Available Transfer Capability (ATC) Methodology
ATC Impacts of Long-Term Firm Requests, Version 5

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1 Definitions

Unless otherwise defined herein, capitalized terms are defined in Transmission Services' Open Access Transmission Tariff (OATT), Rate Schedules, ATC Methodology, Business Practices, and/or Federal Energy Regulatory Commission (FERC) Standards and Communication Protocols for OASIS.

1.1 Algorithm for Resources Dispatched Off: Half of any assumed generation decrease is deemed to occur ratably across the 5 non-federal MidC hydroelectric generating projects. The remaining half is deemed to decrease at the 10 major Federal Columbia River Power System (FCRPS) hydroelectric generators in proportion to their relative share of generation otherwise dispatching.

1.2 Algorithm for Resources Dispatched On: Half of any assumed generation increase is deemed to occur ratably across the 5 non-federal MidC hydroelectric generating projects. The remaining half is deemed to increase at the 10 major Federal Columbia River Power System (FCRPS) hydroelectric generators in proportion to their relative share of generation otherwise dispatching.

1.3 Deferral Request: Request to defer or apply for extension of the start of long-term firm (LTF) transmission service, per section 17.7 in the OATT.

1.4 Evaluated Point-of-Delivery (POD)/Point-of-Receipt (POR): The POD(s) and/or POR(s) used to determine the impact of a LTF request.

1.5 Export POD: Any POD submitted in a LTF request that impacts an External Interconnection or Intertie.

1.6 Network Integration Modification of Service Request: Request to make changes or modifications to the terms of firm Network Integration service, per section 30.2 in the OATT.

1.7 Network Composite POD: A weighted aggregation into a single load group Network POD of 4-5 years of projected load growth at all Network PODs across approximately 70 Northwest geographic zones.

1.8 Network POD: Any POD submitted in a LTF request not considered an Export POD.

1.9 Original LTF Request: Initial request for reservation of LTF transmission service submitted to Transmission Services.

1.10 PUF (Path Utilization Factor) Calculation: An equation based on a POD, POR, and Transmission Demand used to determine the impacts to Network Flowgates.

$$(POR\ PUF_A - POD\ PUF_A) * Transmission\ Demand = impact\ to\ Flowgate_A$$

1.11 Renewal Request: Request to renew an expiring LTF transmission reservation for the long-term, per section 2.2 of the OATT.

1.12 Requested POD/POR: The POD/POR submitted in a LTF Request.

2 Analyzing Long-Term Firm Requests

LTF Requests for transmission service impacting Network Flowgates are analyzed using the following methodology:

2.1 Original LTF PTP Requests

2.1.1 PUF calculations are prepared for each Original LTF PTP Request RECEIVED, to determine the impacts of the requested service on Network Flowgates.

2.1.2 The Evaluated POD/POR used to prepare the PUF calculation will be determined based on the Requested POD/Requested POR as provided in the following matrix:

	Requested POR	Requested POD		Evaluated POR	Evaluated POD
2.1.2.1	Any POR	Network POD		Requested POR	Network Composite POD
2.1.2.2	Any POR	Export POD		Requested POR	Requested POD

2.1.3 When the Original LTF PTP Request is CONFIRMED:

2.1.3.1 The positive PUF calculation impacts will be decremented from posted LTF ATC values;

2.1.3.2 Any negative PUF calculation impacts will also be decremented 60 days prior to the Service Commencement Date, to increase posted LTF ATC values.

2.2 LTF NT Requests for service to New Network Load

2.2.1 PUF calculations are prepared for each LTF NT Request for service to New Network Load RECEIVED, to determine the impacts of the requested service on Network Flowgates.

2.2.2 The Evaluated POD/POR used to prepare the PUF calculation will be determined based on the Requested POD/Requested POR as provided in the following matrix:

	Requested POR	Requested POD		Evaluated POR	Evaluated POD
2.2.2.1	Any POR not associated with a wind resource	Network POD		Requested POR	Network Composite POD
2.2.2.2	Any POR not associated with a wind resource	Export POD		Requested POR	Requested POD
2.2.2.3	Any POR associated with a wind generator	Network POD		(A) Requested POR	(A) Network Composite POD[1]
				(B) FCRPS	(B) Network Composite POD[1]

	Requested POR	Requested POD		Evaluated POR	Evaluated POD
2.2.2.4	Any POR associated with a wind generator	Export POD		(A) Requested POR	(A) Requested POD[1]
				(B) FCRPS	(B) Requested POD[1]

[1] The impact to each Flowgate is deemed to be the larger of either the Path (A) or Path (B) impacts.

