# Table of contents

Table of contents........................................................................................................................................1

Introduction..................................................................................................................................................2

Overview.....................................................................................................................................................3
  Project background ....................................................................................................................................3
  Communication and consultation program summary ..............................................................................7

Methodology.................................................................................................................................................7
  Correspondence and notification ..............................................................................................................8
  Project Announcement ............................................................................................................................8
  Web / Online updates ..............................................................................................................................8
  Discussion guide and feedback form ........................................................................................................9
  Local government meetings ....................................................................................................................9

Feedback.......................................................................................................................................................10
  Feedback from stakeholders ..................................................................................................................10
  Feedback from local government ..........................................................................................................11

Collaborating with First Nations ..............................................................................................................12

Next steps...................................................................................................................................................12
  Ongoing communication .......................................................................................................................12

Appendix A: Project announcement

Appendix B: Presentations to local governments

Appendix C: Discussion guide and feedback form
Introduction

The Stakeholder Communication and Consultation Summary, April 2018 – August 2018 presents the public consultation program and activities that took place within that time frame, as part of the Conceptual Design Stage of the Peace to Kelly Lake Capacitors Project (PKCP).

In late April, BC Hydro introduced the project and project alternatives to local government, stakeholders and the general public. This was done through: email, direct mail, the launch of a project website, advertising, delegations to municipal councils and regional districts, and in-person meetings.

We’re currently exploring three alternatives to address the system’s needs. As part of the introduction of the project, BC Hydro asked for feedback on the project alternatives through an online discussion guide and feedback form (available in print). Feedback received in this stage of the project will be used to inform a decision on the leading alternative expected in early 2019.
Overview

Project background

The Peace Region currently generates more than 30% of the total electricity produced in the province. With new generation resources being planned, more electricity will be generated in the area in coming years.

We’re in the early planning stages of the Peace to Kelly Lake Capacitors Project (PKCP) that will ensure the capacity and capability of the transmission lines can accommodate all expected generation in the Peace Region, avoiding the need to build a new transmission line.

We anticipate that the project will involve building up to four new capacitor stations – used to maintain system voltage levels and secure system performance – along the six existing 500 kilovolt (kV) transmission lines that run from the GM Shrum and Peace Canyon generating stations near Hudson’s Hope to the Kelly Lake Substation near Clinton.
Above: map of Alternative 1 proposing four new capacitor stations along the existing 500 kV transmission lines, removal of equipment at the Kennedy and McLeese capacitor stations, and upgrades at Williston Substation that require an expansion of the substation to the east.
Above: map of Alternative 2 proposing two new capacitor stations along the existing 500kV transmission lines, removal of equipment at Kennedy Capacitor Station, and upgrades at Williston Substation that require expansion to the east and south.
Above: map of Alternative 3 proposing 3 new capacitor stations along the existing 500 kV transmission lines, removal of equipment at the Kennedy Capacitor Station, upgrades to the McLeese Capacitor Station, and upgrades at Williston Substation in Prince George requiring expansion to the east.
Communication and consultation program summary

Communication and consultation began in April 2018 when the PKCP was announced. The project was introduced to local governments, stakeholders and the general public within the project area at the end of April. Communications included direct mail, email advertising, a project website, discussion guide and online feedback form. The first round of feedback was gathered by July 20, 2018.

Consultation and communication will continue during the next stage of the project, with a focus on confirming the leading alternative in early 2019.
Methodology

Correspondence & Notification

A mailing list was developed prior to the launch of the project that targeted communities within the area of the project alternatives. This list was used to introduce the project and provide project updates. The list is comprised of members of the public and businesses who live within 2kms of the project alternative segments. Regional districts, senior municipal staff, mayors, councils and Members of the Legislative Assembly of British Columbia (MLAs) in the project area were also included. There are currently more than 4,500 recipients listed on our direct mail distribution list and 25 contacts who signed up for the PKCP email distribution list.

Project announcement

In April 2018, BC Hydro sent a letter to more than 4,500 direct mail recipients introducing the Peace to Kelly Lake Capacitors Project. The announcement was also emailed to local governments including elected officials and staff at the following municipalities and regional districts:

**Municipalities**
- District of Hudson’s Hope
- District of Chetwynd
- District of Mackenzie
- City of Prince George
- City of Quesnel
- City of Williams Lake
- Village of Clinton

**Regional districts**
- Peace River Regional District
- Fraser Fort George Regional District
- Cariboo Regional District

Ads were placed in the following local newspapers to announce the project and invite stakeholders to sign up for the email distribution list.

- Dawson Creek Mirror – May 24, 2018
- Hudson’s Hope Bulletin (print and online) – June 2018
- Prince George Citizen (print and online) – May 23, 2018
- Quesnel Cariboo Observer – May 23, 2018
- Williams Lake Tribune – May 23, 2018

Web / Online Updates

A project website was established when the project was announced. The site can be found at www.bchydro.com/pkcp.
These pages have been regularly updated as the project moves forward. The site includes sections highlighting “What’s New” and “Reports and Documents” where stakeholders can find the latest project files and reports such as recent notifications and discussion guides.

