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December 23, 2020

Ms. Marija Tresoglavic
Acting Commission Secretary and Manager
Regulatory Support
British Columbia Utilities Commission
Suite 410, 900 Howe Street
Vancouver, BC V6Z 2N3

Dear Ms. Tresoglavic:

**RE: Project No. 1598990**
**British Columbia Utilities Commission (BCUC or Commission)**
**British Columbia Hydro and Power Authority (BC Hydro)**
**Fiscal 2020 to Fiscal 2021 Revenue Requirements Application**

BC Hydro writes in response to Directive 34 of the BCUC's Decision on BC Hydro's Fiscal 2020 to Fiscal 2021 Revenue Requirements Application (**F2020-F2021 RRA**). Directive 34 states that by December 31, 2020, BC Hydro is to provide an update on:

- The progress it has made in implementing the recommendations included in Black & Veatch's Transmission Generator and Customer Interconnection Process Assessment Report (the **Report**); and
- Any other initiatives BC Hydro has undertaken, or is undertaking, to improve its interconnection process for generator, large distribution and transmission load customers (**interconnection process**).[1]

In response to Directive 34, this submission provides:

- A brief background on the Report;
- A discussion of how BC Hydro has responded to the Report's recommendations; and
- An overview of other BC Hydro initiatives to improve the interconnections process.

[1] Refer to Order G-246-20, page 112

## Background on the Report

The Report was commissioned by BC Hydro in 2015 to evaluate the effectiveness of its transmission generator interconnection process[2] and transmission load customer interconnection process[3] and to provide recommendations on streamlining these processes. The review included input from internal and external stakeholders, including transmission generator and transmission load customers. A workshop was held in May 2016 to present the Report's findings to generator customers, with the Clean Energy Association of British Columbia (**CEBC**) in attendance. A second workshop was held in June 2016 to present the Report's findings to transmission load customers, with representatives from the Association of Major Power Consumers (**AMPC**) and the Mining Association of BC (**MABC**) in attendance.

The Report noted that many factors impact the timelines for interconnection processes. These include: BC Hydro's large service territory with wide-ranging terrain and system characteristics; complexity of the requests; the number of scenarios to study; the number of existing studies underway, and the system specific issues.[4]

The Report noted:

> The cost and schedule duration aspects of the interconnection studies do not tell the entire story with respect to how customers experience working with BC Hydro on interconnection studies.
>
> For example, on some projects the study timeline is longer in duration because BC Hydro is flexible and accommodates customer needs, which tends to lengthen the time needed to complete the study. In this example, the customer experience is often positive, but this is not reflected in cost and schedule performance data summarized in this section.[5]

With this observation in mind, BC Hydro developed a metric that measures BC Hydro's performance in meeting the dates agreed to between BC Hydro and the customer.

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2 High level flowchart - Transmission Generator Interconnection Process


3 High level flowchart - Transmission Load Customer Interconnection Process


4 Refer to pages 12, 29 and 30 of the Report.

5 Black & Veatch Report, Transmission Generator and Customer Interconnection Process Assessment report, 19, April 2016, page 13.

BC Hydro began reporting on this metric and the average study and implementation timelines on its website[6] at the end of the first quarter of fiscal 2021.

## Actions Taken on the Report's Recommendations

The Report made 23 recommendations. BC Hydro has implemented 22 of those recommendations and has implemented an alternative action in response to the one remaining recommendation (Recommendation No. 12).

Table 1 below provides the Report's recommendations and an explanation of the actions BC Hydro has taken to implement them.

