

Transition process to relieve CSP of RPM commitments for DR that can not be delivered due to 30 minute notification requirement (FERC order on DR operational resource flexibility)

MRC 9/18/14

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- 30 minute lead time mandatory for all resources unless physically not capable and qualify for exemption
 - PJM to work with stakeholders on transition mechanism that would allow CSPs that are no longer able to deliver amounts of demand response [because of 30 minute lead time requirement which becomes effective for 15/16 DY] previously cleared in PJM's capacity auctions [through 16/17 DY] to be relieved of part, or all of, their obligation and have their capacity payments commensurately reduced accordingly.

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- 8/21 MRC first read
- ~9/3 CSTF vote
- 9/12 CSTF (review tariff language for proposed change)
- 9/18 MRC endorsement
- 10/30 MC endorsement
- 10/31 File at FERC
- 1/1 Order from FERC
- 1/16/15 Final date for CSPs to submit nonviable MW for transition

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Proposed Transition Mechanism 15/16 and 16/17 Delivery Years

- [1 week prior to posting planning parameters for IA] CSP to provide PJM cleared MWs from prior RPM auction(s) that cannot be delivered due to 30 minute lead time requirement by product by zone.
 - 15/16 CSP must notify based on 3rd IA schedule
 - 16/17 CSP must notify based on 2nd IA and/or 3rd IA schedule
 - CSP IA offer restriction
 - CSP is not permitted to sell MWs in any modeled LDA (including any modeled sub-LDA of the LDA) for which non-viable DR MWs are declared for such Delivery Year
- [planning parameters posting date for IA] PJM to publish aggregate non-viable DR MWs

Consensus on proposed changes at CSTF

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Proposed Transition Mechanism 15/16 and 16/17 Delivery Years (continued)

- [IA start date] PJM to aggregate all adjustments (CSP non-viable MWs, forecast adjustment ,etc.) and include in 1^{rst} or 2nd auction if amount exceeds threshold (lessor of 1% or 500 MW as currently defined in tariff) and if it does not exceed threshold then include in 3rd IA
 - PJM to increase capacity procured (or reduce capacity released) in IA (as necessary)
 - Cost will be allocated consistent with current tariff provisions for forecast adjustment
 - Bilateral transaction are subject to review and referral to MMU and/or FERC Office of Enforcement and should not be executed for non-viable MWs for financial gain.
- [Prior to start of DY] PJM to reduce CSP capacity commitment in eRPM by product by zone and prorate amount of non-viable MW as necessary if CSP cleared MWs in multiple auctions
- [Prior to start of DY] CSP responsible to register enough DR to cover final capacity commitment or receive daily deficiency charge.
- [normal bill cycle during DY] PJM to only pay capacity revenue based on final CSP capacity commitment

Meets FERC direction (relieve obligation & reduce payments) & leverage concept used for revised generator capability verification testing



- 2015/16 Non-viable MW IA restriction by zone by LDA (sub-LDA)
- 2016/17 Non-viable MW IA restriction by zone by LDA (sub-LDA)
- Example 1 General example for 15/16
- Example 2 CSP specific example
- Example 3 CSP specific example

