



Joint and Common Market

8. CAPACITY DELIVERABILITY

PRESENTATION PURPOSE

The purpose of this presentation is to summarize stakeholder feedback regarding issues associated with implementing the capacity deliverability initiatives identified and solicit further stakeholder input on potential issues for resolution through the JCM process

PROPOSED INITIATIVES

- Coordination and alignment of deliverability analysis of external resources (short-term)
 - External resource deliverability analysis should be comparable to that of internal resources – **completed**, education sessions in 2012
 - Study processes, timelines and assumptions should be aligned – **completed**, proposals accepted in January, 2013
- Coordination and alignment of overall capacity deliverability analyses and market timelines (mid-term)
 - Coordination of models and assumptions used in load and generation deliverability analyses – **in process, ongoing**
 - Coordination of market timelines – **next step?**
- Joint deliverability analyses and capacity markets (long-term)
 - Conduct joint deliverability analyses – **identifying issues**
 - More extensive resource adequacy process coordination – **identifying issues**

SUMMARY OF FEEDBACK FROM STAKEHOLDER

- Commitment as a Capacity Resource in either PJM or MISO carries with it a must offer requirement in the RTO's day-ahead energy market.
- Stakeholder feedback indicates that issues may exist with respect to a resource's ability to effectively meet this must offer requirement without taking on undue risk
- Feedback was segregated into those potential issues applicable to MISO and those applicable to PJM on the next two slides, and an example provided on the third slide

POTENTIAL MISO ISSUES

- External generator cannot submit a full offer into MISO's DA or RT markets comparable to that of an internal generator
 - Must be represented as a transaction tag
 - Cannot therefore include all the detail otherwise associated with an internal generator offer
- External resources cannot set price in the MISO market
 - External resources are cleared based on LMP vs. the offer price, but the offer cannot set the LMP
 - Problematic during capacity emergency (EOP) events because external resources are required to respond during these events even if LMPs do not cover the offer price of the resource

POTENTIAL PJM ISSUES

- External resources can submit offers on the same basis as internal generators, but the possibility exists that the export from MISO and the import to PJM may not both clear
 - Clearing in one market and not the other creates a mismatch that could lead to the incurrence of additional charges such as BOR/RSG
 - Could be resolved via a pseudo-tie because it would obviate the need to offer in one market, but may not be an option for the generator
- Congestion cost from the unit's bus in MISO to the MISO interface may exceed the credit the unit receives at the PJM import interface pricing point
 - Could be resolved if the generator were allowed to include this risk premium in its offer price to PJM
 - Example on next slide

Example

Entity	Transaction Type	Revenue\Payment	MW	Price	Rev\Cost	Description	BASIS Breakdown
Wind Entity	Generator Cost	Reference	30	\$ 5.00	\$ (150.00)	This represents what would normally be used in putting together an offer in the DA	\$2
MISO	Generator Bus	Revenue	30	\$ 7.00	\$ 210.00	This would be the LMP received at the CPNode in MISO (low LMP due to congestion)	
MISO	Interface	(Payment)	-30	\$ 25.00	\$ (750.00)	This would be the LMP paid to MISO when scheduling on the path to PJM	(\$19)
	MISO Settlement:	(Payment)			\$ (540.00)		
PJM	Interface	Revenue	30	\$ 6.00	\$ 180.00	The \$6 PJM price is above the DA offer of \$5 hence why the unit cleared. Now to meet the DA offer a schedule is done at the interface causing the generator to buy \$25 power from MISO and sell that power into PJM at \$6. Exact opposite of normal expectations for flows at the interface.	
	PJM Settlement:	(Revenue)			\$ 180.00		
MISO & PJM		Total RTO Settlement:			\$ (360.00)		
Wind Entity		Margin for the generator:		\$ (17.00)	\$ (510.00)	Generator loses money while trying to fulfill the DA must-offer obligation.	(\$17)

Capacity Deliverability Issue Tracking and Status

#	Description	Initiative	Resolution/Next Steps	Status*
1	External Resource Reliability Issues	Joint Deliverability	External resource meet RA requirements in MISO and PJM without reliability impacts. Reopened May, 2013: all resources must be analyzed for deliverability in the same manner. If external resources were to be analyzed on a portfolio basis, as opposed to on a unit-specific basis like internal resources, then limiting constraints could be “hidden”. Could result in significant cost shifts from one RTO’s loads to the other.	Closed – 10/26/12 Reopened 5/1/13
2	BA needs dispatch control over external resources	Joint Deliverability	ER currently meeting performance requirements in both RTO without direct dispatch control. Reopened May, 2013: PJM deliverability analysis assumes the ability to optimize all resources under the RTO’s dispatch control. Joint deliverability across the combined PJM and MISO footprints would break this critical link between the planning and operational models unless the RTO had dispatch control over the resources in the combined footprint.	Closed – 10/26/12 Reopened 5/1/13
3	Not all generators can be used in one RTO for RA requirements in the other	Joint Deliverability	MISO and PJM agree that there are transmission limitations; need to ensure such limitations continue to be enforced through capacity auction processes	Open

Capacity Deliverability Issue Tracking and Status

#	Description	Initiative	Resolution/Next Steps	Status*
4	Resolving issue requires MISO and PJM to have the same capacity market designs	Joint Deliverability	Capacity has and will continue to be transferred across the seam despite any market design differences	Closed – 10/26/12
5	Requires common DA market	Joint Deliverability	Capacity has and will continue to be transferred across the seam despite any market design differences – this issue may need to be revisited if joint deliverability analysis to the combined footprint is pursued Reopened May, 2013: joint deliverability analysis would require exploration of options to merge the DA commitments	Closed – 10/26/12 Reopened 5/1/13
6	Define physical transfer capability	Model coordination	Need to determine whether a process is necessary for calculating transfer capability; could leverage GETC process	Open
7	Consistency with Order 888 and 889 requirements regarding open access and existing Firm transmission reservations	Joint Deliverability	MISO proposal to assign Firm service based on clearing in capacity auction would appear to require those who have reserved Firm service to give that service up so that it can be assigned to cleared resources. This would appear to violate the fundamental principles of open access.	Open

Capacity Deliverability Issue Tracking and Status

#	Description	Initiative	Resolution/Next Steps	Status*
8	External Resource Participation in MISO Day Ahead Market - External generator cannot submit a full offer into MISO's DA or RT markets comparable to that of an internal generator	TBD	TBD	Open
9	External resources cannot set price in the MISO market - External resources are cleared based on LMP vs. the offer price, but the offer cannot set the LMP	TBD	TBD	Open
10	External Resources clearing in one market and not the other creates a mismatch that could lead to the incurrence of additional charges such as BOR/RSG	TBD	TBD	Open
11	Congestion cost from the External Resources bus in MISO to the MISO interface may exceed the credit the unit receives at the PJM import interface pricing point	TBD	TBD - Could be resolved if the generator were allowed to include this risk premium in its offer price to PJM	Open

CAPACITY DELIVERABILITY – NEXT STEPS

- MISO and PJM to create a work plan with a timeline to develop proposals to address each issue
- If stakeholders identify additional issues please send issue documentation to:
 - Kevin Larson (klarson@misoenergy.org); and
 - Stu Bresler (bresler@pjm.com)

Questions



Capacity Deliverability Contacts
PJM: Stu Bresler (bresler@pjm.com)
MISO: Kevin Larson (klarson@misoenergy.org)