

Business Practice

Reserving and Scheduling Transmission Service

1. General

- 1.1 APS adheres to the North American Electric Reliability Corporation (NERC) Standards regarding scheduling and e-tagging. Transmission Customers should refer to the NERC Standards for further information.
- 1.2 APS adheres to the Western Electricity Coordinating Council (WECC) Pre-schedule Calendar. Transmission Customers should refer to the WECC Pre-Schedule Calendar for further information.
- 1.3 APS adheres to the (North American Energy Standards Board) NAESB Business Practices regarding scheduling and e-tagging. Transmission Customers should refer to the NAESB Business Practices for further information.
- 1.4 A timeline showing reservations, scheduling, and OASIS ATC calculations is also attached to this Business Practice.

2. Reserving Point-to-Point Transmission Service

- 2.1 Reserving Point-to-Point service should be done over OASIS. Customers should refer to the vendor software instructions for information on how to reserve Point-to-Point transmission service.
- 2.2 The deadlines for reserving Point-to-Point service can be found in the attached "Reservation, Designation, Undesignation and Scheduling Deadlines".

3. Scheduling of Point-to-Point Transmission Service

- 3.1 Any reservation which is not scheduled may result in release of non-firm ATC.
- 3.2 Use of Un-scheduled Firm Point-to-Point Transmission Capacity
 - 3.2.1 As described in the Determination of Available Transfer Capability Business Practice, APS will release reserved, but unscheduled transmission capacity as non-firm ATC.
 - 3.2.2 In the event a Firm Point-to-Point Transmission Customer does not schedule all or part of its transmission reservation in the pre-schedule process and later wishes to use all or part of that transmission reservation, the Firm Point-to-Point Customer may schedule that transaction using their TSR by submitting an e-tag up to 20 minutes before the start of the operating hour.

- 3.2.3 Scheduling in real time of a previously unscheduled Firm Point-to-Point reservation may result in curtailment of a non-firm transmission transaction.
- 3.3 Point-to-Point Transmission Customers should refer to the WECC Business Practices for information on scheduling and e-tagging.
- 3.4 Late e-tags
 - 3.4.1 E-tags are considered Late if they are submitted after 1500 MST on the pre-schedule day.
 - 3.4.2 In instances where the California Independent System Operator (CalSO) published final schedules after 1400 MST, APS will approve a Late e-tag if the content of the e-tag is correct based on NERC, WECC and/or NAESB requirements and such e-tag is submitted by the earlier of:
 - 5.7.2.1 One hour after the CalSO publishes final schedules, or
 - 5.7.2.2 1650 MST of the pre-schedule day.
 - 3.4.3 In all other circumstances, APS may, at APS' discretion, approve a Late e-tag if the content of the e-tag is correct based on NERC, WECC and/or NAESB requirements.

4. Reserving Network Service

- 4.1 The Business Practices associated with Network Service designations and undesignations and reservation of Secondary Network Transmission Service are in the Designation of Network Resources Business Practice, the Undesignation of Network Resources Business Practice, and the Secondary Network Transmission Service Business Practice.

5. Scheduling of Network Service

- 5.1 Reserve Sharing Arrangements
 - 5.1.1 Supplying power under a reserve sharing program (e.g., SRSG) is an appropriate use of Designated Network Resources (DNRs). Providing power under a reserve sharing program does not trigger un-designation or re-designation requirements.
 - 5.1.2 As the Balancing Authority, APS will be responsible for creation of the e-Tags associated with receiving power under reserve sharing agreements.
- 5.2 Booked Out Transactions
 - 5.2.1 The APS OATT permits book outs of DNRs without un-designation of the booked out DNR or designation of substitute products.

- 5.2.2 When creating an e-tag to deliver a non-designated resource into the APS Balancing Authority area that is substituting for a DNR as a result of a book out, in the contract field insert the following phrase:

Book Out Sub for DNR Contract XXXXX

- 5.2.3 The XXXXX should be replaced with the name of the DNR as it appears on the DNR list posted on the APS OASIS. A sample e-tag is attached.
- 5.2.4 E-tags to deliver a non-designated resource into the APS Balancing Authority area that is substituting for a DNR that has been booked out should use the NERC curtailment code 7FN for the Network Transmission Service leg of the e-tag.
- 5.2.5 The booked out DNR will not require an e-tag.
- 5.2.6 APS reserves the right to conduct periodic audits of a Network Customer to ensure compliance with this requirement.

