

MRC Endorsement Variable Operations & Maintenance Costs (VOM) Summary of Proposed Packages

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Variable Operations & Maintenance (VOM) Packages

| Proposed Package | Voting Order | |
|---------------------|---|--|
| Default VOM Package | Main Motion; 80% MIC Endorsement | |
| PJM Package | 1 st Alternate Motion;75% MIC Endorsement | |
| IMM Package | 2 nd Alternate Motion; 11% MIC Endorsement, motioned and seconded at April MRC to be voted if the Main and 1 st Alternate fail | |
| RECO Package | 3 rd Alternate Motion; Brought forth and motioned and seconded at the June MRC to be voted if the Main, 1 st Alternate, and 2 nd Alternate packages fail | |



Maintenance Costs under Today's Rules

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 GasPath Inspections
- Turbine Overhaul
- Boiler Overhaul
- CT and CC Overhaul &
 Major Inspection
 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 RunMarginal Cost
- Water
- Chemicals
- Consumables





NOT RUN

ACR

Capacity - Avoidable Cost Rates

FIXED

Avoidable costs

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

RUN

PJM Proposed VOM-M15 or EIA Default

Energy - Variable Operations and Maintenance – Manual 15

ONE TO TEN YEARS

Major overhauls and inspections

- CT Hot GasPath 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 RunMarginal Cost
- Water
- Chemicals
- Consumables





NOT RUN

ACR

Capacity - Avoidable Cost Rates

FIXED

Avoidable costs

- Plant Staff
- Taxes / Fees/ Insurance
- Carrying Charges
- Fuel Availability
- Energy Only Resources and units that did not clear can include ACR fixed cost in VOM

RUN

VOM-M15

Energy - Variable Operations and Maintenance – Manual 15

ONE TO TEN YEARS

Major overhauls and inspections

- CT Hot GasPath 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 RunMarginal Cost
- Water
- Chemicals
- Consumables





NOT SHORT RUN

SHORT RUN

ACR

Capacity - Avoidable Cost Rates

Operating Costs

Energy

Other Avoidable Costs

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

Major Maintenance

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

Annual Maintenance

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

Short Run Marginal Costs

- Fuel
- Emissions
- Water
- Chemicals
- Consumables





NOT RUN

ACR

Capacity - Avoidable Cost Rates

FIXED

Avoidable costs

- Plant Staff
- Taxes / Fees/ Insurance
- Carrying Charges
- Fuel Availability
- Maintenance must be excluded if VOM adder is used in the Energy Market

RUN

VOM-M15 up to Published Cap

Energy - Variable Operations and Maintenance – Manual 15

ONE TO TEN YEARS

Major overhauls and inspections

- CT Hot GasPath 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 DAY

Short run marginal cost

- Short RunMarginal Cost
- Water
- Chemicals
- Consumables



| Main Motion Default VOM Package | 1 st Alternative | 2 nd Alternative | 3 rd Alternative |
|---|---|--|--|
| | Motion | Motion | Motion |
| | PJM Package | IMM Package | RECO Package |
| Upon PJM Board approval of M-15 changes | VOM - Upon Board approval of M-15 Changes Fixed Cost - Upon FERC approval of OA changes | 30 days after FERC approval of OA and Tariff changes | Upon PJM Board approval of M-15 Manual Changes and FERC approval of OA and Tariff changes |



- MRC endorsement 7/26/2018
- MC endorsement Tariff & Manual 15–7/26/2018
- Board approval Manual 15 7/31/2018