



Modifications to the Practices for Non-Firm and Spot Market Import Service

Effective April 20, 2007

Glossary and Acronyms

ATC

Available Transmission Capability

Flowgate

A single or group of transmission elements intended to model MW flow impact relating to transmission limitations and transmission service usage.

Non-Firm Transmission Service

Non-Firm Transmission Service includes (a) non-firm point-to-point transmission service, (b) network non-designated service and (c) spot market import service.

Non-firm *not* willing to pay congestion transmission service

“NF-NPC” is reserved by customers who wish to be curtailed (during constrained periods for which their schedules aggravate the constraint) rather than pay the congestion charges associated with maintaining the schedule.

Non-firm *willing* to pay congestion transmission service

“NF-WPC” service is reserved by customers who wish to pay congestion charges (or self curtail at a certain congestion charge) rather than have PJM curtail their transactions due to constraints for which the associated schedules have an aggravating effect.

Joint Operating Agreement

A Joint Operating Agreement (“JOA”) in the scope of this document is a coordination agreement between PJM and another operating entity which requires that each party, among other things, limit the sale of transmission service to respect the impact on external flowgates of the other parties. PJM has executed JOAs with MISO, TVA and Progress Energy. PJM is an indirect/tertiary party to the MISO-MAPP SOA (Seams Operating Agreement) and MISO-SPP JOA.

Third Party

And operating entity (a) with whom PJM does not have an executed JOA and (b) with whom PJM is not an indirect/tertiary party.

OATT

The PJM Open Access Transmission Tariff.



Problem Statement

The JOAs require the signatories to limit the sale of transmission service to respect the impact on each others' flow gates. PJM's historic business practices did not limit the sale of certain products, which fall in the Non-firm willing to pay congestion (NF-WPC) category. In this white paper, NF-WPC service includes all Non-Firm Transmission Service that was not previously limited by ATC including non-firm point-to-point, network non-designated and spot market import service.

In order to comply with the JOAs, business practices should limit the approval of NF-WPC service to prevent the oversubscription of flowgates external to PJM's footprint. If business practices do not adequately address this sale of transmission service, unlimited scheduling could have undesirable impacts to facilities external to the PJM footprint (loop flows) in violation of the JOAs.

In real-time, PJM dispatchers re-dispatch generation to relieve PJM constraints caused by interchange transactions. However, PJM does not redispatch to support parallel flows from PJM transactions on neighboring systems. Further, Market-to-Market ("M2M") coordination under the JOAs does not currently address this situation, because other operating entities do not yet offer a service redispatch service. Therefore, it is reasonable for PJM to limit the impact of transactions non-reciprocal coordinated flowgates on neighboring systems. Finally, the JOAs to which PJM is a signatory require PJM and the other signatories to mutually respect the effects on neighboring flowgates.

Background

Prior Practice

Most transmission providers have historically limited the approval of transmission service based on the potential impacts of the use of that service on their own facilities but did not account for the impacts to neighboring control transmission providers. PJM and several other transmission providers have signed JOAs to address this and other "seams" issues. For most types of service, PJM already limits the sale of service based on internal and external flowgates, which include reciprocal flowgates as defined in the MISO-PJM JOA Congestion Management Process (*Attachment B to the MISO JOA*).

Observed Problems

PJM has an executed JOA with MISO (the MISO-PJM JOA). The MISO-PJM JOA requires PJM to limit the sale of transmission service with respect to MISO flowgates with the intent reduce the likelihood of a TLR occurrence.

MISO has observed substantial flows on specific MISO flowgates as the result of parallel flows from PJM schedules using hourly non-firm transmission service with the "NF-



WPC selected. To ensure compliance with the MISO-PJM JOA, PJM will limit the sale of NF-WPC on those flowgates.

