



Recently Approved Tariff Revisions – Customer Baseline for Economic Load Response

MADRI Working Group
Meeting
Trenton, NJ
6/27/08

- CBL subcommittee created January 2007
- Extensive stakeholder process to determine new CBL rules
- PJM filed tariff revisions with FERC on April 14, 2008
- FERC approved tariff revisions with changes effective June 13th
 - Any change that required PJM system enhancements will be effective when the changes are made
- Manual 11 updated to reflect tariff revisions and approved by MRC on 6/18/08

- Customer Baseline Rules Revised
- Explicit authority for PJM to review settlements and participant behavior

- **New standard CBL**
 - High 4 of 5 replaces high 5 of 10 for weekdays
 - Sundays/Holidays and Saturdays considered separately
- **Process for Alternative CBL at time of registration**
 - CSP, LSE, EDC or PJM can proposed alternative
 - PJM authority to determine appropriate CBL if no agreement
- **Limit on look back window to prevent stale CBLS**
 - 45 days
 - Extension to 60 days possible
- **Notification requirements for self-scheduled reductions**
 - Increased flexibility for CSP to revise notification
 - Non-alignment of settlement and notification hours triggers PJM review

- PJM to determine alternative CBL (or generation baseline) at registration if no agreement (Alternative CBLs published in the manuals)
- PJM review of CSP's settlements triggered when settlement and notification hours don't match
- PJM authorized to disallow unqualified settlements, suspend participation when settlements are repeatedly disallowed and refer such activity to the FERC Office of Enforcement (OE)
- PJM required to review participation when registrations or settlements are disputed or disallowed more than 10% of the time; PJM may refer the CSP, EDC or LSE to the MMU and/or FERC's OE if activity is inconsistent with market rules.

- Demand reductions must be executed in response to the real time or day ahead locational marginal price (LMP) to qualify for settlement
- Demand reductions that do not qualify for settlement include
 - settlements based on variable demand and not changed behavior
 - consecutive daily settlements submitted to maintain a stale CBL
 - settlements based on the meter data of on-site generation which is run routinely
 - settlements based on changing operations at multiple end-use sites within PJM unless the demand reduction alleviates congestion

- Aggregation rules developed
 - Same LSE and zone
 - Meet all other requirements except .1 MW threshold
 - Settlement based on sum of site meter data for all sites in aggregation (Master Account)
- Use of On-Site Generation meter data for settlement clarified
- New symmetric additive adjustment for weather sensitivity adjustment (3 hours beginning 1 hour before the event)
- Incremental offer curves for dispatchable load response

- Reference Material
- Contact Information
- Draft CBL & symmetric additive training examples
- Alternative CBL approval process

- Red-lined tariff changes
 - <http://www.pjm.com/documents/ferc/documents/2008/20080414-er08-xxx-000.pdf>
- Red-lined Manual 11 changes
 - <http://www.pjm.com/committees/mrc/downloads/20080618-item-06-manual-m11-cbl-revisions-redlined.pdf>
- Training material – currently being updated
 - <http://www.pjm.com/services/training/train-materials.html>
 - look under Demand Side Response

- DSR Hotline – (610) 666–8220
- Email – dsr_ops@pjm.com
- Member Relations – (610) 666-8980 or (866) 400-8980
- Pjm.com|Contact Us (located on top right of page)

Step # 1: Weekday CBL Basis Window

Monday	Tuesday	Weds	Thursday	Friday	Sat	Sun
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
<i>Prior Event</i> 20	21	22	<i>Prior Event</i> 23	24	25	26
27	Event 28	29	30	31		

- ◆ *Select 5 most recent non-event days*
- ◆ *Exclude the following day-types:*
 - *NERC holidays*
 - *Weekend Days*
 - *Event Days*
- ◆ *Replace excluded days with next valid day*
- ◆ *Final Weekday CBL Basis Window must contain 5 days* (unless look-back window is reached)

Step # 2: Weekday CBL Basis

Monday	Tuesday	Weds	Thursday	Friday	Sat	Sun
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
Prior Event 20	21	22	Prior Event 23	24	25	26
27	Event 28	29	30	31		

- ◆ For each of the 5 Days in Weekday CBL Basis Window calculate:
 - *Average daily event period usage* = simple average of the participants usage over the event hours in the day
- ◆ For all 5 Days in Weekday CBL Basis Window calculate:
 - *Average event period usage level* = simple average of 5 average daily event period usage values
- ◆ Exclude any day which the day's average daily event period usage is less than 25% of the average event period usage level (25% rule) and replace
- ◆ Rank all remaining 5 days, and eliminate 1 day with lowest average daily event period usage
- ◆ Weekday CBL Basis must contain 4 days

“Look-back” Window

Monday	Tuesday	Weds	Thursday	Friday	Sat	Sun
		1	<i>Prior Event 2</i>	<i>NERC Holiday 3</i>	4	5
<i>Prior Event 6</i>	<i>Prior Event 7</i>	<i>Prior Event 8</i>	<i>Prior Event 9</i>	<i>Prior Event 10</i>	11	12
<i>Prior Event 13</i>	<i>Prior Event 14</i>	<i>Prior Event 15</i>	<i>Prior Event 16</i>	17	18	19
<i>Prior Event 20</i>	<i>Prior Event 21</i>	<i>Prior Event 22</i>	<i>Prior Event 23</i>	24	25	26
27	<i>Event 28</i>	29	30	31		

◆ *CBL “Look-back” Window is limited to 45 days (60 days under certain conditions per PJM tariff)*

◆ *If 5 days can not be selected within the look-back window, then:*

◆ *Use only 4 days*

◆ *If there are not 4 eligible days, then event days will be used. The event days with the highest loads will be used.*

◆ *Saturdays and Sundays/Holidays : use “High 2 of 3” criteria rather than “High 4 of 5”*

Symmetric Additive Adjustment

The purpose is to more properly reflect an accurate CBL

Starting on the event day:

- Skip one hour prior to the start of the event
- Counting back, average the next three hours (Basis Average)
- Use this Basis Average to compare to the CBL for the same hours
- The difference is used to ratchet up (or down) the CBL value

	HE9	HE10	HE11	HE12	HE13	HE14	HE15	HE16
Event Day	600	700	800	900	900	950	1000	1050
CBL	450	550	650	750	850	950	1050	1150
Additive Adjustment					150	150	150	150
Adjusted CBL					1000	1100	1200	1300
Calculated Load Reduction					100	150	200	1300

Example:

In this scenario, usage is much higher than normal on event day. Using the Additive Adjustment will result in a positive (higher) adjustment to the CBL.

Additive Adjustment Period

Hours curtailed during event day

- Indicate proposed CBL in notes section of LoadResponse registration or re-registration
 - For example, “Proposed CBL – High 2 of 3, where a CBL is calculated for each daytype (Mon, Tues, etc.)”
- Email proposed alternative CBL analysis to all interested parties
 - If CSP proposes then email goes to edc, lse and pjw (dsr_ops@pjm.com)
 - If LSE proposes then email goes to csp, edc and pjw
- Email PJM status within 25 days of proposed alternative CBL
- If no agreement then PJM to review, discuss and finalize within 20 days.
 - 1 year of interval data should be submitted to PJM
- All settlements required to use alternative CBL, if CSP would like to avoid adjustments then wait to submit settlements until outcome of alternative CBL process
- PJM to publish alternative CBL with associated load characteristics to Manual 11