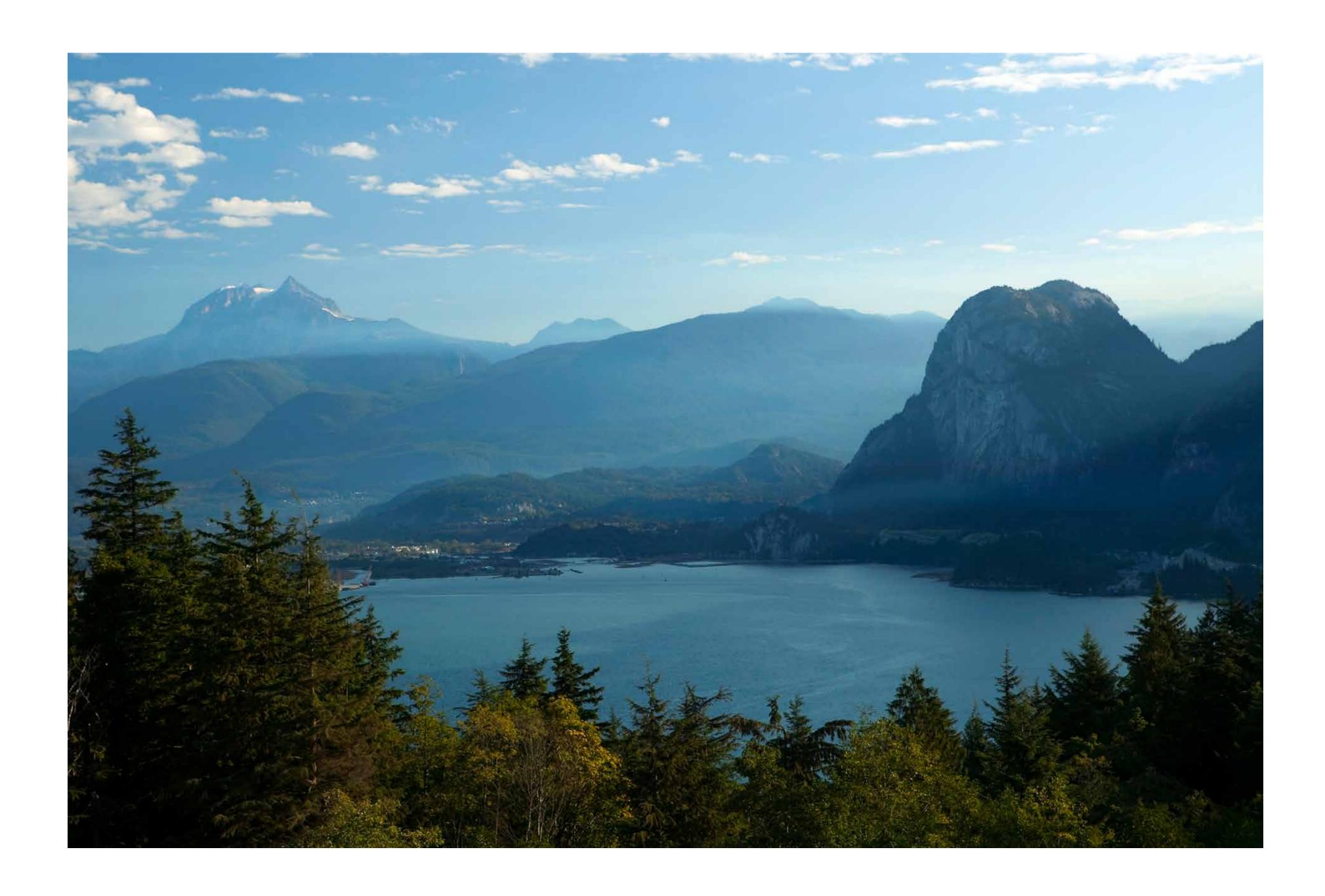
### WELCONE



Take a look at the storyboards and map to learn more about how BC Hydro is involved in both the Woodfibre LNG Interconnection Project and the FortisBC Compressor Stations Interconnection Project.

