# *[Unit/Company]* Fuel Cost Policy: Nuclear

*General Instructions:*

*This template was developed by Monitoring Analytics to aid Market Sellers in the development of fuel cost policies that meet the IMM’s standards.*

*This template covers a range of fuel cost calculation methods for nuclear resources. Modifications to this template, including removal of provisions that do not apply, can be made in order to meet specific needs. Modifications will be evaluated by the IMM for consistency with the IMM’s standards.*

*The template contains text in italics and/or brackets that should be completed or that provide clarifying instructions.*

*All costs included in this template must be short run marginal costs. The short run marginal cost of energy is the incremental cost of producing one more MWh of energy. It includes the cost of fuel, the cost of emissions allowances, volumetric taxes on fuel purchases or subsidies, and consumables for operations that vary in the short run with energy output. Short run marginal costs do not include long term variable, fixed or avoidable costs incurred to maintain the efficiency or availability of the unit, its environmental compliance, or its fuel supply.*

*Before submitting the final version of this document, please remove any of the instructions in brackets and the “draft” watermark.*

# Company and Unit Information

Unit Owner: *[Complete with plant owner unless a different company has ownership of the energy, via a PPA or tolling agreement, in which case, complete with buyer entity]*

Unit Operating Company: *[Complete]*

Energy Manager / Marketer: *[Complete with entity responsible for submitting the energy offer, if applicable]*

Market Seller: *[Complete with the PJM Market Seller entity]*

Contact: *[Indicate person(s) responsible for fuel cost policy submission or cost-based offer development. Include name, business address, phone number and email address]*

Units: *[Complete]*

|  |  |
| --- | --- |
| **Unit ID** | **Unit Name** |
| 12345678 | UNIT 1  |

# Nuclear Fuel Cost Development

## General Overview

The Market Seller shall develop their fuel costs based on [*select one of these two: an inventory method or replacement cost. The sections in this policy must be consistent with this selection*]. The defined fuel cost is the expected cost of fuel at the time that the day-ahead energy offer is submitted to PJM prior to the 10:30 close of Day-Ahead Energy Market for the operation of the unit during the next operating day, which runs from 00:00 to 24:00.

## Inventory Cost

*[Describe method, LIFO, FIFO or volume weighted average. A numerical example of the latest inventory cost calculation, including all deliveries by contract, volume, commodity cost, enrichment costs, transportation costs and previous consumption would be appropriate. Include frequency of updating costs.]*

## Replacement Cost

### Contract Based

*[Describe method. For example, replacement cost is based on the weighted average of fixed price transactions for next delivery year. Provide a summary table in an attached spreadsheet of all current contracts including supplier, term, volume, commodity cost and any other appropriate information relevant to the fuel cost development. Include frequency of updating costs.]*

### Spot Market Based

*[Describe method. For example, replacement cost is based on prompt year as published on NYMEX.]*

## Transportation Costs

*[Describe and explain the components and method for calculating transportation cost, as well as frequency of updating. Provide separate calculations in the numerical example for all source mines and intermediate facilities, by contract as applicable.]*

## Conversion, Enrichment and Fabrication Costs

*[Include how these costs are calculated and updated.]*

## Uranium Heat Content

*[Include how the uranium heat content is calculated.]*

# Heat Input

*[Task: Complete all columns below. If the unit does not use a heat input curve, please replace with the actual method used. If the unit is offered with an average heat rate, state that the unit is offered with an average heat rate instead of using incremental heat rates and a separate no load heat]*

*[Indicate if the unit is offered with a slope or step function.]*

|  |  |  |
| --- | --- | --- |
| **Component** | **Source** | **Update Frequency** |
| Heat Input Curve | Performance test | Annually |
| Startup Heat | Performance test | Annually |

## Performance Factor

*[Task: If a performance factor is not used delete bullets below and state that the performance factor is always equal to one (1)].*

* Performance Factor Update Frequency: *[Monthly].*
* Performance Factor Source: *[Describe how performance factor is calculated].*
* Performance Factor Method: *[Total Fuel, Separate, Fixed Start Approach. See PJM Manual 15 section 2.2.3 for details].*

# Emissions

Nuclear units do not have emissions costs.

# Other Operating Costs

[*Task: List the other components of costs that are consumables such as other fuel related costs not covered in the fuel cost, transportation or emission sections. Include how these costs are calculated and updated, for example, updated annually using last calendar year total costs divided by total MWh. Include the units of measure, for example, $ per MWh or $ per MMBtu.*]

# Documentation

The Market Seller will maintain all documentation needed to verify cost-based energy offers. The documentation may include invoices, contracts, screenshots, instant messages, text messages, emails or recorded phone calls. This information may be requested by PJM or the IMM to verify the development of cost-based energy offers.

# Intraday Offers Optionality

The Market Seller opts to not update offers intraday.

# Cost-Based Offer Numerical Example

*[Please provide spreadsheet with numerical example for a recently submitted cost-based offer. Specify date for current units. The example should include the following items when applicable:*

* *Separate calculations for the start costs, no load cost, and the entire incremental cost curve.*
* *Start heat input, no load heat input, segment incremental heat rates and heat input curve.*
* *All components of the Total Fuel Related Cost (TFRC) must be defined separately: commodity fuel price, transportation, other delivery charges, and other fuel related costs such as fuel handling or third party supplier fees.*
* *VOM costs in $ per start, $ per MMBtu, $ per MWh or $ per hour, if used in the calculation of the cost-based offer.*
* *Ten percent adder, FMU adder (if eligible) or opportunity cost adder (if eligible) if any of these adders are used in the calculation of the cost-based offer.*
* *Pollutant emission rates and assumed Emission Credit Allowance prices.]*