

From : Hariram Subramanian

Company : Huawei Technologies Deutschland GmbH

To: AEMO – Model guidelines

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Regarding: “Small signal model requirements”

Reference AEMO document : Power system model guidelines

PREPARED BY: Operational Analysis and Engineering, AEMO

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QUESTION:

We would like to get a confirmation if the “SMALL SIGNAL MODEL REQUIREMENTS “ also holds good for Asynchronous generator type based on power electronics like – PV Inverters. In other words should “PV inverter manufacturer” also provide and satisfy small-signal model requirements as the document highlights only “synchronous generator”.

For reference the following snap-shot from the AEMO document section 5.6 is placed below:

5.6 Small-signal model requirements

Small-signal stability models are required for *plant* that contribute to local, intra-regional and inter-regional frequency modes in the *power system*. **This may include synchronous generators** and their PODs, dynamic reactive support plant with PODs, and any other *plant* which can reasonably impact damping of small-signal oscillations **as determined by AEMO and the relevant NSP.**

A fully validated RMS transient stability model is generally sufficient for this analysis, provided that the corresponding small-signal model can be derived from it using standard mathematical linearisation techniques.

More detailed technical information and model requirements in this regard would be appreciated.