

# NEMSTF Member and Affiliate Option Voting Package/Proposal Completion Effort May 11, 2012



### Proposal Finalization – Today's Efforts(May 11)





4.

5.

6.

7. 8.

1. Customer receives normal residential/commercial service from either :

#### Where is the missing/broken link? Basic Use Case with a Retail Supplier

2012

i) alternative third-party retail choice supplier or ii) from EDC through default service supplier. 2. Customer submits application to attach NEM Project to distribution / transmission system to self-supply own (and possibly others' loads), and potentially inject excess net generation to the distribution / transmission system. 3. EDC registers application, studies and approves NEM installation; supplies metering. EDC obligated by state jurisdiction to pay customer for net excess. Injections into distribution / transmission system at approved retail rate. Net excess energy injection flows to the transmission system (unscheduled); it flows to the PJM spot market at the real-time LMP rate. PJM calculates nodal, integrated hourly bill, provides information via MSRS PJM issues weekly settlement with monthly true-up to EDC (and all members) If excess generation titled to market participant supplier, EDC applies revenue to Transmission **PJM Market** that participant's account. 9. If a QF, EDC pays QF the PURPA or QF PPA rate. Owners Participant 10. Commercial customer with BTM generation supplies portion of own on-site load and receives remainder from EDC or third party supplier. 8 PJM EDC Markets & (PJM Member) 6 **Settlements** 2 10√ 9 4 Residential / Third Party or Commercial Residential/ Commercial Qualifying **Default Supplier** Commercial Customer Facility (QF) w/BTM (PJM Member) With **NEM** Customer Project

www.pjm.com

		Component Solution Options					
ID	Design Component	Option A (Status Quo)	Option B	Option C	Option D	Option E	
1	(Modeling) Resolve net negative MWh load buses (pnodes) in order to accurately model NEM "generation".	Periodic checks by PJM to avoid gross modeling errors that cause large negative MWh attributed to load buses	Establish a fixed 10 MWh threshold	Establish average MWh threshold (PJM to conduct analysis to determine value)	Establish a conditional MWh threshold (i.e. the greater of: a percentage or a fixed MWh threshold )	PJM conducts analysis and provides results to this body. This body interprets the information and then determines how to establish a threshold, if needed.	
	1		1	T	1	1	
2	(Business Process) PJM must be notified of NEM generators rated in excess of a given MW capability threshold.	PJM has reviewed OATT Schedule 15. All generators are reported to PJM except for retail BTM and NEM.	Establish a fixed 1 MW threshold	Establish average MW threshold (PJM to conduct analysis to determine value)	Establish a conditional MW threshold (i.e. the greater of: a percentage or a fixed MW threshold )	Establish a fixed xxx threshold TBD.	
	T	I	r		r	1	
3	(Business Process) Update Manual 14D Exhibit 4 (page 25) to include specific NEM guidance	Existing PJM Manual 14D	Establish metering and communication requirements threshold (ICCP, DNP3, etc.) for NEM generators.	1			
				1	r	1	
4	(Settlements) Adjust the load obligations of LSEs to reflect a net injection of energy / net consumption offset during a NEM billing cycle (reflecting EDC materiality threshold, as applicable).	LSE load obligations may be adjusted on a two-month lag via the existing load reconciliation process (Settlement B). EDCs also have the ability to have PJM perform a subsequent load reconciliation withir a two year window if all affected LSEs agree to it (Settlement C). While individual load responsibility eSchedules may carve out negative load MWh, the total load carved out to a given LSE must result in a positive value. Negative MWh of load for an LSE account will not flow through the PJM settlement calculations.	Employ approach similar to Settlement B and/or C	Modify eSchedules to allow negative load for an LSE.			
5	(Settlements) Creation of aggregate pnode to allow aggregation of hourly, interval metered NEMs that are below a certain threshold.	Generation MWh values submitted to eMTR must be attributed to a single pnode in the PJM network bus model, not an aggregate. Aggregated NEM generation may be able to be calculated and attributed across multiple individual pnodes or attributed to a representative pnode on a case by case basis.	EDCs may modify their own applications to account for this.	Modify eMtr to allow aggregation of NEMs.	-		
	Γ		1			1	
6	(Settlements) Allow financial adjustment mechanism for non-hourly, non-interval metered NEMs, similar to the existing monthly meter correction process (reflecting EDC materiality threshold as applicable).	EDCs may submit generation meter correction MWh in the first three business days of the following month. For each generation correction, the financial true-up uses a monthly generation-weighted average LMF at that generator's location. Note that the EDC and generator may also calculate and submit a mutually agreed to financial adjustment to PJM any time to pass through a billing adjustment in the PJM billing statements.	Modify existing end-of- month meter correction process to accommodate NEM "generation" true-ups	Create an additional monthly meter correction process to accommodate separate NEM "generation" true- ups.	Create a single longer term meter correction process for NEM billing true-up. This process would use a longer term (annual) rate.		



