



Recap of PGRR-109 and DMVIEW Comparison Feature and PSCAD Templates

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Questions? Email dynamicmodels@ercot.com

PGRR-109 Recap



- The purpose of [PGRR-109](#) is to ensure that adjustments to operational facilities are studied as necessary. **Applies to all Inverter-Based Resources (IBRs).**
- [PGRR-109](#) (anticipated effective May 1, 2024) introduces two requirements:
 1. Prior to the Resource Commissioning Date of an IBR, REs must submit a comparison of the as-built dynamic model response versus the QSA dynamic model response
 - Comparison = Overlay of MQT plots (either PSS/E or PSCAD)
 - If models are identical, then overlay is not necessary, just upload model package and include a statement
 - Include both models in the submission. For the as-built representation, include both the PSS/E and PSCAD.
 - Email dynamicmodels@ercot.com with key phrase “**Before commissioning**” in subject
 - Contact ERCOT via email but don’t submit models by email. Upload to RIOO-RS.
 2. During continuing operations, if an IBR facility wishes to make an adjustment potentially affecting the dynamic response, then the facility must request **PRIOR APPROVAL**:
 - Email dynamicmodels@ercot.com with key phrase “**IBR Proposed Modification**” in subject
 - ERCOT will respond within 10 business days. (Must use key phrase in email subject line.)
 - If uploading a model to RIOO-RS, make it very clear that the model is a proposal and not as-built.
 - Overlay MQT plots of model response before and after the adjustment.
 - The “before adjustment model” should be the last approved model
 - If significant differences and/or impact are found, a limited dynamic stability and/or GIM process may be triggered as outlined in PGRR109 process
(<https://www.ercot.com/mktrules/issues/PGRR109#keydocs>)

DMVIEW Plot Comparison Feature

- [DMVIEW](#) is an optional tool for running PSS/E model quality tests
- NEW!** DMVIEW can compare two DMVIEW runs
- Can also generate a plot comparing two PSS/E .out files if you don't want to use DMVIEW to run your MQT.
 - Refer to DMVIEW instruction manual slides 23 and 24.

DMVIEW: <https://sites.google.com/view/dmview/home>

PSS/e Dynamic Model reView (DMView)

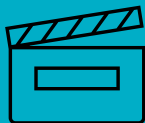
DMView's core purpose is to perform dynamic Model Quality Testing (MQT) for Resources or Interconnecting Entities, ensuring their models meet ERCOT requirements. This streamlined process minimizes the need for extensive communication and corrections of stability studies.

PSCAD Templates

- PSCAD Templates will help ERCOT and TSPs efficiently incorporate PSCAD models into study cases
- The Template is a simple PSCAD case where the RE should drop in their PSCAD model
- Usage requires someone with PSCAD installed and familiar with PSCAD
- Most PSCAD models can be added to Template in 10-30 mins
- **PROPOSAL: PSCAD Template is required to enter August 1st QSA deadline.**

PSCAD Template:

- ✓ Ample instructions included in comment boxes
- ✓ Training VIDEO on ERCOT website



ERCOT PSCAD TEMPLATE INSTRUCTIONS:

1. Please use PSCAD version 4.6 if possible. Your IBR model should be version 5. For additional PSCAD model requirements, refer to the Checksheet which must be filled out and submitted with your PSCAD model.
2. This Template requires the ETRAN library. If not already included <https://www.electranix.com/software/e-tran-runtime-library-for-pscad> Template was built for E-tran 5 (recommended) but should work for version 4. For version 4, you may need to right-click, select "Save As" in order to download. Ext ETRAN_IF12.lib to the same folder as this Template. Open ETRAN.p as this Template. Link to ETRAN_IF12.lib in your project settings.
3. Insert your site-accurate IBR model inside the "Place IBR Here" slot.
4. Check that the case runs. Ensure that the POI and unit feeders are correct. Instructions for terminating unused meters with resistors.
-- The below Ppoi graph should match the below left Pplant graph.

Published at:

<https://www.ercot.com/services/rq/re>

(Look for the link "Dynamic Model Templates", same archive as where the PSS/e Excel Templates are stored.)

- ✓ Video included in zip package

Dynamic Model Templates

Used to facilitate the collection of resource Dynamic Data to be submitted in conjunction with the RARF.

Oct 20, 2023 - zip - 30.3 MB

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