

# Fuel Cost Policy Penalty Report Updates

Sean Flamm  
Market Settlements Development  
Market Settlements Subcommittee  
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- The status quo penalty takes the number of days, capped at 15 days, that the non-compliant offer was submitted divided by 20, which is then multiplied by the sum of the hourly LMP at the generator's location times the generator's hourly available MW for all hours that the non-compliant offer was submitted for the applicable day.

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

- If Market Seller corrects the non-compliant offer either before or upon notification from PJM or the IMM, then 'd' will equal 1 and the LMP and MW values will be based on the last day of the non-compliant offer.



# Fuel Cost Policy Penalty Updates

Market Participant Concerns with Status Quo	Proposed Solution
LMP and MW are based on the last day of the non-compliant offer, which results in a random penalty that is either excessive or inconsequential	Use average LMP and MW over duration of non-compliant offer
Penalty equation in Operating Agreement, Schedule 2 is difficult to interpret	Breakout into two equations: <ul style="list-style-type: none"> <li>• <b>Non-escalating penalty</b> – issued if Market Seller either ceased submitting non-compliant offer either prior to, or upon notification from PJM</li> <li>• <b>Escalating penalty</b> – issued, in addition to the non-escalating penalty, if Market Seller continues to offer non-compliant offer (<u>no changes to the way escalating penalty is applied today</u>)</li> </ul>
Lacks incentive for Market Seller to proactively report to PJM any errors that they discover in their cost-based offer	75% reduction in penalty for Market Sellers that report cost-based offer errors to PJM prior to inquiry from PJM or IMM (component 'E' of equation)
Penalty can be excessive even when the error had no possibility of impacting the market due to the fact that the generator would have never been dispatched on the non-compliant cost-based offer	90% reduction in penalty for non-compliant cost-based offers that did not have the potential to impact the market* (component 'I' of equation)

- The non-escalating penalty is 1/20 of the sum of the average LMP at the generator's location for each hour of the day across all days of the non-compliant offer times the generator's average available MW for each hour of the day across all days of the non-compliant offer multiplied by the Market Seller identified error factor & market impact factor.

$$\sum_{h=1}^{24} = \left( \left( \frac{1}{20} \right) \times LMP_h \times MW_h \times E \times I \right) \text{ across all hours}$$

- If the Market Seller continues to submit the non-compliant offer after being notified by PJM, then in addition to the non-escalating penalty, the Market Seller will be issued a daily escalating penalty. The escalating penalty will be equal to the number of days, capped at 15 days, that the non-compliant offer continued to be submitted divided by 20, multiplied by the sum of the hourly LMP at the generator's location multiplied by the generator's hourly available MW for all hours that the non-compliant offer was submitted for the applicable day

- 4 new reports created
  - Fuel Cost Policy Non-Escalating Penalty Charge Details
  - Fuel Cost Policy Non-Escalating Penalty Interval Details
  - Fuel Cost Policy Escalating Penalty Charge Details
  - Fuel Cost Policy Penalty Charge Summary
- Existing report Fuel Cost Policy Penalty Credit Allocation Summary will remain unchanged and continue to be used in current function
- Existing report Fuel Cost Policy Penalty Charge Details will be renamed to Fuel Cost Policy Penalty Charge Details (Pre 09.01.2020) to reflect cutover to individual charge reports



# Fuel Cost Policy Non-Escalating Penalty Charge Details

- New report to support new calculation for non-escalating Fuel Cost Policy penalties

The following columns will appear in the body of the report:

Online and CSV Column Name	XML Column Name	Column Number	Data Type
Customer ID	CUSTOMER_ID	4000.01	INTEGER
Customer Code	CUSTOMER_CODE	4000.02	VARCHAR2(6)
EPT Hour Ending	EPT_HOUR_ENDING	4000.05	VARCHAR2(40) mm/dd/yyyy HH24 format (Displays first hour of the day as hour 1 and last hour of the day as hour 24)
GMT Hour Ending	GMT_HOUR_ENDING	4000.06	VARCHAR2(40) mm/dd/yyyy HH24 format (Displays first hour of the day as hour 1 and last hour of the day as hour 00 of the following day)
Unit ID	UNIT_ID	4000.63	NUMBER
Unit Name	UNIT_NAME	4000.64	VARCHAR2(60)
Unit Ownership Share	UNIT_OWNERSHIP_SHARE	3000.80	NUMBER
Fuel Cost Policy Penalty Factor	FUEL_COST_POLICY_PEN_FCT	1390.10	NUMBER
Self-Report Factor	SELF_REPORT_FCT	1390.15	NUMBER
Market Impact Factor	MARKET_IMPACT_FCT	1390.16	NUMBER
Average RT LMP (\$/MWh)	AVERAGE_RT_LMP	1390.17	NUMBER
Average Capacity (MWh)	AVERAGE_CAPACITY	1390.18	NUMBER
FCP Non-Escalating Penalty Charge (\$)	FCP_NON_ESCALATING_PEN_CH	1390.02	NUMBER
Version	VERSION	4000.07	VARCHAR2(12)

## Supporting Calculations

FCP Non-Escalating Penalty Charge = Average RT LMP \* Average Capacity \* Self-Report Factor \* Market Impact Factor \* Fuel Cost Policy Penalty Factor

