

Proposed Updates to Manual 14G Language

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Interconnection Analysis

Planning Committee

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1. Review Manual 14G language updates
2. Sections with proposed updates:

Attachment A: Generation Interconnection Feasibility Study Data

Attachment B : System Impact Study Data

Existing Language in Attachments A & B

- Lists Manufacturer and Equipment name on file for only Wind Turbine models

- Screenshot of existing language:

PJM has on file the manufacturer data sheets for the following Wind Turbines:

Acciona AW 1530 1.5 MW, 3.0 MW; Clipper C93 2.5 MW; Gamesa G8x/G90 2 MW, 2.0 2 MW, G126 2.5MW; GE 1.5 MW, 1.6 MW, 2.0MW, 2.3MW, 2.5 MW, 2.75 MW, 4.0 MW; Generic Wind Model (WT3 and WT4) Mitsubishi MWT92/95 2.3 MW, Nordex N90 2.5 MW, N100 2.5 MW, N117 2.4 MW; Repower MM82 2.05 MW; Siemens 2.3 MW, 3.0 MW, 3.6 MW, 4.0 MW, 6.0 MW; Suzlon S88 2.1MW, S97 2.1 MW; Vestas V82 1.8 MW, V90 1.8 MW, 3.0 MW, V100 1.8 MW, V110 2.0MW, V112 3.075 MW.

Proposed Updates to Attachments A & B

- Add Manufacturer and PSS@E User Defined Model (UDM) table for Wind Turbine models
- Add table for inverter based resources UDM
- Customers can refer to the PSS@E UDM table to decide if Attachment B-1 is necessary

Proposed Updates to Attachments A & B

- Screenshot of proposed language:

Any NERC acceptable model can be submitted as a stability model of the project.

If User Defined Model (UDM) would be used as the stability model of the project, please submit Attachment B-1 for any UDM not listed on PJM's Approved UDM Model list shown below:

Inverter Based Resources:

Manufacturer	ABB	GE	INGECON	PowerElectronics	Schneider	SMA	SunGrow
PSS@E UDM	ULTRAINV	GEPVG_LV5	ING1BD	GEPVG	SE1INVT	SMASC	SG2500U
	FRGRMP	GEPVE_LV5		GEPVE		SMASC126	
				PE_GEN_605		SMASC128	
				PE_GEN_607		SMASC131	
				PE_GEN_610		SMASC132	
				PE_GEN_700		SMASC133	
						SMASC134	
						SMAXINV	
						SMAPPC18	

Proposed Updates to Attachments A & B

- Screenshot of proposed language:

Any NERC acceptable model can be submitted as a stability model of the project.

If User Defined Model (UDM) would be used as the stability model of the project, please submit Attachment B-1 for any UDM not listed on PJM's Approved UDM Model list shown below:

Wind Turbines:

Manufacture	Acciona	Gamesa	GE	Senvion	Siemens	Vestas
PSS@E UDM	A1530V	GMD0352	GEWTG2	S33D20	SWTGU1	CP17083200
		GD0810	GEWTE2	R23A10	SWTGU2	CP3000
		GXX048	GEWTT1	R00012		GSCOR1
		GXX049				VWCOR6
						VWCOR8
						PPCS28

- **PC First Read – 12/13/2018**
- MRC First Read – 12/20/2018
- Request for PC Endorsement – 1/10/2019
- Request for MRC Endorsement – 1/24/2019