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|  | NEPOOL Markets Committee |
|  | Catherine McDonough |
|  | November 3, 2015 |
|  | Proposed Modeling, Tariff and Manual Changes for DARD Pumps |

**Background:** The ISO-NE models pump storage hydro-generating units as two separate assets: Fast-Start Generators and Dispatchable Asset Related Demands (DARDs). However, as we discussed at the August and September Markets Committee Meeting, the DARD Model does not fully consider the physical characteristics of DARD Pumps. This creates unnecessary financial risk for DARD Pumps and undermines the efficiency of the system dispatch by inhibiting the ability of DARD Pumps to bid their true willingness to pay. It also increases the proclivity for real time price spikes and reduces the incentive for DARD Pumps to follow ISO dispatch instructions.[[1]](#footnote-1)

**Proposal:** Five modeling changes have been identified to address these shortcomings.

1) Honor the bid-in Minimum Consumption Limit for DARD Pumps that bid economic to better ensure that DARD Pumps can physically meet their Day-Ahead Energy Market (DAEM) schedules and to reduce the risk of dispatch chatter[[2]](#footnote-2) in the Real-Time Energy Market (RTEM).

2) Enable DARD Pumps to specify a Minimum-Run Time and Minimum-Down Time (up to one hour) to eliminate the risk of dispatch chatter.

3) Enable DARD Pumps to specify a Maximum Daily Consumption Limit and Maximum Number of Daily Starts for use in the DAEM to better ensure that the DARD Pumps can physically meet their DAEM positions.

4) Expand eligibility for NCPC credits to ensure that DARD Pumps do not pay more than their bid price for energy when dispatched by the ISO based on economics. [[3]](#footnote-3)

Taken together, these changes will reduce financial risk and better enable the DARD Pumps to bid their willingness to pay (sans the risk) and improve the efficiency of the system dispatch.[[4]](#footnote-4)

**Proposed Change to DA NCPC Credit Calculation for Fast Start/Flexible DNE Generators**

In the process of developing proposed NCPC rules for the DARD Pumps, it became clear that the current rules to calculate DA NCPC credits for Fast Start and Flexible DNE Generators need to be better aligned with the method/parameters used to clear the DAEM. The rules currently state that the DA NCPC credits for these resources will be calculated hourly. But this does not acknowledge the ability of these Resources to constrain the DAEM schedule by bidding a low number of Daily Starts. To address this gap, the ISO is proposing to calculate the DA NCPC credit hourly unless the actual number of daily starts is equal to Maximum Number of Daily Starts. Otherwise, the DA NCPC credit will be calculated by netting across the hours in the settlement period. This change is required to strengthen the incentive for resources to bid their true willingness to pay[[5]](#footnote-5)

**Next Steps**

At the November 9, 2015 Markets Committee meeting, the ISO will be asking participants to support the proposed changes described above.[[6]](#footnote-6)

Please feel free to e-mail me at [cmcdonough@iso-ne.com](mailto:cmcdonough@iso-ne.com) or call me at (315) 420-7322 if you have any questions or comments ahead of the meeting.

1. See Materials from the [August](http://www.iso-ne.com/committees/markets/markets-committee) Markets Committee (MC) Meeting (Agenda Item #5) and the [September](http://www.iso-ne.com/committees/markets/markets-committee) MC Meeting (Agenda Item #6) [↑](#footnote-ref-1)
2. Dispatch chatter occurs when a Resource is dispatched on and off again over a short time interval which forces the Resource to declare its status as ‘Must Run’ to avoid excessive wear and tear. [↑](#footnote-ref-2)
3. Seethe materials from the [August](http://www.iso-ne.com/committees/markets/markets-committee) MC Meeting (Agenda Item #5, Slide 8) and the [September](http://www.iso-ne.com/committees/markets/markets-committee) MC meetings (Agenda Item #6, Slides 10-14), the November MC Meeting (Agenda Item # 3, slides 3-6 ) [↑](#footnote-ref-3)
4. Seethe materials from the [September](http://www.iso-ne.com/committees/markets/markets-committee) MC meetings (Agenda Item #6, Slides 4-9) [↑](#footnote-ref-4)
5. See the materials from [October](http://www.iso-ne.com/committees/markets/markets-committee) MC Meeting (Agenda Item # 6, slides 3-5) and the [November](http://www.iso-ne.com/event-details?eventId=125224)  Market Markets Committee meetings (Agenda Item # 3, slides 3-6). [↑](#footnote-ref-5)
6. For a summary of the proposed tariff and manual changes, see materials from [October](http://www.iso-ne.com/committees/markets/markets-committee) MC Meeting (Agenda Item # 6, slides 8-29) and the [November](http://www.iso-ne.com/event-details?eventId=125224)  Market Markets Committee meetings (Agenda Item # 3, slides 7-9). The proposed changes to the tariff and manuals can also be found on these links. [↑](#footnote-ref-6)