From April 2018 to August 2018, these pages have been updated to ensure all stakeholders can access project updates, next steps and project files on a regular basis.

**Discussion guide and feedback form**

On June 22, 2018 a project discussion guide and feedback form were published on the project website. The discussion guide provided an overview of the project, the project alternatives and included more detailed maps of the segment areas for each of the project alternatives. The online feedback form invited stakeholders to share their feedback on the project alternatives for this stage of the project by July 20, 2018.

Letters were sent (June 22) to more than 4,500 stakeholders in the project area notifying them of the newly posted discussion guide and inviting stakeholders to complete the online feedback form by July 20, 2018.

Ads were placed in local papers and on the radio inviting stakeholders to complete the online feedback form. Ads were placed:

- **In print:**
  - Hudson’s Hope Bulletin (print and online) – July, 2018
  - Mactown Buzzette – June 28, 2018
  - Prince George Citizen (print and online) – June 26, 10, 17, 2018
  - Quesnel Cariboo Observer – June 27, July 11, 13, 2018
  - Williams Lake Tribune – July 4, 13, 2018

- **On radio:**
  - CHMM 103.5FM (Mackenzie) – July 14, 18, 2018
  - Country 97 FM (Prince George) CJCI – July 14, 18, 2018
  - Cariboo Country (Quesnel) CKCQ FM – July 14, 18, 2018
  - Cariboo Country CKWL AM (Williams Lake) – July 14, 18, 2018

Emails were sent (June 20, 2018 and July 17, 2018) to the project’s email distribution list notifying them of the discussion guide and inviting them to complete the online feedback form.

Emails were sent (June 26, 2018) to local governments notifying them of the discussion guide and online feedback form.

**Local government meetings**

The project area includes seven municipalities, four regional districts and seven provincial electoral districts. The project team offered each local government the opportunity to meet in person to introduce and discuss the project and gather feedback. Between June 5, 2018 and July 12, 2018, we met with elected officials from several local governments.
Local government meetings | Meeting date
---|---
District of Chetwynd | June 4, 2018
City of Prince George | June 11, 2018
City of Williams Lake | June 12, 2018
Village of Clinton | June 13, 2018
Thompson-Nicola Regional District | June 14, 2018
Fraser Fort George Regional District | June 21, 2018
Cariboo Regional District | June 22, 2018
District of Mackenzie | June 25, 2018
Coralee Oakes, Member of the Legislative Assembly, Cariboo North | June 26, 2018
City of Quesnel | June 26, 2018
Donna Barnett, Member of the Legislative Assembly, Cariboo-Chilcotin | July 5, 2018
Peace River Regional District | July 12, 2018

Feedback

Feedback from stakeholders

During this period, we received feedback and questions from stakeholders through email, by phone and the online feedback form.

We received seven phone calls in response to the direct mail communications sent to more than 4,500 stakeholders in the project area. Feedback received covered the following:

- Asked if the project will require easements on personal property.
- Stated that they understand the project need.
- Asked general project questions.
- Asked if the project will build a new transmission line.
- Provided feedback on the discussion guide and consultation materials.

We received five emails from stakeholders asking about the project.
Feedback received covered the following:

- Asked about the components and safety of capacitor stations that would help stakeholder provide feedback.
- Asked about Williston Substation expansion and if there would be impacts to property just north of Willison.
- Asked general project questions in relation to a property in the northernmost segment in all alternatives.
- Asked about station design and lighting.

Seven stakeholders completed the online feedback form. Feedback provided through this form included:

- Stakeholder near Segment C, Alternative 1, would like to be added to the project distribution list.
- Recommended an alternative that avoids building a capacitor station near Quesnel.
- Asked about capacitor station design and construction.
- Stated an appreciation for consultation process.
- Asked that the substation expansion minimize impacts to the environment, wildlife and community.
- Stated the project needs to be completed to keep the hydro system viable.
- Asked for more information about the expansion of Williston Substation as this is a populated area.

Feedback from local government

During our meetings with local government, we received a number of questions and feedback from elected officials. They included questions about:

- Details on the possible capacitor locations within the segment areas.
- Expressed interest in economic opportunities including jobs and capacity development.
- Expressed an understanding of the need for the project.
- First Nations consultation plans.
- How the project fits into BC Hydro’s long-term planning.
- Project costs and why this is separate from Site C costs.
- Process for decommissioning capacitor stations.
- Regulatory requirements.
- Stakeholder engagement process.
- Technical components of capacitor stations and capacity of existing transmission lines.

