



# Modeling Generation Sr. Task Force (MGSTF) Final Report

May 28, 2020

## Issue Creation

[Problem Statement](#) and [MGSTF Charter](#) brought forward by PJM and approved at the [March 23, 2017 Markets and Reliability Committee Meeting](#).

## Issue Summary

In 2016, several PJM members formed the Combined Cycle Owners User Group to work in partnership with interested and similarly situated stakeholders to discuss the design and operation of combined cycle units and their integration into the market and real-time operations of PJM. Over the course of several meetings the user group evaluated the models different RTOs/ISOs are using to model combined cycle units. At the conclusion of the education phase of the user group's work, the group came to the conclusion that a more detailed model for combined cycle units might be equally applicable to other steam units.

The focus of the Modeling Generation Senior Task Force (MGSTF) is to consider expanding the model that is used in PJM's systems to improve the ability to represent the various components of all generation.

Key Work Activities from the Problem Statement:

1. Review the work of prior groups addressing the model of combined cycle units to better understand the reasons the model was not implemented or used.
2. Promote understanding of generating plants and their need for a more flexible model.
3. Identify and assess the feasibility of market rules/mechanisms to integrate generation resources into PJM's markets such that their operating characteristics are understood, are properly modeled and adequately compensated.
4. Identify necessary changes to OA, Tariff, and manuals needed to implement any new model.

## Consensus-Based Issue Resolution Process

18 meetings held between January 2018 and June 2020  
[Final Matrix](#)

### 1. Recommended Proposal

The MGSTF accomplished several goals during its work. A [stakeholder requirements document](#) was developed listing desired features of combined cycle modeling. This document is being used as input to inform the development of the nGEM system for future implementation. This is a longer term solution to the generation modeling issue.



The MGSTF also evaluated several short term options to improve generation modeling while the nGEM development continues. These options include:

- Provide market participants with the ability to submit Hourly Differentiated Segmented Ramp Rates for resources in both the Day Ahead and Real Time Markets. This was approved by stakeholders and filed with FERC (Docket ER20-1414) with an anticipated end of year 2020 implementation.
- Add additional segments to the Energy Offer Curve beyond the 10 currently available to increase resource configuration modeling capabilities. This was approved by stakeholders and is anticipated to be implemented by end of year 2020.
- Implement Soak Time modeling of resources to allow Market Sellers to specify in Markets Gateway the Hot/Intermediate/Cold Soak Time(s) for resources and the expected hourly energy output produced prior to the resource becoming dispatchable by PJM. This option failed to receive MGSTF support and will not be implemented in the short term.

## **Standing Committee Results**

### **December 19, 2019 MRC Meeting**

6. Modeling Generation Senior Task Force (MGSTF) Mr. Stan Williams provided an overview of the Modeling Generation Senior Task Force recommended long-term implementation plan with near-term implementation proposals. Following discussion, the MGSTF's recommendations regarding hourly differentiated ramp rates and additional segments were endorsed by acclamation with no objections or abstentions. Mr. Bob O'Connell, PPGI Funds, moved and Mr. Gary Greiner, PSEG, seconded deferring vote on the MGSTF's recommendation regarding soak time to the January 2020 MRC meeting. The motion to defer was approved by acclamation with no objections or abstentions.

### **January 23, 2020 MRC Meeting**

Modeling Generation Senior Task Force (MGSTF) Mr. Glen Boyle provided an overview of the Modeling Generation Senior Task Force recommendation regarding soak time. Following discussion, Ms. Adrien Ford, ODEC, moved, and Mr. Gary Greiner, PSEG, seconded remanding the proposal to the MGSTF for reconsideration and re-voting, returning the issue to the MRC's May, 28, 2020 meeting. Following discussion, the committee approved the motion to remand by acclamation with no objections or abstentions.

### **January 23, 2020 MC Meeting**

Consent Agenda Approved : Proposed revisions to the Open Access Transmission Tariff (OATT) and OA related to the Hourly Differentiated Ramp Rate changes originating from the Modeling Generator Senior Task Force (MGSTF).

