

# HTEC's Proposed North Vancouver Clean Hydrogen Plant

Development Permit

100 Forester Street, North Vancouver

Virtual Public Information Meeting

June 24 – July 8, 2024



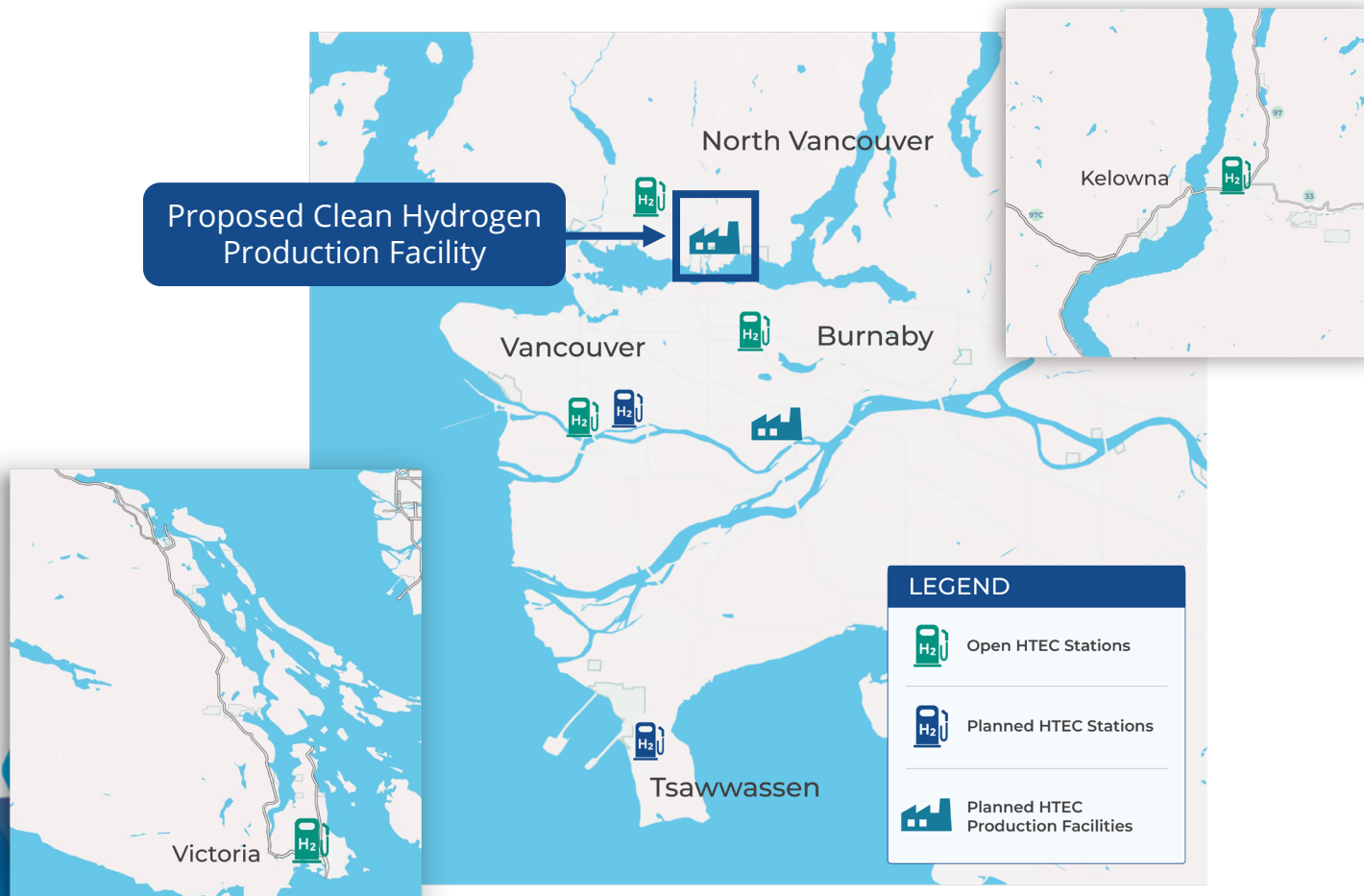
[www.htec.ca](http://www.htec.ca)



HTEC respectfully acknowledges that its head office operates on the traditional, ancestral and unceded territory of the Skwxwú7mesh (Squamish), xʷməθkʷəy̓əm (Musqueam) and səliłwətał (Tsleil-Waututh) Nations.