Joint Operating Agreements

The JOAs instruct the JOA signatories to limit the sale of transmission service on external entities by recognizing the impacts on impacted flowgates under control of the JOA entities. These external flowgates are defined in the JOAs as (a) ATC flowgates, (b) reciprocal coordinated flowgates (“RCFs”) and (c) coordinated flowgates (“CFs”). PJM respects the AFC limits of ATC FGs, RCFs and CFs for the evaluation of Firm Transmission service and NF-NPC service. A detailed description of which external flowgates must be included in the AFC/ATC process can be found in Appendix B.

Why Honor Third Party Flowgates?

Stakeholders may question why PJM is limiting the sale of transmission service for parties who do not do likewise for PJM flowgates. The MISO-PJM JOA requires PJM to do so. MISO and PJM, in response to concerns from the NERC community, added third party flowgates to the MISO-PJM JOA. The MISO-PJM JOA is filed and FERC approved.

Long-term Resolution

Effective after April 19th, 2007.

While PJM wishes to avoid inducing undue strain on external areas, PJM does *not* wish to dilute the fundamental market concept of price driving customers to “do the right thing.” Customers should be able to determine the appropriate cost they are willing to pay to do business. WPC service allows just that. Instead of PJM curtailing transactions the instant a constraint becomes active, PJM first redispatches generation to support the flow of schedules using WPC service. In other words, economic redispatch allows the customer to determine the extent to which they are willing to pay for the cost of redispatch to support their transaction while simultaneously maintaining reliable operations.

To continue to support this “price driven” philosophy, PJM flowgates, those in our footprint, will not be considered in the evaluation of NF-WPC service. This is consistent with current practice.

In summary, NF-WPC service will be limited by selected external flowgates but not by internal flowgate limits. More information on which external flowgates will limit the sale of transmission service can be found in Appendix B.

PJM has identified several impacts and changes to address the need to limit the sale of NF-WPC service.



Limiting the sale of service

We must limit the sale of all service to respect external flowgates. However, that requires the following changes:

1. **Prior to April 19, 2007, ATC validation** automatically bypasses ATC validation for some products. The OASIS system will be changed to apply ATC limits to all products.
2. **Spot Import service** is not listed on the OASIS, so it cannot be limited. It will be added to the OASIS to allow the service to be limited.
3. **Two NF ATC calculations** will be needed, because NF-WPC service will not be limited by PJM internal flowgates (NF-NPC will). That is, the ATC for not willing to pay congestion products may be different than the ATC for willing to pay congestion products. As a result, the WPC check box on the OASIS (and EES), will be removed, and the “NPC” or “WPC” suffix will be added to replace it. See “Changes to OASIS Products” below for more information.

Addressing ATC Validation

On April 19, 2007, the OASIS system will be changed to limit the sale of any service type that is not limited today (NF-WPC, spot imports and network non-designated). This is a PJM systems change. The only impact to business practices is that service will not be granted once ATC is depleted.

Addressing Spot Import Service

Spot Import service was not historically reserved on the PJM OASIS. Rather, customers would enter NERC Tags with the text “Spotin” entered in place of an OASIS reservation. Because this service has not been listed on the OASIS, PJM could not limit the use of said service.

Spot import service will be added to the OASIS. Once added to the OASIS, PJM will limit the sale of spot import service. The customer will be impacted as follows:

- a. The customer will be required to complete an extra step: create a transmission service request,
- b. The service would will limited by ATC, and
- c. The market participant will need to become a transmission customer.

Changes to OASIS Products

Limiting the sale of WPC service and adding spot import service to the OASIS requires PJM system changes. The impact to customers is the creation of an additional product set. There will be one product set for NF-NPC service and a second set for NF-WPC service. This allows PJM to apply different limiting flowgates (set different ATCs) on each product. Because willingness to pay congestion will be indicated on the product selection, the WPC check-box on the OASIS (and EES) will be removed. Please note this will also impact customers’ automated systems (templates). In addition, Spot Market Import service will be added to the OASIS product list. Existing reservations will be converted by PJM with no customer action required. See Appendix C for an updated product list to be effective April 19, 2007.



Appendix A

Paths impacted by the long term starting April 19, 2007.

