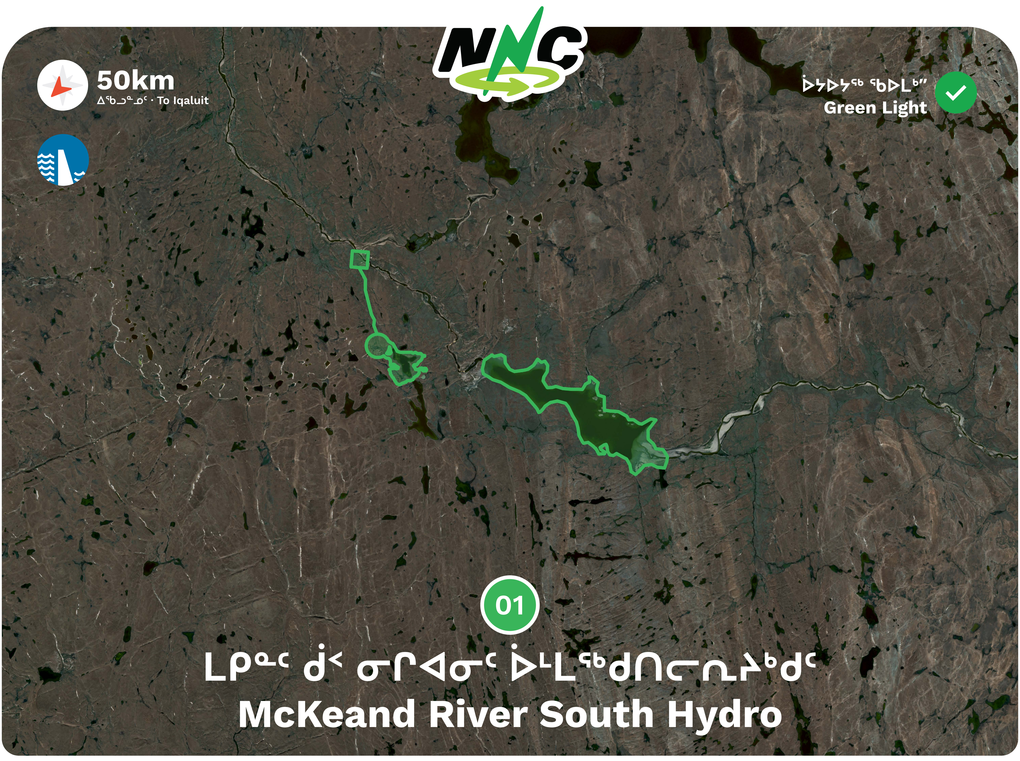


01

ᒪᑭᓐᑦ ᑰᑉ ᓂᒋᐊᓂᑦ ᐆᒪᒪᖅᑯᑎᓕᕆᔨᒃᑯᑦ
McKeand River South Hydro

ᓇᐃᓈᖅᑐᑦ

- ᓴᖅᑭᑎᑦᑎᓪᓗᓂ ᐊᑭᑭᓛᒥᒃ ᐆᒪᖅᑯᑎᓄᑦ ᑕᒪᐃᖅᓄᑦ ᐊᑐᖅᒥᐅᔾᒐᕈᖅᓇᖅᑐᓄᑦ (ᐃᓚᐅᓪᓗᓂ ᐅᖅᓱᐊᓗᒃ)
- ᑕᒪᖅᓇ ᐊᔾᒋᖅᓕᒋᐊᖅᑎᑐᖅᓇᖅᑕᕗᑦ ᐃᖃᓗᐃᑦ ᐱᕈᖅᐸᓪᓕᐊᑎᓪᓗᒍ
- ᐊᑦᑎᒃᑐᒥᑦ ᐊᑯᖅᓂᖅᓱᖅᑐᒥᓪᓗ ᐱᓕᕆᔾᔪᑎᓄᑦ ᐊᑦᑕᖅᓇᐅᑎᓂᑦ
- ᐃᓱᐊᑭᖅᒋᓐᓛᑦ ᑕᒪᐃᖅᓂᒃ ᓇᓛᑦᓴᒐᒃᓴᓂᑦ
- ᐅᓄᖅᒋᑦᑐᑦ ᑕᑯᔭᐅᔪᑦ ᓄᓇᒥᒃ ᐊᑐᖅᓂᖅ ᐊᔾᔨᒋᖅᓱᓪᓗᓂᐅᒃ ᐊᓱᖅᓄᑦ ᐱᕕᒃᓴᓄᑦ (ᐊᑦᑎᓛᖅ ᐅᖃᐅᓱᐅᔪᖅ)
- ᒥᓪᓗᐊᕈᑎᓕᖅᓱᒪᔪᖅ ᐱᖁᑎ ᐃᓚᔭᐅᔪᖅᓇᖅᑐᖅ ᓱᕗᓂᒃᓴᑦᑎᖅᓂ ᐃᖃᓗᐃᑦ ᐱᕈᖅᐸᓪᓕᐊᑎᓪᓗᒍ
- ᐅᔾᒐᓱᖅᓂᖅᒐ ᐃᖃᓗᖅᓂ (50km)
- ᐃᒪᒃᑯᐃᖅᑕᖅᑲᓇᐊᒃᑲᖅᑐᖅ
- ᖃᐅᔨᓴᖅᑕᐅᓚᐅᖅᓱᒪᖅᒋᑦᑐᖅ
- ᖃᐅᔨᓴᖅᑕᐅᑦᑎᐊᓇᐊᒃᑲᖅᑐᑦ ᑐᒃᑐᐃᑦ ᑕᒡᔪᐊᖅᑎᓪᓗᒋᑦ

Summary

- Results in the lowest cost of electricity for all options (including diesel)
- High degree of scalability (we can increase the output as Iqaluit grows)
- Low to medium technical risks
- Lowest emissions of all options
