

Improve Duct Firing Modeling

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ICAPWG/MIWG Presentations

Date	Working Group	Discussion Points and Links to Materials
12/1/2025	ICAPWG/MIWG	Improve Duct-Firing Modeling: Development Solutions and Tariff Revisions https://www.nyiso.com/documents/20142/55419869/2%20Improve%20Duct%20Firing%20Modeling_MIWG_12012025_v2_clean.pdf/b54b73e3-4352-e415-de78-9d95c276491c
11/4/2025	ICAPWG/MIWG	Improve Duct-Firing Modeling: Development Update https://www.nyiso.com/documents/20142/54869808/Improve%20Duct%20Firing%20Modeling_MIWG_11042025_v1.pdf/75741075-03da-6be0-258a-9e4756a8a88f
10-31-2024	MC	Improve Duct-Firing Modeling https://www.nyiso.com/documents/20142/47773760/Improve%20Duct-Firing%20Modeling_MC_10312024_v1.pdf/bc437d32-707d-1798-ad6d-6be06118f1eb
10-16-2024	BIC	Improve Duct-Firing Modeling https://www.nyiso.com/documents/20142/47460232/07%20Improve%20Duct%20Firing%20Modeling.pdf/32ba0313-cce0-e9d5-c344-6cee69669585
09-10-2024	ICAPWG/MIWG	Improve Duct-Firing Modeling: Market Design and Tariff Review https://www.nyiso.com/documents/20142/46865072/Improve%20Duct-Firing%20Modeling_MIWG_09102024.pdf/513d11ea-10a7-5345-01ea-c3a801f098ff
08-29-2024	ICAPWG/MIWG	Improve Duct-Firing Modeling: Consumer Impact Analysis https://www.nyiso.com/documents/20142/46679593/Improve%20Duct%20Firing%20Modeling_CIA%20Analysis%20FOR%20POSTING.pdf/80c6bd60-4f10-f29c-f450-4c8aa2fd9b1b
08-22-2024	ICAPWG/MIWG	Improve Duct-Firing Modeling: Final Tariff Revisions https://www.nyiso.com/documents/20142/46549955/3%20Improve%20Duct%20Firing%20Modeling_08222024_MIWG.pdf/a01ab96c-b109-e3c0-213d-5563d5d8bb1b
06-25-2024	ICAPWG/MIWG	Improve Duct-Firing Modeling: 2024 Proposed Market Design Details https://www.nyiso.com/documents/20142/45442995/Improve%20Duct-Firing%20Modeling_MIWG_06252024.pdf/35f61fb0-92a6-ee7b-63c7-89eb428fe1c0
05-30-2024	ICAPWG/MIWG	Improve Duct-Firing Modeling: 2024 Proposed Project Scope https://www.nyiso.com/documents/20142/44935892/Improve%20Duct-Firing%20Modeling_MIWG_05302024_draft.pdf/cb406062-ab9f-c972-bc7f-a7709f184fd5

ICAPWG/MIWG Presentations

Date	Working Group	Discussion Points and Links to Materials
05-02-2024	ICAPWG/MIWG	Improve Duct-Firing Modeling: Implementation Plan and Proposed Tariff Revisions https://www.nyiso.com/documents/20142/44469922/Improve%20Duct%20Firing%20Modeling_05022024_MIWG.pdf/fdac1cd3-dba6-74e3-c97d-015925462795
02-29-2024	ICAPWG/MIWG	Improve Duct-Firing Modeling: Market Design Update https://www.nyiso.com/documents/20142/43275262/Improve%20Duct%20Firing%20Modeling_02292024_final.pdf/1512a290-02ec-afb8-92e3-9aa8bf9e9c07
02-07-2024	ICAPWG/MIWG	Improve Duct-Firing Modeling Kickoff https://www.nyiso.com/documents/20142/42807168/Improve%20Duct%20Firing%20Modeling%20MDC_Kickoff_02072024.pdf/ebc1c317-a42f-669e-1f3e-26ccd5e80b44
08-30-2023	BPWG	Market Project Descriptions: Improve Duct-Firing Modeling (Page 13) https://www.nyiso.com/documents/20142/39653286/August%2030%20BPWG%20Market%20Project%20Descriptions.pdf/7ade6560-c017-c29a-7ab9-769cd3a4c01e
03-07-2023	ICAPWG/MIWG	Improve Duct-Firing Modeling Update https://www.nyiso.com/documents/20142/36639552/Improve%20Duct%20Firing%20Modeling%20Update_MIWG_03072023_final.pdf/2f5af6b8-11b5-f1c2-e0ce-59585dfc1f00
10-27-2022	ICAPWG/MIWG	Improve Duct-Firing Modeling: Market Design Concept Proposed https://www.nyiso.com/documents/20142/34087499/Improve%20Duct%20Firing%20Modeling%20MDCP_MIWG_10272022.pdf/8e18e862-1ba0-513b-bc18-1573fb55f1dc
09-30-2022	ICAPWG/MIWG	Improve Duct-Firing Modeling Update https://www.nyiso.com/documents/20142/33520089/Improve%20Duct%20Firing%20Modeling_MIWG_09302022_final%20(002).pdf/1dd9e83a-a2f2-bac4-b8ed-f3e3d97a9461
08-24-2022	ICAPWG/MIWG	Improve Duct-Firing Modeling Update https://www.nyiso.com/documents/20142/32941988/DBimprove_MIWG_08242022_final.pdf/862020d9-faa1-ab30-9f02-e9aa8604d43f