### **May 15, 2020 MGSTF Meeting**



Soak Time issue [failed](#) to receive required 50% support from the MGSTF and will not move forward to the MRC.  
The issue received 14% support.

## Appendix I: Supplemental Documents

[MGSTF Committee Page](#)

[Modeling Generation in Markets Gateway Issue Tracking](#)

Segmented Ramp Rates Filing – FERC Docket ER20-1414

## Appendix II: PJM Participation

Facilitator: Stan Williams (through end of 2019); Glen Boyle (2020)  
Secretary: Megan McLaverty (through end of 2019); Lauren Strella Wahba (2020)  
Subject Matter Expert: Tom Hauske  
Subject Matter Expert: Becky Davis  
Subject Matter Expert: Keyur Patel  
Subject Matter Expert: Angelo Marcino  
Subject Matter Expert: Ray Fernandez  
Subject Matter Expert: Troy Cawley  
Subject Matter Expert: Jeff Hoffman  
PJM Legal: Thomas DeVita

## Appendix III: Stakeholder Participation

Abramowitz Jeremy	Monitoring Analytics, LLC	Not Applicable
Benchek Jim	FirstEnergy Solutions Corp.	Transmission Owner
Chang Sean	Shell Energy North America (US), L.P.	Other Supplier
Dailey Mike	Northern Virginia Electric Cooperative	Electric Distributor
D'Alessandris Lou	First Energy Solutions Corp	Transmission Owner
Davis Jim	Dominion Energy Marketing, Inc.	Generation Owner
Denby Brett	NOVEC	Not Applicable
Ferguson Mike	Indeck Energy Services, Inc.	Other Supplier
Filomena Guy	Customized Energy Solutions Ltd.	Not Applicable
Foladare Kenneth	Geenex Solar LLC	Generation Owner
Ford Adrien	Old Dominion Electric Cooperative	Electric Distributor
Fusek David	Appalachian Power Company	Transmission Owner
Gates Terry	Appalachian Power Company	Transmission Owner
Gilani Rehan	ConEdison Energy, Inc.	Other
Greiner Gary	PSEG Energy Resources and Trade LLC	Not Applicable
Hastings David	PJM Committee Voting Generic Account	None
Helms Joe	Rainbow Energy Marketing Corporation	Other Supplier
Hoatson Tom	West Deptford Energy, LLC	Generation Owner
Hohenshilt Jennifer	Talen Energy Marketing, LLC	Generation Owner
Horning Lynn	Customized Energy Solutions Ltd.	Not Applicable



Hyzinski Tom	GT Power Group, LLC	Not Applicable
Jha Monica	Big Level Wind LLC	Generation Owner
Johnson Carl	Customized Energy Solutions Ltd.	Not Applicable
Johnston Dave	Other	Not Applicable
Kogut George	New York Power Authority	Other Supplier
Lowe Connie	Dominion Virginia Power	Transmission Owner
Luna Joel	Monitoring Analytics, LLC	Not Applicable
Mabry David	McNees, Wallace & Nurick, LLC	Not Applicable
Midgley Sharon	Exelon Business Services Company, LLC	Transmission Owner
Nelson Floyd	NRG Power Marketing, LLC	Generation Owner
Ondayko Brock	Appalachian Power Company	Transmission Owner
Poulos Greg	CAPS	None
Sasser Jonathan	Customized Energy Solutions, Ltd.	Not Applicable
Schmatz Peter	PSEG Energy Resources and Trade LLC	Not Applicable
Sweeney Rory	GT Power Group, LLC	Not Applicable
True Roy	ACES Power	
Tyler Catherine	Monitoring Analytics, LLC	Not Applicable
Vitiello Jacki	Dominion Energy Marketing, Inc.	Generation Owner
Whitehead Jeff	GT Power Group, LLC	Not Applicable
Wisersky Megan	Madison Gas & Electric Co.	Other Supplier