# About HTEC

HTEC established and operates **Canada's first** hydrogen fueling station network. Safely completed more than 15,000 vehicle fills in BC



## 2018 - 2019

- Opened HTEC's and Canada's **first retail hydrogen station** in Vancouver (at a Shell station)
- Opened **second BC station** in Burnaby (at a Shell station)

## 2020

- Opened a **third BC station** in North Vancouver
- Opened the **fourth BC station** in Victoria

## 2021

- Stations dispensed >**11,000 kg** of hydrogen

## 2022

- Stations dispensed >**27,000 kg** of hydrogen
- Announced clean hydrogen production facilities in **North Vancouver** and Burnaby

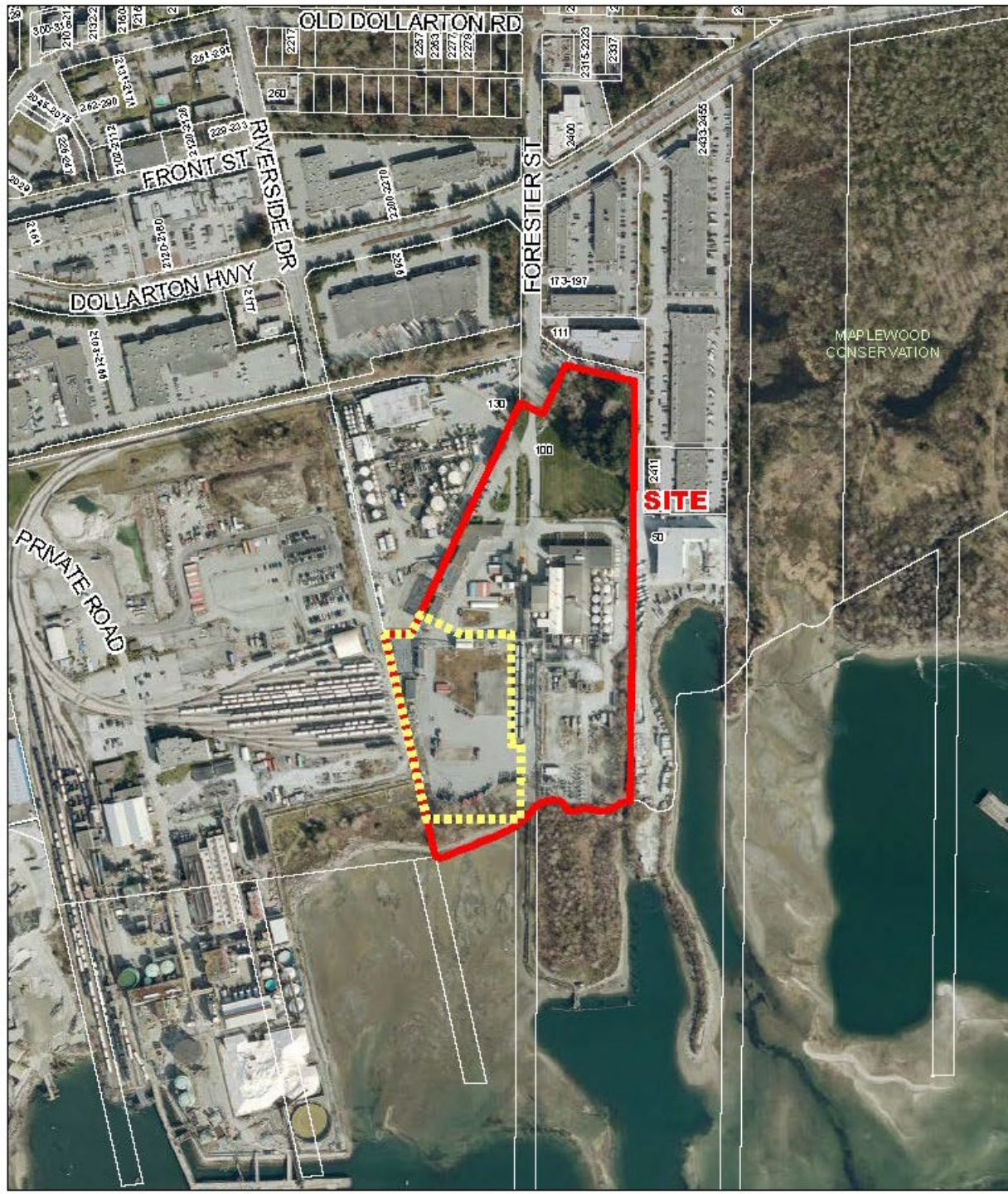
## 2023

- Announced clean hydrogen production facility in **Nanaimo**
- Opened a hydrogen refueling station in Kelowna
- Announced Canada's first hydrogen ports project (pilot) and the BC Pilot Truck Project