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		Non-Viable Zone DR cannot sell DR in Zone/Sub Zone marked with "X" for 15/16 Delivery Year 3rd Incremental Auction																						
	Offer Zone/Sub Zone	AECO			ATSI (excluding Cleveland				DAYTON			DPL (excluding DPL	DPL SOUTH		EKPC		METED		PENELEC			PSEG (excluding		RECO
Non-Viable Zone/Sub-Zone	LDA	EMAAC	RTO	RTO	ATSI	ATSI	SWMAAC	RTO	RTO	RTO	RTO	EMAAC	DPLS	RTO	RTO	EMAAC	MAAC	EMAAC	MAAC	SWMAAC	MAAC	PS	PS-N	EMAAC
AECO	EMAAC	Х										Х	Х			X		X				X	X)
AEP	RTO	X	X	X	Х	Х	X	X	X	X	X	X	Х	X	X	X	X	X	Х	X	X	X	X	>
APS	RTO	X	X	X	Х	Х	X	X	X	X	X	X	Х	X	X	X	X	X	X	X	X	X	Х	>
ATSI (excluding Cleveland LDA)	ATSI				Х	Х																		
Cleveland LDA	ATSI					Х																		
BGE	SWMAAC						X													X				
COMED	RTO	X	X	X	Х	Х	X	Х	X	X	X	X	Х	X	X	X	X	X	X	X	X	X	Х	Х
DAYTON	RTO	Х	X	X	X	X	X	X	X	X	X	X	Х	X	X	X	X	X	Х	X	X	X	X	Х
DEOK	RTO	X			Х	Х	X	X	X			X	Х	X	X	X	X	X	X	X	X	X	X	Х
DOM	RTO	Х	X	X	Х	Х	X	X	X	X	X	X	Х	X	X	X	X	X	X	X	X	X	X	Х
DPL (excluding DPL SOUTH LDA)	EMAAC	Х										X	X			X		X				X	X	X
DPL SOUTH LDA	DPLS												Х											
DUQ	RTO	Х	X	X	X	Х	Х	X	X	X	X	X	Х	X	X	Х	X	X	Х	X	X	X	Х	Х
EKPC	RTO	Х		X	Х	Х	X	Х	X	X	X	X	Х	X	X	Х	X	X	Х	X	X	X	Х	Х
JCPL	EMAAC	X										X	Х			X		X				X	Х	X
METED		Х					X					X	Х			X	X	X	Х	Х	X	X	Х	Х
PECO	EMAAC	Х										X	Х			X		X				X	Х	Х
PENELEC	MAAC	Х					X					X	Х			X	Х	X	X	X	X	X	Х	Х
PEPCO																				X				
PPL		Х					X					X	Х			X	Х	X	Х	X	X	X	Х	Х
PSEG (excluding PS NORTH LDA)	PS																					X	X	
PS NORTH LDA																							X	
RECO	EMAAC	Х										X	Х			X		X				X	X	Х
MODELED LDAs for 15/1	6 DY	RTO,	MAA	AC, EI	MAAC, SWN	MAAC, PS, F	S NORTH	, DPL SC	OUTH, PEI	PCO, A	ATSI													



			Nor	n-Vii	able Zone	e DR can	not sell	DR in	Zone/	Sub 7	7one	marked	with	"X" f	or 1	6/17 F)elive	rv Yea	ır 2nd	& 3rd I	ncrei	mental A	Auctions	
	Offer Zone/Sub Zone	AECO			ATSI (excluding Cleveland				DAYTON			DPL (excluding DPL SOUTH	DPL SOUTH				METED		PENELEC	PEPCO		PSEG (excluding PS NORTH		
Non-Viable Zone/Sub-Zone	LDA	EMAAC	RTO	RTO	ATSI	ATSI	SWMAAC	RTO	RTO	RTO	RTO	EMAAC	DPLS	RTO	RTO	EMAAC	MAAC	EMAAC	MAAC	SWMAAC	MAAC	PS	PS-N	EMAAC
AECO	EMAAC	Х										X	X			Х		Х				X	Х	X
AEP	RTO	Х	X	X	X	X	Х	Х	X	X	X	X	X	X	X	X	X	X	X	X	Х	X	X	X
APS	RTO	Х	X	X	X	Х	X	X	X	X	X	X	X	X	X	X	Х	Х	X	X	Х	X	Х	X
ATSI (excluding Cleveland LDA)	ATSI				X	Х																		
Cleveland LDA	ATSI					Х																		
BGE	SWMAAC						X													X				
COMED	RTO	Х	+	_	X	Х	X	X	X	Х	X	X	X	_	Х	Х	Х	Х	X	X	Х	Х	X	X
DAYTON	RTO	Х	-	_	X	Х	X	X	X	Х	X	Х	X	-	X	Х	Х	Х	Х	X	Х	X	X	
DEOK	RTO	Х	+	_	X	Х	X	X	X	Х			X	-	X	Х	Х	Х	X	X	Х	X	X	-
DOM	RTO	Х	-	X	X	Х	X	X	X	Х	X	X	X		Х	X	Х	Х	Х	X	Х	X	Х	X
DPL (excluding DPL SOUTH LDA)	EMAAC	Х										X	X	-		Х		Х				X	Х	X
DPL SOUTH LDA	DPLS												X	-										
DUQ		Х	-		Х	Х	X		X	Х	X	X	X	_	Х	Х	Х	Х	Х	X	Х	X	Х	
EKPC	RTO	Х	-	Х	X	Х	X	Х	X	X	X	X	X		X	X	Х	X	Х	X	Х	X	Х	
JCPL	EMAAC	Х	-									X	X			X		X				X	Х	
METED	MAAC	Х	-				Х					X	X			X	Х	X	X	X	Х	X	X	
PECO	EMAAC	X	-									X	X	-		X		X		v		X	X	
PENELEC	MAAC	Х					X					X	Х			Х	Х	Х	Х	X	Х	X	X	X
PEPCO	SWMAAC MAAC	X					×					x	X			X	X	V	V	X	V		X	
PSEG (excluding PS NORTH LDA)	PS	X					X					X	Х			Х	X	Х	X	X	X	X	X	
PSEG (excluding PS NORTH LDA)																						X	X	1
RECO	EMAAC	X										X	Х			X		Y				×	×	_
RECO	LIVIAAC	^										^	^			^		^				^	^	^
MODELED LDAs for 16/1	7 DY	RTO, N	1AAC	, EMA	AAC, SWMA	AC, PS, PS	NORTH, E	DPL SOU	TH, PEPC	O, AT	SI, ATS	SI CLEVELAN	ND											



