



Variable Operations & Maintenance Costs (VOM) Informational Update

Melissa Pulong
Sr Analyst, Operations Analysis & Compliance
Markets & Reliability Committee
August 23, 2018

All proposal packages failed to receive endorsement at the July MRC.

Proposal	Sector Weight In Favor	Sector Weight Not In Favor
Main Motion w/EIA Defaults	2.27	2.72
1st Alternative Motion (PJM)	2.86	2.14
2nd Alternative Motion (IMM)	1.83	3.17
3rd Alternative Motion (RECO)	1.97	3.03
4th Alternative Motion (ODEC)	2.65	2.35
Revote of 1st Alternative Motion (PJM)	2.93	2.07

- PJM is concerned that the current rules in Manual 15 related to Maintenance Adders treat CTs and CCs different from other unit types
- Some stakeholders have indicated that they reconsider the PJM package if fixed costs were removed and FERC review and approval was required before implementation

- PJM proposes to modify the PJM package
 - Remove inclusion of fixed costs for Energy Resources and units that did not clear the Capacity auction
 - Add additional clarification language to Tariff Attachment DD section 6.8 and Operating Agreement Schedule 2
- Implement changes only upon FERC approval

NOT RUN

ACR

Capacity - Avoidable Cost Rates

FIXED

Avoidable costs

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

RUN

VOM-M15

Energy - Variable Operations and Maintenance – Manual 15

ONE TO TEN YEARS

Major overhauls and inspections

- CT Hot Gas Path Inspections
- Turbine Overhaul
- Boiler Overhaul
- CT and CC Overhaul & Major Inspection

ANNUAL

Annual repairs from operating

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

Operating Costs

Energy

OPERATING DAY

Short run marginal cost

- Short Run Marginal Cost
- Water
- Chemicals
- Consumables

- Only actual maintenance costs attributed to running the unit and directly tied to electric production can be included in a unit's incremental energy offer.
 - CT and CC major inspection, overhaul and LTSA cost can be included
 - FERC Accounts minus labor cost can be included
 - Remove fixed Title V and emissions fees
- Immature units can use existing history (less than 10 years) or defaults
- **Define maintenance components allowable in a unit's cost-based energy offer in Schedule 2 of the Operating Agreement**

Components	PJM Original Package	PJM Revised Package
ACR Fixed Costs	Energy Only Resources and units that did not clear in the Delivery Year auctions can include ACR fixed cost in their cost-based energy offers.	Energy Only Resources and units that did not clear in the Delivery Year auctions cannot include ACR fixed cost in their cost-based energy offers. (Status Quo of current market rules)
Implementation Timeline	<u>VOM</u> - upon Board approval of M-15 Changes <u>Fixed Cost</u> - upon FERC approval of OA changes	<u>VOM</u> - upon FERC approval of OA and Tariff changes

- Operating Agreement, Schedule 2
 - Section 1.1
 - Operating Costs added to the list of permissible components of Cost-Based Offers
 - Defined Operating Costs
 - Defined Maintenance Adders
 - Section 4
 - Operating Costs added (Review of Maintenance Adders and Operating Costs)
- Tariff Attachment DD, section 6.8(c)
 - Clarification of costs recoverable in the Capacity Market

Schedule 2, Section 1.1(d) & (e)

(d) Operating Costs are expenses related to consumable materials used during unit operation and may include lubricants, chemicals, limestone, trona, ammonia, acids, caustics, water injection, and demineralizers usage.

(e) Maintenance Adders may include expenses incurred as a result of electric production. Allowable expenses include repair, replacement, inspection, and overhaul expenses including variable long term service agreement expenses.

Attachment DD, section 6.8(c)

(c) ~~For the purpose of determining an Avoidable Cost Rate, avoidable expenses shall exclude variable costs recoverable under cost-based offers to sell energy from operating capacity on the PJM Interchange Energy Market under the Operating Agreement. A Market Seller that intends to recover variable costs under cost-based offers to sell energy from operating capacity on the PJM Interchange Energy Market may not include such costs under an Avoidable Cost Rate.~~

- Informational Update:
 - MRC- August 23
- Endorsements, if Motioned and Moved to vote:
 - MRC/MC- September 27
- Board Approval
 - October
- FERC Filing of Operating Agreement and Tariff Changes
 - Upon Board Approval