

[Note: sections and practices that are common to both options are shown in black]

CONDITIONAL FIRM SERVICE (CFS) – Option 1

In this Section

[Overview](#)

[Availability of CFS](#)

[CFS Curtailment Conditions](#)

[Short-Term Firm ATC](#)

[Pricing](#)

[CFS Service Agreement](#)

[Biennial Reassessment](#)

[Other Terms and Conditions](#)

1.0 OVERVIEW

Pursuant to Section 15.4(c) BC Hydro's [Open Access Transmission Tariff](#) (OATT), Conditional Firm Service (CFS) is a form of Long-Term Firm Point-to-Point (LTFPTP) transmission service that BC Hydro offers when there is insufficient long-term firm Available Transfer Capability (ATC) to meet the Transmission Customer's full request for LTFPTP transmission service. CFS may be curtailed prior to other firm service under pre-specified curtailment conditions. Refer to BC Hydro's Business Practice on *Submitting a Long Term Firm Point-To-Point Transmission Service Request* for information on submitting a LTFPTP transmission request.

Forecasted Period: means a 24-month period

Current Forecasted Period: means a Forecasted Period starting from the month following.

Initial Forecasted Period: means the first Forecasted Period from the Start-date of a CFS Service Agreement.

These Business Practices provide clarification of the rules, standards and practices used by BC Hydro to implement its OATT. While the terms of BC Hydro's OATT and these Business Practices govern, customers should also refer to the NAESB WEQ Business Standards and WECC Regional Criteria, which BC Hydro has followed in most, but not all, respects. BC Hydro also complies with the Mandatory Reliability Standards adopted by the BCUC.

2.0 AVAILABILITY OF CFS

CFS is a long-term transmission service and not available for short-term. In response to a Completed Application (per Section 17.2 of BC Hydro's OATT) for LTFPTP Transmission Service, BC Hydro will make a determination of ATC. CFS may be offered if BC Hydro determines that there is not adequate ATC to satisfy the full capacity requested in the Completed Application and if the terms for CFS outlined below are met.

Refer to BC Hydro's OATT Business Practice on *Processing of Long Term Firm Point-to-Point Transmission Requests* for information on BC Hydro's evaluation of submitted LTFPTP TSRs.

BC Hydro determines ATC for CFS for the Current Forecasted Period as follows:

1. Use BC Hydro's short-term monthly Firm ATC, which BC Hydro posts daily on OASIS for the current month plus the next 12 months, as estimates for the first year's monthly Firm ATC for CFS.
2. Use the values obtained in #1 above as estimates for the second year's monthly Firm ATC for CFS for a total of 24 months of monthly Firm ATC.
3. For BC to US Path only, the monthly Firm ATC is determined by using BC Hydro's forecast monthly loads, forecast monthly generation dispatching pattern, and transmission system configuration. The resulting monthly firm transfer capabilities are the monthly Firm ATC after allowing for the requirement of BC Hydro's domestic customers and other committed use. To mitigate uncertainty risk in forecasting BC Hydro's requirements for domestic customers, BC Hydro will adjust the monthly Firm ATC for CFS for the BC to US path as follows:
 - Set the monthly Firm ATC for CFS for the months of November, December, January and February to zero to account for the uncertain timing of the weather dependent system peak.
 - Reduce the monthly Firm ATC for CFS in the second year based on BC Hydro's projected growth rate for integrated system demand.
4. Using the calculated monthly Firm ATC for CFS, BC Hydro will make path-specific CFS offers as discussed below. Unconditional periods (months) where CFS has the same curtailment as other firm services and conditional periods (months) where CFS can be curtailed prior to other firm services.
5. If the monthly Firm ATC is less than the capacity requested, BC Hydro will offer firm service in an amount equal to the monthly Firm ATC, and conditional service for the balance of requested capacity subject to TTC limitation (i.e., $TTC \geq \text{Transmission Reliability Margin} + \text{Existing Firm Commitments} + \text{CFS}$).

3.0 CFS CURTAILMENT CONDITIONS

BC Hydro offers CFS based on monthly path-specific curtailment priorities as determined by the ATC in Section 2 above.

