

Synchronous Condensing Costs

Problem / Opportunity Statement

Synchronous condensers incur certain costs when operating in condensing mode. Units operate in condensing mode to provide reserves, reactive support or post contingency operation.

Condensers provide PJM with ~~two~~three operating parameters and three financial parameters as part of their offers. These parameters are:

- Condense Energy Use (MW)
- Condense Notification Time
- Condense to Generate Time
- Condense Startup Cost
- Condense to Gen Cost
- Condense Hourly Cost

PJM Manual 11 (Energy & Ancillary Services Market Operations) and the Markets Gateway User Guide contain the definitions of these parameters. The Cost Development Guidelines (Manual 15) defines two components:

1. Startup Costs (CTs) or Condensing Start Costs (Hydro).
2. Actual cost of power consumed during condensing operations.

The Operating Agreement has no definitions.

The definitions of these parameters need to be reviewed, clarified or corrected when necessary, and documented in Manual 15 and the Operating Agreement.

[The Condense Hourly Cost is defined in Manual 11 and used in the compensation for synchronous condensing for purposes other than synchronized and secondary reserves per Manual 28. This component was removed from reserves on October 1, 2022 as part of the reserve market changes. It was also removed from Manual 15 in compliance with the approved reserve market changes. The component was not removed from Manual 11 and Manual 28 creating an inconsistency between Manual 15 and Manual 11/28.](#)

Issue Source

The PJM Independent Market Monitor.

Issue Content

The work is intended to review, clarify, propose changes, and document the costs includable in the offers from synchronous condensers.

Key Work Activities and Scope Content

1. Review the current definitions.
2. Propose changes or new definitions.
- [3. Document definitions in Manual 15 and the Operating Agreement.](#)
- [3.4. Revise Manual 11 and Manual 28](#)

Expected Deliverables

Manual [11](#), [15](#) and [28](#) and Operating Agreement Revisions.

Decision-Making Method

Tier 1, consensus (unanimity) on a single proposal.

Stakeholder Group Assignment

This item will be discussed at the Cost Development Subcommittee (CDS) with the expected Manual ~~15~~ changes forwarded to the Market Implementation Committee (MIC) for endorsement.

Expected Duration of Work Timeline

This item can be immediately discussed at the CDS. The expected timeline to complete this task is estimated to be 3 months.

| Start Date | Priority Level | Timing | Meeting Frequency |
|------------|---|---|---|
| | <input type="checkbox"/> High | <input checked="" type="checkbox"/> Immediate | <input type="checkbox"/> Weekly |
| | <input type="checkbox"/> Medium | <input type="checkbox"/> Near Term | <input checked="" type="checkbox"/> Monthly |
| | <input checked="" type="checkbox"/> Low | <input type="checkbox"/> Far Term | <input type="checkbox"/> Quarterly |

Charter

(Check one Box)



| | |
|-------------------------------------|--|
| <input type="checkbox"/> | This document will serve as the Charter for a new group created by its approval. |
| <input checked="" type="checkbox"/> | This work will be handled in an existing group with its own Charter (and applicable amendments). |