5.3 System Emergency

- 5.3.1 The APS OATT provides that a DNR may be used to supply power to a third party on a firm basis to address or forestall an Emergency without a corresponding undesignation of that DNR.
- 5.3.2 The APS OATT provides that in an Emergency, APS, in its capacity as a Balancing Authority may take whatever actions are necessary and may direct a Network Customer to take whatever actions are necessary to keep the system in operation.
- 5.3.3 When creating an e-tag to deliver a non-designated resource into the APS Balancing Authority area because of an Emergency, in the contract field insert the following phrase:

Emergency Sub DNR

- 5.3.4 E-tags to deliver a non-designated resource into the APS Balancing Authority area because of an Emergency should use the NERC curtailment code 7FN for the Network Transmission Service leg of the e-tag.
- 5.3.5 An example e-tag is attached.
- 5.3.6 Network Customers selling power out of the APS Balancing Authority area should maintain adequate records to substantiate the Emergency nature of the transaction.

5.4 NERC Curtailment Codes

- 5.4.1 Designated Network Resources should use the NERC curtailment code 7FN for the Network Transmission Service leg of the e-tag.
- 5.4.2 Non-designated resources delivered into the APS Balancing Authority area that are substituting for a DNR as a result of a book out should use the NERC curtailment code 7FN for the Network Transmission Service leg of the e-tag.
- 5.4.3 Non-designated resources delivered into the APS Balancing Authority area because of an Emergency should use the NERC curtailment code 7FN for the Network Transmission Service leg of the e-tag.
- 5.4.4 Non-designated resources using Secondary Network Service should use the NERC curtailment code 6NN for the Secondary Network Service leg of the e-tag.
- 5.4.5 APS will not reject e-tags with a non-firm transmission leg upstream of the point of receipt onto the APS transmission system. This includes e-tags for both Designated Network Resources using “primary” Network Service and non-designated resources using Secondary Network Service.
- 5.4.6 In the event of curtailment on the APS transmission system, APS will curtail based upon the NERC curtailment code specified on the e-tag for use of APS transmission service.
- 5.4.7 Network Customers should expect that other transmission providers will use the NERC curtailment code specified on the e-tag for use of their transmission system in the event of curtailment.

5.5 Use of Un-scheduled Network Capacity

- 5.5.1 As described in the Determination of Available Transfer Capability Business Practice, APS will release reserved, but unscheduled transmission capacity as non-firm ATC.
- 5.5.2 In the event a Network Customer does not schedule a DNR in the pre-schedule process and later wishes to use that DNR, the Network Customer may schedule that DNR, using “primary” Network Transmission, by submitting an e-tag up to 20 minutes before the start of the operating hour.
- 5.5.3 Scheduling in real time of a previously unscheduled DNR may result in curtailment of a non-firm transmission transaction.
- 5.5.4 Except as described above, non-designated resources may not use “primary” Network Transmission at any time.

5.6 Late e-tags

- 5.6.1 E-tags are considered Late if they are submitted after 1500 MST on the pre-schedule day.
- 5.6.2 In instances where the CalSO publishes final schedules after 1400 MST, APS will approve a Late e-tag if the content of the e-tag is correct based on NERC, WECC and/or NAESB requirements and such e-tag is submitted by the earlier of:
 - 5.7.2.1 One hour after the CalSO publishes final schedules, or
 - 5.7.2.2 1650 MST of the pre-schedule day.
- 5.6.3 In all other circumstances, APS may, at APS' discretion, approve a Late e-tag if the content of the e-tag is correct based on NERC, WECC and/or NAESB requirements.

6. Arizona Independent Scheduling Administrator and Part IV of the APS OATT

- 6.1 The APS OATT contains Part IV. Retail Network Integration Transmission Service (RNITS) and Attachment L, the Arizona Independent System Administrator (AzISA) Protocols Manual (PM).
- 6.2 The AzISA is implementing the Protocols Manual in a phased process, and many of the provisions of the Protocols Manual are not currently in effect. The following requirements of the Protocols Manual are in effect and apply to Scheduling Coordinators (SCs) taking Retail Network Transmission Service:
 - 6.2.1 The SC must request service under Part IV of the APS OATT.
 - 6.2.2 The SC must enter into a Service Agreement for Retail Network Integration Transmission Service (Attachment J to the APS OATT) and Standard Form of Retail Network Operating Agreement (Attachment K to the APS OATT). This will allow APS to charge for transmission service using the rates designed specifically for service to retail loads.
 - 6.2.3 The SC must enter into an "Agreement By and Among Arizona Independent Scheduling Administrator Association, Scheduling Coordinators and Transmission Providers".
 - 6.2.4 APS will abide by the dispute resolution procedures contained in Section 6 of the AzISA By-Laws.

