

Fuel Cost Policy and Hourly Offers Filing



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MIC Special Session
February 21, 2017

The February 3rd FERC ruling on Hourly Offers accepted a significant portion of what PJM filed, with some items to be modified to support the filing:

- Several sections of Manual Language (M15) to be put into the Tariff (Operating Agreement) and some modifications to accommodate FERC order:
 - **Standard of Review & when non-compliant**
 - **Penalty termination details, penalty allocation, and addition of a rebuttal period**
 - **Timeline for review of new and existing resources**
 - **Components of cost clarification**
 - **Dispute resolution clarification**

The FERC ruling affirmed:

- PJM's standard of review
 - **Verifiable & systematic, not algorithmic**
- PJM's final authority to approve Fuel Cost Policies
- Penalty structure
- PJM Operating Agreement prohibits Maintenance Adders and Additional Labor Costs from being recovered in Avoided Cost Rates

- PJM Compliance Filing due March 3, 2017
 - Effective Date for Fuel Cost Policies, May 15, 2017
 - Implementation Date of Hourly Offers, November 1, 2017
- Manual 15 Changes
 - PJM MIC Special Session, February 21, 2017
 - MRC First Read, February 23,
 - MRC / MC Endorsement, March 23
- Fuel Cost Policy Annual Review Process June 5 – November 1, 2017

- Timeline
- Transition Plan & Implementation Date
- FAQ's
- Manual 15 Language
- Tariff Language
- Variable Operations and Maintenance (VOM) & Emissions

- PJM Filing due March 3, 2017
- PJM Special Session: February 21, 2017
- MRC (First Read: February 23, 2017, Endorsement March 23, 2017)
- MC (Endorsement: March 23, 2017)
- PJM Implementation Date: May 15, 2017 Fuel Cost Policies
- Annual Review: June 15, 2017 – November 1, 2017

- All Market Sellers must have a PJM-approved Fuel Cost Policy in order to submit a non-zero cost-based offer consistent with fuel type by the end of the transition period.
- Notification was sent out last week to all Market Sellers to inform them of the status (Approved, Under Review, or No Status)
- Please contact me and email (FuelCostPolicyAnalysis@pjm.com) if you have not received your notification or if there are any discrepancies that require our attention.

Jeff Schmitt, 610-666-4728, jeffrey.schmitt@pjm.com

- PJM is managing the Fuel Cost Policy review and approval process
- PJM will use input and advice from the MMU during the review of all Fuel Cost Policies
- Fuel Cost Policies will be submitted to MIRA
- MIRA file transfer is daily, if an immediate review is required please submit to MIRA and email to the following: fuelcostpolicyanalysis@pjm.com

APPROVED

- The current status of the Fuel Cost Policy submitted in MIRA is 'APPROVED'.
- If the Market Seller would like to make changes based on the FERC Order, please email FuelCostPolicyAnalysis@pjm.com
- The Fuel Cost Policy team will review the policies to ensure they are in accordance with the FERC order by the effective date and contact the Market Seller if further action is required.

UNDER REVIEW

- Ensure the latest version of the Fuel Cost Policy is uploaded to the MIRA tool.
- The Fuel Cost Policy team will contact you to review the submitted information. Information will be reviewed in the order it is submitted.

NO STATUS

- Upload all Fuel Cost Policies to the MIRA tool.
- The Fuel Cost Policy team will contact you to review the submitted information. Information will be reviewed in the order it is submitted.

During review process:

- PJM is going to work on turning around reviews as fast as possible given the number of FTE's available along with coordination with Market Sellers and input from the MMU
- PJM is going to ask Market Sellers to return information and/or submit new policies, as soon as possible but no longer that (5) Business Days from the request date. The quicker you get it to us the sooner we can review it.
- Ultimately, by the end of the transition period the goal is to have every Market Seller with a PJM-approved Fuel Cost Policy
- If a Market Seller has not submitted a policy by March 15, 2017, we cannot guarantee approval before the required transition date.

- Schedule is based around 10 reviewers from PJM
- A team of reviewers from the MMU to be actively involved in all discussions for advice and input
- Policy Reviews: Monday, Tuesday, and Fridays
- Policy Conference Calls: Wednesday and Thursdays

- The FAQ's are posted with the meeting materials and will be updated throughout the process. We will provide a link to all Market Sellers to be able to obtain the most recent version.

