

NPRR515 Day-Ahead Market (DAM) Self-Commitment Enhancement

Carrie Bivens

Manager, Forward Markets

May 25, 2016

Purpose of NPRR:

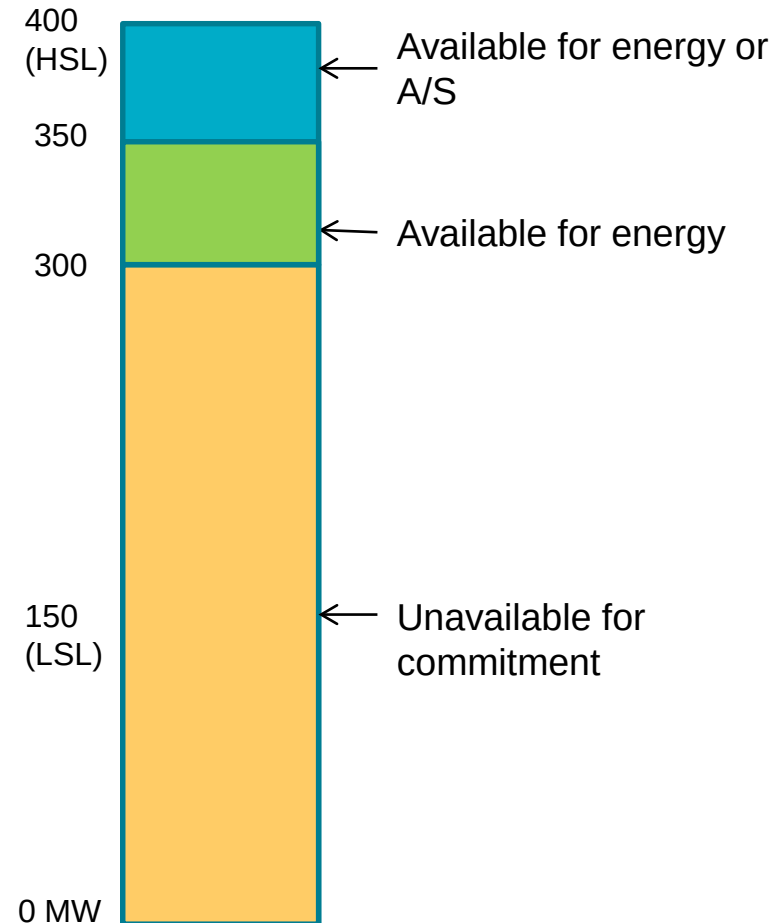
- Provide a way to allow Resources the flexibility to be self-committed in some hours and available for commitment by DAM in others
 - Offers can be shaped to line up with true availability
 - Since the current mechanism is restrictive, some might be staying out of DAM altogether, or not offering in the whole day

[NPRR515: Insert paragraphs (3)(a) – (3)(c) below upon system implementation:]

- (a) A QSE that submits an Energy Offer Curve without a Startup Offer and a Minimum-Energy Offer for the DAM for any given hour will be considered by the DAM to be self-committed for that hour, as long as an Ancillary Service Offer for Off-Line Non-Spin Service was not also submitted for that hour.
- (b) A Combined Cycle Generation Resource will be considered by the DAM to be self-committed if:
 - (i) Its QSE submits an Energy Offer Curve without a Startup Offer and a Minimum-Energy Offer for the DAM for that Combined Cycle Generation Resource and no other Combined Cycle Generation Resource within the Combined Cycle Train; and
 - (ii) Its QSE submits no Ancillary Service Offer for Off-Line Non-Spin for any Combined Cycle Generation Resource within the Combined Cycle Train.
- (c) When the DAM considers a self-committed offer for clearing, the Resource constraints identified in paragraph (4)(c)(ii) of Section 4.5.1, DAM Clearing Process, other than HSL, are ignored.

Background on Current Self-Commitment

- Allows QSEs the ability to offer a reduced quantity of MWs and co-optimize with AS
 - Energy Only Offers lose the co-optimization benefits
 - Example:
 - A Resource has 150 MW LSL and 400 MW HSL, and the QSE has already committed 300 MW of the Resource bilaterally or otherwise.
 - The QSE wishes to offer the remaining 100 MW, which would otherwise be ignored due to the LSL constraint.
 - The Resource can provide up to 50 MW of Ancillary Services
 - The QSE submits a self-committed offer for 100 MW and an AS Offer for 50 MW.