During conditional periods, CFS has the same curtailment priority as Secondary Network Transmission Service (curtailed pro-rata with Type 1 Secondary Network transmission service); and during unconditional periods CFS has the same curtailment priority as other Firm transmission services (curtailed pro-rata with other Firm transmission service).

4.0 SHORT-TERM FIRM ATC

Short-Term Firm ATC (i.e. hourly, daily, weekly or monthly) will be awarded to CFS Transmission Customers to convert the conditional service amounts to firm service amounts (“firm up”) prior to being offered to the market. All confirmed CFS reservations on the same path will be firmed up automatically by BC Hydro at the same time only when there is sufficient Firm ATC for all of the confirmed CFS Reservations on that path. Therefore, if BC Hydro is offering Short Term Firm ATC to the market for any periods (e.g. hour, day, week, or month, as applicable), the confirmed CFS reservations have been firmed up and are no longer conditional for those periods, and they will be curtailed pro-rata with other Firm transmission services.

5.0 PRICING

CFS will be charged the same price as LTFPTP transmission service as defined in Rate Schedule 01 of BC Hydro’s OATT.

6.0 CFS SERVICE AGREEMENT

6.1 Service Agreement

If BC Hydro determines that it does not have adequate ATC to satisfy the full capacity requested on the Completed Application, BC Hydro will tender to the Transmission Customer:

- (i) A Service Agreement for partial capacity and/or partial term (Partial Service) and/or CFS as applicable; and
- (ii) An applicable study agreement (either a System Impact Study Agreement or Facilities Study Agreement).

Refer to BC Hydro’s OATT Business Practice on *Processing of Long Term Firm Point-To-Point Transmission Requests* for more information.

In cases where both the Partial Service and CFS are available, the Transmission Customer may execute either the Partial Service Agreement or CFS Service Agreement but not both.

If only the CFS Service Agreement is executed, CFS serves as a substitute service for Transmission Customers who do not wish to commit to Network Upgrades and can accept a lower curtailment priority level than that of firm service.

If both the CFS Service Agreement and a study agreement are executed, the CFS serves as a bridge service until:

- (i) The conclusion of all applicable studies - if the Transmission Customer decides not to commit to Network Upgrades, the CFS serves as a substitute service from this point on; or

- (ii) The completion of Network Upgrades where the projected in-service date is later than the requested Start-date - if the Transmission Customer has executed a LTFPTP Service Agreement for service that requires Networks Upgrades.

The Service Agreement for CFS will include firm service in an amount equal to the monthly Firm ATC, and conditional service for the balance of requested capacity for the Initial Forecasted Period based on information available when the Service Agreement is tendered. If the term of the Service Agreement extends beyond the Initial Forecasted Period, the monthly firm service amount and conditional service amount for the subsequent Forecasted Period will be provided at the biennial reassessment as detailed in Section 7.0.

Example 1:

A Completed Application submitted on 2 April 2011 for Transmission Service on AB to BC Path for 200 MW with service Start-date of 1 January 2012 for five years. In accordance with OATT timelines, BC Hydro must tender a study agreement or Service Agreement by 2 May 2011.

Assuming the current posted monthly Firm ATC for AB to BC Path is 136 MW for June 2011 to May 2012, BC Hydro will tender to the Transmission Customer:

- (i) A Service Agreement for 136 MW for Partial Service for five years;
- (ii) A Service Agreement for five years for CFS with 136 MW of monthly firm service and 64 MW of monthly conditional service for the Initial Forecasted Period; and
- (ii) A System Impact Study Agreement.

The Transmission Customer may execute:

- (i) The Service Agreement for Partial Service or the Service Agreement for CFS but not both; and
- (ii) The System Impact Study Agreement.

