Generator Interconnection Agreement
Generating Facility Data For Synchronous Machines
Required Prior to Commercial Operation

1. **Excitation System Model Data[1] (90 Days Prior to COD):**

   a. Block diagram and exciter type, (i.e. IEEE type 1, IEEE type 3, thyristor type, etc.)
   b. All applicable time constants, gains, limits and saturation constants for the exciter model based on the **actual final field settings** for the generator.

2. **Power System Stabilizer Model Data[1] (90 Days Prior to COD unless otherwise noted):**

   a. Block diagram and stabilizer type (i.e. accelerating power, etc.)
   b. All applicable time constants, gains, limits and saturation constants for the stabilizer model based on the **actual final field settings**.[2]

3. **Speed Governing System Model Data[1] (90 Days Prior to COD):**

   a. Block diagram model.
   b. All applicable time constants, gains, etc. for the governor model based on the **actual final field settings**.

4. **Excitation System and Power System Stabilizer Test Data:**

   a. Excitation system open circuit step in voltage test response chart recordings showing generator terminal voltage, field voltage, and field current (exciter field voltage and current for brushless excitation systems).[3]
   b. The excitation system open circuit step in voltage test data points corresponding to the chart recordings should also be submitted in electronic form.[3]
   c. Test reports including power system stabilizer gain margin, phase compensation (frequency response test) and closed step in voltage with and without PSS in service.[4]

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[1] Model data must conform to a standard PTI PSS/E model. Otherwise, a user written model for PTI's PSS/E Dynamic Simulation software must be supplied. All of the associated files, including source code, for dynamic modeling should be in PSS/E versions 32 **and** 33, and must be shareable on an interconnection-wide basis to support use in the interconnection-wide cases, as required by NERC Reliability Standard MOD-032-1.

[2] Interconnection Customer to provide the **preliminary** PSS test documentation (which will include the dynamic model, final settings and on-line step-in voltage with and without PSS in service) within thirty (30) days of completion of the testing and at least seven (7) days prior to commercial operation. Interconnection Customer shall provide the **final** PSS test report within one month after the COD.

[3] Interconnection Customer to provide within thirty (30) days after the exciter open circuit step in voltage response test, and prior to the COD.

[4] Interconnection Customer to provide within thirty (30) days of completion of the testing, and at least seven (7) days prior to the COD.