Current Self-Commitment Implementation in DAM

A resource is deemed to be self-committed for the *DAM Study Horizon* if

Rule #1: A Resource has NULL Startup Cost and Min Gen Cost at any hour;

AND

Rule #2: A Resource has no Offline Non-spin AS offer at any hour;

AND

Rule #3: At most one configuration of a CC resource can participate into DAM at any hour;

Highlights :

- All temporal, CC transition, and LSL constraints are ignored for the DAM Study Horizon
- A Resource **cannot** be self-committed on an hourly basis

Self-Commitment Implementation in DAM post NPRR515

A resource is deemed to be self-committed for a *DAM Study Hour* if

Rule #1: A Resource has NULL Startup Cost and Min Gen Cost for that hour;
AND

Rule #2: A Resource has no Offline Non-spin AS offer for that hour;
AND

Rule #3: At most one configuration of a CC resource can participate into DAM for that hour;

Highlights :

- All temporal, CC transition, and LSL constraints are ignored for the self-committed hour
- A Resource **can** be self-committed on an hourly basis
- Closer representation of Real Time Operations

Hourly Self-Commitment Submission

Update Three-Part Offer

Your submission was successfully submitted.

Operating Day **May 18 2016** Resource Name XXXXXXXXXX

Expiration

NOTE: Three-Part Offers submitted before 10:00am on the day prior to the Operating Day will be considered in the Day-Ahead Market.

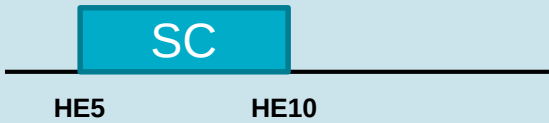
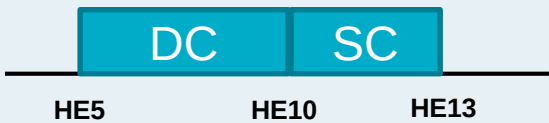
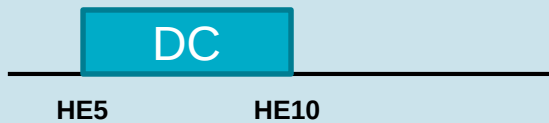
Three-Part Offer Details

Hr End		0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	
Start-Up	Hot Start-Up \$				5971.5	5971.5	5971.5	5971.5				
	Inter Start-Up \$				6000	6000	6000	6000				
	Cold Start-Up \$				6000	6000	6000	6000				
	Fip %				100	100	100	100				
	Fop %				0	0	0	0				
Min Energy	Min Energy \$				47.82	47.82	47.82	47.82				
Energy Curve	Inc/Exc	Inc	Inc	Inc	Inc	Inc	Inc	Inc	Inc	Inc	Inc	
	Qty/Price	0 21.12	0 21.12	0 21.12	0 21.12	0 21.12	0 21.12	0 21.12	0 21.12	0 21.12	0 21.6	0
		47 21.12	47 21.12	47 21.12	47 21.12	47 21.12	47 21.12	47 21.12	47 21.12	47 21.12	47 21.6	4
		108 24.86	108 24.86	108 24.86	108 24.86	108 24.86	108 24.86	108 24.86	108 24.86	108 24.86	108 25.42	1
		176 25.4	176 25.4	176 25.4	176 25.4	176 25.4	176 25.4	176 25.4	176 25.4	176 25.4	176 25.97	1
		205 25.55	205 25.55	205 25.55	205 25.55	205 25.55	205 25.55	205 25.55	205 25.55	205 25.55	205 26.12	2
		230 25.67	230 25.67	230 25.67	230 25.67	230 25.67	230 25.67	230 25.67	230 25.67	230 25.67	230 26.25	2
		259 25.81	259 25.81	259 25.81	259 25.81	259 25.81	259 25.81	259 25.81	259 25.81	259 25.81	259 26.39	2
		260 25.82	260 25.82	260 25.82	260 25.82	260 25.82	260 25.82	260 25.82	260 25.82	260 25.82	260 26.4	2
	Fip %	100	100	100	100	100	100	100	100	100	100	
	Fop %	0	0	0	0	0	0	0	0	0	0	
	Reason	v	v	v	v	v	v	v	v	v	v	

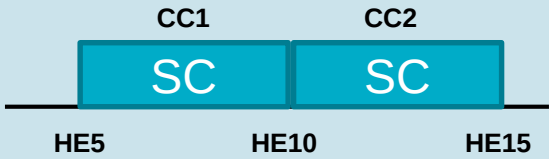
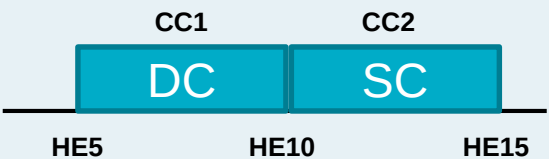
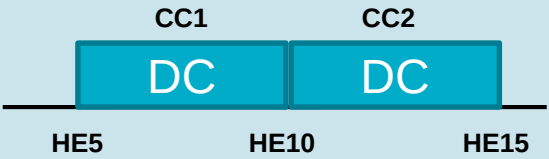
Cancel for time range from to