6.2 BC to US Path and AB to US Path

The short-term monthly load forecast covers current month and next 12 months. As described in section 2.0 above, this monthly load forecast is used to determine the next 24 monthly Firm ATC for CFS for the BC to US Path. The determination of monthly Firm ATC beyond month 24th for this path is not covered by the approved methodology. Therefore, at any given time:

- ◆ There is sufficient information for determining monthly firm service amount for the Initial Forecasted Period for a CFS Service Agreement with Start-date within a month;
- ◆ There is insufficient information for determining monthly firm service amount for the entire Initial Forecasted Period for a CFS Service Agreement with Start-date more than a month from the current date; and

- ◆ If there is no information for determining monthly firm service amount for any month within a Forecasted Period, monthly firm service amount for that month will be assumed equal to zero.

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Example 2:

A Completed Application submitted on 2 April 2011 for Transmission Service on BC to US Path for 200 MW with service Start-date of 1 June 2011. In accordance with OATT timelines, BC Hydro must tender a study agreement or Service Agreement by 2 May 2011. At this time:

- ◆ The Current Forecasted Period is from 1 June 2011 to 1 June 2013
- ◆ The Initial Forecasted Period for this request is from 1 June 2011 to 1 June 2013
- ◆ There is sufficient information for determining monthly firm service amount and monthly conditional service amount for all months within the Initial Forecasted Period.

Assuming the projected growth for integrated system demand is 3% and the current posted monthly Firm ATC is as shown in column 2 of Table 1, then the second year's monthly Firm ATC, the Initial Forecasted Period monthly firm service amount and conditional service amount are as shown in column 3, 4 and 5 respectively.

Table 1

Month	Assumed Posted Firm ATC	Second Year's Estimated Firm ATC	Initial Forecasted Period	
			Firm Service Amount	Conditional Service Amount
Jun-11	1280		200	0
Jul-11	1280		200	0
Aug-11	1212		200	0
Sep-11	568		200	0
Oct-11	178		178	22
Nov-11	150		¹ 0	200
Dec-11	51		¹ 0	200
Jan-12	51		¹ 0	200
Feb-12	416		¹ 0	200
Mar-12	802		200	0
Apr-12	1242		200	0
May-12	1242		200	0
Jun-12		1242	200	0
Jul-12		1242	200	0
Aug-12		1176	200	0
Sep-12		551	200	0
Oct-12		173	173	27
Nov-12		146	¹ 0	200
Dec-12		49	¹ 0	200
Jan-13		49	¹ 0	200
Feb-13		404	¹ 0	200
Mar-13		778	200	0
Apr-13		1205	200	0
May-13		1205	200	0

Note 1: Set to zero in accordance with step 3, section 2.0 above.

Example 3:

A Completed Application submitted on 2 April 2011 for Transmission Service on BC to US Path for 200 MW with service Start-date of 1 August 2011. In accordance with OATT timelines, BC Hydro must tender a study agreement or Service Agreement by 2 May 2011. At this time:

- ◆ The Current Forecasted Period is from 1 June 2011 to 1 June 2013
- ◆ The Initial Forecasted Period for this request is from 1 August 2011 to 1 August 2013
- ◆ There is insufficient information for determining monthly firm service amount and monthly conditional service amount for all months within the Initial Forecasted Period.

Assuming the projected growth for integrated system demand is 3% and the current posted monthly Firm ATC is as shown in column 2 of Table 2, then the second year's monthly Firm ATC, the Initial Forecasted Period monthly firm service amount and conditional service amount are as shown in column 3, 4 and 5 respectively.

Table 2

Month	Assumed Posted Firm ATC	Second Year's Estimated Firm ATC	Initial Forecasted Period	
			Firm Service Amount	Conditional Service Amount
Aug-11	1212		200	0
Sep-11	568		200	0
Oct-11	178		178	22
Nov-11	150		0	200
Dec-11	51		0	200
Jan-12	51		0	200
Feb-12	416		0	200
Mar-12	802		200	0
Apr-12	1242		200	0
May-12	1242		200	0
Jun-12		1242	200	0
Jul-12		1242	200	0
Aug-12		1176	200	0
Sep-12		551	200	0
Oct-12		173	173	27
Nov-12		146	0	200
Dec-12		49	0	200
Jan-13		49	0	200
Feb-13		404	0	200
Mar-13		778	200	0
Apr-13		1205	200	0
May-13		1205	200	0
Jun-13	NA	NA	² 0	200
Jul-13	NA	NA	² 0	200

Note 2: Estimated Firm ATC for June and July 2013 is not available. Firm service amounts for these two months are set to zero.