We received written feedback from the Thompson-Nicola Regional District (a copy of the letter can be found in Appendix C).
Thompson-Nicola Regional District

Following a June 14, 2018 delegation to the Thompson-Nicola Regional District (TNDR) board members to introduce the project, BC Hydro received a letter from the TNRD, dated June 18, 2018. The letter thanked BC Hydro for introducing the project to the board and committing to keeping the Directors informed.

Collaborating with First Nations

We place a high value on our relationships with First Nation communities. To successfully deliver our projects, we need to work closely with First Nations, particularly those most affected by our past, present and future infrastructure. Through early information-sharing and development of close working relationships, we seek to incorporate First Nations’ interests into our business, including operations and delivery of our projects.

As part of the Peace to Kelly Lake Capacitors Project, we have been sharing information and seeking feedback from First Nations local to the area of the project alternatives, to incorporate their interests and concerns into early project planning, and will continue to do so as we move forward.

Next steps

In this stage of the project, we’ll continue to study all three project alternatives. At the end of this process we will make a decision on our leading alternative, expected to be made in early 2019.

Ongoing communication

We’ll continue to provide information and respond to your enquiries as the project proceeds. If you’d like to learn more about the project or provide your feedback, please get in touch with us:

- Phone: 1 866 647 3334
- Email: projects@bchydro.com
- Website: www.bchydro.com/pkcp
Appendix A:
Project announcement
Peace to Kelly Lake Capacitors Project

What's new

We need to increase the capacity of the transmission system in the Peace Region to accommodate additional electricity being planned in the area. We're currently exploring three alternatives to address the area's needs.

What we're planning

Why we're doing it

Benefits to your community

Impacts to property

Cost

Schedule

Environmental impact

Consultation

Reports & documents

Peace to Kelly Lake Discussion Guide.pdf (271 KB)
Peace to Kelly Lake Capacitors Project stakeholder notice.pdf (208 KB)

Contact

If you'd like to learn more about the project, please contact us at:

Email: projects@bchydro.com
Phone: 604 423 4472
Toll free: 1 866 647 3334

Sign up for updates

Receive updates and information about the Peace to Kelly Lake Capacitors Project.

Subscribe now
Introducing the Peace to Kelly Lake Capacitors Project

We are in the early planning stages of the Peace to Kelly Lake Capacitors Project (PKCP).

The Project will ensure the capacity of the existing transmission lines can accommodate all expected generation in the Peace Region and safely deliver electricity to homes and businesses throughout the province.

We’re currently exploring three project alternatives. For details on the alternatives, visit www.bchydro.com/pkcp.

If you’d like to be added to our stakeholder list to receive project updates and notifications please email projects@bchydro.com or call 1 866 647 3334.
April 25, 2018

Re: Introducing BC Hydro’s Peace to Kelly Lake Capacitors Project

The Peace Region currently generates more than 30 per cent of the total electricity produced in the province. With new generation resources being planned, more electricity will be generated in the area in coming years.

Upgrades to the 500 kilovolt transmission lines in the area are needed to ensure our transmission system can move this electricity from where it’s generated to where it's used in the Lower Mainland and Vancouver Island regions. The existing system is already at 95 per cent capacity, and includes equipment that is near end-of-life and must be replaced at the Kennedy Capacitor Station.

The Peace to Kelly Lake Capacitors Project will ensure the capacity and capability of the transmission lines can accommodate all expected generation in the Peace Region, avoiding the need to build a new transmission line.

Why are upgrades needed?
As electricity moves along a lengthy transmission line, the voltage drops. This limits the amount of electricity that lines can move. Building capacitor stations will help maintain the voltage levels of the transmission lines, maximizing the amount of electricity the existing lines can move. This project will also include upgrades to the aging equipment that needs to be replaced at the existing Kennedy Capacitor Station.

What upgrades need to be done?
We need to build capacitor stations to help maintain the voltage levels of the 500 kilovolt transmission lines in the area.

What is a capacitor station?
A capacitor station is a facility where electricity from a high-voltage transmission line is carried through a series of devices called capacitors. This helps maintain the voltage levels in a transmission line, allowing more electricity to pass through a line over long distances. Capacitor stations are a cost-effective way of maximizing the efficiency of an existing transmission line.

What alternatives are being considered?
We are currently exploring three alternatives:

Alternative 1
This alternative involves:
  o Building four new capacitor stations along the 500 kilovolt (kV) transmission lines between the Peace Region and Kelly Lake Substation.
  o The removal of equipment at the Kennedy and McLeese capacitor stations.
  o Upgrades at Williston Substation in Prince George. Expansion is required to the east onto BC Hydro property.
**Alternative 2**
This alternative involves:
- Building two new capacitor stations along the 500 kV transmission lines between the Peace Region and Prince George.
- The removal of equipment at the Kennedy Capacitor Station.
- Upgrades at Williston Substation in Prince George. Expansion is required to the east onto BC Hydro property and also to the south.

