## **Terrace BC**

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# Skeena Industrial Development Park







# Hydrogen In Terrace a Perfect Match

Terrace is the hub of Northwestern British Columbia, the service and supply centre for the region. Terrace is the natural spot for hydrogen production and distribution for long-haul heavy-load equipment as well as the export and import of gas.

Situated in mining's Golden Triangle with the world's richest gold mine, Terrace has many geographical advantages. Its location on the banks of the mighty Skeena River, British Columbia's second largest river, ensures immense access to water, thanks to the snow runoff from the majestic North Coast Mountain range.

Terrace is connected by unencumbered Highways 16 (Trans Canada) and 37, as well as CN Rail service, BC's fastest rail service from a BC port to the heartland of the US. To the west, Terrace is just 137 km from Prince Rupert, Canada's third-largest container terminal and one of the world's top deepsea ice-free harbours, with the fastest ocean route to Asia by days. To the east, Terrace is 575 km from Prince George to British Columbia's centre and forks highways east through the Rocky Mountains and south to Vancouver, the Okanagan, Vancouver Island, as well the lower 48 States. Terrace is also the industrial hub for two of BC's LNG export pipelines—the currently under-construction Coastal GasLink project whose terminus is 64 km away at the Port of Kitimat, and the proposed West Coast Connector Gas Transmission project destined for north of Prince Rupert.

All this means that hundreds of Class 8 trucks pass through weekly. Combined with its proximity to multiple major active mines and the ports of Prince Rupert and Kitimat, Terrace has positioned itself to be the Class 8 motor service location of choice.



Terrace is bountiful with sites that are very suitable for hydrogen production, containerization, and retail gas outlets. Industrial acreages for these types of projects are available at the Terrace and Kitselas First Nation joint venture site, Skeena Industrial Development Park. With ample flat hard-pack and solid ground, site development is much easier and more cost-effective than other locations along the corridor.

Terrace also boasts a heavily trades-focused workforce experienced in plant construction and the energy sector. With two post-secondary institutions and multiple training organizations in the area, labour customization is completed with ease.

Serviced by Pacific Northern Gas (the area's commercial supplier for natural gas), Terrace's pipe is currently at 20% capacity and actively in recruitment for large volume users. BC Hydro's affordable Green Electricity Network fully covers all areas in and around Terrace. Several biomass suppliers in the area are also available for a proponent's energy needs.

Terrace and the Skeena Industrial Development Park are ready for your project.

Inquire with Michael Pucci Lands and Economic Development Manager City of Terrace mpucci@terrace.ca

# **Skeena Industrial Development Park** (SIDP)



Terrace boasts over 1200 acres of continuous greenfield industrial zoned land. The parcel is named the Skeena Industrial Development Park (SIDP which is a joint venture and revenue sharing partnership with the Kitselas First Nation. Over <sup>3</sup>/<sub>4</sub> cleared and leveled with main road lighting and utility conduit installed SIDP is perfect for any large or small operation.

Surrounded by the Kitselas First Nation Treaty lands perched at over 75 meters above sea level from Port Kitimat just 50 km away. The Port of Prince Rupert is Canada's 3rd largest container terminal and home to the nation's newest LPG terminal. With excellent bulk commodity terminals and an expertly designed rail yard that supplies CN Rail on the fastest route to and from the US Mid West and points of Ontario.

Construction of a container terminal at Prince Rupert proceeded from a vision in 2005 to reality in 2007, with the opening of the first phase of the Fairview Terminal. Phase 2B Stage 1A of the Fairview Terminal Expansion and the Ridley Island Export Logistics Platform are currently under construction, with an expected completion of 2023 for both projects. There are also several other complementary projects in progress on Kaien and Ridley Islands. Pembina Pipeline Company successfully opened their propane export terminal on Watson Island in April 2021. As further phases of the container terminal proceed, and as other processing and transshipment facilities are proposed and developed, the economy of the entire region will benefit with FID in 2024. In the neighbouring community of Kitimat, Rio Tinto Alcan completed a \$6 billion modernization of its aluminum smelter in 2016. While the modernized smelter employs fewer people, it provided significant employment during the six years of construction and will ensure a longer-term presence for the company in the region. Rio Tinto has recently invested C\$600 million in a second tunnel at the Kemano Powerhouse, to ensure that the power to the smelter remains secure and sustainable.