- Few observations of land use compared to other options (lowest reported)
- Pumped storage can be added in future as Iqaluit grows
- Distance to Iqaluit (50km)
- Some water storage required
- Not previously studied
- Requires careful study of caribou migration

100% ᐊᑐᓗᐊᖅᑯᓂᖅ ᐅᖅᓱᐊᓗᐃᖅᓇᖅᓯᒍᑦ ᐊᐅᓚᐅᑎᖅᑲᓂᑦᒥ ᐆᒪᖅᑯᑎᓄᑦ **Reduction in Diesel Consumption for Electricity Generation**

ᓂᕈᐊᓇᓱᒪᔭᒥᔅᓄᑦ · The Bottom Line

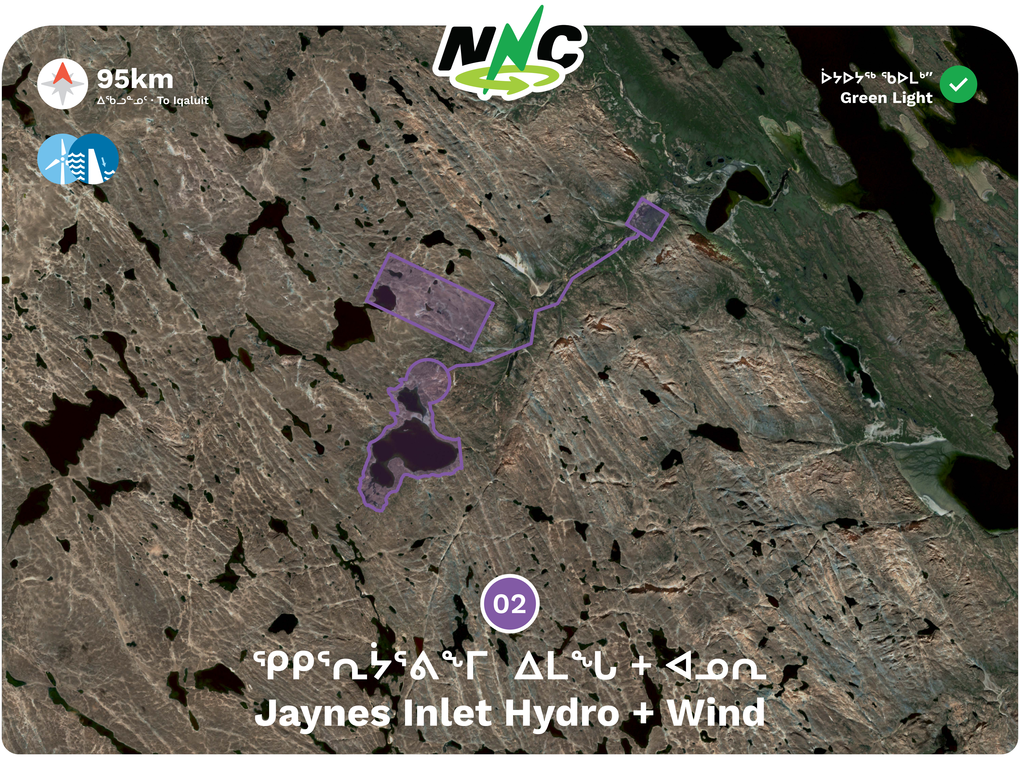
McKeand River South Hydro is our top ranked option and offers the best chance at lowering the cost of electricity in Iqaluit. It is in an area that, from land use study, is least-used for hunting and fishing. This option is scalable, and can expand and grow as Iqaluit grows. It is the top-recommended site!