**Alternative 3**
This alternative involves:
- Building three new capacitor stations along the 500 kV transmission lines between the Peace Region and Kelly Lake Substation.
- The removal of equipment at the Kennedy Capacitor Station.
- Upgrades to the McLeese Capacitor Station.
- Upgrades at Williston Substation in Prince George. Expansion is required to the east onto BC Hydro property.

The enclosed maps show the approximate locations of the three alternatives.

Over the next year, we’ll complete an assessment of these alternatives that will include how safely, easily and quickly each alternative could be built; consultation feedback; estimated cost; operational impacts; and potential environmental and archaeological impacts.

At the end of this process, we’ll move forward with one alternative and select a leading alternative by January 2019.

**When is this happening?**
We’re currently in the very early planning stages of this project and don’t expect to start any construction activities until 2021. A Certificate of Public Convenience and Necessity from the BC Utilities Commission is required for this project. Project completion will depend on the final alternative and scope selected; at this time the project is expected to be complete between 2024 and 2026.

**Contact us**
Please contact us if you have any questions. You can reach us at 1-866-647-3334 or projects@bchydro.com, or visit www.bchydro.com/pkcp to find out more about the project. We’ll also use this website to gather stakeholder feedback as the project moves forward.
Peace to Kelly Lake Capacitors Project
Alternative 2
Peace to Kelly Lake Capacitors Project
Alternative 3

Gordon M. Shrum Generating Station
Peace Canyon Generating Station
Kennedy Capacitor Station
Williston Substation
McLeese Capacitor Station
Kelly Lake Substation

Legend:
- 500 kV Transmission Line
- Substation
- Generating Station
- Capacitor Station
- Highway
- Approximate location of proposed capacitor station

Map: Not to scale
Appendix B: Presentations to local governments
Peace to Kelly Lake Capacitors Project

Mark Alexander, Project Manager
Sabrina Locicero, Stakeholder Engagement

June 2018
Today’s presentation

1. What is the Peace to Kelly Lake Capacitors Project?

2. What alternatives are being considered?

3. First Nations consultation and stakeholder engagement
Peace to Kelly Lake Capacitors Project

The Peace Region currently generates more than 30% of the total electricity produced in the province.

- With new generation resources being planned, more electricity will be generated in the area in coming years.

- Upgrades are needed to ensure our transmission system can move this electricity from where it is generated to where it is used in homes and businesses across the province.
Why are upgrades needed?

- As electricity moves along a lengthy transmission line, the voltage drops. This limits the amount of electricity that lines can move.
- The existing 500 kilovolt transmission lines in the area are already at 95% capacity.
- Building capacitor stations will help maintain the voltage levels of the transmission lines, maximizing the amount of electricity the existing lines can move.
What upgrades need to be done?

- We need to build capacitor stations to help maintain the voltage levels of the 500 kilovolt transmission lines in the area.
- This project will also include upgrades to the aging equipment that needs to be replaced at the existing Kennedy Capacitor Station.

Above: Example of capacitor station at Ruby Creek about 14 kilometers west of Hope.
What is a capacitor station?

- A capacitor station is a facility where electricity from a high-voltage transmission line is carried through a series of devices called capacitors.
- This helps maintain the voltage levels in a transmission line, allowing more electricity to pass through a line over long distances.
- Capacitor stations are a cost-effective way of maximizing the efficiency of an existing transmission line.
What alternatives are being considered?

We are currently exploring three alternatives.

**Alternative 1**

This alternative involves:

- Building four new capacitor stations along the 500 kilovolt (kV) transmission lines
- Between the Peace Region and Kelly Lake Substation.
- The removal of equipment at the Kennedy and McLeese capacitor stations.
- Upgrades at Williston Substation in Prince George. Expansion is required to the east onto BC Hydro property.
What alternatives are being considered?

**Alternative 2**

This alternative involves:

- Building two new capacitor stations along the 500 kV transmission lines. The removal of equipment at the Kennedy Capacitor Station.

- Upgrades at Williston Substation in Prince George. Expansion is required to the east onto property that we already own and also to the south.
What alternatives are being considered?

**Alternative 3**

This alternative involves:

- Building three new capacitor stations along the 500 kV transmission lines between the Peace Region and Kelly Lake Substation
- Removal of equipment at the Kennedy Capacitor Station
- Upgrades to the McLeese Capacitor Station
- Upgrades at Williston Substation in Prince George. Expansion is required to the east onto BC Hydro property.
How will you select an alternative?

We hope to select a leading alternative by early 2019.

- To evaluate the alternatives, we assess the social, economic and environmental aspects of each alternative.
- Key aspects include:
  - Safety
  - System reliability
  - Environment
  - First Nations and Stakeholder
  - Constructability and maintenance
  - Visual impacts
  - Property requirements and impacts
  - Cost
  - Schedule
Were other alternatives considered?