Background

Project Background

- The Improve Duct-Firing Modeling Project is better accommodating combined-cycle gas turbine generators (“CCGTs”) that are equipped with duct-firing.
- 2025 project commitment is Development Complete.
- Tariff revisions supporting this effort were filed with and accepted by FERC earlier this year.
 - New tariff revisions are highlighted in yellow within the posted tariff sections.
- The project deployment is scheduled for 2026.

Development Solutions Overview

Limiting Participation in RTD

- In the approved design last year, CCGTs with duct-firing, that have opted in for Limiting Participation, could be moved in or out of the duct-firing region for energy in RTD.
- During the development phase this year, it was determined that this can result in the CCGTs not being able to follow basepoints in and out of the duct-firing range during consecutive RTD intervals.
- RTC can move these units between the operating regions because the 15-minute RTC interval provides sufficient time for these units to transition.
- NYISO proposes to allow RTD to dispatch the unit within the range determined by RTC.
 - RTD will not move a CCGT with duct-firing capability, that had opted for Limiting Participation, in or out of duct-firing range unless the transition is explicitly determined by the next RTC.
 - As a result, the three RTD runs corresponding to the RTC will maintain the operating region established by the RTC, providing stability and preventing cycling between the operating regions.

Limiting Participation in RTD-CAM

- **NYISO proposes to maintain the unit within the operating region that it was in prior to RTD-CAM activation.**
 - If the unit was operating **at or** below its Participation Limit, it will remain **at or** below its Participation Limit but could be moved towards its Participation Limit.
 - If the unit was already ~~at or~~ above its Participation Limit, it will remain ~~at or~~ above its Participation limit and could be moved up to UOLe.

Limiting Participation in RTD-CAM, cont

- NYISO proposes to use the initial telemetry value during RTD-CAM activation for determining the operating region that the unit is in.
 - This is achieved through telemetry profiling during RTD-CAM initialization.
 - Additionally, the unit will be maintained in the operating region for at least 15 minutes to prevent the unit from switching the operating region every five minutes in RTD, if the operating region is different from that of the prior RTC.

Limiting Participation in Ideal and Physical Passes

- Currently for CCGTs, in DAM, the prices and schedules are determined from the ideal pass while in RTM, the prices are determined from the ideal pass and the schedules are determined from the physical pass.
- NYISO is proposing to apply Limiting Participation to Physical pass only and is proposing to settle CCGTs with duct-firing capability, that opt for Limiting Participation, in the DAM using the schedules from the physical pass.
 - This is similar to how Fast Start units are treated today, where price is determined by the ideal pass, but schedule is determined by the physical pass.

Posted Tariff Sections

Services Tariff Sections Posted with Today's Materials

- NYISO posted proposed MST revisions:
 - MST 4.4
 - MST 17.1

Next Steps

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- Present Tariff Revisions for a MC vote on December 17th
- Present Tariff Revisions to NYISO Board of Directors early 2026
- File Proposed Revisions with FERC by early April

Our Mission & Vision



Mission

Ensure power system reliability
and competitive markets for New
York in a clean energy future



Vision

Working together with stakeholders
to build the cleanest, most reliable
electric system in the nation