ᒪᑭᓐᑦ ᑰᑉ ᓂᒋᐊᓂᑦ ᐃᒪᔅᒨᖅᑐᑦ ᐱᕕᒃᓴᑦᑎᐊᐸᐅᓛᖑᕗᖅ ᐱᐅᓛᒥᒃᓗᑦᑎᖅᑎᑦᑎᓂᔅᒥᑦ ᐆᒪᖅᑯᑎᓂᑦ ᐃᖃᓗᔅᓂᑦ. ᑕᒪᖅᓇ ᐊᑐᖅᑕᐅᓗᐊᖅᐸᐳᖅ, ᓄᓇ ᐊᑐᖅᑕᐅᓂᖅᒐᓄᑦ ᖃᐅᔨᓴᖅᓂᐅᔪᒥᑦ, ᐊᑐᖅᑕᐅᖅᑎᓛᖑᕗᖅ ᐊᖑᓇᓱᖅᓂᖅᑦᒧᑦ ᐊᒻᒪ ᐃᖃᓗᒐᓱᖅᓂᖅᑦᒧᑦ. ᑖᖅᓇ ᐊᑐᖅᑕᐅᔾᒐᕈᖅᓇᖅᑐᖅ ᐅᔾᔨᖅᓇᑦᑎᐊᖅᑐᖅ, ᐊᔾᔨᒃᓕᕝᓕᐊᖅᓇᖅᓄᓗᓂᓗ ᐱᕈᖅᐸᓪᓕᐊᑎᓪᓗᒍᓗ ᐃᖃᓗᐃᑦ ᐱᕈᖅᐸᓪᓕᐊᑎᓪᓗᒍ. ᖁᓪᓕᖅᑯᔪᒐᕗᖅ ᐊᑐᓕᖅᑯᔪᒐᕗᖅ!

10/10 ᓂᕈᐊᓇᓱᒪᔭᒥᔅᓄᑦ **Overall Rating**

ᓄᓇᕗᑦ ᓄᒃᑭᒃᓴᐅᑏᑦ ᑯᐊᐳᕆᓴᖅ ᑕᐃᒪᒐᓂᑦ ᕿᓂᓱᑦ ᑖᒃᑯᐊ ᐃᓄᐃᑦ ᐊᒻᒪᓗ ᐃᓄᐃᑦ ᐊᐅᓚᔅᓱᔭᔅᑎᑦ

For more information, read about this option in your handout or online.