Other alternatives were considered very early in the process. These included:

**Do nothing**
- This alternative is not being carried forward as it doesn’t address the increased generation being planned in the Peace Region.

**Upgrading existing capacitor stations**
- This alternative is not being carried forward due to operational constraints and cost.

**Constructing a new 500 kV transmission line**
- This alternative is not being carried forward due to costs and environmental impacts, and in consideration of potential impacts on stakeholders.
Where would the new capacitor stations be located?

- We are currently reviewing possible sites for the capacitor stations in our different alternatives.
- All stations will be located on or near the existing transmission lines’ rights-of-way.
- The potential locations for the stations are somewhat limited because they need to be located at specific intervals along the transmission lines.
When is this happening?

We’re currently in the very early planning stages of this project and do not expect to start any construction activities until 2021.

- We’ll only move forward with one alternative and anticipate identifying a leading alternative by early 2019.

- Project completion will depend on the final alternative and scope selected, at this time the project is expected to be complete between 2024 and 2026.
Stakeholder engagement and First Nations consultation

We will keep you updated throughout the project.

- Activities have started and are ongoing.
- First round of feedback gathered until July 20.
- Visit [www.bchydro.com/pkcp](http://www.bchydro.com/pkcp) for current project information.
Questions or feedback

If you have questions or would like to share any feedback, please contact:

Sabrina Locicero

- 604-623-3517
- Sabrina.Locicero@bchydro.com
Example of Capacitor Station Layouts

Existing layout (McLeese)

Footprint area = ~6.5 ha

Proposed Layout

138/230kV line rerouted around station in new RoW

Danger tree clearing area

THIS EXAMPLE IS FOR DISCUSSION.
June 18, 2018

Stakeholder Engagement, BC Hydro
333 Dunsmuir St.
Vancouver, BC V6B 5R3

Delivered via email: sabrina.locicero@bchydro.com

To Mr. Alexander and Ms. Locicero:

RE: Thank-you for your Presentation

On behalf the Thompson-Nicola Regional District (TNRD) Board of Directors, I would like to extend my sincere appreciation for your recent presentation at our June 14, 2018 Board of Directors meeting. We appreciated the time you took to speak with us, and the information you provided on the Peace to Kelly Lake Capacitors Project.

We understand that this project is in very early stages, and that much work is to be done before it moves forward. Thank-you for your offer to present to the Board again when more information becomes available.

Thank you again for your presentation. We appreciate the work BC Hydro does in ensuring its stakeholders are well informed on your ongoing projects.

Sincerely yours,

John Ranta, Chair
Thompson-Nicola Regional District
Appendix C:
Discussion guide and feedback form
June 22, 2018

Re: Peace to Kelly Lake Capacitors Project – We want to hear from you!

BC Hydro is in the early planning stages of the Peace to Kelly Lake Capacitors Project (PKCP).

We’re currently exploring three project alternatives. Visit www.bchydro.com/pkcp to complete the online feedback form and provide us with your input on this stage of the project by July 20.

The Project will ensure the capacity of the existing transmission lines can accommodate all expected generation in the Peace Region and safely deliver electricity to homes and businesses throughout the province.

If you’d like to be added to our stakeholder list to receive project updates and notifications via email, please contact projects@bchydro.com or call 1 866 647 3334.

About the project

The Peace Region currently generates more than 30 per cent of the total electricity produced in the province. With new generation resources being planned, more electricity will be generated in the area in coming years.

Upgrades to the existing 500 kilovolt transmission lines in the area are needed to ensure our transmission system can move this electricity from where it’s generated to where it’s used in homes and businesses throughout the province. The existing system is already at 95 per cent capacity, and includes equipment that is near end-of-life and must be replaced at the Kennedy Capacitor Station.

The Project will ensure the capacity and capability of the transmission lines can accommodate all expected generation in the Peace Region, avoiding the need to build a new transmission line.

The three project alternatives propose up to four new capacitor sites along the existing 500 kV transmission lines from the Peace Region to Kelly Lake Substation. A map of the project area is on page 2. Maps of the specific project alternatives are available in the feedback form at www.bchydro.com/pkcp.

Contact us

Please contact us if you have any questions. You can reach us at 1 866 647 3334 or projects@bchydro.com.
We want to hear from you!

BC Hydro is in the early planning stages of the Peace to Kelly Lake Capacitors Project (PKCP).

We're currently exploring three project alternatives. Visit www.bchydro.com/pkcp to complete the online feedback form and provide us with your input by July 20.

The Project will ensure the capacity of the existing transmission lines can accommodate all expected generation in the Peace Region and safely deliver electricity to homes and businesses throughout the province.

Please contact us if you have any questions. You can reach us at 1-866-647-3334 or projects@bchydro.com.

Sabrina Lockhiro | Stakeholder Engagement Advisor
BC Hydro
333 Dunsmuir, 16th Floor
Vancouver, BC, V6B 5R2

P: 1 604 647 3334
E: projects@bchydro.com

Smart about power in all we do.

