



## NORTHWEST - CANADA

### Path Name

- Accepted Rating  
 Existing Rating

Location:	Washington and Southern British Columbia.								
Definition:	<p>Sum of the flows on the following lines:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center; border-bottom: 1px solid black;"><u>Line</u></th> <th style="text-align: center; border-bottom: 1px solid black;"><u>Meter End</u></th> </tr> </thead> <tbody> <tr> <td>Custer - Ingledow 500 kV lines 1&amp;2 (Westside Intertie)</td> <td style="text-align: right;">Ingledow (North end)</td> </tr> <tr> <td>Boundary - Waneta 230 kV (Eastside Intertie)</td> <td style="text-align: right;">Boundary (South end)</td> </tr> <tr> <td>Boundary - Nelway 230 kV (Eastside Intertie)</td> <td style="text-align: right;">Boundary (South end)</td> </tr> </tbody> </table>	<u>Line</u>	<u>Meter End</u>	Custer - Ingledow 500 kV lines 1&2 (Westside Intertie)	Ingledow (North end)	Boundary - Waneta 230 kV (Eastside Intertie)	Boundary (South end)	Boundary - Nelway 230 kV (Eastside Intertie)	Boundary (South end)
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Transfer Limit:	<p><u>North to South</u>: 2300 MW (all ties). Flow cannot exceed 2000 MW on both Custer-Ingledow lines 1&amp;2 (Westside Intertie) or 400 MW on the Boundary-Nelway line (one of the two Eastside Interties).</p> <p><u>South to North</u>: 1900 MW (all ties, temporary reduction from 2000 MW due to CT limitations at Ingledow). Flow cannot exceed 1500 MW on both Custer-Ingledow lines 1&amp;2 (Westside Intertie) or 400 MW on the Boundary-Nelway line (one of the two Eastside Interties).</p>								
Critical Disturbance That Limits the Transfer Capability:	<p>The limiting outage is loss of both Custer-Ingledow 500 kV lines.</p> <p><u>North to South</u>: Generator dropping in Canada equal to schedule will prevent separation of the 230 kV interconnection with the Northwest.</p> <p><u>South to North</u>: The 230 kV lines are tripped if they become overloaded causing the Northwest to separate from Canada. Traditionally, Canada is a net exporter.</p>								
When:	<p>The original 2000 MW bi-directional path rating was established by internal studies conducted jointly by B.C. Hydro and Power Authority and Bonneville Power Administration.</p> <p><u>North to South</u>: The 2300 MW path rating was established in January 1989 with the publication of "Facility Rating Studies for Joint BPA-BCH 2300 MW Intertie Uprate Report".</p>								
System Conditions:	<p><u>North to South</u> Studies were conducted on the heavy load summer and light load spring conditions. At the time of publication, the ability of B.C. Hydro to deliver 2300 MW is <u>limited</u> only when its system load is above 80% of its annual peak load. This limitation is usually only during on-peak load hours over the winter months. Correspondingly, the Northwest (Bellingham area) 230/115 kV transmission system may limit the import capability during on-peak load hours.</p>								
Study Criteria:	<p>All facilities loaded within normal ratings under normal system conditions. All facilities loaded within emergency ratings under outage conditions. The B.C. Hydro criteria for voltage stability will be satisfied for all first contingency loss of a 500 kV line.</p>								
Remedial Actions Required:	<p><u>North to South</u> The maximum amount of generator tripping in the B.C. Hydro system is equal to the scheduled export to the Northwest.</p>								
Formal Operating Procedure:	None								
Allocation:	<p><u>North to South</u>: 300 MW is allocated to Cominco when the Waneta-Boundary 230 kV line is in service. The remainder is allocated to B.C. Hydro. All the capacity on the U.S. side is allocated to BPA.</p> <p><u>South to North</u>: All of the capacity is allocated to B.C. Hydro and BPA.</p>								
Interaction w\Other Transfers Paths:	None								



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