- Section 1.8 reverts to everything but Fuel Cost Policies (FCP)
- Section 2.3 – small change related to Operating Agreement, Schedule 2, related to consistent with fuel type
- Section 2.3.1 – changes based on new resources and revocation process
- Created 2.3.1.1, 2.3.1.2, and 2.3.1.3 to make the review periods cleaner
- Fuel Policies are only fuel, Emission and VOM are also annual reviews
- VOM annual review existed before, Emissions annual review added
- Edits will still occur as we finalize the Tariff Language

Administrative Updates (version 28)

- Capitalization
- Abbreviations
- Dashes
- References
- 7.6 Pumped Hydro
- 8 Demand Side
- 11 Energy Storage

*Board Approval October 18, 2016

Changes* (version 29)

- 1.8 Cost Methodology and Approval Process
- 2.3 Fuel Cost Policy
- 2.3.1 Fuel Cost Policy Submission process

Tariff Revisions

- *Standards*
- *Requirements*
- *Penalty Structure*
- *Guidelines*
- *Process and Deadlines*
- *Consequences*
- *Roles related to Fuel Cost Policies*

1.8 Cost Methodology and Approval Process

A Market Seller which seeks to obtain an exemption, exception or change to any time frame, process, methodology, calculation or policy set forth in this Manual, or the approval of any cost or methodology that is not specifically permitted by ~~the PJM Tariff, PJM Operating Agreement or this Manual~~ not related to the Fuel Cost Policy, shall submit a request to PJM and the MMU for consideration and determination along with documentation supporting its request. ~~except as otherwise specified herein.~~

~~After receipt of such a request, the MMU shall notify the Market Seller of its determination of the request no later than fifteen (15) calendar days after the submission of the request. If the Market Seller and the MMU agree on the determination of the request, the request shall be deemed to be approved.~~ PJM and MMU will review the request and PJM will notify the Market Seller and MMU whether the request is approved no later than thirty (30) calendar days after submission of the request.

~~If the Market Seller and the MMU cannot agree on the determination of the request, the Market Seller may submit its request to PJM in writing for consideration and approval. In its written request to PJM, the Market Seller must notify PJM of all prior determinations of the MMU with respect to any such request and must provide a copy of such request to the MMU within one (1) calendar day of submitting the request to PJM.~~

This process shall be referred to in this Manual as the “Cost Methodology and Approval Process.”

- Examples for when a Market Seller can use Section 1.8 of Manual 15:
 - Emissions
 - VOM
 - Regulation cost in Section 2.8: the manual specifies the heat loss factor rate may not exceed 0.35% of the top Regulation load MW heat rate value
 - Cost increase in VOM in Section 2.8 (Regulation) states max values for each unit type
 - Opportunity Cost Adder, and using an alternative method
 - Section 8.1 Demand Resource shutdown costs (other than zero)

*If a cost, adder or process is contained in your Fuel Cost Policy the expectation would be to change your Fuel Cost Policy using the outside the annual review process in Section 2.3.1

Any Market Sellers may only must submit a non-zero cost-based offer if it has a PJM-approved fFuel eCost pPolicy consistent with its fuel type in accordance with section 2.3.1 of this manual and Operating Agreement, Schedule 2. to the MMU pursuant to the Cost Methodology and Approval Process. The Ffuel eCost Ppolicy will be submitted in MIRA, or other system(s) made available for submission of such data. Submission to MIRA, or other system(s) made available is considered submission to PJM and the MMU.

2.3.1 Submission of and/or Modifications to Fuel Cost Policies

2.3.1.1 Annual Review

On an annual basis, all Market Sellers will be required to either submit to PJM and the MMU an updated Fuel Cost Policy that complies with Operating Agreement, Schedule 2 and this manual, or confirm that their currently effective and approved Fuel Cost Policy remains compliant. Market Sellers must submit such information by no later than June 15 of each year. PJM shall consult with the Market Monitoring Unit, and consider any input timely received from the Market Monitoring Unit, in its determination of whether to approve a Market Seller's updated Fuel Cost Policy. After it has completed its evaluation of the request, PJM shall notify the Market Seller in writing, with a copy to the MMU, of its determination whether the updated Fuel Cost Policy is approved or rejected by no later than November 1. If a Market Seller desires to update its Fuel Cost Policy, or PJM determines either on its own or based on input received from the Market Monitoring Unit, that the Market Seller must update its Fuel Cost Policy outside of the annual review process, the Market Seller shall follow the applicable processes and deadlines specified below. All approved Fuel Cost Policies will have an effective date and will be in effect until superseded or revoked. PJM shall notify the Market Seller as to the effective date of the approved Fuel Cost Policy.