ᓇᐃᓈᖅᑐᑦ

- ᐊᑦᑎᒃᑐᒥᑦ ᐊᑯᖅᓂᖅᓱᖅᑐᒥᑦᓗ ᐱᓕᕆᔾᔪᑎᓄᑦ ᐊᑦᑕᕐᓇᐅᑎᑦ (ᓱᓚᐅᑦ ᓂᔅᓚᓱᖅᓂᖓ ᓄᓇᓕᕆᔾᔪᑎᓄᑦᓗ)
- ᐊᑦᑎᒃᑐᒥ ᐱᑕᖃᖅᑐᓄᑦ ᐊᑦᑕᕐᓇᖅᑐᖅ (ᐊᑐᐃᓐᓇᐅᓂᖓᓗ ᑕᑎᒋᔭᖅᐅᓂᖓᓗ)
- ᑭᖑᓂᑦᑎᖅᓂ ᐃᑲᔪᖅᑐᖅᑕᐅᓚᐅᖅᑐᖅ ᓄᓇᓕᖕᓂᑦ (2013) ᖃᐅᔨᓴᖅᑕᐅᖃᖅᓂᑯᑦᓗᒍ
- ᐊᑦᑎᒃᑐᖅ ᐊᑦᑕᕐᓇᖅᑐᖅ ᐊᒃᑐᐊᓂᓕᒃ ᑕᑎᒋᔭᖅᐅᓂᑦᒧᑦ
- ᐊᑭᑭᑦᑐᑦ ᐊᑭᑐᔪᑦ ᐊᑭᔾᑎᑦ ᐊᓂᕙᑦᓕᐊᔪᓄᑦ; ᐆᒻᒪᖅᑯᑎᑦ ᐊᑭᒃᓱᒋᐊᑐᐃᓐᓇᕆᐊᓖᑦ
- ᒥᓪᓗᐊᕈᑎᓕᖅᓱᒪᔪᖅ ᐱᖁᑎ ᐃᓚᔭᐅᔪᖅᓇᖅᑐᖅ ᓱᕗᓂᖅᔪᑎᖅᓂ ᐃᖃᓗᖅᑐᖅ ᐱᑕᖅᐸᓪᓕᐊᑎᓪᓗᒍ
- ᐊᑯᓂᐅᓛᖅ ᐃᔭᑦᕿᐃᖅᓇᖅᑎᑦᑎᓱᑦ ᐊᓱᐊᓘᔾᓗᖅᓇᖅᓗᑎᒃ ᐃᓱᒫᓗᑕᐅᓕᓱᖅ ᐃᒪᐅᑦ ᐊᕙᑦᓗ
- ᐃᓂᑎᔭᐅᔪᖅ ᕿᓚᓗᔭᖅᑕᐅᕙᖅᑐᑦ, ᓇᔪᑎᑦ, ᕿᓚᓗᒐᐃᑦ, ᐊᒃᒫᔪᐃᑦ ᐊᒻᒪ ᑐᒃᑐᓕᐊᕙᐅᓱᑦ (ᐱᒻᒪᕆᐅᓪᓗᓂ ᓇᔪᖅᐸᔭᑕᖓ ᑐᒃᑐᓄᑦ)
- ᐃᓂᖓ ᐃᒥᖅᑕᕐᐃᐅᖃᑦᑕᖅᑐᖅ ᑰᔭᒥᑦ ᓂᓚᔭᒥᓪᓗ
- ᐃᒻᓗᕋᓛᑦ ᖃᓂᒥᔭᓂ
- ᐅᓄᖅᑎᓂᖅᔭᑦ ᐱᑕᖅᐸᓪᓕᐊᑐᐃᓐᓇᕆᐊᓖᑦ ᒥᔭᖅᐅᓪᓗᑎᑦ ᖁᑎᓛᒧᑦ ᐱᓕᕆᔾᔪᖅᓴᒐᕈᓐᓇᖅᑐᑦ.

Summary

- Low to Medium Technical Risks (Cold Climate & Geotechnical)
- Low Resource Risk (Availability + Reliability)
- Previously supported by the Community (2013) for further study
- Low risk associated with reliability
- Low capital cost for high output; potential to lower electricity rates
- Pumped storage can be added in future as Iqaluit grows
- Longest transmission corridor among alternatives which is cause for concern for the marine environment
- Area used for harvesting beluga, seal, narwhal, clams and hunting caribou (an important habitat for caribou)
- Site used for collecting drinking water from river and ice
- Cabins in the area
- Lower potential growth compared to top ranked option

7/10 ᓂᕈᐊᕆᓯᒪᔭᒥᖕᓄᑦ
Overall Rating

99.5% ᐊᑐᓗᐊᕈᓐᓂᖅ ᐅᖅᓱᐊᓗᐃᓐᓇᔪᑦ ᐊᑲᓚᑦᑎᒃᓂᒥ ᑲᒻᒪᖅᑯᑎᓄᑦ
Reduction in Diesel Consumption for Electricity Generation