---

A reminder that we want to hear from you by Friday, July 20!

BC Hydro is in the early planning stages of the Peace to Kelly Lake Capacitors Project (PKCP).

We're currently exploring three project alternatives. Visit www.bchydro.com/pkcp to view the discussion guide and complete the online feedback form to provide us with your input on this stage of the project by Friday, July 20.

The Project will ensure the capacity of the existing transmission lines can accommodate all expected generation in the Peace Region and safely deliver electricity to homes and businesses throughout the province.

Please contact us if you have any questions. You can reach us at 1-866-647-3334 or projects@bchydro.com.

Sabrina Lockhiro | Stakeholder Engagement Advisor
BC Hydro
333 Dunsmuir, 16th Floor
Vancouver, BC, V6B 5R2

P: 1 604 647 3334
E: projects@bchydro.com

Smart about power in all we do.
Peace to Kelly Lake Capacitors Project.
We want to hear from you!

BC Hydro is in the early planning stages of the Peace to Kelly Lake Capacitors Project (PKCP).

We’re currently exploring three project alternatives. Visit bchydro.com/pkcp to complete the online feedback form and provide us with your input on this stage of the project by July 20, 2018.

The Project will ensure the capacity of the existing transmission lines can accommodate all expected generation in the Peace Region and safely deliver electricity to homes and businesses throughout the province.

If you’d like to be added to our stakeholder list to receive project updates and notifications please email projects@bchydro.com or call 1 866 647 3334.
Peace to Kelly Lake Capacitors Project
We want to hear from you!

Feedback on this stage of the project will be received until July 20, 2018.
Project Overview

The Peace Region currently generates more than 30% of the total electricity produced in the province. With new generation resources being planned, more electricity will be generated in the area in coming years.

We’re in the early planning stages of the Peace to Kelly Lake Capacitors Project (PKCP) that will ensure the capacity and capability of the existing transmission lines can accommodate all expected generation in the Peace Region, avoiding the need to build a new transmission line.

We anticipate that the project will involve building up to four new capacitor stations — used to maintain system voltage levels and secure system performance — along the six existing 500 kilovolt (kV) transmission lines that run from the Gordon M. Shrum and Peace Canyon generating stations near Hudson’s Hope to the Kelly Lake Substation near Clinton.

Why we’re doing it

As electricity moves along a lengthy transmission line, the voltage drops. This limits the amount of electricity that the line can move. Building capacitor stations will help maintain the voltage levels of the transmission lines, maximizing the amount of electricity the existing lines can move.

This project will also include upgrades to the aging equipment that needs to be replaced at the existing Kennedy Capacitor Station.

Completion of this project will ensure that our transmission system can safely and reliably move the electricity generated in the Peace Region to where it’s used in the Lower Mainland and Vancouver Island regions.

We’d like your input

We’re currently exploring three alternatives to address the system’s needs and would like your input. See page 9.

What we hear from you about these alternatives during consultation, along with input from other stakeholders, First Nations and our study results, will be considered as we assess the alternatives to identify a leading alternative for further review.

We will only move forward with one alternative and hope to select a leading alternative by early 2019.

By early 2035, generation in the Peace Region is expected to increase to 5,870 megawatts (MW) — 1,500 MW more than today’s 4,320 MW of installed capacity.
What a capacitor station looks like

Capacitor stations need to be located at specific intervals along transmission lines in order to be effective.

Example of capacitor station at Ruby Creek about 14 kilometers west of Hope.

Capacitor Stations

A capacitor station is a facility where electricity from a high-voltage transmission line is carried through a series of devices called capacitors. This helps maintain the voltage levels in a transmission line, allowing more electricity to pass through a line over long distances.

Each capacitor station would be approximately four to five hectares in size. Depending on the location, much of the station’s footprint would be located within the existing right-of-way (the land under and around our power lines).

Please note that the final dimensions of each station will vary depending on a number of factors such as environmental criteria, geotechnical conditions, etc.

The stations will include a control building, outdoor electrical and communications equipment, and will be fenced.

Example of a capacitor station at Seymour Arm near Shuswap Lake. View of a communications tower (bottom left), site construction (bottom centre) and platform of completed station equipment (bottom right).
Alternatives being considered

We’re currently exploring three alternatives to address the system’s needs. Each of our alternatives includes the construction of a different number of potential new capacitor stations along the existing 500 kV transmission lines. While some potential locations (segments) are consistent across all alternatives, others are unique to a specific alternative. Only one capacitor station could be built in each segment. You can provide feedback on these alternatives in the segments on (pages 9–18).