2.2.2.1 When the LTF NT Request for service to New Network Load is CONFIRMED, the positive PUF calculation impacts will be decremented from posted LTF ATC values; any negative impacts will also be decremented, to increase posted LTF ATC values.

2.3 Original LTF NT Requests for service to existing Network Load

2.3.1 PUF calculations are prepared for each Original LTF NT Request for service to existing Network Load RECEIVED, to determine the impacts of the requested service on Network Flowgates.

2.3.2 The Evaluated POD/POR used to prepare the PUF calculation will be determined based on the Requested POD/Requested POR as provided in the following matrix:

	Requested POR	Requested POD		Evaluated POR	Evaluated POD
2.3.2.1	Any POR not associated with a wind generator	Network POD or Export POD		Requested POR	FCRPS
2.3.2.2	Any POR associated with a wind generator	Network POD or Export POD		(A) Requested POR	(A) FCRPS[1]
				(B) FCRPS	(B) Requested POD[1]

[1] The impact to each Flowgate is equal to the impacts of Path (B), subtracted from the larger of either the Path (A) or Path (B) impacts. Path (A) models impacts assuming the wind generator is operating, and displacing FCRPS generation; Path (B) models ATC impacts assuming the wind generator is not operating, and not displacing FCRPS generation.

2.3.3 When the Original LTF NT Request for service to existing Network Load is CONFIRMED, the positive PUF calculation impacts will be decremented from posted LTF ATC values; any negative impacts will also be decremented, to increase posted LTF ATC values.

2.4 LTF Redirect Requests

2.4.1 PUF calculations are prepared for each LTF Redirect Request RECEIVED, to determine the impacts of the requested service on Network Flowgates.

2.4.2 The Evaluated POD(s)/POR(s) used to prepare the PUF calculation(s) will be determined based on the Requested POD/Requested POR as provided in the following matrix:

	Requested POR	Requested POD	Evaluated POR	Evaluated POD
2.4.2.1	No change from existing POR	Change from Network POD to different Network POD	Original POR	Original POR [1]
2.4.2.2	No change from existing POR	Change from Network POD to Export POD	Algorithm for Resources Dispatched On	Requested POD
2.4.2.3	No change from existing POR	Change from Export POD to Network POD	Original POD	Algorithm for Resources Dispatched Off
2.4.2.4	No change from existing POR	Change from Export POD to different Export POD	Original POD	Requested POD
2.4.2.5	Change from existing POR[2]	Any Network POD or unchanged Export POD	Requested POR	Original POR
2.4.2.6	Change from existing POR[2]	Change from Network POD to Export POD	(A) Algorithm for Resources Dispatched On	(A) Original POR[3]
			(B) Requested POR	(B) Requested POD[3]
2.4.2.7	Change from existing POR[2]	Change from Export POD to Network POD	(A) Existing POR	(A) Existing POD[4]
			(B)Requested POR	(B) Algorithm for Resources Dispatched Off[4]
2.4.2.8	Change from existing POR[2]	Change from Export POD to different Export POD	(A) Existing POR	(A) Existing POD[4]
			(B) Requested POR	(B) Requested POD[4]

[1] This analysis results in no Flowgate impacts
[2] If an existing POR is not associated with any source of generation, then a request to redirect that POR will be evaluated as an Original LTF Request under Step 2.1.1
[3] Impacts of Path (A) are added to the impacts of Path (B) – negative values are included in this calculation (B + A).
[4] Impacts of Path (A) are subtracted from the impacts of Path (B) – negative values are included in this calculation (B – A).

2.4.3 When the LTF Redirect Request is CONFIRMED, the positive PUF calculation impacts will be decremented from posted LTF ATC values; any negative impacts will also be decremented, to increase posted LTF ATC values.

2.5 Evaluation of potential challengers for the demand capacity of DEFERRAL and RENEWAL Requests

2.5.1 PUF calculations are prepared for each DEFERRAL REQUEST CONFIRMED and for each RENEWAL Request RECEIVED, to determine whether challengers for its demand capacity exist.

2.5.1.1 The DEFERRAL or RENEWAL Customer is hereafter referred to as the "Defender".

2.5.1.2 The Customer that is determined to have a competing request is hereafter referred to as the "Challenger".

2.5.2 There must be sufficient ATC to accommodate the impacts determined in the PUF calculations to conclude that the Challenger can be offered a Contingent Contract in a MW amount, including a partial offer, that is at least equal to the amount of MWs that would be released by the Defender.

