

Modeling Notification

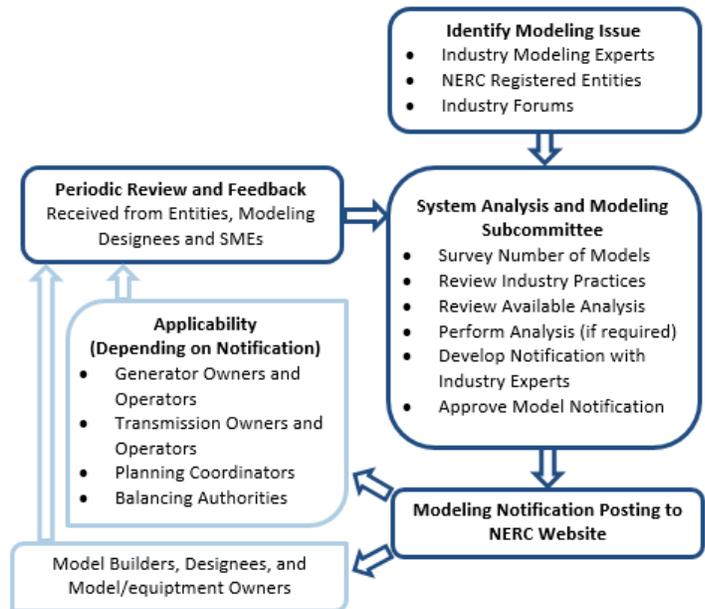
Process Document

Last Updated: June 2019

Model development forms the foundation of bulk power system (BPS) studies, and periodic verification and identification of power system components and models is paramount in calculating operating limits, event analysis, planning studies, and performance assessments. Key modeling aspects include using the most representative model available and selecting appropriate model parameter values. Analysis tools and techniques can only provide useful information if the models accurately reflect true component behavior over the range of interest. The models used in interconnection-wide base cases should represent how the installed equipment in the field behaves.

As power system operation and planning arenas move toward more heavily stressed, under various loading, conditions in addition to the rapid change in resource mix, power system engineers need to be equipped with tools and models to be able to increase acceptance and reliance of power system study results for current operations and planning of the BPS. To better align the simulated representation of generation, transmission, and distribution facilities with real world components, the NERC System Analysis Modeling Subcommittee (SAMS), under the direction of NERC Planning Committee, created a process to inform the industry of modeling development and key findings from industry modeling efforts, in an effort to best represent the physical elements of the BPS. This process aims at bringing key modeling issues to the attention of those that use the models and simulation tools and perform BPS reliability studies with those models.

The process, as illustrated, allows SAMS to receive relevant modeling information from power system modeling subject matter experts (SME) and simulation tool users. Subsequently, NERC SAMS, in coordination with other industry groups, will develop Modeling Notifications after reviewing the information and performing any additional analysis, if required. Upon approval of the notification by NERC SAMS, NERC will post the notification on the SAMS webpage and inform the applicable industry sectors, equipment owners, and industry groups (e.g., IEEE, software vendors, original equipment manufacturers) as well as model builders and MOD-032 Designees (per MOD-032). NERC SAMS will also use a feedback loop to accept and review comments received from the industry on the posted notifications periodically.



For more information, assistance, or to provide comments on any existing or future Modeling Notification, please contact [NERC System Analysis Department](#) (via email) or (404) 446-2560.