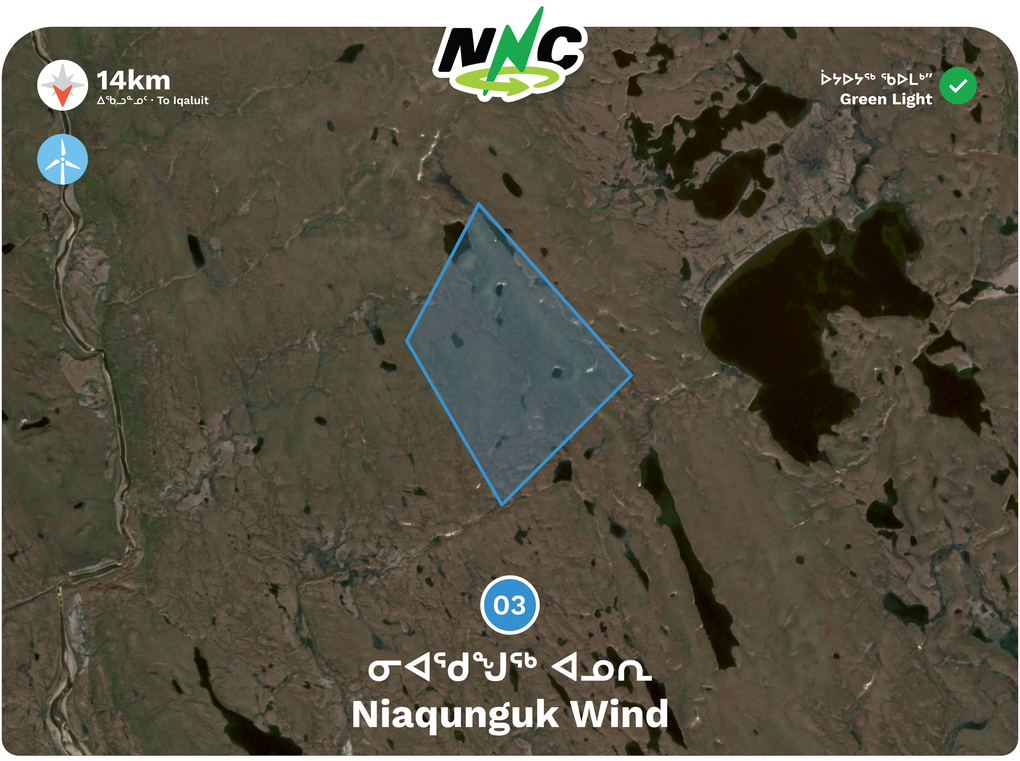
ᓂᕈᐊᕆᓯᒪᔭᒥᖕᓄᑦ · The Bottom Line

This is a recommended option with high energy output and low risks, with some room for growth. It is possible to explore adding a pumped storage component to the project in the future to increase its output. This site's coastal location, its overland or submarine transmission requiest suggest it could have higher impact on hunting, fishing and recreation activities compared to McKeand South, but it is still a strong option.

