

Available Transfer Capability (ATC) Methodology Contract Accounting Methodology, Version 5

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This document describes the Contract Accounting Methodology used to determine ATC for Interties and External Interconnections.

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.

Table of Contents

1.	Contract Accounting Methodology Assumptions	2
2.	Mapping the Impact Across Each Network Flowgate.....	3
3.	Determine Contract Accounting ATC	3
4.	External Interconnections and Interties	3
5.	Multiple POR/POD Evaluation Example	4
6.	Revision History	4

1. Contract Accounting Methodology Assumptions

The Contract Accounting Methodology assumptions include:

A. Limited netting

- ◆ Some netting across the Network Flowgates for Network Integration (NT) and Point-to-Point (PTP) Transmission Service Agreements, Integration of Resources (IR) contracts, and Formula Power Transmission (FPT) contracts serving load in the Pacific Northwest is based on historical Light Load Hour (LLH) data.
- ◆ For PTP, FPT, and IR contracts, Point of Receipt (POR)/Point of Delivery (POD) combinations serving load in the Pacific Northwest, netting for each Network Flowgate is based on a ratio of monthly loads in LLH to winter loads in Heavy Load Hours (HLH). For NT contracts, netting for POR/POD combinations for each Network Flowgate is based on a ratio of monthly loads in LLH to monthly loads in HLH.
- ◆ All other contracts with firm transmission to loads outside of the Pacific Northwest (such as contracts delivering to the head of the AC Intertie) are assumed to use their full contract demand simultaneously on Transmission Services' share of the Transmission System.

B. Non-coincident (by individual POD) normal 1-in-2 year (that is, the probability of actual loads exceeding the forecast is estimated to be .5) monthly peak load forecasts are used for NT contracts.

C. Cut Case Path Utilization Factors (PUF) value. PUFs are derived from a model of Transmission Services' system only, not the entire WECC loop (commonly referred to as a cut case).

D Federal Resource Dispatch:

- ◆ Modified 90th Percentile Method for federal dispatch for NT service.

The amount of NT load served by federal resources is determined by decrementing the NT load forecast by the amount of the Customer-Served Load and non-federal NT resources serving such load, as specified in the NT Service Agreements. NT contracts do not identify the amount of transmission from specific federal Network Resources to Network Load. Because dispatch patterns for federal Network Resources can vary, assumptions are necessary for determining power flow analysis described in Section 2(c) of Appendix 6. These assumptions used the Modified 90th Percentile Method in the Contract Accounting Methodology.

- ◆ Additional adjustments for federal resource flexibility.

Additional adjustments are made to allow for operational flexibilities to balance the federal hydro system to meet non-power obligations. These adjustments were made to the Contract Accounting Flow as follows: 200 MW on the North of Hanford Flowgate for March through September; 100 MW on the Cross Cascades North Flowgate for June through

September; and 200 MW on the Cross Cascades South Flowgate for June through September.

2. Mapping the Impact Across Each Network Flowgate

$$\text{Contract Accounting Flow} = \text{POR/POD demand} \times \text{PUF}$$

The Contract Accounting Methodology evaluates individual NT, PTP, and grandfathered contracts (IR, FPT, and other contracts--including agreements where Transmission Services provides Transmission Service to Investor-Owned Utility (IOU) loads located in Transmission Services' Control Area, and obligations to the United States Bureau of Reclamation (USBR) to serve irrigation pumping load) and maps their respective rights onto each of the Network Flowgates, External Interconnections, or Interties using the PUF.

The impact of each PTP or grandfathered contract over each Network Flowgate ("non-NT Contract Accounting Flow") is the product of the demand for each POR/POD combination multiplied by the PUF value for that corresponding Flowgate.

The impact of each NT contract or non-federal resource addition to the NT Resources Memorandum of Agreement over each Network Flowgate ("NT Contract Accounting Flow") is the product of the load forecast or non-federal resource MW amount for each POR/POD combination multiplied by the PUF value for that corresponding Flowgate, except for NT contracts or non-federal resource additions to the NT Resources Memorandum of Agreement with wind generation identified as a Designated Network Resource. For these contracts, the POR is deemed to be either the wind resource or the federal system resources, whichever results in the largest impact to the Flowgates. This determination is made on a Flowgate by Flowgate basis.

In cases where there are multiple PORs and PODs, the contract demand was proportionately allocated to the PORs and electrically dissimilar PODs as shown in Section 5 below.

The Contract Accounting Flow is equal to the sum of the non-NT Contract Accounting Flow and the NT Contract Accounting Flow.

3. Determine Contract Accounting ATC

$$\text{Contract Accounting ATC} = \text{TTC} - \text{Contract Accounting Flow}$$

To obtain the Contract Accounting ATC, the sum of the Network Flowgate impacts, including the adjustments described in Sections 2 and 3 above (Contract Accounting Flow), is subtracted from the Total Transfer Capability (TTC) of each Network Flowgate.

4. External Interconnections and Interties

The ATC for External Interconnections and Interties is calculated using the results of the Contract Accounting Methodology, without adjustments for planning study results. The Contract Accounting Methodology applicable to Interties and External Interconnections modifies two key assumptions. First, netting is assumed for only the West of Hatwai and LaGrande External Interconnections. In the case of West of Hatwai, the netting approach described in this document is employed. In the case of LaGrande, federal generation serving grandfathered and Network Loads in Southern Idaho is netted against peak loads in that area to calculate the ATC for LaGrande in the west-to-east direction. Second, for all other transactions using an Intertie or

External Interconnection, the full amount of the load forecast or contract demand is deducted from the ATC (except for the previously mentioned netting).

5. Multiple POR/POD Evaluation Example

Some contracts contain multiple PORs and PODs. In order to use the PORs to calculate Flowgate flows, the total contract demand must be allocated among all possible POR/POD combinations. The following is an example of how contract demand was proportionately allocated in cases where multiple POR/POD combinations were possible.

Note: Transmission Services no longer accepts requests with multiple PORs and PODs.

Multiple to Multiple PTP Example						
Hypothetical Long Term Contract for 2000MW						
	POR	MW		POD	MW	
	A	1000		X	1200	
	B	650		Y	300	
	C	50		Z	500	
	D	300				
		2000			2000	
Allocation of POR Demands to the POD's						
			PODs			
	2000		X	Y	Z	
			1200	300	500	
PORs	A	1000	600	150	250	1000
	B	650	390	97.5	162.5	650
	C	50	30	7.5	12.5	50
	D	300	180	45	75	300
			1200	300	500	2000
						2000

6. Revision History

6/17/08, V5	This version update reflects necessary clarifications and corrections to typos.
5/14/08, V4	Incorporated modifications to the manner in which designations of wind generators as Network Resources are modeled.
08/22/06, V3	Removed an editorial comment that was inadvertently left in Section 2.
06/07/05, V2	Removed Appendix 2 from the base ATC Methodology document and posted as a separate document on the Tools, Assumptions, and Data Input page of Transmission Services web site. Minor edits to clarify.
11/12/03, V1	This document was included as Appendix 2 of the ATC Methodology.