# Variable Maintenance Operations Cost

<table>
<thead>
<tr>
<th>Consensus Design Criteria</th>
<th>Level</th>
<th>Status Quo</th>
<th>2011 CDS Brainstormed Potential Component Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Clear definition of VOM should be developed.</td>
<td>High</td>
<td>VOM from FERC form accounts, 10/20 year history.</td>
<td>VOM is the additional expenses resulting from electric production excluding long term fixed costs and TFRC.</td>
</tr>
<tr>
<td>A Clear definition of cost categories eligible for VOM (VOM vs. ACR)</td>
<td>High</td>
<td>Overhauls for CT &amp; CC in VOM, Steam Overhaul &amp; Inspection in ACR.</td>
<td>Cost categories should include 1) short term consumables, 2) long term capital costs, 3) major component replacement/capital projects.</td>
</tr>
<tr>
<td>A preferred source for determining VOM should be adopted</td>
<td>High</td>
<td>10/20 Year History escalated and levelized by either operating hours or fuel usage.</td>
<td>Only Actual current Costs should be included.</td>
</tr>
<tr>
<td>Create a clear procedure for calculation of VOM Costs</td>
<td>High</td>
<td>Current M15 language is unclear.</td>
<td>Numerical calculation of VOM</td>
</tr>
<tr>
<td>Procedures distinguish among clearly defined categories of costs.</td>
<td>High</td>
<td>FERC accounting definitions are be used as guidance.</td>
<td>Repairs that are not postponable and premature replacements should be included in VOM.</td>
</tr>
</tbody>
</table>

---

- **VOM**: Variable Operations and Maintenance Costs
- **TFRC**: Total Fixed and Renewable Costs
- **ACR**: Avoidable Costs Related to ACR
- **APIR**: Avoidable Costs Related to APIR

---

**Comments:**
- Cost categories should include 1) short term marginal cost, 2) annual fixed, and 3) long term fixed.
- Replacement is not VOM unless you are replacing something that should have lasted much longer.
- Repair is variable.
- Expected Replacement and Overhauls are ACR. Short term “patches” are VOM.
- Forward Forecasted costs instead of actual costs to reflect operational configuration changes.
- Numerical Calculation of VOM (special exceptions to be defined within the cost policy).
- Consumable Costs should be based on the method in the company's fuel cost policy.

---

**Further documentation for 10/17/2011 CDS meeting -- Define short term marginal costs**

---

**Implementation when language approved**

---

**Definitions:**
- **VOM**: Variable Operations and Maintenance Costs
- **TFRC**: Total Fixed and Renewable Costs
- **ACR**: Avoidable Costs Related to ACR
- **APIR**: Avoidable Costs Related to APIR

---

**Technical Notes:**
- Electric production non-fuel related costs and expenses resulting from unexpected equipment failures considering accepted life cycles and average failure rates.
- Cost categories should include 1) short term marginal cost, 2) annual avoidable, and 3) long term fixed.
- Replacement is not VOM unless you are replacing something that should have lasted much longer.
- Repair is variable.
- Expected Replacement and Overhauls are ACR. Short term “patches” are VOM.
- Forward Forecasted costs instead of actual costs to reflect operational configuration changes.
- Numerical Calculation of VOM (special exceptions to be defined within the cost policy).

---

**Actual vs. ACR:**
- Actual Costs should be included.
- Industry Averages will be used.
- Only Actual current Costs should be included.

---

**Technical Notes:**
- Electric production non-fuel related costs and expenses resulting from unexpected equipment failures considering accepted life cycles and average failure rates.
- Cost categories should include 1) short term marginal cost, 2) annual avoidable, and 3) long term fixed.
- Replacement is not VOM unless you are replacing something that should have lasted much longer.
- Repair is variable.
- Expected Replacement and Overhauls are ACR. Short term “patches” are VOM.
- Forward Forecasted costs instead of actual costs to reflect operational configuration changes.
- Numerical Calculation of VOM (special exceptions to be defined within the cost policy).
<table>
<thead>
<tr>
<th>Consensus Design Criteria</th>
<th>Level</th>
<th>Status Quo</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addresses Capital versus Expense accounting practices</td>
<td>Medium</td>
<td>Manual is silent on Individual Company capitalization policy.</td>
<td>Procedures and practices should be flexible enough to accommodate reasonable accounting practices of the resource's owner</td>
<td>PJM unit of property book. (PJM will come up with a consistent unit of property book)</td>
<td>No Capital costs are allowed in VOM</td>
<td>VOM and Capital Expenditures are to be defined by the nature of the work and not the accounting policy.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A simple method available as an alternative</td>
<td>Low</td>
<td>No alternative method in M15.</td>
<td>Alternative available if generator has no or limited expense history</td>
<td>Alternative available if generator has no resources to calculate VOM costs.</td>
<td>Standardized policy for VOM.</td>
<td>Non-consumable (Repair Cost) via administratively set value or established rules.</td>
<td>Class average to be made available for unit types.</td>
<td>Theoretical VOM by unit types to be published.</td>
<td></td>
</tr>
<tr>
<td>Development of a clear calculation procedure so that the VOM calculated by the MMU and by market participants result in the same number. (MMU can verify resulting VOM value).</td>
<td>High</td>
<td>Calculation Procedure unclear</td>
<td>Consumables recovered defined within a unit's cost policy.</td>
<td>MMU has audit rights to maintenance expense items.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Procedures can accommodate units under Long term Service Agreements.</td>
<td>Medium</td>
<td>LTSAs are only addressed for CT &amp; CCs in the current M15</td>
<td>VOM and Capital Expenditures are to be defined by the nature of the work and not the contractual agreement.</td>
<td>Existing treatment of contract costs are grandfathered.</td>
<td>LTSA should calculate cost similar to other non-LTSA units.</td>
<td>LTSA contracts should be reviewed by MMU for reasonable allocation of costs.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>