
Available Transfer Capability (ATC) Methodology

Total Transfer Capability (TTC) for Network Flowgates, Version 4

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This document describes the guidelines used to determine total transfer capability (TTC) for Network Flowgates.

1. Transmission Services performs seasonal calculations on the transmission system to determine the TTC of its system. A powerflow base case is compiled using expected seasonal operating conditions. The worst contingency outages as defined by the Western Electric Coordinating Council (WECC), National Electric Reliability Council (NERC), and BPA reliability standards are studied to ensure equipment loadings, voltage stability, and transient stability performance meet these standards. The TTC limit is determined by adjusting the generation pattern, local area loads, and inter-area transfers to stress the case to the maximum path flow level where the worst-case contingency outages continue to meet the reliability standards.

The variation in generation, load, and inter-area transfers provide a range of TTC values under which the transmission system could reliably operate. The overall TTC reflects the worst-case combination of generation, load, and inter-area transfers. The differences in TTC derived from these pattern variations constitute the transmission reliability margin (TRM). TTC is then adjusted by TRM, the embedded margin for reliability that allows for safe reliable operation of the transmission system, to provide operating transfer capability (OTC). Transmission Services sells long-term transmission to Network Flowgate OTC limits.

2. Network Flowgate OTC limits are determined based on the Transmission Services transmission facilities for each Network Flowgate that existed or scheduled to be energized in the appropriate month of each Calendar Year. Such OTCs shall be revised on an on-going basis to reflect system upgrades and expansions.
3. Network Flowgate OTC limits are specified in the current ATC posting on Transmission Services' OASIS. Due to national security considerations, studies used to determine OTC will be available to parties that sign a non-disclosure agreement. Information regarding the non-disclosure agreement is available on Transmission Services' Network Planning website.
4. The Transmission Services reserves the right to modify the OTC determinations at any time subject to the WECC OTC process. The OTC process is set up to allow technical review of transfer path operating limits by affected WECC members. Transfer paths subject to this process are usually External Interconnections, but could be any path affecting more than one WECC member system.

Revision History

5/27/08, V4	Replaced TBL with Transmission Services.
06/07/05, V3	Removed Appendix 3 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.
2/11/04, V2	Edited to reflect updated information
11/12/03, V1	This document was included as Appendix 3 of the ATC Methodology.