ᑖᓐᓇ ᐱᖁᔭᐅᔪᖅ ᐱᕕᖅᑲᐅᔪᖅ ᖁᑦᑎᒃᑐᒥᒃ ᑲᒻᒪᖅᑯᑎᒥᒃ ᐊᓂᐊᑎᕐᑎᓗᓂ ᐊᑦᑕᕐᓇᓗᐊᖅᑭᑦᓗᓂᓗ, ᐱᕕᖅᑲᔪᓂ ᐱᑕᖅᐸᓪᓕᐊᓂᔪᑦ. ᐊᔪᖅᓇᖅᑭᓚᖅ ᕿᓂᔭᓂᐊᔪᓗᓂ ᐃᓚᓯᓂᕐᒥᒃ ᒥᓪᓗᐊᖅᓯᒪᔪᒥᒃ ᑐᖅᑯᖅᓯᒪᕝᕕᖕᒥᒃ ᐃᓚᒥᔭᐅᔪᒥᒃ ᐱᓕᕆᐊᖑᔪᒧᑦ ᓯᕗᓂᖅᒧᒥ ᐊᔭᑎᓪᓕᒥᐊᖅᑎᑦᑎᔪᒪᓂᔅᒧᑦ ᐊᓂᕙᓪᓕᐊᓂᕆᔭᖓᓂᒃ. ᑖᔭᒪ ᐃᓂᐅᔪᑦ ᓱᖅᔭᖓᓂ, ᓄᓇᐅᑦ ᖃᖓᒍᑦ ᐅᕝᕙᓗᖅᓂᑦ ᐃᒪᒍᑦ ᐃᖅᑎᖅᕋᓂᕆᔭᐅᔪᖅ ᐃᒪᐃᑎᑦᑎᔭᕆᓇᐊᖃᖅᐳᖅ, ᐊᖅᑭᓂᖅᓴᒥᒃ ᐊᒃᑐᐃᓂᖃᕈᖅᓇᖅᓂᖓᓂᒃ ᐊᖑᓇᓱᖅᓂᕐᒥᒃ, ᐃᖃᓗᒐᓱᖅᓂᕐᒥᒃ ᐊᒻᒪᓗ ᑭᐱᖅᒍᐃᔭᖅᓂᕐᒧᑦ ᖃᓄᐃᓕᐅᔭᖅᓂᐅᔪᓂᒃ ᐊᔾᔨᒌᖅᑭᖅᑐᓗᓂᐅᒃ ᒪᑭᐊᖅ ᓂᒥᐊᓂ, ᑭᓯᐊᓂ ᓱᓕ ᓴᖅᑭᔪᖅ ᐊᑐᖅᑕᐅᖓᕈᖅᓇᖅᑐᖅ.

ᓄᓇᕗᑦ ᓄᒃᑭᒃᓴᐅᑏᑦ ᑯᐊᐳᕆᓴᖅ ᑕᐃᒪᖓᓂᑦ ᕿᓂᓱᑦ ᑖᒃᑯᐊ ᐃᓄᐃᑦ ᐊᒻᒪᓗ ᐃᓄᐃᑦ ᐊᐅᓚᔪᔾᔨᖅᑭᑦ

For more information, read about this option in your handout or online.



ᓇᐃᓈᖅᑐᑦ

- ᓂᒡᓚᓱᖕᓂᖅᐸᖑᔪᖅ ᓯᓚᐅᑦ ᖁᐊᖅᓴᕐᓇᕐᓂᖓ
- ᐊᑦᑎᒃᑐᒥ ᓄᓇᓕᕆᓂᕐᒧᑦ ᐊᑦᑕᕐᓇᖅᑐᖅ
- ᐊᑭᑭᓛᒥᑦ ᐱᕙᓪᓕᐊᓂᖓᑕ ᐊᑯᓂᐅᓂᖓ
- ᐊᓄᕆᕐᔪᐊᒧᑦ ᐆᒻᒪᖅᑯᑎᑐᕈᓐᓇᑐᐃᓐᓇᕆᐊᓕᒃ
- ᖃᓂᓛᖅ ᐱᕙᓪᓕᐊᓂᖓ ᓄᓇᓕᖕᓄᑦ (14km)
- ᐊᕙᑎᑉᐅᑦ ᐊᑦᑎᒃᑐᒥ
- 60% ᑐᖓᓂ ᐆᒻᒪᖅᑯᑎᒥᒃ ᑐᒃᓯᕋᐅᑕᐅᓯᒪᔪᑦ ᐱᓕᕆᐊᖑᓱᖑᕗᑦ ᐊᑐᒃᑲᓐᓂᕈᓐᓇᖅᑐᓄᑦ
- ᐳᖅᑐᔪᑦ CO2 ᐃᓱᐊᕐᑭᓃᑦ ᐊᒃᐸᒋᖅᑕᕐᓗᓂᐅᒃ ᐃᒪᖕᒧᑦ ᓇᓕᕋᒐᒃᓴᑦ (ᐅᖅᓱᐊᓗᖅᑎᐊᓕᒃ ᓱᓕ)
- ᓇᐃᕐᑐᖅ ᐊᑐᖅᑕᐅᔪᓐᓇᕐᓂᖓ ᑕᐅᑐᖓᖅᓗᑐᒍ ᐃᒪᕐᒨᖅᑐᖅ (15 ᐊᔪᒍᑦ)
- ᐊᑯᓐᓂᖅᓱᖅᑐᑦ ᐊᑦᑕᕐᓇᖅᑐᑦ ᐊᒃᑐᐊᓂᓖᑦ ᑕᑎᒋᒃᓴᐅᓂᕐᒧᑦ
- ᐊᓱᒃᐅᑐᐃᓐᓇᕆᐊᖑᖅᑎᑦᑐᖅ ᐅᖅᓱᐊᓗᖕᒧᑦ