During the annual review process, PJM and the MMU will jointly review any policy submitted along with the supporting documentation. Market Sellers shall have five (5) Business Days to provide additional documentation or information on any request from PJM or the MMU. If the Market Seller does not believe it can provide the information within (5) Business Day timeframe, it can request an alternative deadline for submission of the data from PJM no later than one (1) Business Day before the due date of the request for additional data. If PJM consents to extend the deadline, PJM will advise the Market Seller and the MMU of the new deadline. The MMU shall inform PJM of such request at the time it is made. Failure to meet a data request deadline may result in PJM rejecting the policy. If PJM rejects a Market Seller's updated Fuel Cost Policy, PJM must include an explanation for why the Fuel Cost Policy was rejected in its written notification and will establish a deadline for all required updates to the policy. If the current policy under review is rejected, the Market Seller will continue to use the previously approved Fuel Cost Policy; unless a previously approved policy does not exist in which case, a penalty will be assessed as described in PJM's Operating Agreement, Schedule 2.

2.3.1.2 Outside Annual Review/New Resource

Fuel cost policy updates may also be submitted outside of the annual review period:

- If a Market Seller has an approved Fuel Cost Policy currently in place and needs to alter it in order to conform it to the provisions of this Manual or any applicable provisions of PJM's governing documents,
- If any action by a governmental or regulatory agency external to a Market Seller results in a need for the Market Seller to change its method of fuel cost calculation,
- If there are any material changes to Fuel Cost Policy,
- If PJM requests a Market Seller to submit an updated Fuel Cost Policy the Market Seller shall provide the updated policy to PJM and the MMU within five (5) Business Days or an alternative deadline agreed to by PJM, or
- The Market Seller will be offering a new resource into PJM's energy markets that does not have an existing Fuel Cost Policy.

The Market Seller shall notify PJM and the MMU that an update to an existing Fuel Cost Policy or the need for a Fuel Cost Policy for a new resource is required at the earliest possible opportunity.

- For new resources, follow the process delineated in Operating Agreement Schedule 2 Section II (b).
- For existing resources, the Market Seller's previously approved Fuel Cost Policy will be used for making cost-based offers while the requested update or new policy is under evaluation; unless a previously approved policy does not exist for a resource that is not new to PJM's markets in which case a penalty will be assessed as described in PJM's Operating Agreement Schedule 2.

Outside the annual review period, PJM and the MMU will have an initial 30 Business Days for review. Market Sellers shall have five (5) Business Days or an alternative deadline agreed to by PJM, to provide additional documentation or information on any request from PJM or the MMU. If the Market Seller does not believe it can provide the information within (5) Business Day timeframe, it can request an alternative deadline for submission of the data from PJM no later than one (1) Business Day before the due date of the request for additional data. If PJM consents to extend the deadline, PJM will advise the Market Seller and the MMU of the new deadline. The MMU shall inform PJM of such request at the time it is made. Failure to meet a data request deadline may result in PJM rejection of the policy. If additional documentation or information has been requested by PJM or the MMU, PJM has five (5) Business Days after the deadline for the Market Seller submittal of such additional information or documentation to notify the Market Seller and MMU of its approval or rejection of the Fuel Cost Policy. If PJM rejects a Market Seller's updated Fuel Cost Policy, PJM must include an explanation for why the Fuel Cost Policy was rejected in its written notification and provide a deadline for providing any additional information or documentation to seek approval of updates to the policy. All approved Fuel Cost Policies will have an effective date indicated by PJM in its written notification to the Market Seller and MMU and will be in effect until superseded or revoked.

2.3.1.3 Revocation

If PJM revokes a Market Seller's approved Fuel Cost Policy, the Market Seller is not allowed to submit a non-zero cost-based offer consistent with fuel type in the PJM energy market and will be assessed a penalty as described in PJM's Operating Agreement Schedule 2. Market Sellers who have a Fuel Cost Policy revoked by PJM will be provided a three (3) business day rebuttal period, starting from the date of revocation, to submit supporting documentation to PJM demonstrating that the revoked Fuel Cost Policy accurately reflects the fuel source, transportation cost, procurement process used, applicable adders, or commodity cost for such generation resource such that the Fuel Cost Policy results in a submitted cost-based offer that is not greater than its actual fuel cost. If at the end of the rebuttal period the Fuel Cost Policy is still required to be updated, the Market Seller shall submit a Fuel Cost Policy pursuant the out of annual review process to correct the deficiencies in the revocation notice. The penalty described in Section 2 of the Operating Agreement will continue to be assessed until the newly submitted Fuel Cost Policy is approved.