Example 4:

A Completed Application submitted on 2 April 2011 for Transmission Service on BC to US Path for 200 MW with service Start-date of 1 June 2013. In accordance with OATT timelines, BC Hydro must tender a study agreement or Service Agreement by 2 May 2011. At this time:

- ◆ The Current Forecasted Period is from 1 June 2011 to 1 June 2013
- ◆ The Initial Forecasted Period for this request is from 1 June 2013 to 1 June 2015
- ◆ There is insufficient information for determining monthly firm service amount and monthly conditional service amount for all months of the Initial Forecasted Period.

Assuming the projected growth for integrated system demand is 3% and the current posted monthly Firm ATC is as shown in column 2 of Table 3, then the second year's monthly Firm ATC, the Initial Forecasted Period monthly firm service amount and conditional service amount are as shown in column 3, 4 and 5 respectively.

Table 3

Month	Assumed Posted Firm ATC	Second Year's Estimated Firm ATC	Initial Forecasted Period	
			Firm Service Amount	Conditional Service Amount
Jun-13	NA		0	200
Jul-13	NA		0	200
Aug-13	NA		0	200
Sep-13	NA		0	200
Oct-13	NA		0	200
Nov-13	NA		0	200
Dec-13	NA		0	200
Jan-14	NA		0	200
Feb-14	NA		0	200
Mar-14	NA		0	200
Apr-14	NA		0	200
May-14	NA		0	200
Jun-14		NA	0	200
Jul-14		NA	0	200
Aug-14		NA	0	200
Sep-14		NA	0	200
Oct-14		NA	0	200
Nov-14		NA	0	200
Dec-14		NA	0	200
Jan-15		NA	0	200
Feb-15		NA	0	200
Mar-15		NA	0	200
Apr-15		NA	0	200
May-15		NA	0	200

Note 3: Estimated Firm ATC for all months within the Initial Forecasted Period is not available. Firm service amounts for all months are set to zero.

6.3 BC to AB Path

Pursuant to BCUC Order G-110-08 and G-45-10, Long-Term firm sales on this path are limited to 480 MW and the TTC is limited at 850 MW. Those Long-Term transmission service requests on the BC-AB Path and US-AB Path that were in the queue remain in the queue until the requests expire. Any additional Firm ATC above the 480 MW Long-Term firm sales limit will be offered to the transmission service requests in queue priority. CFS offers are limited to 305 MW (i.e. 850 MW less TRM less 480 MW). CFS is offered based on queue priority and since the existing requests will remain in the queue pending increases in Alberta's import capability, CFS will not be offered to lower ranked service requests even if the offers for CFS are rejected by those customers with first priority on the 305MW.

7.0 BIENNIAL REASSESSMENT

CFS is provided to the Transmission Customer on the condition that BC Hydro will reassess the conditions for curtailment of transmission service biennially.

7.1 CFS Biennial Reassessment

CFS as Substitute Service

Pursuant to Section 13.4 of BC Hydro's OATT, BC Hydro will provide the Transmission Customer with the results of its biennial reassessment of the available Firm ATC and conditional Firm ATC for the CFS no later than ninety (90) Calendar Days prior to the date on which such new levels of unconditional Firm ATC and conditional Firm ATC will be applied.

CFS as Bridge Service

Biennial Reassessment does not apply to CFS as bridge Service.

For BC to US Path and AB to US Path, monthly firm service amount and conditional service amount are available only for the Initial Forecasted Period at the time when the CFS Service Agreement is signed. As such, BC Hydro will follow CFS Biennial Reassessment process to provide the Transmission Customer with available monthly firm service amount and conditional service amount for the subsequent Forecasted Period.

7.2 Response to Reassessment Results

- a) If the conditional Firm ATC levels become more onerous to the Transmission Customer in any given month, the Transmission Customer may choose to either continue with the service with the new levels or to discontinue the service.
 - i. If the Transmission Customer decides to continue service, the Service Agreement for CFS will be amended accordingly.