Aggregate Example – 15/16 Delivery Year

- CSPs cleared 1,000 MW of Limited DR in BRA for 15/16 @ \$150/MW-Day
- 1/16/15 CSPs notifies PJM that 300 MW non-viable due to 30 minute lead time rule (do not qualify for defined 30 minute lead time exceptions)
- 1/23/15 PJM publishes aggregate non-viable MWs due to 30 minute lead time requirement with other planning parameters
 - Aggregate non-viable DR MW = 300 MW (PJM may need to buy)
 - Forecast adjustment = -200 MW (PJM may need to sell)
- 2/23/15 3rd IA Opens PJM buys 100 MW (300 200) in auction
 - CSP is not permitted to sell or offer to sell MWs (of any DR product) if they have non-viable MWs
- CSPs must register 700 MW of DR before 6/1/15 or receive daily deficiency charge
- CSP will receive 700 MW * \$150 per day for capacity commitment, instead of original 1,000 MW.

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CSP specific example – 16/17 Delivery Year Scenario 1

- Acme CSP cleared 500 MW of Limited DR in BRA in PECO for 16/17 @ \$119/MW-Day
- 2nd IA
 - (~6/5/15) CSP notifies PJM that 50 MW non-viable due to 30 minute lead time rule (do not qualify for defined exemption)
 - (~6/12/15) PJM publishes aggregate non-viable MWs due to 30 minute lead time requirement with other planning parameters
 - (7/13/15) 2nd IA Opens PJM buys in auction as necessary
 - CSP is not permitted to sell or offer to sell MWs in EMAAC zones
- 3rd IA
 - (1/22/16) CSP notifies PJM that additional 10 MW non-viable due to 30 minute lead time rule (do not qualify for defined exemption)
 - (1/29/16) PJM publishes aggregate non-viable MWs due to 30 minute lead time requirement with other planning parameters
 - (2/29/16) 3rd IA Opens PJM buys in auction as necessary
 - CSP is not permitted to sell or offer to sell MWs in EMAAC zones
- CSP must register 440 (500 50 10) MW of DR before 6/1/16 or receive daily deficiency charge
- CSP will receive 440 MW * \$119 per day for capacity commitment, instead of original 500 MW.



CSP specific example – 16/17 Delivery Year Scenario 2

- Delta CSP cleared 480 MW of Limited DR in BRA in Comed for 16/17 @ \$119 MW-Day and 20 MW of Limited DR in 1rst IA in Comed for 16/17 @ \$90 MW-Day.
- 2nd IA
 - CSP does not sell or offer MWs
- 3rd IA
 - (1/22/16) CSP notifies PJM that 60 MW non-viable due to 30 minute lead time rule (do not qualify for defined exemption)
 - (1/29/16) PJM publishes aggregate non-viable MWs due to 30 minute lead time requirement with other planning parameters
 - (2/29/16) 3rd IA Opens PJM buys in auction as necessary
 - CSP is not permitted to sell MWs in any zone in RTO
- CSPs must register 440 (500 60) MW of DR before 6/1/16 or receive daily deficiency charge
- CSP will receive 440 MW * \$117.84 ([480 MW/500MW] * \$119 + [20 MW/500 MW] * \$90) per day for capacity commitment, instead of original 500 MW. Non-viable MWs prorated based on amount cleared in prior auctions.