The LNG Canada project is the only LNG terminal in active development and is expected to be completed in 2025. The Coastal GasLink pipeline that will supply LNG from Dawson's Creek to the LNG Canada terminal in Kitimat is under construction at several locations along the intended route. The Haisla Nation's Cedar LNG project has received environmental approvals including a British Columbia Environmental Assessment Certificate. The project has also entered into an MOU for a 20-year liquefaction services agreement with ARC Resources. Haisla Nation is in partnership with Pembina Pipeline Corporation, a transportation and midstream service provider with more than 65 years' experience serving the energy industry.

In July 2021, the Nisga'a Nation announced a proposal to build the \$10-billion Ksi Lisims LNG export facility north west of Terrace. The Nisga'a Nation is in partnership with the Calgary-based Rockies LNG group and Texas-based Western LNG. The group filed a project description notice with the B.C. and federal governments as part of the first phase of the project. Pacific Northern Gas (PNG) has received approval for an estimated \$84.8 -million maintenance project on their pipeline between Terrace and Prince Rupert, which is expected to create 250 jobs over three years of construction.

The region has benefited from continuing mineral exploration and development activity, both within the immediately surrounding area, as well as in the Stikine region to the north.

# **Skeena Industrial Development Park** (SIDP)

**Site Overview** 



## Soil

There is approximately 30 cm of topsoil on top of clean gravel.

## Market Access

The Port of Prince Rupert is located 144km west of Terrace by both uncongested highway and rail. The major international shipping and logistics centre has recently developed a new deep water, ice free container port that is planning further capacity expansion. It is the shortest shipping route available connecting North American resources to Asian markets. The distance to Asia from Prince Rupert is about half that from the U.S. Gulf Coast.

The very efficient CN mainline running from Prince Rupert into the heart of the continent flows right through the centre of Terrace. CN rail runs very close to the site (apx. 10 km), The NSD inland port a transload facility is your intermodal connection to supply and logistic chains. Further within approximately 15km the First Nation of Kitsukalum is developing a break bulk and intermodal transload facility. This project will provide a new connection between major projects and national/ international supply and logistics chains serviced by rail.

The Northwest Regional Airport, servicing Terrace and Kitimat, is immediately adjacent to the property and offers its own airside and groundside commercial land along with hanger opportunities.

### Servicing

Water:	Water available but not connected. Rate suitable for Hydrogen production. There are wells that have been dug.
Hydro:	BC Hydro available. 500 kv transmission along the southeast of the parcel. 2,500 volt – 3 phase distribution available from the southwest of the parcel. Approximately 3km to Skeena Substation
Telephone and Fibre:	Telus Communications available.
Natural Gas:	Pacific Northern Gas main Line borders park property 10 inch pipe along the south east edge of the lot On-site storm drainage: Gravels provide excellent capacity for groundwater recharge.

## Zoning

#### M2 - Heavy Industrial

# Why the Skeena Industrial Development Park?

#### • Strategic Location:

Situated in the heart of economic and trade activities, SIDP is in the center of major projects in B.C.

#### • Highly Connected:

Close proximity or connections to port, air, highway and rail service.

#### • Integrated with First Nations:

SIDP is a joint venture between the City of Terrace and the Kitselas First Nation.

Regulations:	
Minimum parcel area	1.0 Hectare
Minimum parcel width	30.0 m
Minimum setbacks	
a. Front parcel line b. Interior side parcel line c. Exterior side parcel line d. Rear parcel line	a. 9.0 m b. 3.0 m c. 3.0 m d. 4.5 m
Minimum setbacks for bulk-fueling station, Major a. Any parcel line	15.0 m
Maximum parcel coverage	50%
Maximum floor area ratio	1.0
Maximum building/structure height a.Principal building/structure b.Accessory building/structure	a. 12.0 m b. 6.4 m
Maximum gross floor area of accessory buildings/structures	90 m²
Parking and loading	Required as per Section 8.0 of Bylaw 2069-14

## Management Structure and Agreements

The SIDP is a Joint Venture between the City of Terrace and the Kitselas First Nation, a partnership designed to support certainty for investment at the park, to attract a variety of businesses, to foster development of the regional economy and to provide a return on investment for both communities.