1390.02 = 1390.17 \* 1390.18 \* 1390.15 \* 1390.16 \* 1390.10



# Fuel Cost Policy Non-Escalating Penalty Interval Details

- New report to provide individual interval values that comprise the averaged values used in the Fuel Cost Policy non-escalating penalty calculation

The following columns will appear in the body of the report:

Online and CSV Column Name	XML Column Name	Column Number	Data Type
Customer ID	CUSTOMER_ID	4000.01	INTEGER
Customer Code	CUSTOMER_CODE	4000.02	VARCHAR2(6)
EPT Hour Ending	EPT_HOUR_ENDING	4000.05	VARCHAR2(40) mm/dd/yyyy HH24 format (Displays first hour of the day as hour 1 and last hour of the day as hour 24)
GMT Hour Ending	GMT_HOUR_ENDING	4000.06	VARCHAR2(40) mm/dd/yyyy HH24 format (Displays first hour of the day as hour 1 and last hour of the day as hour 00 of the following day)
Penalty Effective Date (EPT)	PENALTY_EFF_DATE	1390.13	DATE
Penalty Termination Date (EPT)	PENALTY_TERM_DATE	1390.14	DATE
Unit ID	UNIT_ID	4000.63	NUMBER
Unit Name	UNIT_NAME	4000.64	VARCHAR2(60)
Unit Ownership Share	UNIT_OWNERSHIP_SHARE	3000.80	NUMBER
RT LMP (\$/MWh)	RT_LMP	3000.25	NUMBER
RT Generation (MWh)	RT_GENERATION	3000.33	NUMBER
RT Emergency Max (MWh)	RT_EMERGENCY_MAX	3000.97	NUMBER
Version	VERSION	4000.07	VARCHAR2(12)

This report does not have any calculated values that are supported purely by other columns on this report.



# Fuel Cost Policy Escalating Penalty Charge Details

- New report to support escalating Fuel Cost Policy penalty calculation

The following columns will appear in the body of the report:

Online and CSV Column Name	XML Column Name	Column Number	Data Type
Customer ID	CUSTOMER_ID	4000.01	INTEGER
Customer Code	CUSTOMER_CODE	4000.02	VARCHAR2(6)
EPT Hour Ending	EPT_HOUR_ENDING	4000.05	VARCHAR2(40) mm/dd/yyyy HH24 format (Displays first hour of the day as hour 1 and last hour of the day as hour 24)
GMT Hour Ending	GMT_HOUR_ENDING	4000.06	VARCHAR2(40) mm/dd/yyyy HH24 format (Displays first hour of the day as hour 1 and last hour of the day as hour 00 of the following day)
Unit ID	UNIT_ID	4000.63	NUMBER
Unit Name	UNIT_NAME	4000.64	VARCHAR2(60)
Unit Ownership Share	UNIT_OWNERSHIP_SHARE	3000.80	NUMBER
Fuel Cost Policy Penalty Factor	FUEL_COST_POLICY_PEN_FCT	1390.10	NUMBER
RT LMP (\$/MWh)	RT_LMP	3000.25	NUMBER
Available Capacity (MWh)	AVAILABLE_CAPACITY	1390.11	NUMBER
FCP Escalating Penalty Charge (\$)	FCP_ESCALATING_PEN_CH	1390.03	NUMBER(22,2)
Version	VERSION	4000.07	VARCHAR2(12)

## Supporting Calculations

Fuel Cost Policy Escalating Penalty Charge = Fuel Cost Policy Penalty Factor \* RT LMP \* Available Capacity

$$1390.03 = 1390.10 * 3000.25 * 1390.11$$



# Fuel Cost Policy Penalty Charge Summary

- New report to give quick organizational overview of Fuel Cost Policy penalty charges

The following columns will appear in the body of the report:

Online and CSV Column Name	XML Column Name	Column Number	Data Type
Customer ID	CUSTOMER_ID	4000.01	INTEGER
Customer Code	CUSTOMER_CODE	4000.02	VARCHAR2(6)
EPT Hour Ending	EPT_HOUR_ENDING	4000.05	VARCHAR2(40) mm/dd/yyyy HH24 format (Displays first hour of the day as hour 1 and last hour of the day as hour 24)
GMT Hour Ending	GMT_HOUR_ENDING	4000.06	VARCHAR2(40) mm/dd/yyyy HH24 format (Displays first hour of the day as hour 1 and last hour of the day as hour 00 of the following day)
FCP Non-Escalating Penalty Charge (\$)	FCP_NON_ESCALATING_PEN_CH	1390.02	NUMBER
FCP Escalating Penalty Charge (\$)	FCP_ESCALATING_PEN_CH	1390.03	NUMBER
Fuel Cost Policy Penalty Charge (\$)	FUEL_COST_POLICY_PEN_CH	1390.01	NUMBER
Version	VERSION	4000.07	VARCHAR2(12)

## Supporting Calculations

Fuel Cost Policy Penalty Charge = FCP Non-Escalating Penalty Charge + FCP Escalating Penalty Charge

$$1390.01 = 1390.02 + 1390.03$$



- Confirmation of production release date and MSRS training environment availability will be communicated through MSS email listserv.
- Production environment release date targeted for 9/22/2020