**Table 1 Report Recommendations & Actions Taken by BC Hydro**

| Theme | Report Recommendation | Actions Taken |
|---|---|---|
| Queue Management | 1. Clarify Load Interconnection queue management procedures within the relevant business practice and publish that practice | • In 2016, BC Hydro developed the Transmission Load Interconnection Queue Management Business practice and made it easily accessible on its external website.[7] |

6 For Transmission load, refer to: https://app.bchydro.com/content/dam/BCHydro/customer-portal/documents/transmission/tgi/External-Metrics-Q2-Transmission-Load-LTR.pdf

For Transmission generator**, refer to:** https://app.bchydro.com/content/dam/BCHydro/customer-portal/documents/transmission/tgi/External-Metrics-Q2-Transmission-Generator-LTR.pdf

7 Refer to: https://app.bchydro.com/content/dam/BCHydro/customer-portal/documents/corporate/regulatory-planning-documents/regulatory-matters/00-2014-11-18-queue-management-business-practice.pdf

| Theme | Report Recommendation | Actions Taken |
|---|---|---|
| Study Phases | 2. Consider implementation of 'Pre-interconnection Process Studies' | • In 2017, BC Hydro implemented the Feasibility Study[8] for transmission load customers. This is an optional pre-interconnection process study that is customized to the needs of the customer and conducted outside of the interconnection queue.<br>• Also in 2017, BC Hydro implemented a customized, non-tariff study option for transmission generator interconnection customers. This pre-interconnection study will allow BC Hydro to more quickly provide transmission generator customers with a high level assessment of the scope. |
| | 3. Assign small group of project managers to manage studies | • In 2017, the Project Delivery KBU created a dedicated team of project managers to manage the Facilities Study[9] process and the implementation of any interconnection project that results from these studies. |
| | 4. Identify changes to streamline process for standardized, recurring Transmission Load Interconnection projects | • In 2018, BC Hydro implemented an expedited transmission load interconnection study process for low complexity load requests.[10] In fiscal 2020, this resulted in average study duration of 54 days compared to the average duration of 127 days for a System Impact Study for the standard interconnection process.<br>• BC Hydro has developed a project delivery allocation strategy that is based on a risk determination assessment. As appropriate, low-complexity and low risk interconnection projects can be delivered by the Program and Contract Management Key Business Unit (**KBU**), which is better suited to deliver those projects. |

8 Feasibility Studies provide a high level limited technical assessment of potential impacts and required system modifications and upgrades for the proposed load interconnections.

9 Facilities Studies confirm the preferred interconnection option and conducts more detailed risk assessment, First Nations engagement, environmental studies, and other types of studies or activities as required.

10 Low complexity load requests typically utilize an existing point of interconnection, have limited impacts on transient system performance, require no additions or alterations to BC Hydro transmission or substation facilities, and only trigger minor protection & control and telecommunication changes and/or installation of metering equipment.

| Theme | Report Recommendation | Actions Taken |
|---|---|---|
| | 5. Address issues related to increasing cost estimates in subsequent phases | • Beginning in fiscal 2017, BC Hydro implemented the following measures to address concerns regarding escalating cost estimates:<br>– The estimate review processes for Feasibility Studies and System Impact Studies[11] have been updated and clarified to ensure an adequate level of internal review is conducted;<br>– Transmission and distribution unit costs that are used in the study estimates are updated regularly to reflect current market pricing;<br>– At project kickoff and update meetings, BC Hydro communicates the study assumptions, risks, and exclusions to customers and explains how these factors may affect the cost estimates;<br>– Facilities Study cost estimates are reviewed by appropriate engineering divisional managers based on the applicable estimating practice; and<br>– Geotechnical investigations have been advanced to identify and quantify geotechnical risks earlier and ensure geotechnical works are included in project cost estimates. |
| | 6. Consider modifications to study report templates | • Generator and transmission load interconnection customers are provided a draft of the System Impact Studies before they are finalized to ensure the reports are clear and comprehensive. For transmission load interconnections, BC Hydro also developed:<br>– A new Feasibility Study report template;<br>– A Feasibility Study cover letter template to provide additional information on the costs and tariff information; and<br>– A formal review and approval process, which ensures that a clear and consistent record of all assumptions used in studies are documented within the report. |

[11] System Impact Studies identify the method(s) of connection and any system reinforcements required to be able to connect and supply electricity to a new load customer.