ALTE.MGE-ALTE-PJM	AMIL-PJM-TVA	MEC-PJM
ALTE.NSP-ALTE-PJM	AMIL-PJM-WEC	MEC-PJM-AMIL
ALTE-PJM	CIN-PJM-AMIL	MEC-PJM-CPLE
ALTE-PJM-AMIL	CIN-PJM-CPLE	MEC-PJM-NIPS
ALTE-PJM-CPLE	CIN-PJM-CPLW	MEC-PJM-NYIS
ALTE-PJM-DUK	CIN-PJM-DUK	MECS-PJM-CPLE
ALTW.NSP-ALTW-PJM	CIN-PJM-EKPC	MECS-PJM-DUK
ALTW.NSP-ALTW-PJM- TVA	CIN-PJM-LGEE	MECS-PJM-TVA
ALTW-PJM	CIN-PJM-TVA	NIPS-PJM-CPLE
ALTW-PJM-ALTE	CPLE-PJM-EKPC	NYIS-PJM-DUK
ALTW-PJM-AMIL	CPLE-PJM-LGEE	NYIS-PJM-TVA
ALTW-PJM-CPLE	CPLE-PJM-TVA	OVEC-PJM-CPLE
ALTW-PJM-DUK	CPLW-PJM-EKPC	PJM-CPLW
ALTW-PJM-NIPS	DUK-PJM-EKPC	PJM-DUK
ALTW-PJM-NYIS	DUK-PJM-TVA	PJM-EKPC
AMIL-PJM	FE-PJM-CPLE	PJM-LGEE
AMIL-PJM.DOSS	FE-PJM-EKPC	PJM-TVA
AMIL-PJM.RICHMOND	FE-PJM-LGEE	WEC-PJM-AMIL
AMIL-PJM-ALTE	IPL-PJM-CPLE	WEC-PJM-CPLE
AMIL-PJM-ALTW		WEC-PJM-DUK
AMIL-PJM-CIN		
AMIL-PJM-CPLE		
AMIL-PJM-DUK		
AMIL-PJM-MEC		
AMIL-PJM-MECS		
AMIL-PJM-NIPS		
AMIL-PJM-NYIS		



Appendix B ATC Requirements for External Flowgates as Prescribed by the JOA

The MISO-PJM JOA and CMP (FERC filed documents) identify the following flowgates, which must be considered in the evaluation of transmission service requests (and ATC determination)

1. **Flowgates owned by JOA Signatories (JOA FGs)**
PJM will respect any flowgate that the reciprocal entity (TVA, MISO, Progress) includes in their ATC process and that the entity requests us to include in our process. This includes coordinated flowgates, reciprocal coordinated flowgates and “flowgates to recognize when selling point-to-point service.” This is in accordance with sections 4.1.4.1 and 5.1.7 of the JOA.
2. **Reciprocal Coordinated Flowgates (RCFs)**
PJM will respect all Reciprocal Coordinated Flowgates with third parties who reciprocate (MAPP & SPP) (December 2004 filing).
3. **Coordinated Flowgates (CFs)**
PJM will respect all coordinated flowgates (JOA sections 4.1.4.1 and 5.1.7), even if they are owned by **third** parties who are not JOA Signatories. Section 3 of the CMP states: “Each party shall provide in its stakeholder processes opportunities for third parties of other entities to propose additional Coordinated Flowgates and procedures for review of relevant non-confidential data in order to assess the merit of the proposal.”
4. **Exceptions**
 - a. **The “on the path” exception.**
JOA entities apply the “on the path” rule for ATC determination. For example, PJM ignores MISO AFC values when approving transmission service for which MISO is on the contract path. This is because MISO can refuse their leg of service.
 - b. **PJM Flowgates ignored for NF-WPC service**
Consistent with the philosophy that PJM will redispatch to support WPC service, the sale of NF-WPC service will not be limited based on PJM facility limits.

The table below summarizes which flowgates limit the sale of each transmission service type.