Arizona Public Service Company
Reserving and Scheduling Transmission Service

- 6.2.5 APS will abide by Section 4.3.4.1 of the PM which is the provision that allows SCs serving competitive retail access customer in the APS service territory to use, in aggregate for all SCs, up to 200 MW of transmission capacity from Palo Verde to the APS Load Zones previously held by APS for service to standard offer retail customers.
- 6.3 Otherwise, RNITS will be governed by the procedures specified in the APS Business Practices related to Network Service until such time as the AzISA implements additional provisions of the Protocols Manual.

These Business Practices describe general conditions and practices. There may be specific circumstances that require some variation from or are not addressed by these Business Practices.

**Arizona Public Service Company
Reservation, Designation, Undesignation and Scheduling Deadlines**

Point-to-Point Service

Firm Point-to-Point Service

	Earliest Time to Request	Reservation Deadline	Scheduling Deadline
Annual	Not Applicable	12 noon MST last pre-schedule day before service commences	1500 PPT pre-schedule day
Long Term Monthly Short Term Monthly	Not Applicable	12 noon MST last pre-schedule day before service commences	1500 PPT pre-schedule day
Weekly	Not Applicable	12 noon MST last pre-schedule day before service commences	1500 PPT pre-schedule day
Daily	Not Applicable	12 noon MST last pre-schedule day before service commences	1500 PPT pre-schedule day
Hourly	Not Applicable	25 minutes before the start of the operating hour ¹	20 minutes before the start of the operating hour ¹
Schedule Changes	Not Applicable	25 minutes before the start of the operating hour	20 minutes before the start of the operating hour

Non-Firm Point-to-Point Service

	Earliest Time to Request	Reservation Deadline	Scheduling Deadline
Monthly	60 days prior at 1200 MST	1500 MST last pre-schedule day before service commences	1500 PPT pre-schedule day
Weekly	14 days prior at 1200 MST	1500 MST last pre-schedule day before service commences	1500 PPT pre-schedule day
Daily	2 days prior at 1200 MST	1500 MST last pre-schedule day before service commences	1500 PPT pre-schedule day
Hourly	1 day prior at 1200 MST	25 minutes before the start of the operating hour ¹	20 minutes before the start of the operating hour ¹
Schedule Changes	Not Applicable	25 minutes before the start of the operating hour	20 minutes before the start of the operating hour

¹ APS will attempt to accommodate if practicable intra-hour emergency requests for one hour of Hourly Firm or Hourly Non-Firm Point-to-Point Transmission Service for the remaining portion of the hour provided the Transmission Customer phones APS Transmission Operations at 602-250-1085 prior to submittal of the TSR and the emergency e-tag.

**Arizona Public Service Company
Reservation, Designation, Undesignation and Scheduling Deadlines**

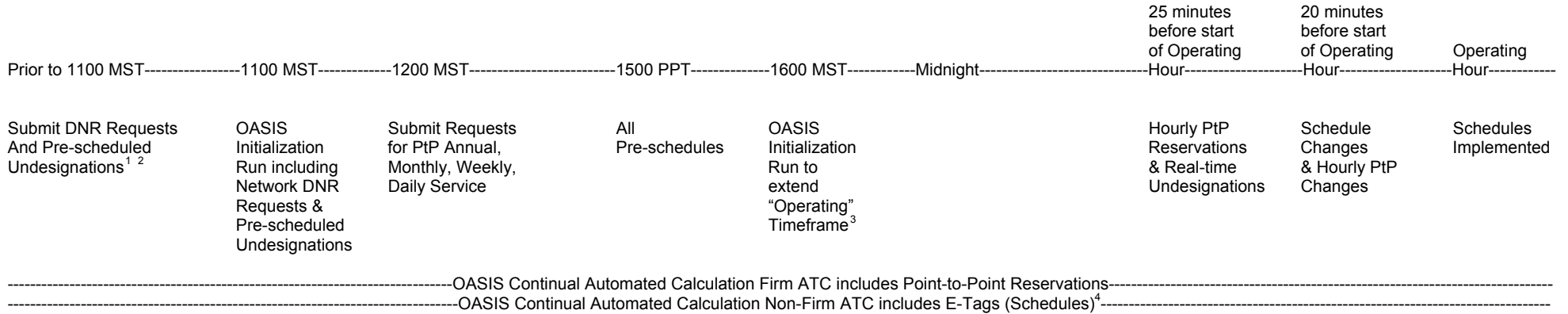
Network Integration Service		
Designated Network Resources		
	Designation/Undesignation Deadline	Scheduling Deadline
DNR Greater than 1 year	1100 MST last pre-schedule day before service commences	1500 PPT pre-schedule day
DNRs with term of at least 1 month and less than 1 year	1100 MST last pre-schedule day before service commences	1500 PPT pre-schedule day
DNRs with term of at least one week and less than 1 month	1100 MST last pre-schedule day before service commences	1500 PPT pre-schedule day
DNRs with term of less than 1 week	1100 MST last pre-schedule day before service commences	1500 PPT pre-schedule day
Pre-schedule Undesignations (termination)	1100 MST last pre-schedule day before service would have commenced - may result in the release of transmission capacity to Firm ATC if the undesignation reduces the transmission commitment	
Real Time Undesignations (termination)	25 minutes before the start of the operating hour Undesignations submitted after 1100 MST (and before 25 minutes before the start of the operating hour) will not be included in the Firm ATC calculation, and thus will not result in the release of firm ATC.	
Schedule Changes		20 minutes before the start of the operating hour

