Outage Acceleration Process

OC Meeting
7/20/2010

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Summary

Background Slides – Go to Slide 11 for Next Steps

- Interested in feedback on viability of continuing with current Outage Acceleration Process
  - Lack of use by market participants
  - Improvements to other processes have reduced the need for outage acceleration
  - Most conflicts identified and addressed by PJM under 1-month and newer 6-month outage analysis processes
- Recommend elimination or modification of Outage Acceleration process

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Background

- Outage Acceleration process was implemented in 2006 to help reduce revenue inadequacy associated with system outages.
- Outage Acceleration criteria:
  - Outages > 5 days in duration, and
  - Outages resulting in > $500,000 in revenue inadequacy
- Process was revised in 2008 to coincide with changes to outage submittal timelines.

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Outage Acceleration Statistics 2006-2009

- 106 outages posted for Outage Acceleration
- Only 2 have been accelerated under program
- No outages accelerated since 2007

	2006	2007	2008	2009	Total
Posted for Outage Acceleration	**19**	**54**	**26**	**7**	**106**
Market Interest in Acceleration	**0**	**12***	**4**	**1**	**17**
Number of Outages Accelerated	**0**	**2**	**0**	**0**	**2**

* One participant asked for estimates on 11 posted outages in October 2007 spanning 4 transmission zones.

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Revenue Inadequacy

Year	Total Tickets	Tickets greater than 5 days in duration	Revenue Inadequacy
2005	11715	1474	$163M
2006	12951	1443	$ 63 M
2007	12753	1500	$ 0 M
2008	13271	1780	$ 0 M
2009	13872	1797	$ 1 M

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Causes

- Possible reasons for lack of accelerated outages:
  1. Outage schedule could not be accelerated by Transmission Owner
  2. No interest in payment by market participants for acceleration
  3. Impact of revenue inadequacy reduced since 2005 due in part to:
     - Improved day-ahead/real-time market convergence
     - Efficient FTR allocation
     - Processes in place to identify and move conflicting outages that would lead to system congestion and revenue inadequacy

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Examples of Conflict Resolution (6-month)

Conflict	Issue	Resolution
Meadowbrook – Morrisville 500kV Line Ladysmith – Elmont 500kV Line	Overloads: • Fredricksburg – Cranes Corner 230 l/o Midlothian – North Anna 500 • Endless Caverns #4 230/115 Transformer l/o Greenland Gap – Mt Storm 500	Ladysmith – Elmont line outage moved
Grottoes – Dooms 230kV Line Valley – Dayton 230kV Line	Thermal overloads, low voltages, and SA non-convergence on Dominion 115kV system	Grottoes – Dooms line outage moved

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Examples of Conflict Resolution (1-month)

Conflict	Issue	Resolution
Brighton – Conastone 500kV Line Doubs – Mt Storm 500kV Line Conastone – Northwest 2310 230kV Line	Overloads: • Conastone – Northwest 2322 Actual • Conastone – Graceton and Graceton – Raphael Road 230 l/o Northwest 230-2 Transformer	Conastone – Northwest outage moved
Doubs – Mt Storm 500kV Line Doubs – Pleasant View 500kV Line	Overloads: • Doubs 500/230 Transformers l/o Doubs – Brighton 500 • Thermal overloads and low voltages for l/o Black Oak – Hatfield 500	Both line outages rescheduled

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Recommendation

- Recommend elimination or modification of Outage Acceleration process:
    1. Lack of use by market participants
    2. Process improvements (FTR Auction, DA Markets, RT Operations, outage analysis processes) have reduced the impact of revenue inadequacy
    3. Higher value achieved by focusing PJM resources on identifying and addressing conflicts under 1-month and 6-month outage analysis processes

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Proposed Options for Outage Acceleration Process

Eliminate

- Revise OATT, OA, Manual M03

Mothball

- Suspend existing process, but use only on as requested basis
- PJM to track status of use for 2 years
- FERC Waiver Required - PJM confirmed not viable

Modify

- Revise OATT, OA, Manual M03
- Limit to outages 345kV and above
- 2 month timeline to be initiated on as requested basis

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Next Steps

- No changes to existing Outage Acceleration Process at this time
- Additional time needed to investigate options further (3-4 months) due to upcoming Fall outage season
- PJM to investigate the following:
  1. Further details to demonstrate impact of outage coordination efforts to mitigate congestion through 6 month / 1month out processes
  2. Identify potential automation options to reduce complexity of existing analysis process
  3. Investigate viability of revising focus of outage acceleration process from revenue inadequacy to congestion cost
  4. Factors to consider for Items 2 and 3:
     - Existing tools vs. new tools required
     - Evaluation of 345kV vs. 230kV threshold, and potential quarterly analysis

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