

GITXSAN ENERGY INC.

HAZELTON BIOHEATING PROJECTS

RICK CONNORS

MARCH 11, 2021



SEVERAL INSTALLATION SITES

1. Upper Skeena Recreation Center
 2. Gitxsan Wet'suwet'en Education Society - College
 3. Gitanmaax Gas Bar & Car Wash
 4. Gitxsan Development Corporation – New Office
 5. Gitxsan Forests Inc. – 3 Bay Commercial Garage Building
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- ✓ Supported by NRCAN – CERRC funding
 - ✓ Supported by Community
 - ✓ Part of the Community Plan for the area
 - ✓ Evergreen BioHeat Ltd. Supplier/Installer



UPPER SKEENA RECREATION CENTER

- Arena, Gymnasium, Meeting Rooms, Confectionary
- Significant delays (2 years)
- Multiple stakeholders
- 320 tonnes GHG reduction projection
- 2 – T4-150 kW boilers
- Wood chips & pellets
- Start-up – May 2021





UPPER SKEENA RECREATION CENTER



03/11/2021



GITXSAN WET'SUWET'EN EDUCATION SOCIETY - COLLEGE

- Retrofit build of old building
- Installation concerns – asbestos, room size
- Single stakeholder
- Skilled labour available
- 300 tonnes GHG reduction
- 2 – T4-150 kW boilers
- Wood chips & pellets
- Start-up 2020





GITKSAN WET'SUWET'EN EDUCATION SOCIETY - COLLEGE





GITANMAAX GAS BAR & CAR WASH

- Prefabricated new build
- Significant delays
- Single stakeholder
- Skilled labour available
- 150 tonnes GHG reduction
- 2 – P4-100 kW boilers
- Pellets
- Start-up 2020





GITANMAAX GAS BAR & CAR WASH





GITKSAN DEVELOPMENT CORP - OFFICE

- New build
- Significant delays
- Long delivery items
- Single stakeholder
- Skilled labour available
- 110 tonnes GHG reduction
- 1 – T4-150 kW boiler
- Wood chips & pellets





GITXSAN DEVELOPMENT CORP - OFFICE





GITKSAN FORESTS INC. - GARAGE

- Retrofit of old garage building
- Domestic hot water included
- 35 tonnes GHG reduction
- 1 – P4-32 kW boiler
- Pellets
- Hot air blowers
- Start-up 2018





KEY POINTS / LESSONS LEARNED

- ✓ Avoid winter civil work
- ✓ Do not over engineer the project
- ✓ Training is key
- ✓ Timely ordering of long lead time equipment
- ✓ Attention to mechanical room layout – serviceability long-term
- ✓ Ensure all equipment certifiable to Canadian standards (CSA, ASME)
- ✓ Engage community early – newsletter highlighting benefits
- ✓ Identify a “Community Champion” – ownership of the project
- ✓ Train more than one individual



KEY POINTS / LESSONS LEARNED

- ✓ Hire local labour, machine operators and contractors but, make sure experience is part of your equation
- ✓ Reputable engineering partner – don't over engineer, keep it simple
- ✓ On reserve deliveries save PST – plan your deliveries
- ✓ Know where you live and assess limitations (deliveries, services, accommodations, availability of last minute acquisitions, etc.)
- ✓ **Study your fuel supply logistics**
- ✓ **Understand limitations of fuel supply quality and its effect on the operability of your site**
- ✓ **Train the people**



Thank You!