



**Transmission Constraint Workshop Follow
Up -- Discussion of the Need of Additional
Stability Assessment**

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Background

- ERCOT hosted the Transmission Constraints for Generator Workshop on August 21, 2020
<http://www.ercot.com/calendar/2020/8/21/209816>
- ERCOT provided a summary and recommended next steps to WMS and ROS in September. One of the ideas was:
 - Solar Prime – ERCOT should perform a “Semi-Annual Stability Assessment” to determine potential stability limits by including “non Planning Guide Section 6.9” generators: **ERCOT will provide a presentation of discussion points on this topic to PLWG in Q4 2020**

http://www.ercot.com/content/wcm/key_documents_lists/189413/05. Transmission Constraints for Generators Workshop WMS-ROS Summary.pptx

Existing Stability Assessments -- Planning

Stability Assessments -- Planning	Frequency	Resources Included	Purpose	Results/Reports
Full Interconnection Stability Study	Every FIS	Existing + PG 6.9 ⁽¹⁾	<ul style="list-style-type: none"> The reliability impact of the proposed resource on Transmission Facilities 	Redacted reports are posted to the MIS Secure Area
Annual Stability Assessment	Annually	Existing + PG 6.9	<ul style="list-style-type: none"> NERC TPL-001-4 Typically include future year 2 summer peak and year 3 off-peak (HWLL) 	Reports are posted to the MIS Certified Area
Special Study (Panhandle, Long Term Stability, West Texas Export, etc)	Ad-Hoc, As Needed	Existing + PG 6.9 + projected non PG 6.9 if applicable	<ul style="list-style-type: none"> Identify potential stability constraints with projected growth of IBRs Generally informational only 	Reports are posted on ERCOT.com
GTC Alternative Study	Within 180 days of an effective new GTC	Existing + PG 6.9	<ul style="list-style-type: none"> Identify alternatives for exiting the GTC 	GTC Methodologies are posted to the MIS Secure Area

(1). Units meeting PG 6.9 generally means the projects have signed interconnection agreement and financial security (see details in Planning Guide Section 6.9)

Existing Stability Assessments -- Operations

Stability Assessments -- Operations	Frequency	Resources Included	Purpose	Results/Reports
Quarterly Stability Assessment	Quarterly	Existing + PG 5.9 ⁽¹⁾ (Sync. date within 5~7 months of the start of each QSA)	Impact of planned GRs/SOGs connecting to the ERCOT Transmission Grid	Redacted reports are posted to the MIS Secure Area ⁽²⁾
GTC Assessment	Depends on QSA results	Existing + PG 5.9 (Sync. date within 1~2 months of the start of GTC assessment)	To determine GTC interface and the appropriate GTLs	GTC Methodologies are posted to the MIS Secure Area, Market Notice ⁽³⁾

- (1). Units included in the QSA are required to meet prerequisites, including PG 6.9, acceptable dynamic models, FIS completed, Reactive Power Study completed, etc. (see details in Planning Guide Section 5.9)
- (2). QSA results are posted 3~5 months prior to the synchronization date of the proposed units.
- (3). The GTC methodologies are posted prior to the actual synchronization of the units.

Discussion

- Discussion points for a proposed new stability study:
 - Purpose (information only or others?)
 - Scope (what new generators need to be included? PG 6.9, non-PG 6.9, others?)
 - What kind of stability constraints (local, region-wide, or others?)
- Non-PG 6.9 resource challenges:
 - Uncertainty of commitment and in-service date
 - Unknown technology (inverter design, turbine details, etc.)
 - No models (collector system design and dynamic model, etc.)

September 2020 GIS Capacity Update	2020		2021		2022	
	Wind	Solar	Wind	Solar	Wind	Solar
IA Signed-No Financial Security (MW)	35	20	1129	1628	1680	4109

Next Steps

- ERCOT requests that stakeholders please provide comments by November 30, 2020
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- ERCOT plans to provide a summary of received comments and potential concepts at a future PLWG meeting