**Arizona Public Service Company
Reservation, Designation, Undesignation and Scheduling Deadlines**

Network Integration Service			
Non-Designated Resources - Secondary NT			
	Earliest Time to Request	Reservation Deadline	Scheduling Deadline
Monthly	60 days prior at 1200 MST	1500 MST last pre-schedule day before service commences	1500 PPT pre-schedule day
Weekly	14 days prior at 1200 MST	1500 MST last pre-schedule day before service commences	1500 PPT pre-schedule day
Daily	2 days prior at 1200 MST	1500 MST last pre-schedule day before service commences	1500 PPT pre-schedule day
Hourly	1 day prior at 1200 MST	25 minutes before the start of the operating hour	20 minutes before the start of the operating hour
Schedule Changes	Not Applicable	25 minutes before the start of the operating hour	20 minutes before the start of the operating hour

**Arizona Public Service Company
Reservation, Designation, Undesignation and Scheduling Deadlines**

Reservations/Scheduling/OASIS ATC Calculations Timeline



OASIS Terminology

Prior to 1600

"Planning"-----"Operating"-----"Scheduling" (Current + Next 2 Hours)-----

After to 1600

"Planning"-----"Operating"-----"Scheduling" (Current + Next 2 Hours)-----

¹ The Network Service reservation/pre-schedule undesignation time and 1100 MST Initialization Run have been set earlier than firm point-to-point reservation timeline in order facilitate release of firm ATC (to the extent it would be released) for use as firm daily point-to-point service.

² Because AZPS does not limit the quantity of DNRs a Network Customer may have, there may be instances where a Network Customer undesignates a Network Resource but no ATC is released. For example, if a Network Customer has DNRs of 3,500 MW that would be delivered over a particular path and the Network Customer undesignates 200 MW of those resources in pre-schedule, there will be no firm ATC released. The Exiting Transmission Commitment for the Network Customer on that path will remain at 3,000 MW and the Network Customer will have 3,300 MW of DNRs.

³ Prescheduled undesignations received after 1100 MST and real-time undesignations will not be input into OASIS and therefore will not be included in the 1600 MST Initialization Run nor the continual automated Firm ATC calculation performed by OASIS. E-tagged schedules, however, will be included in the non-firm ATC calculation.

⁴ The non-firm ATC calculation "substitutes" the e-tag scheduled value for the reservation value.

Book Out Sample e-Tag

CA	TP	ESE	Physical Path			Sched Entities	Contract	Misc
			FOR	POD				
AZPS		APS01(1)	Source: REDHAWK					No
	AZPS	APS01(1)	PALOVERDES00	RUDD230	SRP			No
AZPS		APS01(2)	Sink: VALLEY-APS					No

When creating an e-tag to deliver a non-designated resource into the APS Balancing Authority area that is substituting for a DNR that has been booked out, in the contract field insert the following phrase:

Book Out Sub for DNR Contract XXXXX

For the XXXXX use the name of the DNR as it appears on the DNR on the DNR List posted on the APS OASIS.

System Emergency e-Tags

CA	TP	ESE	Physical Path			Sched Entities	Contract	Misc
			FOR	POD				
AZPS		APS01(1)	Source: REDHAWK					No
	AZPS	APS01(1)	PALOVERDES00	RUDD230	SRP			No
AZPS		APS01(2)	Sink: VALLEY-APS					No

When creating an e-tag to deliver a non-designated resource into the APS Balancing Authority area because of an Emergency, in the contract field insert the following phrase:

Emergency Sub DNR