| Theme | Report Recommendation | Actions Taken |
|---|---|---|
| | 7. Increase staffing to complete studies | • As described during the F2020-F2021 RRA proceeding, BC Hydro addressed the issue of resourcing for studies by:<br>– Giving customer interconnection work priority over BC Hydro driven project work;<br>– Allocating more planning resources to transmission load interconnections studies as generator interconnection studies volume declines;<br>– Using contract resources to supplement internal resources as required; and<br>– In 2017, as noted in response to Recommendation #3 above, creating a dedicated team of project managers to deliver the Facilities Studies. |
| | 8. Evaluate and consider customer election of desired reliability (e.g., automatic switching requirement) for projects that can accept lower reliability | • BC Hydro will evaluate, on a case-by-case basis and as requested, opportunities to incorporate customers' desired reliability. For example, BC Hydro has provided interim solutions such as allowing customers to connect prior to completion of permanent solutions to allow for earlier connection to the BC Hydro system, if customers are willing to accept a lower level of reliability (e.g., N-0). |

| Theme | Report Recommendation | Actions Taken |
|---|---|---|
| Project Delivery | 9. Tailor new Program and Project Management (**PPM**) process to reflect nature of customer-driven Transmission & Distribution (**T&D**) projects | • BC Hydro has implemented several improvements to the PPM process to reflect the nature of customer driven projects. Specifically:<br>– A process to scale the PPM process requirements to customer projects' scope and risks;<br>– The release of customer projects to the Project Delivery KBU with early stage Identification phase funding approved to allow the Project Delivery KBU to scale early Identification phase deliverables, advance procurement activities for long-lead items, and streamline the approval process;<br>– As appropriate, scaling late Identification phase design deliverables and combining them with Definition phase deliverables;<br>– Providing an opportunity to reduce the duration and cost of the Facilities Study process by offering a feasibility level project estimate only, if requested by the customer;<br>– Conducting an internal process improvement initiative for the handover process from the planning to the delivery groups, which reduced the overall handover timeframe. BC Hydro continues to explore opportunities to improve this process; and<br>– Conducting customer commitments to BC Hydro and internal approvals of project stages / phases in parallel to improve schedule alignment.<br>• As discussed in response to Recommendation #4 above, low-complexity projects are assigned to the Program and Contract Management KBU to further streamline the delivery process. |
| | 10. Assign small team of delivery project managers to focus on Transmission Generator and Load Customer Interconnection projects | • As discussed in response to Recommendations No. 3 and No. 7 above, the Project Delivery KBU has created a dedicated team of project managers responsible for delivery of the Facilities Study and to deliver customer interconnection projects. |

| Theme | Report Recommendation | Actions Taken |
|---|---|---|
| | 11. Improve change management regarding the new PPM process and First Nations consultation requirements | • As noted in response to Recommendation No. 9 above, changes have been made to the PPM process so that it is tailored to the nature of customer-driven transmission and distribution projects.<br>• BC Hydro also implemented the following improvements to the change management process for its PPM process and Indigenous Nations consultation requirements so that BC Hydro and External Service Providers (**ESP**) personnel understood the changes and impacts to interconnection projects:<br>– Engaging BC Hydro and ESP personnel in the development of the changes through planning workshops;<br>– Distributing information through team meetings and monthly Project Delivery updates; and<br>– Holding monthly team meetings, with the ESP in attendance, to discuss key learnings.<br>• To increase customers' understanding of the PPM process, the project manager meets with the customer at the start of the Facilities Study process to review the PPM process, and the study deliverables and schedule. Monthly progress meetings are held with the customer to discuss project risks and coordinate information.<br>• Indigenous Nations consultation requirements differ depending on the project. To improve customers' understanding of the requirements, the following improvements were made:<br>– Direction on and clarification of the requirements has been added to the PPM templates used by project teams; and<br>– An Indigenous Relations lead is assigned to customer interconnection projects. The Indigenous Relations lead also engages with their counterpart on the customer's own project to share relevant information throughout the project lifecycle. |

