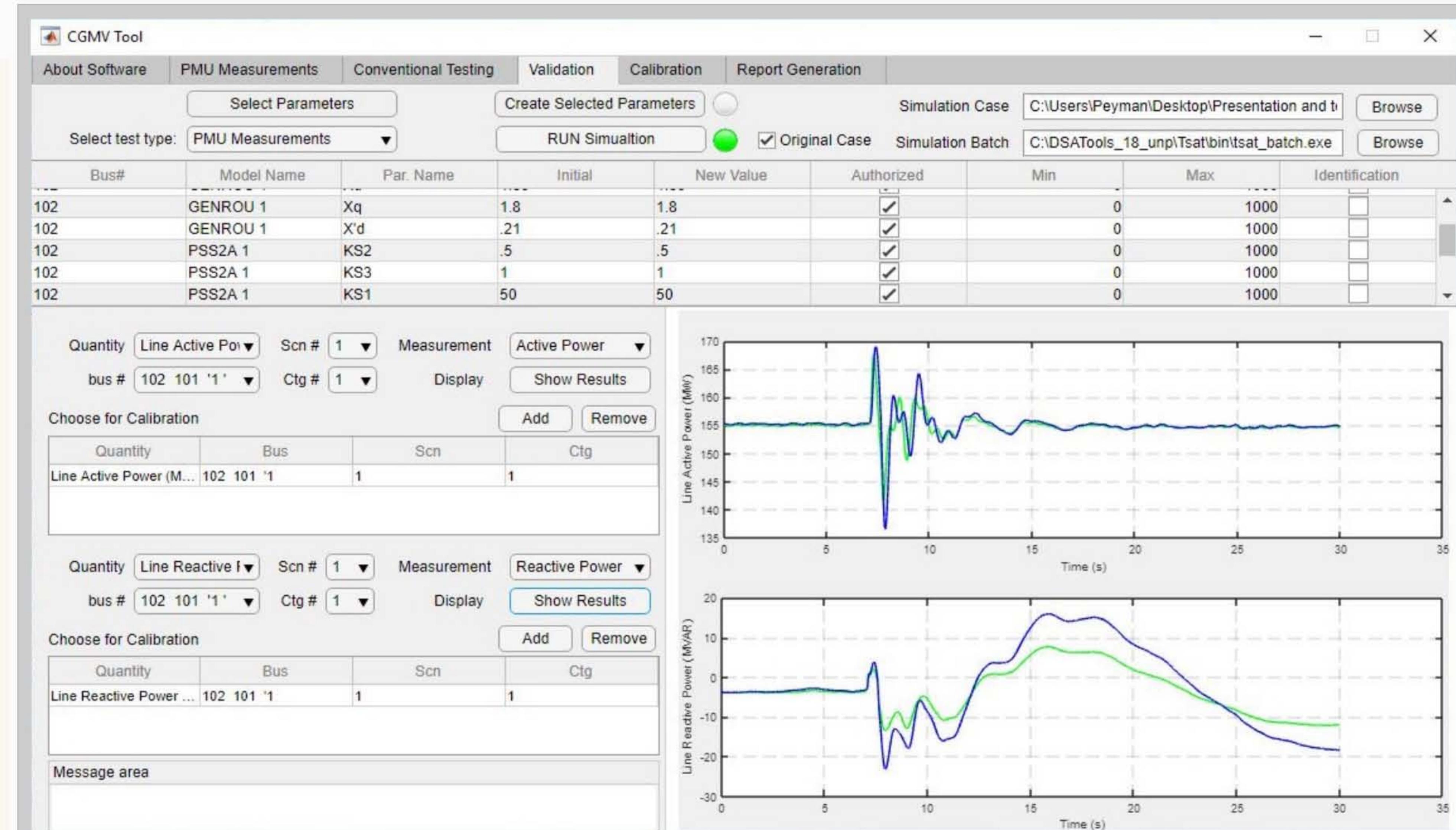
Validation   **Calibration**   **Conventional Plant**   **Baseline Test**   **PMU measurements**

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Key Features

- Modern and user friendly user interface

- Comprehensive test library for conventional power plants

- PMU based model validation feature

- Parameter influence analysis

- Capability to perform simulations using third-party software (including PSS/E, PSLF, DSATools)

- Compatibility with major third-party input data formats (including PSS/E, PSLF, DSATools)

- Perform model validation studies using measurements

- Manual and engineering knowledge based parameter identification and model validation

- Artificial intelligence and optimization based parameter identification and model validation