Category	Type	Product	Willing to pay congestion?	Flowgates limiting the sale of service (setting ATC)			
				JOA FGs	RCFs	CFs	PJM FGs
Firm	Network	External Network Designated	WPC	X	X	X	
			NPC	X	X	X	X
	Point-to-Point	Firm point-to-point	WPC	X	X	X	
			NPC	X	X	X	X
Non-firm	Network	External Network Non-designated	WPC	X	X	X	
			NPC	X	X	X	X
		Spot Imports	WPC	X	X	X	
			NPC	X	X	X	X
	Point-to-Point	Non-firm & Non-firm secondary	WPC	X	X	X	
			NPC	X	X	X	X

Table 2: Flowgates limiting the sale of transmission service



Appendix C PJM OASIS Product List

PRODUCT DESIGNATOR	
day-FIRM	hour-SPOT_IN
day-NETWK_EXT_DESIGNATED	month-FIRM
day-NETWK_EXT_NON_DESIG_NPC	month-NETWK_EXT_DESIGNATED
day-NETWK_EXT_NON_DESIG_OFF_PEAK_NPC	month-NETWK_EXT_NON_DESIG_NPC
day-NETWK_EXT_NON_DESIG_ON_PEAK_NPC	month-NON_FIRM_NPC
day-NON_FIRM_NPC	month-NON_FIRM_INTERNAL_NPC
day-NON_FIRM_INTERNAL_NPC	month-SECONDARY_NON_FIRM_NPC
day-NON_FIRM_OFF_PEAK_NPC	month-SECONDARY_NON_FIRM_INTERNAL_NPC
day-NON_FIRM_ON_PEAK_NPC	month-TLR_BUY_THRU_NPC
day-SECONDARY_NON_FIRM_NPC	month-NETWK_EXT_NON_DESIG_WPC
day-SECONDARY_NON_FIRM_INTERNAL_NPC	month-NON_FIRM_WPC
day-TLR_BUY_THRU_NPC	month-NON_FIRM_INTERNAL_WPC
day-NETWK_EXT_NON_DESIG_WPC	month-SECONDARY_NON_FIRM_WPC
day-NETWK_EXT_NON_DESIG_OFF_PEAK_WPC	month-SECONDARY_NON_FIRM_INTERNAL_WPC
day-NETWK_EXT_NON_DESIG_ON_PEAK_WPC	month-SPOT_IN
day-NON_FIRM_WPC	month-TLR_BUY_THRU_WPC
day-NON_FIRM_INTERNAL_WPC	week-FIRM
day-NON_FIRM_OFF_PEAK_WPC	week-NETWK_EXT_DESIGNATED
day-NON_FIRM_ON_PEAK_WPC	week-NETWK_EXT_NON_DESIG_NPC
day-SECONDARY_NON_FIRM_WPC	week-NON_FIRM_NPC
day-SECONDARY_NON_FIRM_INTERNAL_WPC	week-NON_FIRM_INTERNAL_NPC
day-SPOT_IN	week-SECONDARY_NON_FIRM_NPC
day-TLR_BUY_THRU_WPC	week-SECONDARY_NON_FIRM_INTERNAL_NPC
hour-NETWK_EXT_NON_DESIG_NPC	week-TLR_BUY_THRU_NPC
hour-NON_FIRM_NPC	week-NETWK_EXT_NON_DESIG_WPC
hour-NON_FIRM_INTERNAL_NPC	week-NON_FIRM_WPC
hour-SECONDARY_NON_FIRM_NPC	week-NON_FIRM_INTERNAL_WPC
hour-SECONDARY_NON_FIRM_INTERNAL_NPC	week-SECONDARY_NON_FIRM_WPC
hour-NETWK_EXT_NON_DESIG_WPC	week-SECONDARY_NON_FIRM_INTERNAL_WPC
hour-NON_FIRM_WPC	week-SPOT_IN
hour-NON_FIRM_INTERNAL_WPC	week-TLR_BUY_THRU_WPC
hour-SECONDARY_NON_FIRM_WPC	year-FIRM
hour-SECONDARY_NON_FIRM_INTERNAL_WPC	year-GRANDFATHERED
	year-NETWK_EXT_DESIGNATED