

# Renewable Hydrogen

## An opportunity for British Columbia

### Renewable hydrogen project in British Columbia

British Columbia (B.C.) has world-leading greenhouse gas targets, which include, by 2030, a 40% reduction in emissions (baseline 2007) and 15% renewable gas. FortisBC, RH2C and Macquarie have established a consortium to develop a renewable hydrogen project (the Project) that will significantly contribute to the Province's ambitious emissions targets.

The Project brings together established technologies, to produce renewable hydrogen that will be injected into the B.C. gas pipeline network, where it will be blended with natural gas. This is a model commonly referred to as "Power-to Gas".

The Project has been developed in consultation with First Nations, who will benefit from the development of greenhouses to grow organic produce using heat recovered from the renewable hydrogen production process. This operation, Sundance Produce, will be fully owned by First Nations and is expected to provide full-time employment for 250+ persons.

1. B.C.'s undeveloped and world leading wind resource will be developed to provide renewable power for the hydrogen plant
2. The renewable hydrogen plant will be developed near Chetwynd close to the wind resource



3. Fortis BC will purchase renewable hydrogen from the Project



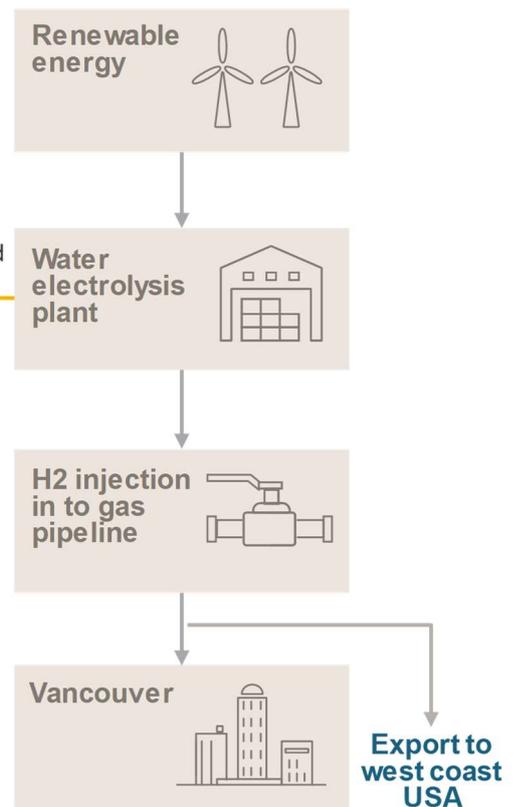
4. Renewable hydrogen will be injected into the B.C. gas network

5. Blended hydrogen and natural gas will be delivered to pipelines serving B.C.

The Project positions B.C. to create new export markets for green hydrogen and green methanol



Recovered heat



### B.C.'s advantages for creating a world-leading renewable hydrogen industry

B.C. has a range of unique characteristics which position the Province to be a world leader in the development of the emerging renewable hydrogen industry and provide a pathway to meet its ambitious emissions reduction goals. Executing on this opportunity will provide the Province with the potential to transition its economy from oil and gas exports to green hydrogen exports as the hydrogen landscape evolves.

Realising this vision will require moving quickly. The Project provides a viable solution to quickly establish a large scale domestic industry that will provide a 'first mover advantage' and secure the Province a position as a global leader in the sector.