# April 30<sup>th</sup> Polling Summary





DC1 – Modeling & Pnodes Resolve Net Negative MWh Load Buses

- Majority prefers status quo (Option A) Periodic PJM assessment
- Notable: Option E may be a potential consensus position Periodic PJM assessment, NEMSTF considers if and how to adopt a threshold
- Virtually unanimous position to not support Option B







## DC2 – Reporting Requirement: PJM is notified of NEM generators

- Overwhelming support for Status Quo (Option A)
- Nominal potential for consensus positions on Options C and E
- Considerable opposition for Option B





DC3 – Update PJM Manual 14D Exhibit 4

• Dominant choice is to maintain the Manual as is (Status Quo)





 Option A-Majority opinion is to maintain current PJM process for timing and reconciliation(s), use of eSchedules, no negative values flow through PJM Settlements





DC5 – Creation of aggregate pnodes for hourly, interval metered NEMs, below a threshold

- Considerable support for Status Quo (Option A)
- Option B represents potential consensus position
- Option C has very little support





DC6 – Allow financial adjustment mechanism for non-hourly, non-interval metered NEMS

- Almost unanimous support for Option A (Status Quo)
- Slightly more than half (51%) are willing to support Option B
- Options C and D had limited support



		Component Solution Options					
ID	Design Component	Option A (Status Quo)	Option B	Option C	Option D	Option E	
1	(Modeling) Resolve net negative MWh load buses (pnodes) in order to accurately model NEM "generation".	Periodic checks by PJM to avoid gross modeling errors that cause large negative MWh attributed to load buses	Establish a fixed 10 MWh threshold	Establish average MWh threshold (PJM to conduct analysis to determine value)	Establish a conditional MWh threshold (i.e. the greater of: a percentage or a fixed MWh threshold )	PJM conducts analysis and provides results to this body. This body interprets the information and then determines how to establish a threshold, if needed.	
2	(Business Process) PJM must be notified of NEM generators rated in excess of a given MW capability threshold.	PJM has reviewed OATT Schedule 15. All generators are reported to PJM except for retail BTM and NEM.	Establish a fixed 1 MW threshold	Establish average MW threshold (PJM to conduct analysis to determine value)	Establish a conditional MW threshold (i.e. the greater of: a percentage or a fixed MW threshold )	Establish a fixed xxx threshold TBD.	
3	(Business Process) Update Manual 14D Exhibit 4 (page 25) to include specific NEM guidance	Existing PJM Manual 14D	Establish metering and communication requirements threshold (ICCP, DNP3, etc.) for NEM generators.	1			
4	(Settlements) Adjust the load obligations of LSEs to reflect a net injection of energy / net consumption offset during a NEM billing cycle (reflecting EDC materiality threshold, as applicable).	LSE load obligations may be adjusted on a two-month lag via the existing load reconciliation process (Settlement B). EDCs also have the ability to have PJM perform a subsequent load reconciliation within a two year window if all affected LSEs agree to it (Settlement C). While individual load responsibility eSchedules may carve out negative load MWh, the total load carved out to a given LSE must result in a positive value. Negative MWh of load for an LSE account will not flow through the PJM settlement calculations.	Employ approach similar to Settlement B and/or C	Modify eSchedules to allow negative load for an LSE.			
5	(Settlements) Creation of aggregate pnode to allow aggregation of hourly, interval metered NEMs that are below a certain threshold.	Generation MWh values submitted to eMTR must be attributed to a single pnode in the PJM network bus model, not an aggregate. Aggregated NEM generation may be able to be calculated and attributed across multiple individual pnodes or attributed to a representative pnode on a case by case basis.	EDCs may modify their own applications to account for this.	Modify eMtr to allow aggregation of NEMs.	-		
6	(Settlements) Allow financial adjustment mechanism for non-hourly, non-interval metered NEMs, similar to the existing monthly meter correction process (reflecting EDC materiality threshold as applicable).	EDCs may submit generation meter correction MWh in the first three business days of the following month. For each generation correction, the financial true-up uses a monthly generation-weighted average LMF at that generator's location. Note that the EDC and generator may also calculate and submit a mutually agreed to financial adjustment to PJM any time to pass through a billing adjustment in the PJM billing statements.	Modify existing end-of- month meter correction process to accommodate NEM "generation" true-ups	Create an additional monthly meter correction process to accommodate separate NEM "generation" true- ups.	Create a single longer term meter correction process for NEM billing true-up. This process would use a longer term (annual) rate.		



NEMSTF REPORT: DRAFT OUTLINE

- Introduction/Background/Basic Terms
- Executive Summary
  - Senior Task Force formation, summary of problem statement, Charter, process
  - Table of Compliance/Completion of Charter
  - Recommendation(s) and any items for MRC Vote
- Issues and Considerations
  - Jurisdiction of physical interconnection and energy sales
  - Metering, Modeling, Settlements
  - PJM Agreement to implement ongoing periodic analysis to monitor load buses that "inject"
  - Any future or foreseeable considerations
- Design Components & Solution Options
  - Matrix Table
- Consensus Package(s) and Final Proposal
  - Package Table
- Summary
  - NEMSTF Recommendations
  - MRC Actions
  - MRC Items for Vote