Terms of Reference for Plant Modelling Reference Group

Introduction

This is a technical expert reference group which primarily focuses on power system modelling and model development to ensure an accurate power system model is maintained for power system planning and operational studies.

Objectives:

The objectives of the PMRG are to:

- Provide a consistent basis and database for the modelling of the 5 state interconnected system.
- Remove or reduce modelling uncertainties for improved estimation of dynamic constraints.
- Establish procedures and methodologies for power system analysis.
- Establish procedures and methodologies for plant commissioning and model validation
- Define control system design and test reporting standards for power system plant.
- Assess the accuracy of the power system model (small signal and large signal) against measurements and system incident data.

Scope:

In order to achieve these objectives, the PMRG will :

- Coordinate and maintain network representations, load models and plant models for the power systems of Queensland, New South Wales, Victoria, South Australia and Tasmania to provide reliable and accurate large and small signal stability simulations of the interconnected power system;
- Review power system incidents or other measured system performance (e.g. power system damping) to compare and report on the performance of system models;
- Develop and improve models for power system plant and loads to more accurately represent the dynamic behaviour of the power system;
- Develop, maintain and modify, as required, methodologies for power system analysis;
- Develop, maintain and modify, as required, methodologies for field testing of dynamic plant ;
- Recommend research projects which the PMRG considers would lead to improved modelling or understanding of the dynamic performance of the power system.
- Publish Guidelines and recommended practices in the above areas

Representation:

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