Project team members are here to answer your questions, so please have a chat with us.



## WOODFIBRE LNG INTERCONNECTION PROJECT



Woodfibre LNG has proposed a small-scale liquefied natural gas processing and export facility located approximately seven kilometres southwest of Squamish.

Woodfibre will use electricity to liquefy natural gas at its facility.

BC Hydro has been asked to interconnect the proposed LNG facility to the electricity system by March 2017.



# THREE INTERCONNECTION ALTERNATIVES

Each alternative involves a temporary solution to provide power to Woodfibre by March 2017, and a permanent solution to provide a fully redundant power supply (date to be determined).

The team is completing studies in the following areas:

- Environmental
   (fisheries, vegetation, wildlife, terrain, etc.)
- Archeological
- Electric and magnetic fields
- Audible noise
- Visual aesthetics
- Radio interference
- Geotechnical

What is redundant supply?

Redundant supply means there is more than one transmission line providing power to the facility. That way, if one line unexpectedly stops functioning, the other can still supply the facility's electricity needs.

BC Hydro is continuing First Nations consultation and seeking stakeholder input in order to select a preferred alternative in spring 2015.



### ALTERNATIVE 1: 138 KV/500 KV CONNECTION

### TEMPORARY SOLUTION

- Upgrading the existing 138 kV transmission line located between Gibsons and BC Hydro's existing Cheekye Substation (work expected to be within existing right-of-way)
  - o More detailed studies are required to determine the exact upgrades needed and the locations of the upgrades; upgrades could include replacing wood poles with slightly taller wood poles, retensioning (tightening) the conductors, etc.

#### PERMANENT SOLUTION

- Interconnecting the proposed Woodfibre LNG facility to the existing 500 kV transmission line adjacent to the Woodfibre site
- Constructing a new point of interconnection switching station on Woodfibre's property



### ALTERNATIVE 2: 230 KV CONNECTION

### TEMPORARY SOLUTION

- Converting sections of the existing 138 kV transmission line to 230 kV from the Cheekye Substation to the Woodfibre site (work expected to be within existing right-of-way)
- Upgrading the existing Cheekye Substation

### PERMANENT SOLUTION

- Constructing a new substation on BC Hydro property near Port Mellon
- Converting sections of the existing 138 kV transmission line to 230 kV from the new substation to the Woodfibre site
- Constructing a new point of interconnection switching station on Woodfibre's property
- Interconnecting the proposed Woodfibre LNG facility to the 230 kV transmission line adjacent to the Woodfibre site
- Upgrading the existing Cheekye and Malaspina substations
- Upgrading the existing 230 kV transmission line from Port Mellon to Malaspina



### ALTERNATIVE 3: 230 KV/500 KV CONNECTION

### TEMPORARY SOLUTION

- Converting sections of the existing 138 kV transmission line to 230 kV from the Cheekye Substation to the Woodfibre site (work expected to be within existing right-of-way)
- Upgrading the existing Cheekye Substation