| Theme | Report Recommendation | Actions Taken |
|---|---|---|
| | 12. Establish 'pre-qualified contractor' program (including training regarding BC Hydro's study process and requirements, design standards, etc.) | • BC Hydro did not implement the recommendation to establish a 'pre-qualified contractor' program as it could impact competitiveness in the market place. However, if the customer requests our assistance in finding a contractor, BC Hydro will provide a list of contractors who have recently performed design and construction services for other transmission load customers. This list is not intended to be a 'pre-qualified' or complete list of contractors. We refer customers to Engineers and Geoscientists British Columbia for a more complete list. For transmission generator interconnection projects, the customer is referred to the Clean Energy Association of BC for a list of contractors.<br>• BC Hydro provides information on the study process for every new connection request. Specifically:<br>– The study process is documented on BC Hydro's external website,[12] and<br>– The interconnection requirements are documented in the "*Technical Interconnection requirements for Transmission Voltage Customers for Service at 60,000 to 287,000 Volt"* that was last updated in 2018[13] with input from several customers and consultants.<br>• BC Hydro also provides additional information and training sessions at industry events. |

[12] Refer to: https://app.bchydro.com/accounts-billing/electrical-connections/industrial-connections.html?WT.ac=ec_ec_industrial

[13] Refer to: https://app.bchydro.com/content/dam/BCHydro/customer-portal/documents/transmission/tgi/technical-interconnection-requirements-for-voltage-customers-60k-287k.pdf

| Theme | Report Recommendation | Actions Taken |
|---|---|---|
| | 13. Improve project meetings to address customers' desire to be more involved in the execution of studies and in decision-making around final design and construction | • In 2017, the Interconnections and Shared Assets KBU undertook customer-centric training to improve customer collaboration.<br>• For the pre-interconnection study and System Impact Study, a kick-off meeting and interim project update meetings are held with the customer to discuss customer requirements and BC Hydro's scope of work and to obtain customer feedback. Discussions with customers may result in customers taking on the design/construction of a transmission tap on BC Hydro's behalf, if applicable, and/or making changes to their facilities as an alternative to BC Hydro reinforcing its transmission system.<br>• For the Facilities Study, the project manager from the Project Delivery KBU holds regular update meetings with the customer to review project status (including cost and schedule), coordinate early work as feasible, and discuss key items or risks.<br>• During the Implementation phase of the project, regular update meetings are held to review project status (including cost and schedule), and coordinate work. Meeting frequency increases closer to the project's planned in-service date so that commissioning actives are aligned. |
| | 14. Implement post-project 'lessons learned' review process to enhance continual improvement | • BC Hydro has the following lessons learned activities as part of its process:<br>– A lessons learned review on System Impact Studies is completed as part of regular department team meetings; and<br>– Post-project lessons learned sessions are held as part of the project close-out process.<br>• The customer is included in the lessons learned sessions. |
| | 15. Tighten requirement related to obtaining customer's as-built information once projects become part of BC Hydro's system | • A plant record data process has been set up for the collection and storage of customer plant information and documentation. |

| Theme | Report Recommendation | Actions Taken |
|---|---|---|
| Customer Interaction | 16. Create group within BC Hydro with representatives from each discipline to more quickly address project-specific technical issues | • The following groups have been established to quickly address any current or emerging issues with customer interconnection projects:<br>– In April 2018, an executive steering committee was established to provide executive oversight of customer interconnection projects, issues and policies. This steering committee meets monthly;<br>– In April 2018, a Director level working group was established to review customer interconnection project status, issues and trends with a focus on addressing project specific technical and policy issues. This group meets every two weeks;<br>– During the Facilities Study and Implementation phase, project managers can raise issues or concerns at regularly scheduled Project Delivery Gate and Project Accountability meetings, attended by senior management; and<br>– During pre-Interconnection Process Studies and the System Impact Studies, meetings are held (on an as needed basis) with the technical groups to address technical issues that have been raised through the escalation process. |
| | 17. Improve effectiveness of meetings with customers and communication regarding project status | • In addition to the improvements discussed in response to Recommendation No. 13 above, if the project meeting is technical in nature, the appropriate technical resources from the various planning or engineering groups are included in the meetings with the customer.<br>• Project status updates, including the format, frequency, schedule and costs are customized to each customer's requirement/requests.<br>• BC Hydro has implemented a number of tools to improve customer communication including:<br>– Setting up a project extranet to log and exchange information between BC Hydro and the customer;<br>– Use of an Action Log to capture project specific discussions, issues, and actions at each monthly customer meeting; and<br>– Piloting of a monthly project status report for the Facilities Study and Implementation phase. |