ALTERNATIVE 1

This alternative involves:

○ Building 4 new capacitor stations along the existing 500 kV transmission lines in these four areas:

  ○ Segment A — approximately 100 kilometres southwest of Hudson’s Hope (near Powder King Mountain Resort) — this segment is included in all alternatives.
  ○ Segment B — approximately 50 kilometres southeast of McLeod Lake — this segment is included in all alternatives.
  ○ Segment C — near and south of Quesnel — this segment is included in Alternative 1 only.
  ○ Segment D — approximately 15 kilometres south of Williams Lake — this segment is included in Alternative 1 only.

○ The removal of equipment at the Kennedy and McLeese capacitor stations.

○ Upgrades at Williston Substation in Prince George. Expansion is required to the east onto BC Hydro property.
ALTERNATIVE 2

This alternative involves:

- Building new capacitor stations along the existing 500 kV transmission lines in these 2 areas:
  - **Segment A** – approximately 100 kilometres southwest of Hudson’s Hope (near Powder King Mountain Resort) – this segment is included in all alternatives.
  - **Segment B** – approximately 50 kilometres southeast of McLeod Lake – this segment is included in all alternatives.
- The removal of equipment at the Kennedy Capacitor Station.
- Upgrades at Williston Substation in Prince George. Expansion is required to the east onto BC Hydro property and also to the south.
- **Segment E** – we will also install capacitor station equipment at Williston Substation – this segment is included in Alternative 2 only.

Alternative 2 includes upgrades at the Williston Substation in Prince George. Expansion is required to the east onto BC Hydro property and also to the south.
ALTERNATIVE 3

This alternative involves:

- Building 3 new capacitor stations along the existing 500 kV transmission lines in these three areas:
  - **Segment A** — approximately 100 kilometres southwest of Hudson’s Hope (near Powder King Mountain Resort) — **this segment is included in all alternatives**.
  - **Segment B** — approximately 50 kilometres southeast of McLeod Lake — **this segment is included in all alternatives**.
  - **Segment F** — just north of Quesnel — **this segment is included in Alternative 3 only**.
- Removal of equipment at the Kennedy Capacitor Station.
- Upgrades to the McLeese Capacitor Station.
- Upgrades at Williston Substation in Prince George. Expansion is required to the east onto BC Hydro property.
What other alternatives did we look at?

Other alternatives were considered very early in the process. These included:

Do nothing
○ This alternative is not being carried forward as it doesn’t address the increased generation being planned in the Peace Region.

Upgrading existing capacitor stations
○ This alternative is not being carried forward due to operational constraints and cost.

Constructing a new 500 kV transmission line
○ This alternative is not being carried forward due to costs and environmental impacts, and in consideration of potential impacts on stakeholders.

What factors are considered when identifying a leading alternative?

To evaluate the alternatives, we assess the social, economic and environmental aspects of each alternative. Key aspects include:

○ Safety
○ System reliability
○ Environmental impacts
○ First Nations interests
○ Stakeholder interests
○ Constructability and maintenance of alternatives
○ Visual impacts
○ Property requirements and impacts
○ Cost
○ Schedule
Potential Capacitor Station Locations

We’re looking at six potential capacitor station locations, called segments, and we want to hear your feedback on these locations. Only one capacitor station could be built in each segment.

- **Segment A** — approximately 100 kilometres southwest of Hudson’s Hope (near Powder King Mountain Resort) — this segment is included in all alternatives.
- **Segment B** — approximately 50 kilometres southeast of McLeod Lake — this segment is included in all alternatives.
- **Segment C** — near and south of Quesnel — this segment is included in Alternative 1 only.
- **Segment D** — approximately 15 kilometres south of Williams Lake — this segment is included in Alternative 1 only.
- **Segment E** — installing capacitor station equipment at Williston Substation near Prince George — this segment is included in Alternative 2 only.
- **Segment F** — just north of Quesnel — this segment is included in Alternative 3 only.
Feedback form

We're currently exploring three alternatives that include six segments to address the system's needs and would like your input. In the following pages, you'll see more detailed info on each of the segments. We'd like to hear from you on each of the segments as well as the alternatives.

The purpose of this feedback form is to obtain public feedback and opinions on alternatives for the Peace to Kelly Lake Capacitors Project. BC Hydro is collecting this information in accordance with its obligations under the Utilities Commission Act. BC Hydro cannot accept third-party information. If you have specific questions about the project or privacy concerns about this feedback survey, please contact projects@bchydro.com.

Privacy statement

By submitting this feedback form, I consent to the potential disclosure storage and access of my anonymous feedback by BC Hydro for the purpose of public consultation.

NOTE: This feedback form is anonymous. If you have a question you’d like answered please share it with us. If you’d like to subscribe for updates on the Peace to Kelly Lake Capacitors Project, please be sure to visit our website at bchydro.com/pkcp, call us at 1 866 647 3334 or email us at projects@bchydro.com.
Segment A

Approximately 100 kilometres southwest of Hudson’s Hope (near Powder King Mountain Resort).

This segment is included in all alternatives and located along the existing 500 kv transmission line corridor.

