

# Fuel Cost Policies New MIRA Module

MIC

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# Agenda

- **Failed Fuel Cost Policies Summary**
- **Fuel Cost Policy Annual Review – Hourly Offers**
- **New MIRA Module**

# Failed Fuel Cost Policies

- **By May 12, 2017, PJM completed approval of all submitted fuel cost policies (479 policies).**
  - **457 passed the IMM's evaluation.**
  - **22 (5 percent) failed the IMM's evaluation.**
- **Of all units, 89 percent passed the IMM's evaluation.**
- **Of all units, 11 percent failed the IMM's evaluation.**

# Failed Fuel Cost Policies

- **The IMM provided PJM and Market Sellers timely notice of its determination when policies failed the IMM's evaluation and associated detailed input.**
- **The remaining 11 percent failed the IMM's evaluation because they were not algorithmic, verifiable and systematic.**
- **The IMM will communicate fuel cost policy results to FERC.**

# Failed Fuel Cost Policies

## General issues raised by the IMM:

- Inadequate fuel cost development process.
- Reliance on internal fuel cost estimates.
  - Not based on market data or third parties.
  - Not verifiable.
- Unsupported natural gas hubs.
- Unsupported adders.
- Reliance on PPA terms that are inconsistent with short run marginal cost.

# Fuel Cost Policy Annual Review

- **By June 15, all Market Sellers will be required to either:**
  - **Submit an updated fuel cost policy or**
  - **Confirm that their currently approved fuel cost policy remains compliant.**
- **By August 1, the IMM will make its determination on each fuel cost policy and provide input to PJM.**
- **By November 1, PJM will make its determination.**

# Fuel Cost Policy Annual Review

- **Under hourly offer rules, resources will have the ability to make cost-based offers that:**
  - **Vary by hour.**
  - **May be updated up to 65 minutes prior to the operating hour, regardless of DA commitment.**
- **These changes will enable natural gas fired units to:**
  - **Reflect the results of two gas days within a power day.**
  - **Use actual same day gas data for intraday natural gas pricing instead of an estimate.**

# Fuel Cost Policy Annual Review

- **The IMM will post a new natural gas cost policy template to incorporate hourly offers.**
  - **Changed approach to including same day gas cost estimates in day ahead offers**
  - **Algorithmic, verifiable, and systematic method for intraday offer changes**
- **The IMM will continue to pass fuel cost policies that elect not to:**
  - **Split the power day into two gas days or**
  - **Update the gas cost hourly.**



# Fuel Cost Policy Annual Review

- If Market Sellers elect to not use the flexibility provided by hourly offers, the current fuel cost policies will need to make that explicit.
- The IMM expects new fuel cost policies from owners of natural gas fired units by June 15.
- The IMM may make a determination by August 1 that a previously passed fuel cost policy does not meet the IMM standard under hourly offers.
- Market Sellers may work with the IMM on fuel cost policy revisions after the June 15 deadline.

# New MIRA Module

- **MIRA is the application developed by the IMM to, among other functions, capture the inputs used by Market Sellers to develop cost-based energy offers.**

# New MIRA Module

- **MIRA currently has three modules used to capture these inputs:**
  - **Fuel Policy Editing:** Contains the fuel cost policy documents.
  - **Fuel Policy Management:** Links fuel cost policies to units and contains inventory cost, fuel index information, emission data, fuel handling, pump efficiency and nuclear cost.
  - **PPOR (Power Plant Operating Reporting) Continuous:** Contains most inputs needed to reconstruct the three part cost offer. Heat input, start data, VOM, among others.

# New MIRA Module

- **The new Cost Offer Assumptions module was designed to capture:**
  - **All inputs currently in Fuel Policy Management.**
  - **All inputs currently in PPOR Continuous.**
  - **Some inputs included in Fuel Cost Policy documents.**
  - **Additional inputs needed to cover varying scenarios.**

# Cost Offer Assumptions Module

- **The Cost Offer Assumptions module in MIRA collects most of the inputs used in the development of cost-based offers in the PJM Energy Market.**

# Cost Offer Assumptions Module

- **The module allows market participants to report offer components for multiple schedules per unit, and provides more detail than its predecessor module, the Power Plant Operations Report Continuous.**
- **The data are required for the IMM to reconstruct and verify market participants' cost-based offers.**

# Upgrades

- **The new Cost Offer Assumptions module will support cost offer inputs by unit schedule and fuel type.**

# Upgrades

- **Start Data:**
  - **Start heat will be provided by up to three fuels used during start. Currently only one heat input per start can be included.**
  - **A new separate start performance factor may be included.**
  - **New separate start emission rates may be included.**



# Upgrades

- **Heat Rates:**
  - **Up to a third degree polynomial heat input function may be included.**
  - **Multiple heat input functions for one unit may be included corresponding to output range.**
  - **Up to three co-fired fuels may be included.**

# Upgrades

- **VOM:**
  - **The new module will have one screen for all VOM in \$ per MWh, \$ per hour and/or \$ per MMBtu.**
    - **The start VOM remains in the start data.**
  - **Peak incremental VOM (\$/MWh) can be included.**

# Upgrades

- **Fuel Cost Data:**
  - **Fixed (constant) contract costs may be included. For example, a fixed \$50 per MMBtu delivered coal cost.**
  - **Up to three fuel indices can be specified.**
  - **Transportation charges can be specified.**
  - **Other charges, such as taxes or supplier fees can be specified.**

# Upgrades

- **More detail can be provided for natural gas:**
  - **Up to two upstream pipeline charges and retainage factors can be specified.**
  - **Fuel cost policy replacement cost calculation and source can be specified, e.g. ICE WAP, quotes.**
- **A new “other emissions” field was included.**

# Cost Offer Assumptions Module

- A market message was sent May 26, 2017, to all MIRA users, MIC and CDS members with details regarding the new MIRA Cost Offer Assumptions module.
- The IMM will implement the new module (Cost Offer Assumptions, or COA) starting June 12 with the goal of having all data completed by June 30.
- Prior to June 12, IMM staff will contact Market Sellers individually to prepare and complete the data in the new module.

# Cost Offer Assumptions Module

- On June 9, the IMM will transfer to the new COA module all data saved in the current modules.
- Any Market Sellers that wish an extension to the proposed June 30 deadline, please email [MIRA@monitoringanalytics.com](mailto:MIRA@monitoringanalytics.com) with a proposed deadline and a description of the reason for the extension.



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