- **1.8 – Cost Methodology and Approval Process** - New rewrite for PJM and MMU process and only for exceptions not Fuel Cost Policies
- **2.3 Fuel Cost Policies and Guidelines** - PJM approved, everyone must have a FCP
- **2.3.1 Submission of and/or Modifications to Fuel Cost Policies** - Annual process, Update FCP, Non Annual, Reject, Revoke, No policy
- **2.3.1.1 Annual Review Process**
- **2.3.1.2 Outside Annual Review/New units**
- **2.3.1.3 Revocation**
- **2.3.2 Fuel Cost Calculation** - Using actual Fuel Cost data to determine if a FCP change is required, Method only changeable via 2.3.1 (used to be 1.8)
- **2.3.5 Emissions Allowances** - PJM and MMU
- **2.3.7 Engineering Judgement in Fuel Cost Calculations** - New Section to add in for new units or other situations where it allows for engineering judgement
- **2.5.2 No-Load Fuel** - In accordance with currently approved FCP
- **2.5.3 No Load Calculation** - PJM and MMU and FCP and Section 2.3.1
- **2.6 Variable Maintenance Cost** - PJM and MMU and Section 1.8
- **2.6.3 Incremental Adjustment Parameter** - Added these records shall be made available to PJM or the MMU upon request
- **3.6.1 Configuration Addition Maintenance Adder** - PJM and the MMU and Section 1.8
- **4.6.1 Configuration Addition Maintenance Adder** - PJM and the MMU and Section 1.8
- **5.6.1 Combined Cycle / CT Long Term Service Contract Cost Recovery** - PJM and the MMU and Section 1.8
- **5.6.2 Long Term Maintenance Expenses** - Previously evaluated and approved (removed by the MMU)
- **6.6 Maintenance Cost** - Previously evaluated and approved (removed by the MMU)
- **6.6.2 Combustion Turbine Long Term Service Contract Cost Recovery** - PJM and the MMU and Section 2.3.1
- **7.3 Fuel Cost** - PJM and the MMU
- **9.3 Fuel Cost** - PJM and the MMU
- **11.8 Regulation Cost** (for Energy Storage resources) - PJM and the MMU
- **12.1 Opportunity Cost Policy** - PJM and the MMU
- **12.3 Calculation Method Options** - Two Methodologies for calculating Opportunity Cost - PJM and the MMU

- Section 1 – General Costs
- Section 2 – Fuel Cost Policy
- Section 3 – Emission Allowances/Adders
- Section 4 – Variable Operation and Maintenance Adders
- Section 5 – Penalty

For all generating units

Incremental fuel cost

Incremental maintenance cost

No-load cost during period of operation

Incremental labor cost

Emissions allowances/adders

Variable operations and maintenance adders

Ten percent adder

Other incremental operating costs

- PJM-approved FCP for non-zero offers
- New Units
- Standard of Review
- Rejection
- Revocation
- Annual Review

(a) For emissions costs, Market Sellers shall report the emissions rate of each generation resource, the method for determining the emissions allowance cost, and the frequency of updating emission rates. Such adders must be reviewed at least annually by the Market Seller and be changed if they are no longer accurate.

(b) Market Sellers may submit emissions allowance/adders information to PJM as part of a Fuel Cost Policy

(a) Maintenance Adders must be reviewed at least annually by the Market Seller and changed if they are no longer accurate.

Maintenance Adders cannot include any costs that are included in the generation resource's Avoidable Cost Rate (ACR).

(b) Market Sellers may submit Variable Operation and Maintenance (VOM) adder information to PJM as part of a Fuel Cost Policy.

(a) If upon review of a Market Seller's cost-based offer, PJM determines that the offer is not in compliance with the Market Seller's PJM-approved Fuel Cost Policy, the Market Seller does not have a PJM-approved Fuel Cost Policy, or PJM determines that any portion of the cost based offer is not in compliance with the supporting documentation submitted by the Market Seller, the Market Seller shall be subject to the following penalty summed for each hour that the offer applied:

$$\Sigma \text{ Penalty}_{dh} = \frac{\min(d, 15) \times \text{LMP}_h \times \text{MW}_h}{20}$$

(b) Market Sellers that are assessed a penalty for non-compliance with an approved Fuel Cost Policy or the cost-based offer is not in compliance with Market Seller's submitted documentation shall be assessed penalties until the day after PJM determines that the Market Seller's cost-based offers are in compliance with the Market Seller's approved Fuel Cost Policy or in compliance with the Market Seller's submitted documentation. Such penalties will be assessed for no fewer than one (1) Operating Day.