What should we know about this area?
Segment B

Approximately 50 kilometres southeast of McLeod Lake.

This segment is included in all alternatives and located along the existing 500 kv transmission line corridor.

What should we know about this area?
Segment C
Near and south of Quesnel.
This segment is included in Alternative 1 only and located along the existing 500 kv transmission line corridor.

What should we know about this area?
**Segment D**

Approximately 15 kilometres south of Williams Lake.

This segment is included in Alternative 1 only and located along the existing 500 kv transmission line corridor.

---

**What should we know about this area?**

[Blank lines for text entry]
Segment E

Installing capacitor station equipment at Williston Substation near Prince George.

This segment is included in Alternative 2 only and located along the existing 500 kv transmission line corridor.

What should we know about this area?

- [ ]
- [ ]
- [ ]
- [ ]
- [ ]

Peace to Kelly Lake Capacitors Project

Segment E: Williston Substation (included in Alternative 2 only)
Segment F

Just north of Quesnel.

This segment is included in Alternative 3 only and located along the existing 500 kv transmission line corridor.

What should we know about this area?
Now that you’ve had a chance to take a closer look at the project segments, please provide us with any comments you may have on the project alternatives.

**ALTERNATIVE 1**

This alternative involves:

- Building 4 new capacitor stations along the existing 500 kV transmission lines in these four areas:
  - **Segment A** — approximately 100 kilometres southwest of Hudson’s Hope (near Powder King Mountain Resort) — this segment is included in all alternatives.
  - **Segment B** — approximately 50 kilometres southeast of McLeod Lake — this segment is included in all alternatives.
  - **Segment C** — near and south of Quesnel — this segment is included in Alternative 1 only.
  - **Segment D** — approximately 15 kilometres south of Williams Lake — this segment is included in Alternative 1 only.
- The removal of equipment at the Kennedy and McLeese capacitor stations.
- Upgrades at Williston Substation in Prince George. Expansion is required to the east onto BC Hydro property.

What comments do you have on this alternative?
ALTERNATIVE 2

This alternative involves:

- Building 2 new capacitor stations along the existing 500 kV transmission lines in these two areas:
  - **Segment A** — approximately 100 kilometres southwest of Hudson’s Hope (near Powder King Mountain Resort) — this segment is included in all alternatives.
  - **Segment B** — approximately 50 kilometres southeast of McLeod Lake — this segment is included in all alternatives.
- The removal of equipment at the Kennedy Capacitor Station.
- Upgrades at Williston Substation in Prince George. Expansion is required to the east onto BC Hydro property and also to the south.
  - **Segment E** — we will also install capacitor station equipment at Williston Substation — this segment is included in Alternative 2 only.

What comments do you have on this alternative?
**ALTERNATIVE 3**

This alternative involves:

- Building 3 new capacitor stations along the existing 500 kV transmission lines in these three areas:
  - **Segment A** — approximately 100 kilometres southwest of Hudson’s Hope (near Powder King Mountain Resort) — *this segment is included in all alternatives.*
  - **Segment B** — approximately 50 kilometres southeast of McLeod Lake — *this segment is included in all alternatives.*
  - **Segment F** — just north of Quesnel — *this segment is included in Alternative 3 only.*

- Removal of equipment at the Kennedy Capacitor Station.
- Upgrades to the McLeese Capacitor Station.
- Upgrades at Williston Substation in Prince George. Expansion is required to the east onto BC Hydro property.

What comments do you have on this alternative?
A section of the right-of-way along the existing transmission line that runs from the Peace Region to Kelly Lake.

**What’s next?**

We’re in the early planning stages of this project and just began consultation with First Nations, local governments, and residents in April 2018. We are also consulting with First Nations with lands along the transmission corridor, and that may be impacted by the proposed project. Feedback on the alternatives and potential capacitor station locations will be received until July 20, 2018.

We’ll share a summary of our consultation activities and what we heard from you in fall 2018. We’ll come back to you to get more feedback as the project moves ahead.

We expect a decision on the leading alternative in early 2019.

**Project timeline**

<table>
<thead>
<tr>
<th>Early 2018</th>
<th>Early 2019</th>
<th>2020</th>
<th>2021</th>
<th>2021</th>
<th>2024</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project announcement and start of consultation</td>
<td>Identify the leading alternative</td>
<td>Confirm preferred alternative</td>
<td>Preliminary design and regulatory approvals</td>
<td>Start of construction</td>
<td>Earliest in service date</td>
</tr>
</tbody>
</table>
We want to hear from you.

Feedback will be received until July 20, 2018.

You can learn more about the project by:

○ visiting bchydro.com/pkcp
○ emailing projects@bchydro.com
○ calling us toll free at 1 866 647 3334

SIGN UP FOR MORE INFORMATION

If you’d like to receive project update emails, please email projects@bchydro.com asking to be added to the distribution list.