

## Generator Testing & Model Validation

Accurate modeling of generator and its associated controls is critical to transfer limits analysis as well as dynamic analysis of a power system. It is getting popular that standard generator testing and model validation, and its certification are mandatory by the power network councils, Independent system operators, and Regional Transmission Organization (RTO).

To obtain accurate models, it is necessary to conduct some field tests from which the models can be derived. Simulations can then be used to validate the models against the actual field measurements.

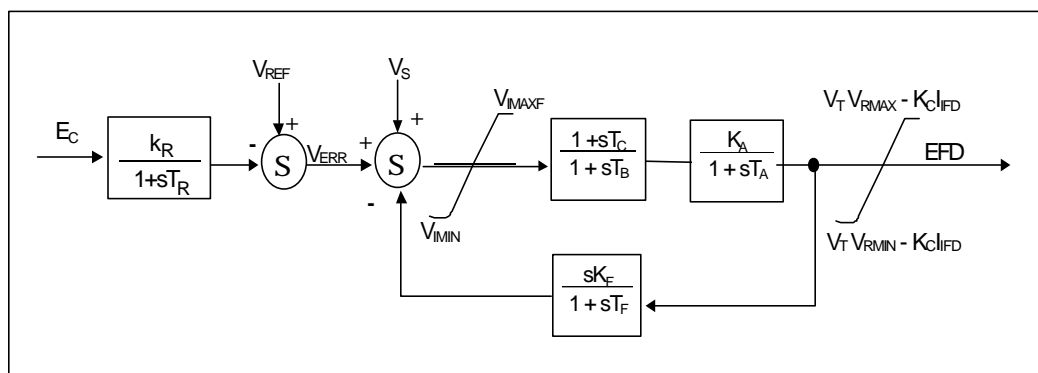
The standard generator testing and model validation provided by Doubletree Systems, Inc. has extensive experience and has been certificated by Western Systems Coordinating Council (WSCC).

The key power system modeling through the steady-state and dynamic tests includes:

- Generator parameters
- Excitation system parameters including power system stabilizers
- Speed governing system parameters
- Reactive power capability
- Protection performance



From field test results, computer models are developed and their performance checked against the measurements using simulations. Using



advanced analysis tools, simulations can be performed to study individual plant performance as well as the performance of the full interconnected system. Optimum control settings can then also be determined.