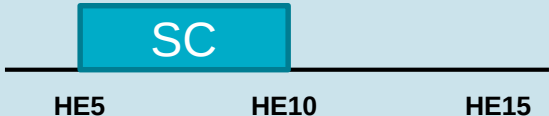
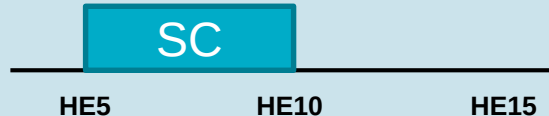
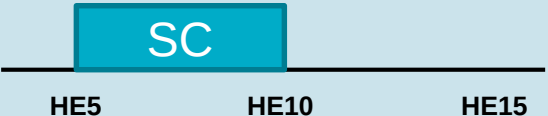
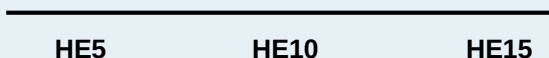
Startup Cost Eligibility for Regular and CC units

Scenario	Example	Startup Costs
DAM starts up a unit @ its self-committed-startup-interval	DAM Starts up the unit @ HE5 	No
DAM starts up a unit @ a non-self-committed-startup-interval and connects it to a self-committed-startup-interval	DAM Starts up the unit @ HE5 	No
DAM starts up a unit @ a non-self-committed-startup-interval	DAM Starts up the unit @ HE5 	Yes

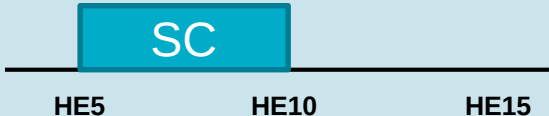
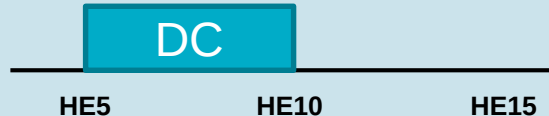
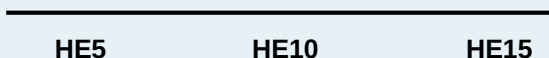
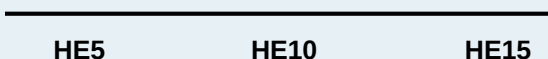
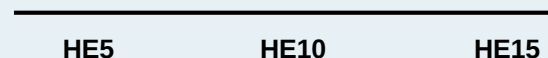
Transition Costs for Combined Cycle Units

Scenario	Example	Transition Costs
DAM transitions upwards from configuration1 to configuration2 @ self-committed-interval	DAM transitions from CC1 to CC2 @ HE10  The diagram shows a horizontal timeline with three points: HE5, HE10, and HE15. Above the timeline, two blue rectangular blocks represent combined cycle units. The first block, labeled 'CC1' above and 'SC' inside, spans from HE5 to HE10. The second block, labeled 'CC2' above and 'SC' inside, spans from HE10 to HE15. The blocks are adjacent, sharing the HE10 point.	No
DAM transitions upwards from configuration1 to configuration2 @ the boundary of DAM-committed interval and self-committed-interval	DAM transitions from CC1 to CC2 @ HE10  The diagram shows a horizontal timeline with three points: HE5, HE10, and HE15. Above the timeline, two blue rectangular blocks represent combined cycle units. The first block, labeled 'CC1' above and 'DC' inside, spans from HE5 to HE10. The second block, labeled 'CC2' above and 'SC' inside, spans from HE10 to HE15. The blocks are adjacent, sharing the HE10 point.	No
DAM transitions upwards from configuration1 to configuration2 @ non-self-committed-interval	DAM transitions from CC1 to CC2 @ HE10  The diagram shows a horizontal timeline with three points: HE5, HE10, and HE15. Above the timeline, two blue rectangular blocks represent combined cycle units. The first block, labeled 'CC1' above and 'DC' inside, spans from HE5 to HE10. The second block, labeled 'CC2' above and 'DC' inside, spans from HE10 to HE15. The blocks are adjacent, sharing the HE10 point.	Yes

Jointly Owned Units

Scenario	Example	Resultant Commitment Status
SGRs belonging to a JOU submits same self-commitment status	G1_J01 (Self-Commit)  G1_J02(Self-Commit) 	G1_J01  G1_J02 
SGR1 submits a self-committed offer SGR2 does not submit any offer	G1_J01 (Self-Commit)  G1_J02 (No Offer) 	G1_J01  G1_J02 

Jointly Owned Units

Scenario	Example	Resultant Commitment Status
SGR1 submits a self-committed offer SGR2 submits a Three-part Offer	G1_J01 (Self-Commit)  G1_J02(Three-Part Offer) 	G1_J01  G1_J02  * Available for DAM Commitment
SGR1 submits a Three-part Offer SGR2 does not submit any offer	G1_J01 (Three-Part Offer)  G1_J02 (No Offer) 	G1_J01 (OUT)  G1_J02 (OUT) 

Questions ?