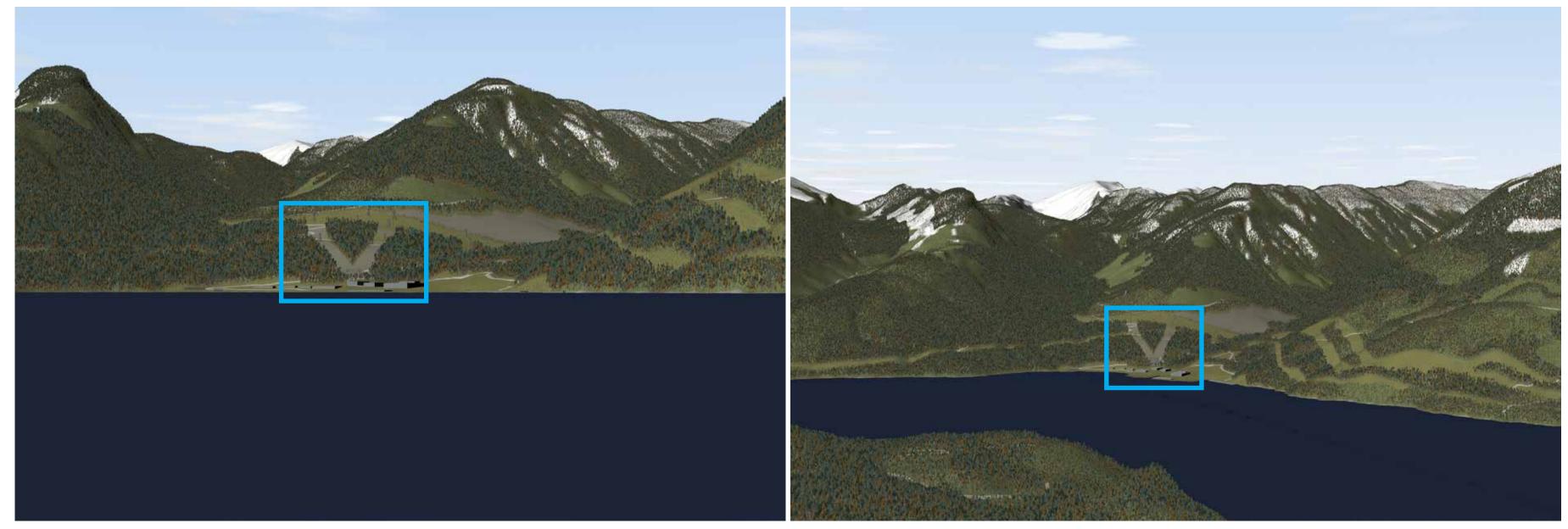
### PERMANENT SOLUTION

- Interconnecting the proposed Woodfibre LNG facility to the existing 500 kV transmission line adjacent to the Woodfibre site
- Constructing a new point of interconnection switching station on Woodfibre's property