(c) Market Sellers that are assessed a penalty for not having an approved Fuel Cost Policy shall be assessed penalties until the day after PJM approves the Market Seller's submitted Fuel Cost Policy. Such penalties will be assessed for no fewer than one (1) Operating Day.

(d) Market Sellers who have a Fuel Cost Policy revoked by PJM will be provided a three (3) business day rebuttal period, starting from the date of revocation, to submit supporting documentation to PJM demonstrating that the revoked Fuel Cost Policy accurately reflects the fuel source, transportation cost, procurement process used, applicable adders, or commodity cost for such generation resource such that the Fuel Cost Policy results in a submitted cost-based offer that is not greater than its actual fuel cost. If PJM determines that the revoked policy does accurately reflect the Market Seller's actual fuel cost, PJM will make the Market Seller whole via uplift payments for the time period for which the generation resource's Fuel Cost Policy had been revoked and the generation resource was mitigated to a \$0/MWh cost-based offer.

FERC Order:

55. To ensure that the tariff is clear as to which provisions apply to Fuel Cost Policy, we require PJM to reorganize Schedule 2 as follows: "Section I General Cost Provisions" will include current subsections (a), as revised above, through (c), "Section II Fuel Cost Policy" will include proposed subsections (d) through (k) and (m), "Section III. Emission Allowances/Adder" will include proposed subsection (j)(iii); "Section IV Variable Operation and Maintenance Adders" will include proposed subsection (j)(iv); and "Section V Penalty Provisions" will include proposed subsection (l). PJM must file these revisions within 30 days of the date of this order.

Section II: Fuel Cost Policy (Includes Heat Rate other incremental costs)

Section III: Emissions Allowances/Adders

Section IV: Variable Operation and Maintenance Adders

- Submit your Fuel Cost Policy to MIRA
- In Section 2 of your Policy (Fuel Cost)
 - Along with heat rate, fuel, other incremental costs
 - Indicate if you use Emissions Adders and/or VOM Adders
- Same Document, New Page, New Section for each
 - Emissions Policy
 - VOM Policy
 - In these policies that both require annual review indicate details as to how you develop these costs.
 - Future reviews of Emissions and VOM will be completed in parallel with Fuel Cost Policy annual review.

"We accept PJM's proposal and find reasonable PJM's clarification that its proposal explicitly provides that Schedule 2((j)(iv)) of the PJM Operating Agreement prohibits market participants from including Maintenance Adders as part of any costs that are included in the generation resource's ACR. We also note that Additional Labor Costs are not allowed to be recovered through the ACR; therefore, we reject the IMM's argument that including these components in cost-based offers could raise market power concerns or create an unreasonable double recovery between the two markets."

- PJM has created a Maintenance Cost Visual Reference in accordance with governing documents
- VOM – anything in run buckets with exception of CC's and CT's long term maintenance must be removed as of June 1, 2015, is includable in cost-based offer
- Default ACR does not include Additional Labor Costs, therefore can be in energy market offer
- If you did not use default ACR and included costs in RPM offer, you cannot recover in energy market cost-based offer. (double recovery)
- The Diagram on the next slide provides examples.
- If you have specific questions please reach out to: Jeff Schmitt, 610-666-4728 or jeffrey.schmitt@pjm.com

NOT RUN

ACR

Avoidable Cost Rates

FIXED

Avoidable costs

- Plant Staff
- Taxes
- Fees
- Insurance
- Carrying Charges
- Fuel Availability

RUN

VOM-M15

Variable Operations and Maintenance – Manual 15

SIX TO TEN YEARS

Major overhauls and inspections

- CT Hot Gas Path Inspections
- Turbine Overhaul
- Boiler Overhaul
- CT and CC Excluded June 15, 2015

ANNUAL

Annual repairs from operating

- Pump/Valve Repair
- Boiler Tube Leak Repair
- CT Air Filter Replacement

OPERATING DAY

Short run marginal cost

- Short Run Marginal Cost
- Water
- Chemicals
- Consumables