



Cost Development Subcommittee Update September 2023

Nicole Scott
Transmission Operations
Manager

- Synchronous Condensing Costs
 - Consensus was given for the revised PS/IC on Synchronous condensing costs.
 - Joel Luna presented education on the topic

NEXT STEPS: Manual language updates for the affected manuals will be brought to CDS.
- Station Service Rate in Start Cost Calculation
 - Jeffrey Whitehead, GT Power Group presented a PS/IC on Station Service Rate in Start cost calculation

NEXT STEPS: CDS will be asked for consensus at next meeting and education will be presented on the topic.



Synchronous Condensing Costs – Revised PS/IC

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.](#)

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.



Station Service Rate in Start Up Cost Calculation PS

Issue Charge

M15 Start-up Cost Calculation - Pricing Station Service/Generation During Start for Units with a Soak Process

Issue Source

Jeff Whitehead – GT Power Group

Issue Content

Technical issue related to the use of the 12-month rolling average off-peak energy prices in the calculation of Start-up costs for generators with a soak process.

Specifically, off-peak energy prices were elevated in 2022 due to geopolitical issues driving higher natural gas and other fuel prices. In 2023, gas/fuel prices returned to alignment with lower pre-2022 levels, as did energy prices. This rendered the 12-month rolling average used to calculate the Station Service Rate in 2023 elevated relative to the actual prices generators were paying, or being paid, for net MWh consumed/generated during Start-up. This continues to result in an inaccurate Start-up cost calculation that either over- or under-estimates those costs.

Key Work Activities and Scope

1. Education regarding the Start-up cost calculation for generators with a soak process; specific emphasis on Station Service MWh calculation and use of the Station Service Rate in pricing those MWhs
2. Explore potential revisions to the Station Service Rate, or alternatives to that rate, to align the rate with actual prices paid, or paid to, generators during start-up

Expected Deliverables

1. M15 revisions to reflect any agreed upon revisions in KWA 2

Decision-Making Method

Tier 1, consensus (unanimity) on a single proposal (preferred default option), or Tier 2, multiple alternatives.

Stakeholder Group Assignment

CDS

Expected Duration of Work Timeline

Start discussion ASAP; conclude in 2-3 months.

Jan – Mar

Apr – Jun

Jul – Sep

Oct – Dec

CDS
2023
Items

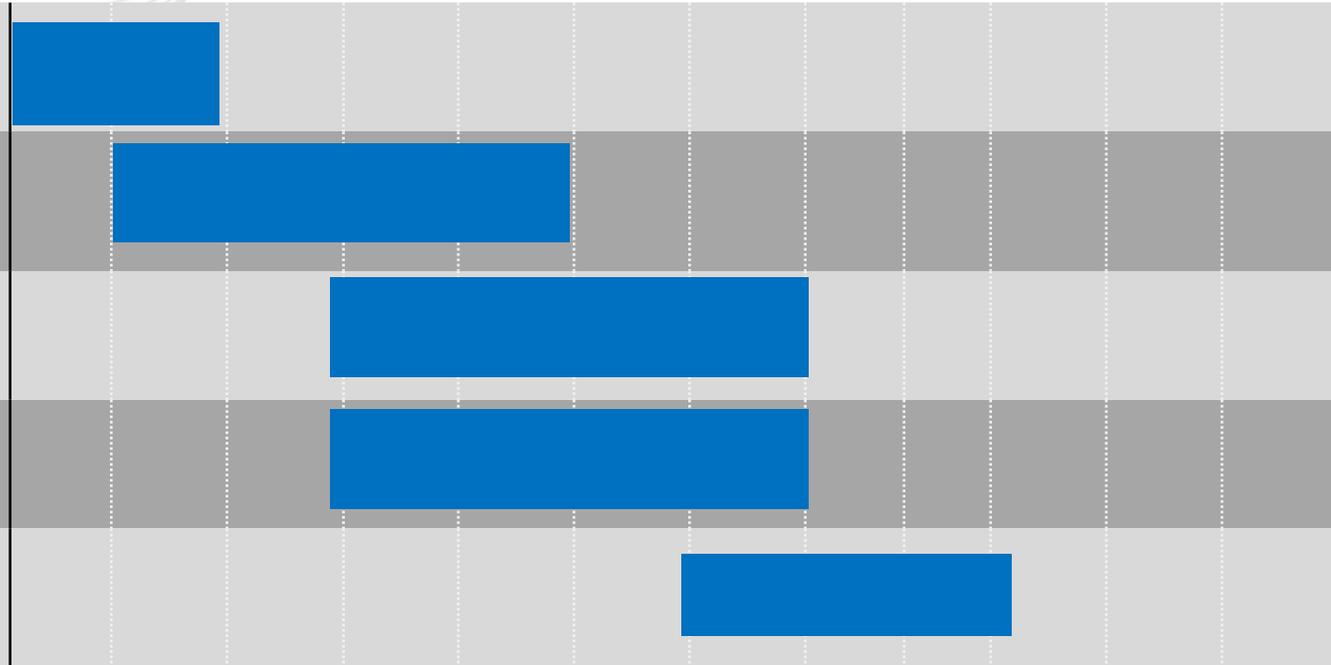
Heat Input Options/Modeling

Energy Offers for co-generation and co-located loads

Condensing Costs

Pumping Costs

Nonzero cost-based offers for units that are not dispatched / not committed by PJM



Facilitator:
Nicole Scott, Nicole.Scott@pjm.com

Secretary:
Heather Reiter, Heather.Reiter@pjm.com

Cost Development Subcommittee Update



Member Hotline

(610) 666 – 8980

(866) 400 – 8980

custsvc@pjm.com