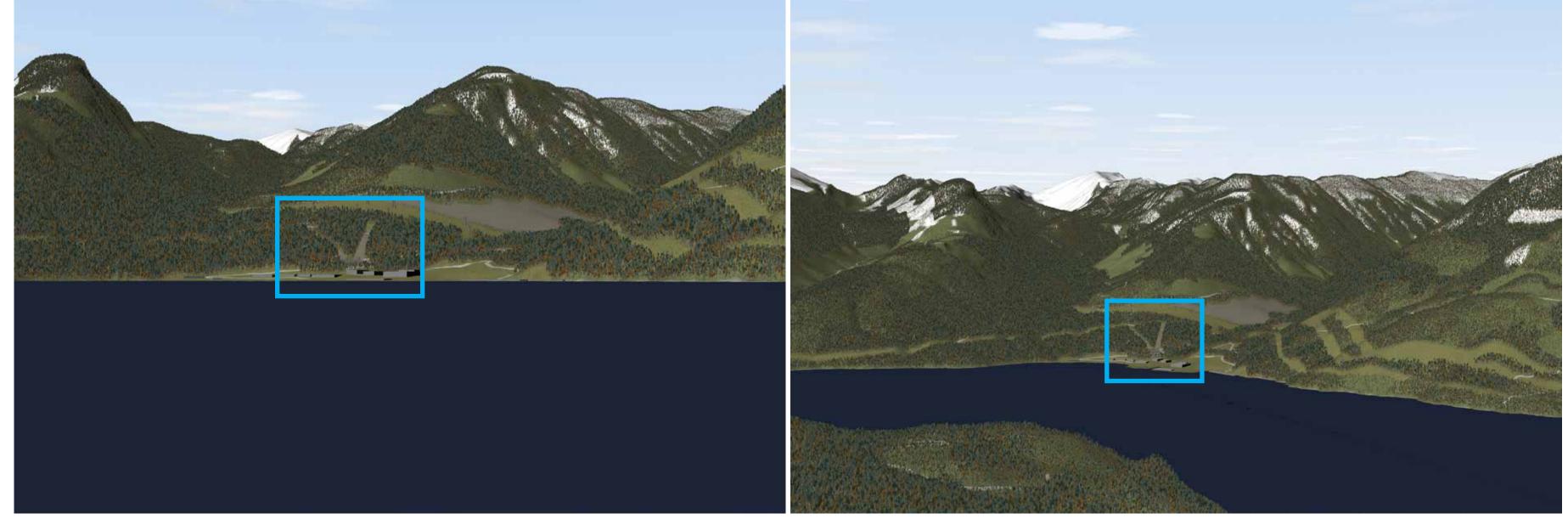


# WHAT COULD THE INTERCONNECTION LOOK LIKE FOR THE PERMANENT SOLUTIONS

Below are preliminary visual renderings showing new potential rights-of-way to BC Hydro's existing system. These are for discussion purposes only.



Alternatives 1 and 3: interconnecting Woodfibre's proposed LNG facility to BC Hydro's existing 500 kV transmission line



Alternative 2: interconnecting Woodfibre's proposed LNG facility to BC Hydro's existing 230 kV transmission line

Please note that if Woodfibre's proposed LNG facility is not built, there will be no electricity system upgrades required by BC Hydro at this time.



### FORTISBC COMPRESSOR STATIONS INTERCONNECTION PROJECT



Should Woodfibre's LNG facility be constructed, FortisBC will need to:

- Expand a portion of its existing pipeline system (from Coquitlam to the Woodfibre site)
- Upgrade existing FortisBC compressor stations in Coquitlam and Port Mellon
- Construct a new compressor station in or near Squamish

FortisBC will be using electricity to power its expanded Coquitlam and new Squamish compressor stations.

Expansion at Port Mellon will not require a new electrical connection

BC Hydro has been asked to interconnect the compressor stations by November 2016.

To interconnect the compressor stations into the electricity system, BC Hydro has identified the following upgrades:

- Coquitlam (addition to existing Eagle Mountain Compressor Station)
  - o 230 kV connection at BC Hydro's Meridian Substation
- Squamish (new compressor station)
  - o Connection to existing 69 kV transmission line



#### BC HYDRO SYSTEM NEAR WOODFIBRE LNG 69KV TRANSMISSION LINE 138KV TRANSMISSION LINE Cheekye Substation 230KV TRANSMISSION LINE **500KV TRANSMISSION LINE EXISTING INFRASTRUCTURE** Brackendale **NEW INFRASTRUCTURE** FortisBC Squamish Compressor Station\* Squamish Substation Woodfibre Malaspina Substation Squamish LNG \_\_\_\_ Madeira Park Britannia Beach Furry Creek **Howe Sound Pulp Substation** Anvil Island Halfmoon Bay Port Mellon N Gambier Island Sechelt Gibsons Sechelt Lions Bay Substation Substation Langdale Gibsons Keats Island **BRITISH COLUMBIA** Bowen Island West Vancouver • FortisBC Eagle Mountain Compressor Station Meridian \* Location of Squamish Compressor Station Substation to be determined by FortisBC Coquitlam • Vancouver

GDS14-204 Feb2015

### PROJECT COSTS



Woodfibre LNG will be responsible for all costs associated with upgrading the electricity system for interconnecting the proposed LNG facility.

BC Hydro's ratepayers will not be paying for this work

Costs for the FortisBC Compressor Stations Interconnection Project will be split between BC Hydro and FortisBC as per the Electric Tariff Supplement No. 6.

### NEXT STEPS



BC Hydro will continue stakeholder engagement and First Nations consultation throughout the planning, design and construction of the projects.

For more information, please visit bchydro.com/woodfibrelng or contact us at 604 623 4472, toll free 1 866 647 3334, or stakeholderengagement@bchydro.com.