2.5.3 The Evaluated POD(s)/POR(s) used to prepare the PUF calculation(s) will be determined based on the Requested POD/Requested POR as provided in the following matrix:

	Defender's Requested POR	Defender's Requested POD	Challenger's Requested POR	Challenger's Requested POD		Evaluated POR	Evaluated POD
2.4.3.1	Any POR	Network POD	Any POR	Network POD		(A) Defender's Requested POR[1]	(A) Defender's Requested POD[3]
						(B) Challenger's Requested POR[1]	(B) Defender's Requested POD[3]
2.4.3.2	Any POR	Network POD	Any POR	Export POD		(A) Algorithm for Resources Dispatched On	(A) Defender's Requested POR[1, 2]
						(B) Challenger's Requested POR[1]	(B) Challenger's Requested POD[2]
2.4.3.3	Any POR	Export POD	Any POR	Network POD		(A) Defender's Requested POR[1]	(A) Defender's Requested POD[3]
						(B) Challenger's Requested POR[1]	(B) Algorithm for Resources Dispatched Off[3]

	Defender's Requested POR	Defender's Requested POD	Challenger's Requested POR	Challenger's Requested POD		Evaluated POR	Evaluated POD
2.4.3.4	Any POR	Export POD	Any POR	Export POD		(A) Defender's Requested POR[1]	(A) Defender's Requested POD[3]
						(B) Challenger's Requested POR[1]	(B) Challenger's Requested POD[3]

[1] If the POR is associated with a wind resource designated as a Network Resource, the impact to each Flowgate is determined by using either the Requested POR of FCRPS, whichever results in the largest impact.

[2] Impacts of Path (A) are added to the impacts of Path (B) – negative values are included in this calculation (B + A).

[3] Impacts of Path (A) are subtracted from the impacts of Path (B) – negative values are included in this calculation (B – A).

2.5.4 If the LTF RENEWAL Request is CONFIRMED, there will be no change to posted LTF ATC, as posted ATC reflects the assumption that rollover rights will be exercised.

2.5.5 If the LTF DEFERRAL Request remains CONFIRMED, there will be no change to posted LTF ATC, except that ATC (long-term or short-term, whichever applies) will be released for the period of the DEFERRAL.

2.5.6 If the Challenger's Request is CONFIRMED, the positive PUF calculation impacts will be decremented from posted LTF ATC values; any negative impacts will also be decremented, to increase the posted LTF ATC.

3 Related Business Practices

3.1 Transmission Services' Business Practices are available on its web page at http://www.transmission.bpa.gov/Business/Business_Practices/.

3.2 Transmission Services' ATC Supporting and Related Information/Documents are available on its web page at http://www.transmission.bpa.gov/Business/Customer_Forums_and_Feedback/ATC_Methodology/

4 Version History

Version Date	Status/Summary
6/17/08, V5	This version update reflects clarifications to Steps 2.3.2.2 and 2.4.2.1. As a result of Customer comments received, the footnote in Step 2.3 was modified and an additional footnote was added in Step 2.4.2.1.
5/14/08, V4	Incorporated modifications to the manner in which requests to designate wind generators as Network Resources are processed; creation of two new sections that apply only to Long-Term Firm NT Requests (new Sections 2.2 and 2.3 apply to NT requests – new Sections 2.1 and 2.4 do not apply to NT requests); and to remove the PGE-specific footnotes from the redirect matrix (new Section 2.4; formerly Section 2.2) and the competition matrix (now Section 2.5; formerly Section 2.3). Transmission Services has determined that, consistent with Step 14.2 of the Network Open Season Bulletin and Section 8(b) of the Network Open Season Precedent Transmission Service Agreement Exhibit A or C, these changes do not adversely impact any Customers' ability to redirect.
11/27/07, V3	Revisions made to the matrices described in Steps 2.2.2 and 2.3.3. The revision made to the Step 2.2.2 matrix for analyzing long-term firm requests for ATC for REDIRECT and Network Integration Modification of Service Requests adds a previously missing REDIRECT evaluation method in a new Step 2.2.2.8. The revision made to the Step 2.3.3 matrix for the evaluation of potential challengers for the demand capacity of DEFERRAL and RENEWAL Requests removes the Evaluated Demand column. In addition, Step 2.3.2 is revised to clarify that the Contingent Contract offered to the Challenger must be for a MW amount that is at least equal to the amount of MWs that would be released by the Defender. These revisions are made to simplify the competition process. Corrected typos in Steps 2.2.2.5-2.2.2.7. Replaced "*BPA Transmission Services*" with "*Transmission Services*".
12/18/06, V2	Clarified footnotes 2, 3 and 4 in section 2.2.2 and footnotes 2 and 3 in section 2.3.3, and corrected typos in sections 1.1 and 1.2.
11/20/06, V1	This document describes the methodology for determining Long-Term Firm ATC impacts on Network Flowgates for requests for long-term firm transmission service received by BPA Transmission Services' between the updates to the planning baseline studies.