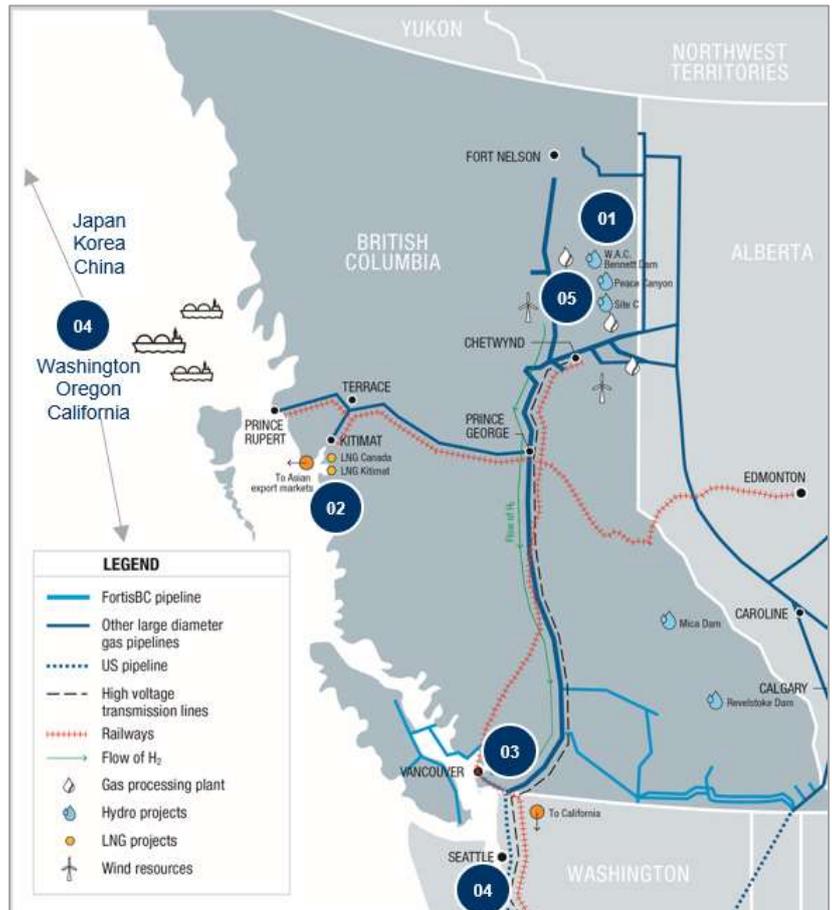
## B.C. project map and competitive advantages

B.C. has a number of competitive advantages that make it well placed to capture the global renewable hydrogen opportunity.

1. World-class wind and hydro resources
2. Existing infrastructure for transport to domestic and export markets
3. Existing hydrogen expertise in the fuel cell sector and consumption potential
4. Proximate to clean fuel markets in North America and Asia
5. Plentiful clean water supply

**The proposed site at Chetwynd is unique because of its First Nation support and location**

- 1) Existing major infrastructure and expertise
  - Connected to high voltage transmission
  - Adjacent to Enbridge BC Pipeline
  - Labour expertise from large scale natural gas
  - Abundance of clean water
- 2) Proximity to renewable generation reduces cost
  - 3 of largest hydro dams in B.C
  - Lowest cost wind resources in B.C



## Project partners



Delivers the most energy to end users in BC, with 2,400 employees serving 1.2 million customers across 135 communities and 56 indigenous communities.

Owns and operates ~49,000km of natural gas transmission and distribution pipelines and 7,260km of electric transmission and distribution networks.

First utility in North America to offer its customers renewable natural gas (RNG), a biogas produced from organic waste. Renewable hydrogen is a natural extension of this commitment to providing low-carbon energy.

Independent developer of projects focused on renewable wind power, hydrogen and derivative renewable energy products. It has world-class competency in the assembly of related technologies to economically deploy these opportunities.

Proponent of 'Sundance Produce', a joint proposal for local First Nations to build, own and operate large greenhouses that will use waste heat from the electrolyzer plant to competitively grow organic produce and create significant local First Nation employment opportunities.

Macquarie's Green Investment Group (GIG) is a specialist in green infrastructure principal investment, project development and delivery, green impact advisory and the management of portfolio assets. Its track record, expertise and capability make it a global leader in green investment and development, dedicated to accelerating the transition to a greener global economy.

400+ green energy and investment specialists; 22GW+ generation assets operational or under development / construction.

## Contact details

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