| Theme | Report Recommendation | Actions Taken |
|---|---|---|
| | 18. Conduct periodic workshops to inform Transmission Generator and Load Customers | • A number of workshops have been held:<br>– In May and June 2016, workshops were held with Transmission Generator and Transmission Load customers and industry associations to review the Report's findings and recommendations;<br>– In June 2017, BC Hydro held a Rate Design Application Module 2 workshop which included background on Tariff Supplement No. 6 (transmission load extension tariff) and sought input on potential updates to the tariff;<br>– In December 2017, BC Hydro presented at the Vancouver Mining Exploration Group's conference on the Northwest Transmission Line tariff and history and the transmission interconnection process;<br>– In May 2018, BC Hydro held a workshop with transmission load customers to review revisions to the *Technical Interconnection Requirements for Transmission Voltage Customers for Service at 60,000 to 287,000 Volts* report,[14]<br>– In January 2019, BC Hydro presented at the Association for Mineral Exploration Roundup 2019 conference on BC Hydro rates and transmission interconnection tariff and process; and<br>– In October 2019, BC Hydro presented to the Clean Energy Association of BC on proposed updates to the Open Access Transmission Tariff.<br>• BC Hydro also educates customers on the interconnection processes and tariffs on a customer by customer basis and participates in industry association meetings. |

[14] Refer to: https://app.bchydro.com/content/dam/BCHydro/customer-portal/documents/transmission/tgi/technical-interconnection-requirements-for-voltage-customers-60k-287k.pdf

| Theme | Report Recommendation | Actions Taken |
|---|---|---|
| Information | 19. Meet with customers to identify additional information that could be posted on BC Hydro's web site | • Customers can provide feedback on additional information they would like to see posted on the BC Hydro's website through several avenues:<br>– Discussions with the interconnection project managers;<br>– Discussions with the Key Accounts managers; and<br>– During the customer satisfaction surveys which are conducted at the end of each stage of an interconnection process.<br>• BC Hydro's website is reviewed periodically to ensure current interconnection processes, tariffs and / or business practices, interconnection requirements and performance metrics are posted and available to customers. |
| | 20. Ensure that all project information is available to all appropriate BC Hydro and External Service Providers (**ESP**) personnel | • BC Hydro has implemented the following process improvements to ensure information is available to the appropriate personnel:<br>– Project kick-off meetings are held to discuss project scope and issues. In addition, key BC Hydro and ESP staff are included in meetings with the customer;<br>– Workshops with project managers and ESPs are held to ensure proper protocols that guide communication with customers are followed;<br>– Customer focused training for interconnection and project managers is provided;<br>– The handover process from the planning groups to the delivery groups has been improved to include the identification of key information that must be complete and uploaded to the project workspace, so all team members and ESP personnel have the information;<br>– If an ESP is engaged to deliver the project, the BC Hydro Program Manager and Technical Lead will hold a project kick-off meeting with the ESP team to review all information. The Program Manager remains involved in the project and manages the ESP; and |