The City of Terrace has the principal responsibility for management of the Joint Venture and the SIDP. A management committee is the mechanism by which the partners consult, share information and address any issues that may arise. The Joint Venture is responsible for a variety of activities that facilitate the development of the industrial park, including a role in reports, studies, infrastructure and utility construction, marketing and related activities. The Joint Venture financially contributes to these activities and the City of Terrace takes a lead role as proponent liaison.

#### **Revenue Sharing Agreement**

Signed alongside the Joint Venture Agreement, a Revenue Sharing Agreement was signed with Kitselas First Nation to share a portion of the taxation generated from SIDP developments on a per capita basis. This agreement does not "abrogate or derogate any aboriginal right, title or interest of Kitselas," nor does it "limit or prejudice the rights and powers of the City." The Revenue Sharing Agreement is intended to support a strong working relationship and was signed with the principles of fairness and reconciliation in mind.

## **Mining in Terrace**

Mining in British Columbia has a long and productive history. Currently 20 metal and coal mines are in production and over 1000 significant industrial mineral and aggregate operations are found throughout the province. Our mining industry continues to grow in environmentally sustainable and socially responsible ways to meet global demand.

#### Why Terrace?

In Terrace, \$19 million is the estimated total expenditure in mineral exploration (2020). Approximately 27% of unique mining vendors are based in the key areas of Smithers, Kamloops, Prince George, and Terrace. These municipalities account for approximately 46% of provincial mineral exploration supply chain spend.

- **Port Access:** Terrace is 5 times closer to Prince Rupert Port, the fastest shipping route to Asia along the west coast in North America, than its major competitor Prince George.
- **Rail Access:** The very efficient CN mainline running from Prince Rupert into the heart of the continent flows right through the centre of Terrace.



## Natural Gas, LPG and Hydrogen/ Ammonia in Terrace

New drilling technology makes our vast resources accessible. British Columbia has more than an estimated 2,900 trillion cubic feet of marketable shale gas reserves, and this number is expected to increase as drilling continues. Previously inaccessible, new technologies have been allowing us to develop this valuable resource since 2005.

The Asian markets demand natural gas at rates unseen before. The development of liquified natural gas gives British Columbia investors access to the worldwide market. We have developed an efficient regulatory system for LNG growth and are putting the necessary infrastructure in place. The first commercial LNG export facility in Canada is under construction in Kitimat and is expected to be operational in 2025.

Industry investment is booming. British Columbia's stake in the natural gas industry has already grown substantially. BC contributed 35% of the natural gas produced in Canada in 2020, producing an average 5.38 billion cubic feet per day. This is expected to dramatically increase when the LNG Canada project begins operations.

A micro-LNG plant would be well-suited at the Skeena Industrial Development Park. Natural gas transmission lines run adjacent to the property. In June 2019, Pacific Northern Gas applied to the BC Utilities Commission to reactivate capacity for transport of larger volumes of LNG, which would open up the potential for a microfacility at the SIDP.

## Water and Run of River Projects

Areas of developed lands are generally well water, that are able to supply 60cubic meter per hour.

The areas are near both Lakelse Lake and the Skeena River. The size of LAKELSE LAKE is 1368.4ha (which is equivalent to 3381ac or 13.7sqkm) and the coordinates are 54.3812, -128.5597. (fresh water supplied by springs and mountain runoff).

The Skeena River is the second-longest river entirely within British Columbia, Canada (after the Fraser River). The Skeena originates south of the Spatsizi Plateau Wilderness Provincial Park in north western British Columbia, forming a divide with the Klappan River, a tributary of the Stikine River. It flows for 570 km (350 mi) before it empties into Chatham Sound, Telegraph Passage and Ogden Channel, east of the Dixon Entrance, all part of the Pacific Ocean. The Skeena drains 54,400 km2 (21,000 sq mi) of land with a mean annual discharge of 1,760 cubic metres per second (62,000 cu ft/s).

