

Capacity Performance seasonal aggregation scenarios

Demand Response Subcommittee
January 6, 2020

- All registrations will be Capacity Performance with a single RPM Auction Commitment
 - If the CSP has Summer-Period Only commitment (was paired with a Winter resource in an RPM Auction), the Summer RPM commitment is added to the commitment for annual Capacity Performance
 - Example: CSP has 25 MW annual Capacity Performance and 2 MW Summer-Period Only commitment

RPM Resource Commitment	MW (ICAP)
June thru October	27
November thru April	25
May	27

- All registrations with same RPM Auction Resource will have all Summer Nominated ICAP and all Winter Nominated ICAP rolled up together and compared to the annual Capacity Performance RPM commitment at the RPM Auction Resource (same as last year)
- If total Summer Nominated ICAP exceeds total Winter Nominated ICAP, it's considered as excess Summer Only (can be used for replacement, etc), or is used to fulfill any Summer-Period commitment
 - Note – there is no Winter-Period DR, if Winter Nominated ICAP > Summer Nominated ICAP then it cannot be used

- **Resources Linked to Registrations Report**
 - Shows **confirmed** registrations linked to an RPM Auction Resource
 - RPM Resource Commitment on 6/1/2020 is compared to sum of Summer Nominated ICAP
 - RPM Resource Commitment on 11/1/2020 is compared to Annual Nominated ICAP (lesser of: sum of summer and sum of winter) compared to

Registration	Summer ICAP (kW)	Winter ICAP (kW)
1	16,000	15,000
2	10,000	10,000
Total	26,000	25,000

Annual CP commitment = **25**

Summer: **26000** minus 25000 = 1000 = **1 MW (long in summer)**

Annual CP: **25000** minus (lesser of 26000 and 25000) = **0 MW (met commitment for Annual CP)**

RPM Resource Commitment	MW (ICAP)	Shortfall
June thru October	26	-1.0
November thru April	25	0
May	26	-1.0

1 MW summer excess can be used for a bilateral (summer only), to sell into an auction, etc.

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Resources Linked To Registrations DR Registration Orphan Report

Resources Linked To Registrations Report - 2020/2021



- a) Negative MW means shortfall and will be assessed daily deficiency penalty.
- b) Excess means amount nominated is greater than RPM commitment.
- c) All penalties are in UCAP, Resource Names are RPM resources - go to Capacity Exchange to see specifics.
- d) Difference Summer MW equals Summer Committed MW (ICAP) minus Total Summer ICAP (MW)
- e) Difference Annual MW equals Annual Committed MW (ICAP) minus Minimum of Total Summer MW (ICAP) and Total Winter MW (ICAP).

CSP	Product	Resource Name	Zone	Resource ID	Summer Commitment MW (ICAP)	Annual Commitment MW (ICAP)	Reg ID	Customer Name	Summer ICAP (MW)	Winter ICAP (MW)
PJMTest	Capacity Performance DR	PJMTest PECO DR 2	PECO	4787715	25	25	3287736	aly test registration 1	16.0	15.0
							3287737	aly test registration 2	10.0	10.0
								Total MW	26.0	25.0
								Difference Summer MW	1.0	
								Difference Annual MW		0.0

Registration	Summer ICAP (kW)	Winter ICAP (kW)
1	17,100	15,400
2	8,500	11,200
Total	25,600	26,600

Annual CP commitment = **25**, Summer Only commitment = **2**

Summer: **27000** minus 25600 = 1400 = **1.4 MW (short)**

Annual CP: **25000** minus (lesser of 25600 and 26600) = 600 = **0.6 MW (long for winter period only, 0.6 MW used to reduce Summer short from 2 MW to 1.4MW)**

RPM Resource Commitment	MW (ICAP)	Shortfall
June thru October	27	1.4
November thru April	25	-0.6
May	27	1.4

1 MW winter excess cannot be utilized (winter-period DR does not exist)

Resources Linked To Registrations Report - 2020/2021



- a) Negative MW means shortfall and will be assessed daily deficiency penalty.
- b) Excess means amount nominated is greater than RPM commitment.
- c) All penalties are in UCAP, Resource Names are RPM resources - go to Capacity Exchange to see specifics.
- d) Difference Summer MW equals Summer Committed MW (ICAP) minus Total Summer ICAP (MW)
- e) Difference Annual MW equals Annual Committed MW (ICAP) minus Minimum of Total Summer MW (ICAP) and Total Winter MW (ICAP).

CSP	Product	Resource Name	Zone	Resource ID	Summer Commitment MW (ICAP)	Annual Commitment MW (ICAP)	Reg ID	Customer Name	Summer ICAP (MW)	Winter ICAP (MW)
PJMTest	Capacity Performance DR	PJMTest PECO DR 2	PECO	4787715	27	25	3287736	aly test registration 1	17.1	15.4
							3287737	aly test registration 2	8.5	11.2
								Total MW	25.6	26.6
								Difference Summer MW	-1.4	
								Difference Annual MW		0.6

Type	DR Hub			Capacity Exchange			Annual Owned (MW)	Committed (MW)	Notes
	Zone	Summer NomCap (MW)	Winter NoICap (MW)	Zone	Summer Owned (MW)	Committed (MW)			
DR	A	15	15	A	15	15	15	0	CSP has 15 MWs available of CP in winter without a commitment
DR	B	20	15	B	20	20	15	20	CSP is short 5 MWs in winter. Assuming no constraints (see m18) between zones, CSP can use 5 MW of available capacity in Zone A to cover 5 MW winter short in zone B (replacement transaction)

Type	DR Hub			Capacity Exchange			Annual Owned (MW)	Committed (MW)	Notes
	Zone	Summer	Winter	Zone	Summer	Annual			
		NomlCap (MW)	NolCap (MW)		Owned (MW)				
DR	A	15	20	A	15	15	15	0	Same as Scenario 1, 5 MWs excess in winter cannot be utilized unless additional DR with Summer MW are registered.
DR	B	20	0	B	20	20	0	20	CSP is short 20 MWs in winter. Similar to scenario 1, CSP can use 15 MWs of excess annual capability from winter in Zone A to cover 15 MW of 20 MW short in winter. CSP will be assessed 5 MW penalty.

	DR Hub			Capacity Exchange					
		Summer	Winter		Summer		Annual		
Type	Zone	NomCap (MW)	NoICap (MW)	Zone	Owned (MW)	Committed (MW)	Owned (MW)	Committed (MW)	Notes
DR	A	10	8	A	10	10	8	10	CSP is short 2 MWs in winter to meet their 10 MW annual commitment
Gen	B	na	na	B	12	12	12	10	CSP buy capacity from Generator with available winter MWs and use to remedy the 2 MW shortfall.

Scenario	Type	DR Hub		Capacity Exchange			Annual Owned (MW)	Committed (MW)	Notes
		Zone	Summer NomlCap (MW)	Winter NoICap (MW)	Zone	Summer Owned (MW)			
4	DR	A	10	12	A	10	10	10	CSP covers annual CP commitment. Two additional winter MWs of registered DR cannot be transferred (does not change owned MWs).
	Gen	B	na	na	B	10	12	10	12