CAISO IBR MODEL VALIDATION

RLC Engineering excels in providing modeling services to ensure strict compliance with the CAISO Transmission Planning Process and Inverter-Based Resource (IBR) Dynamic Model Validation Procedure, including PSLF load flow, Dynamic model tests, EMT model tests and other modeling services. Our expertise lies in meticulous verification and validation of the IBR models, guaranteeing accuracy and adherence to regulatory requirements, by offering comprehensive modeling services.

• PSLF Loadflow and Dynamic Model:

Development or verification of loadflow model and evaluation of dynamic model parameters and control settings.

• Dynamic Model Tests in PSLF:

Simulations of scenarios like a 4-cycle three-phase fault at the point of interconnection (POI) bus, step changes in voltage and frequency, and voltage ride-through tests to mimic real-world grid conditions.

PSCAD Model Tests:

Validation of PSCAD models according to CAISO's Electromagnetic Transient Modeling Requirements and IBR EMT Checklist.

Accompanying submissions include:

o Bump Tests

- o Voltage and Power Reference Change
- o Frequency and Voltage Tripping
- o SCR Ramping

• NERC MOD Test:

Modeling services to ensure strict compliance with the NERC MOD standards, including MOD-025-2, MOD-026-1, MOD-027-1, and MOD-032-1.

Generation Forms:

Update and complete the required CAISO Attachment A, Generating Facility Data, and Generating and Interconnection Facility Data Form include Equipment Data, Validation, and IBR EMT Checklist.

Reactive Capability:

Evaluation of Generator Reactive Capability in compliance with CAISO white paper 'Evaluation of Generator Reactive Capability'.



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