| Theme | Report Recommendation | Actions Taken |
|---|---|---|
| | | • At each stage or phase of the project, the delivery project manager holds a kickoff meeting with the project team to review project scope and discuss deliverables of the current project phase. |
| External Service Providers (**ESP**) | 21. Continue efforts to improve ESP effectiveness and make more efficient the level of BC Hydro review | • This recommendation has been addressed by creating a team of focused project managers within the Project Delivery KBU and identifying ESP performance as a priority in the Project Delivery process. As noted in item No. 20 above, the Program Manager remains involved in the project and manages the ESP.<br>• To increase efficiency, knowledge and consistency of ESPs:<br>– The ESPs are treated as an extension of the Interconnections Project Delivery team and attend BC Hydro and customer team meetings;<br>– The "BC Hydro Transmission Projects – Review Requirements for External Service Providers" continues to be updated to reflect changes in the requirements. The last update was made in January 2018; and<br>– One of the ESPs has set up a dedicated team to deliver customer interconnection projects. |
| | 22. Meet with ESP personnel to identify opportunities to improve/tighten BC Hydro design standards | • This recommendation has been addressed through the following improvements:<br>– At the start of the Facilities Studies, a BC Hydro project technical lead meets with the ESP to review scope;<br>– During the project engineering design review process, from Feasibility Design to Issue for Construction drawings, ESP personnel have opportunities to discuss improvements to BC Hydro design standards; and<br>– BC Hydro also holds regular meetings with our ESPs, where improvements to design standards can be discussed. |
| Other | 23. Clarify security/revenue credit formula in Tariff Supplement 6 | • This recommendation is being addressed through one on one conversations with each customer. A guide document including an example was developed to be shared with customers during these one on one conversations. |

## Other BC Hydro Initiatives

The Report recognized that since 2010, BC Hydro had implemented or was implementing various organizational and process improvements to facilitate the interconnection of new load and generator customers.

Table 2 and Table 3 below highlight additional BC Hydro improvement initiatives that have been implemented or are being implemented since Black & Veatch initiated its review in 2015. These initiatives have, or will have, a beneficial impact on the interconnection process and include improvements to both the transmission load interconnection process and the large distribution customer interconnections process (loads greater than 5 MW and related interconnection project costs greater than $2 million).

Table 2 highlights the improvements to the study and / or implementation phase processes, and Table 3 highlights actions to improve BC Hydro's interactions with customers. The righthand column of the tables below indicates if the improvements apply to only transmission interconnections (T), only distribution interconnections (D), or to both transmission and distribution interconnections (T+D).

**Table 2 Improvements to the Study and / or Implementation Phase Processes**

| Themes | Actions Taken | T or D |
|---|---|---|
| Study Phases | • BC Hydro implemented a customized study approach to meet different customer's needs. Based on the result of the Conceptual Review,[15] BC Hydro collaborates with the customer on the best approach to meeting the customer's needs. For example, a customer with a present-day small load increase could be accelerated through the expedited study process, while a future planned larger load increase with the same customer could proceed to a customized study to provide the information the customer requires to make a decision on its combined (present-day and future) required load increase.<br>• A similar approach was taken for generator projects, where study scope can be expanded or narrowed based on customer needs. | T |

[15] A Conceptual Review provides high level comments to the customer on the availability of transmission capacity, methods to connect to the BC Hydro system, and potential system modifications and upgrades.

| Themes | Actions Taken | T or D |
|---|---|---|
| | • BC Hydro also implemented an option to scale study phases where appropriate to accelerate the project timelines. This can include an early project handover to the Project Delivery KBU or a commencement of procurement of long lead time items and other activities prior to implementation. | T+D |
| Project Delivery | • BC Hydro refined its project release planning process so that project delivery resources, including engineering resources, are available as soon as the customer is ready to advance to the Facilities Study stage.<br>• Monthly meetings are held between the Interconnections and Shared Assets KBU, the Project Delivery KBU, and the Engineering KBU to discuss upcoming projects, including the customer requests in pre-System Impact Study stage. This increases the visibility on the workload and allows the delivery perspective to be incorporated early in the interconnections process.<br>• The two actions above also help resource utilization and mitigate the risk of resource shortages. | T |
| Program and Contract Management | • In fiscal 2022, BC Hydro will review the distribution civil delivery process for the Definition and Implementation phases to better identify and document construction risks in the Definition phase to support improved cost estimates. | D |
| Information | • In March 2016, the BCUC approved BC Hydro's rate application for a new Indirect Interconnections Tariff which allows a new customer to connect behind a third party's private transmission line and still be a BC Hydro customer. This minimizes the environmental footprint and costs for new customers.<br>• To help customers decide whether an indirect interconnection is the appropriate solution for them, BC Hydro developed a standard customer information package and documents which include a list of items for customers to consider in developing a wheeling agreement with the transmission facility owner. | T |
| Other | • In fiscal 2021, BC Hydro initiated ex-plan projects so that transmission service can be provided within the timelines required by customers (e.g., Prince George to Terrace Capacitors Project and North Montney Region Electrification Project). | T+D |
| | • BC Hydro is working with the Government of B.C. to utilize federal infrastructure funding to reduce interconnection costs for customer projects that reduce greenhouse gas emissions. | T+D |