## 2024

- Announced the H2 Gateway program, under which the North Van Clean Liquid Hydrogen Facility falls under





# Rezoning

- HTEC is proposing to build a clean hydrogen facility on existing industrial land at 100 Forester Street, North Vancouver.
- The proposed hydrogen plant will be located on a 5-acre portion of vacant land at 100 Forester, southwest of the ERCO plant.
- The site and neighbouring industrial facilities are zoned for industrial use (EZ-I).
- Rezoning amendment was obtained in July 2023 to allow for the development of the liquefaction plant alongside ERCO.
- HTEC's proposed facility introduces no new substances to the site.



# Liquefier Facility

Aerial View Looking Northwest



- 1 Control Building
- 2 Hydrogen Compressor Building
- 3 Nitrogen Compressor Building
- 4 IA Compressor Building
- 5 Liquefaction Process Area
- 6 Pre-Treatment Process Area
- 7 LH2 Storage Tanks
- 8 LH2 Loading Bay
- 9 Firewater Pumphouse
- 10 Cooling Tower and Pumphouse
- 11 HV Sub-Station
- 12 Power Dist. Centre
- 13 Warehouse/Workshop

# Hydrogen's Role in Decarbonization



Transportation accounts for **24%** of Canada's total greenhouse gas emissions (2020 Canada's GHG Emissions Report)