#### **Geo Thermal**

The Lakelse Hot Springs, also known as the Mount Layton Hot Springs, are a group of hot springs in the Kalum-Kitimat valley of northern British Columbia, Canada, located 30 km (19 mi) south of Terrace along Highway 37 on the eastern shore of Lakelse Lake. With a maximum temperature of 89 °C, the springs are the hottest in Canada.

The formation of the Lakelse Hot Springs is interpreted to be water seeping through hot rocks in faults of the fault-bounded Kalum-Kitimat valley. Located under 5km from SIDP.



Source: wegohere.com

City of Terrace



# **Electricity Clean Industry and Innovation Rate**

The Clean Industry and Innovation Rate (Rate Schedule 1894) is to help support and attract new, innovative industries to B.C. by making it more affordable to connect into BC Hydro's grid. The rate is available to two types of new customer plants:

**1. Clean industry customer:** A new customer plant that uses a process to remove greenhouse gases from the atmosphere or produces a renewable or low carbon fuel. This could include the production of hydrogen via electrolysis; the production of synthetic fuels from hydrogen, carbon dioxide or biomass; or the capture and/or storage of carbon dioxide.

**2. Innovation customer:** A new customer plant that is a data centre composed of networked computers and data storage used to organize, process, store and disseminate large amounts of data. To be eligible, a customer's contract demand in its Electricity Supply Agreement must be greater than 10,000 kilovolts amperes (kVA) and the plant must not be used for producing or exchanging cryptocurrency. In addition, the plant's annual energy consumption must be greater than 70 GWh/year.

## **About transmission rates**

Customers with transmission accounts use large amounts of energy and invest in electrical infrastructure that allows them to receive service at high voltage. Most transmission accounts receive service under rate schedule 1823 of the Electric Tariff.

Minimum Charge	\$8.812 per kVA of billing demand per billing period.
<b>Demand Charge</b> Demand is measured by kilovolt (kVA) over 30-minute intervals. The highest average 30-minute kVA in a billing period is used to calculate the demand charge on transmission bills.	\$8.812 per kVA of billing demand.
Energy Charge 1823A	5.165 cents per kWh applied to all kWh.
Energy Charge 1823B	4.596 cents per kWh applied to all kWh up to and including 90% of the customer's baseline load (CBL) in each billing year.
	10.294 cents per kWh applied to all kWh above 90% of the CBL in each billing year.

The Large General Service rate is for business customers with an annual peak demand of at least 150 kW, or that use more than 550,000 kWh of electricity per year. They receive service under rate schedules 1600, 1601, 1610, or 1611 of the Electric Tariff. Knowing how to read your Large General Service Rate bill is a good way to manage your electricity usage.

#### **Basic Charge**

A small, daily amount that partially recovers fixed customer-related costs, including customer service channels, metering, billing, payment processing, collections, and distribution system costs that are customer-related (electrical lines and transformers). 27.08 cents per day.

#### **Demand Charge**

Demand is the rate at which electricity is used and is typically measured in kilowatts (kW). Peak demand is the highest rate of electricity use during a period of time. Our smart meters measure demand using 15-minute intervals with three consecutive five- minute sub-intervals. The highest 15-minute demand average recorded in each billing period is used to calculate the demand charge on your bill.	\$12.50 per kW.
Energy Charge	6.14 cents per kWh.
Minimum Charge A charge that covers the cost of maintaining our equipment year round for customers with high electricity usage in the winter but low electricity usage in the summer.	Equal to 50% of the highest Demand Charge during the previous November 1 to March 31 period. The Basic Charge, Energy Charge, and Demand Charge are replaced by the Minimum Charge if their sum is less than this amount.
<b>Power Factor Surcharge</b> A measure of efficiency, and the ratio of usable power (kW) to reactive power (kVar) in a circuit. It varies between 0 and 1, and is normally given as a percentage (1 to 100%). We apply a power factor surcharge to business customers whose power factor drops below 90%.	Applicable if power factor is below 90%.
Discounts	<ul> <li>1.5% on entire bill if electricity is metered at primary potential.</li> <li>\$0.25 per kW if customer supplies transformation from a primary to a secondary potential.</li> <li>If eligible for both, the 1.5% discount is applied first.</li> </ul>
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## **Contact Us**

Questions? Comments? Let's connect.

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