| Themes | Actions Taken | T or D |
|---|---|---|
| | • To support Phase 2 of the Government of B.C.'s Comprehensive Review, BC Hydro is exploring ways to reduce the cost and time for industrial customers to connect. Concepts identified in the Phase 2 Interim Report include eliminating Tier 2 energy charge, an economic development rate for new clean industries and fuel switching opportunities. Timing for implementation will be determined once the final Phase 2 Comprehensive Review report is issued. | T+D |
| | • Once Phase 2 of the Comprehensive Review is completed, BC Hydro is planning to conduct a review of transmission and distribution extension policies and tariffs. The transmission tariff (Tariff Supplement No 6) has not been updated since it was approved in 1991. The distribution extension tariff (Section 8 of the Electric Tariff) was last updated in 2007. Potential changes to these tariffs and policies can directly impact the interconnection processes. | T+D |
| | • In 2020, BC Hydro changed the threshold for projects being allocated to the Major Distribution load group from $1 million to $2 million. Previously, all projects greater than $1 million would be managed by this group (plus those with other sensitivities that would require enhanced oversight). This change created benefits both internally as well as for customers, with simple projects now being completed within the standard Distribution Design process. | D |
| | • BC Hydro is undertaking an independent internal audit focusing on all aspects of the load interconnection process. The audit is scheduled to be completed by March 31, 2021. | T+D |

**Table 3 Improvements to Customer Interactions**

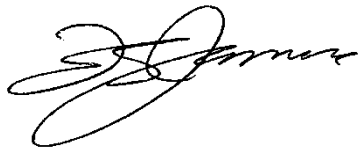
| Themes | Actions Taken | T or D |
|---|---|---|
| Queue Management | • In November 2020, BC Hydro initiated a review of the queue management business practice and process. The intent of this review is to achieve a balance between maintaining continuity for customers as they move through the interconnection process while also exploring opportunities for changes that support optimal utilization of the existing transmission assets or reinforcement of the transmission system. | T |
| Study Phases | • In 2015, BC Hydro implemented a business practice requiring signing and sealing of System Impact Studies and any technical reports being issued to the customer. | T |
| | • For distribution generator interconnection projects less than or equal to 1 MW, BC Hydro revised and simplified the System Impact Study application form and the distribution generator interconnection agreement template. | D |

| Themes | Actions Taken | T or D |
|---|---|---|
| | • B.C. also revised the distribution load quote letters to improve clarity and modified the customer quotation process so that the customer quote for civil work could be updated based on the results of the civil contractor bid / estimate.<br>• In addition, BC Hydro implemented change notices to document schedule changes due to either customer or BC Hydro delays. | D |
| Project Delivery | • In June 2017, a transmission line transfer guide was issued to clarify the standards for a transmission line being transferred from a customer to BC Hydro. Included in this guide is clarification of BC Hydro / customer responsibilities and roles with regard to engagement with Indigenous Nations. | T |
| | • BC Hydro established a process and business practice to allow a customer to design and build transmission taps when approved design consultants and contractors are used by customer. A contract template has been also developed to support these arrangements. | T |

BC Hydro is committed to continuing to advance opportunities for improvements to the interconnection process. As noted in Table 2 above, BC Hydro is undertaking an internal audit of the interconnection processes and will implement further process improvements resulting from the audit's findings and recommendations.

For further information, please contact Chris Sandve at 604-974-4641 or by email at bchydroregulatorygroup@bchydro.com.

Yours sincerely,



Fred James
Chief Regulatory Officer

cs/rh