- Capability to create play-back functions

- Report generation feature to ease with report preparation

- Comprehensive and detailed user manual
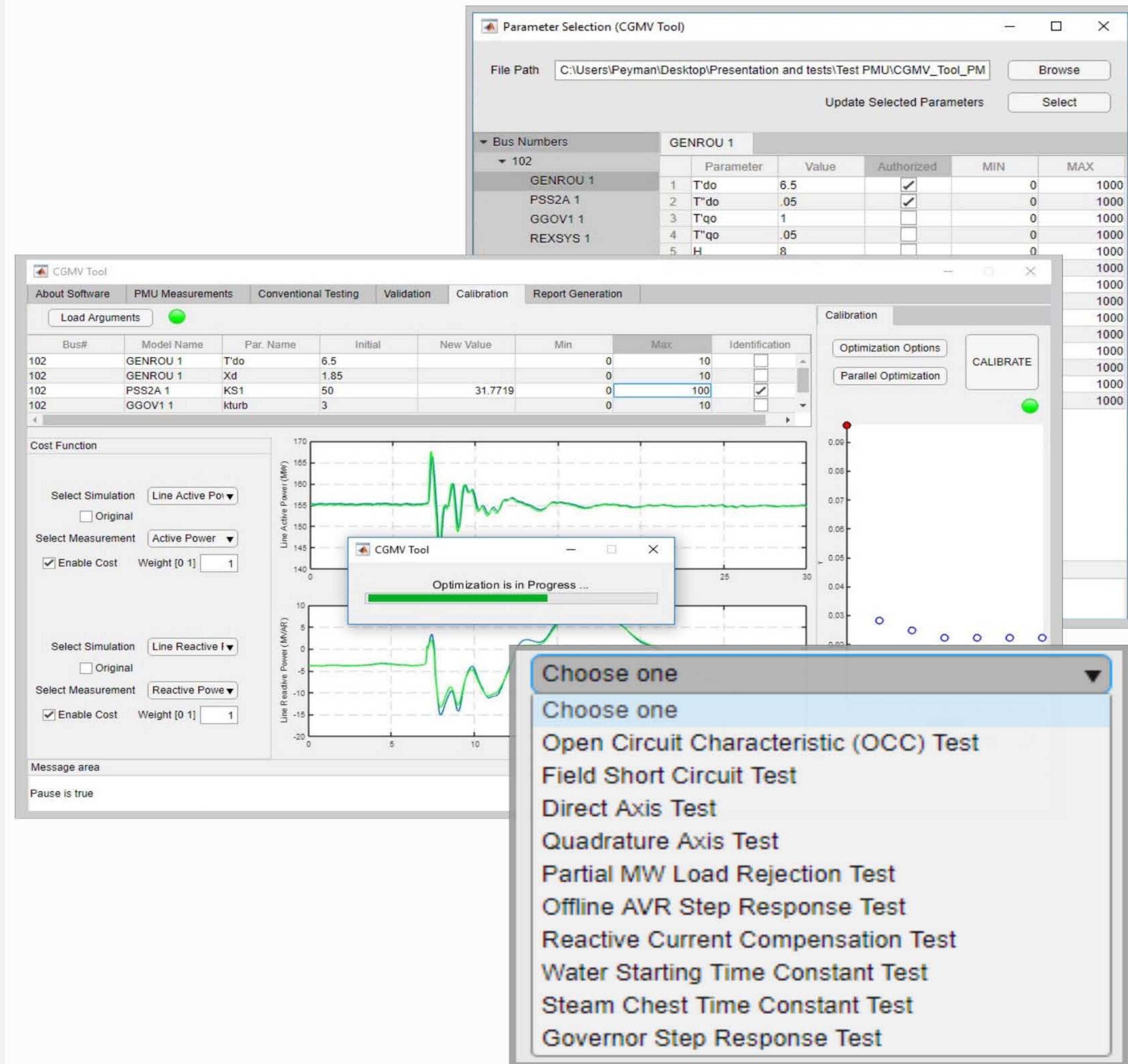
CGMV allows the users to create simulation and powerflow cases in different formats without using the third-party software through a very user friendly interface. Furthermore, CGMV offers an extensive library of different models, including generators, exciters, turbines, PSSs, converters, etc, through the third-party software. For the users without third-party software, CGMV offers development of power system models in a premium CGMV stand alone software.

About Power Grid Innovaions

Power Grid Innovations is home to a broad range of scientists, engineers, and technical specialists, with capabilities in power system studies, software development, smart utility services, microgrids, renewable energy, automations and electrical testing. These skilled researchers have decades of collective and real-world experience and often work in cross-departmental teams to investigate, diagnose and solve complex problems.

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