## Why Hydrogen Electric Vehicles?



**FAST  
FUELING**



**LONG  
RANGE**



**25-90% FEWER  
GREENHOUSE  
GAS EMISSIONS**



**ZERO  
TAILPIPE  
EMISSIONS**

## Hydrogen for Transportation



Passenger Vehicles



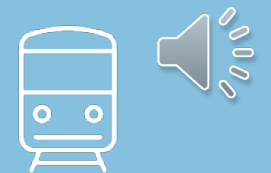
Off-road Vehicles



Trucks



Buses

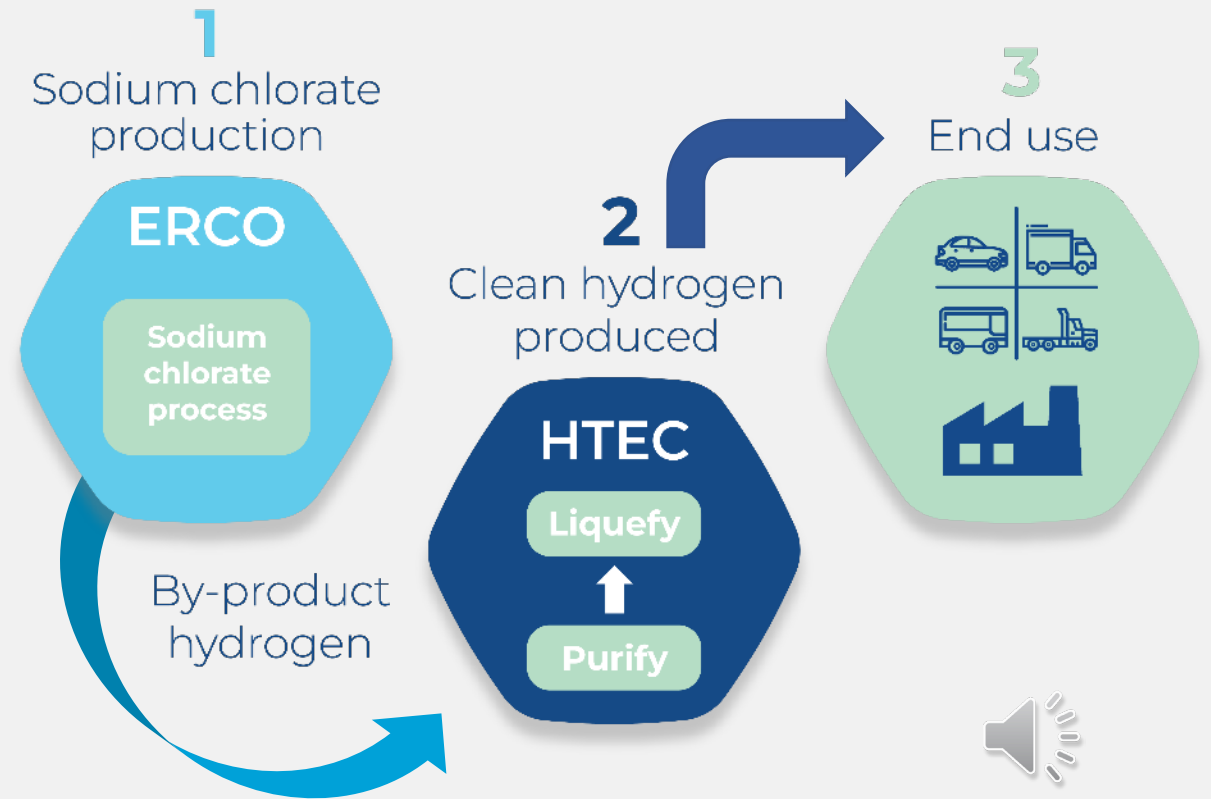


Passenger Rail

# Transforming Waste Hydrogen to Clean Transportation Fuel

- HTEC will co-locate a clean hydrogen facility at an existing ERCO Worldwide electrolysis plant.
- ERCO's facility produces low-carbon hydrogen as a by-product.
- Today, most of this hydrogen is vented into the atmosphere.
- HTEC will capture, purify, and process this industrial hydrogen to produce 15 tonnes per day of clean liquid hydrogen.

The North Vancouver Clean Liquid Hydrogen Facility will be Western Canada's first hydrogen liquefier plant. HTEC plans for the facility to be operational by early 2027.



# Current Project Status and Timeline

- Rezoning amendment obtained in July 2023 to allow for the development of the liquefaction plant alongside ERCO
- Hired Bantrel, leading Engineering, Procurement and Construction (EPC) headquartered in Calgary to complete Front End Engineering Design (FEED)
- HTEC has purchased 100 Forester St from ERCO Worldwide



# Benefits of the Project

- Support the deployment of **>30,000 hydrogen light-duty vehicles or 500 heavy-duty trucks.**
- Reduce GHG emissions up to **141 kilotonnes CO2e per year.**
- Aligns with District of North Vancouver's **Official Community Plan.**
- Development of the hydrogen industry in accordance with the **BC Hydrogen Strategy.**
- **Generate 50 jobs** in BC, directly related to the build and operation of the plant, as well as through growth in supporting businesses.
- Allows ERCO's current manufacturing operations to continue, **retaining employment of 40 personnel.**
- Generate municipal and provincial **tax revenues.**



# Impact on Local Community

- **Changes to traffic through the site will be minimal**, with an increase of 26 truck movements per week above ERCO's average of 82 truck movements per week.
- The site would be operated 24/7, with approximately 4 HTEC employees on-site during regular weekday hours and **maintenance staff on a recurring basis**.
- Parking on the site would be shared with ERCO and expanded to include HTEC's requirements.
- Impact on local transit system: **minimal**.
- Impact on noise: **none outside the site**.
- Height of proposed structure will be similar to surrounding industrial facilities: **no disruption to existing skyline**.



# HTEC puts safety first, always

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- The proposed land rezoning will **not add risk to the Maplewood Village Centre**, as assessed by an Independent Qualified Professional.
- **Project** will be designed to the most stringent safety codes and standards.
- **All transportation carrying hydrogen will be certified for transportation on roadways** under the federal and provincial regulations.

## Liquid Hydrogen is Safe

- Liquid hydrogen facilities, like the one HTEC is proposing, are **not new**.
- Liquid hydrogen facilities have been operating safely and successfully in **Canada and the USA since the early 1960s**, including in urban areas.
- Today, there are **14 hydrogen liquefaction plants operating in Canada and the USA**, which produce approximately **300 tonnes** of liquid hydrogen per day



# In Summary

1

HTEC's proposed clean hydrogen plant in North Vancouver will convert waste by-product hydrogen into clean transportation fuel.

2

The development permit is to intensify the industrial use of existing manufacturing land.

3

Hydrogen is safe, and its versatility makes it an important part of our low-carbon future.





FUELING THE DRIVE TO HYDROGEN

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