- ii. If the Transmission Customer decides to discontinue service, the Transmission Customer is required to inform BC Hydro in writing at least thirty (30) Calendar Days in advance that it chooses to discontinue the service on the date the new conditional Firm levels change.

- b) If the conditional Firm levels become less onerous to the Transmission Customer, or unchanged, both parties will remain contractually bound to continue the CFS transmission service until the next reassessment or until the Service Agreement terminates, whichever comes first.

7.3 Rollover of CFS

Pursuant to Section 2.2 of BC Hydro's OATT, Transmission Customers with Service Agreements for CFS Transmission Service of five years or longer have the same right, and terms and conditions, to rollover its service for any number of years as other Long Term Transmission Customers outlined in Section 4 of BC Hydro's OATT Business Practice on *Submitting a Long Term Firm Point-to-Point Transmission Service Request*.

The Transmission Customer requesting to rollover existing service must submit a rollover request on OASIS pursuant to Section 17.1 of the OATT. The Transmission Customer must submit the TSR as type RENEWAL and reference the original LTF PTP OASIS ID (Aref) in the Related Ref field. The Renewal Request must be received by BC Hydro no less than one Calendar Year prior to the date on which the reservation expires, rolls over, or is renewed.

7.3.1 Rollover Rights Coincide with Biennial Assessment

For CFS with rollover rights that coincide with BC Hydro's biennial assessment of CFS, BC Hydro shall provide the CFS Transmission Customer with information on reassessed curtailment conditions at least 30 Calendar Days prior to the relevant rollover deadline. In addition, BC Hydro shall have the right to reassess the curtailment conditions for service at the end of the first year of service that has been rolled over.

For example, a Transmission Customer taking CFS with a 5-year term must declare its intent to rollover service on or before the start of the 5th year of service, for service starting on the 6th year, coincident with the 2nd biennial review. BC Hydro shall provide the CFS Transmission Customer with the results of reassessment at least 30 Calendar Days prior to the end of the 4th year of service for CFS in years 6 and 7.

7.3.2 Rollover Rights Do Not Coincide with Biennial Assessment

For CFS with rollover rights that do not coincide with BC Hydro's biennial assessment of the CFS, BC Hydro shall have the right to reassess the curtailment conditions prior to rollover. BC Hydro shall provide the CFS Transmission Customer with conditional Firm levels applicable when the CFS is rolled-over, at

least 30 Calendar days prior to the relevant rollover deadline.

For example, a Transmission Customer taking CFS with a 6-year term must declare its intent to rollover service on or before the start of the 6th year of service, for service starting on the 7th year, not coincident with the 3rd biennial review. BC Hydro shall provide the CFS Transmission Customer with results of reassessment at least 30 Calendar days prior to the end of the 5th year of service for years 7 and 8.

8.0 OTHER TERMS AND CONDITIONS

- 1) CFS Transmission Service may be used to support imports from Non-Designated Network Resources. However, it is not Network Economy service as defined in BC Hydro's OATT or Business Practice on *Network Economy*. The Transmission Customer will be charged according to Section 5 of this Business Practice.
- 2) CFS Transmission Service has the same Redirect and Resale rights as LTFPTP Transmission Service. However, Firm Transmission Service cannot be redirected to CFS on short-term basis. Refer to BC Hydro's OATT Business Practices on *Redirect of a Transmission Reservation* and *Resale & Transfer of Transmission Rights* for more information.

For example:

Assuming that a Customer has a 100 MW CFS with 50 MW firm serve and 50 MW conditional service on path A and that there is 75 MW Firm ATC posted on path B.

- The Customer redirects 75 MW from path A on a firm basis.
- After Redirect, the Customer has 25 MW CFS with all the 25 MW as firm service on path A and 75 MW firm service on path B. There is 25 MW Firm ATC posted on path A.
- The Customer then decides to revert back to path A. The Customer can revert back to path A for only 25 MW firm service, but cannot get back the 50 MW conditional service since CFS is a long-term transmission service, but not available and posted for short-term.

Document Change History

Issue	Reason for Issue	Date
1	OATT Amendment Implementation.	xx, 2011

[Back to Top of Section](#)