Summary

- Lowest cold climate risk
- Low geotech risk
- Lowest development time
- Highest wind energy potential
- Closest development to town (14km)
- Low environmental impact
- Less than 60% of energy demand is met by renewables
- High CO2 emissions compared to hydro options (still need diesel)
- Short life span compared hydro (15 years)
- Median risk associated with reliability
- Unlikely to replace diesel

45.5% ᐊᑐᓗᐊᖅᑯᓂᖅ ᐅᖅᓱᐊᓗᑐᐃᓐᓇᕐᒧᑦ ᐊᐅᓚᐅᑎᖃᓂᕐᒥ ᐆᒻᒪᖅᑯᑎᓄᑦ
Reduction in Diesel Consumption for Electricity Generation

ᓂᕈᐊᕆᓯᒪᔭᒥᖕᓄᑦ · The Bottom Line

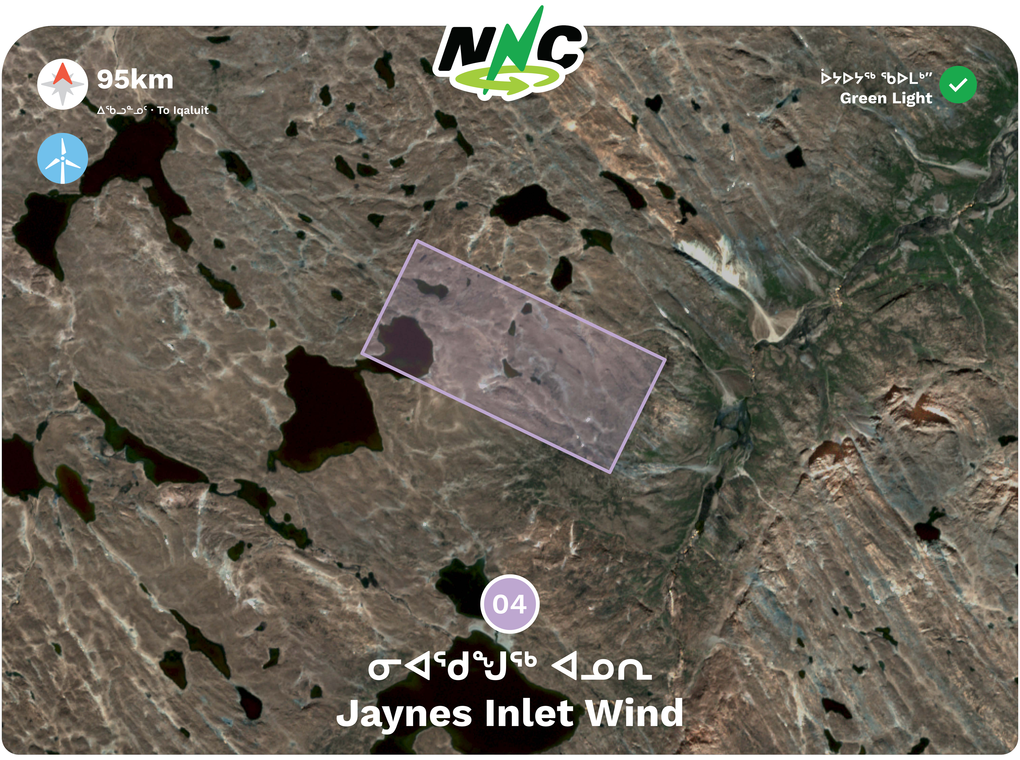
This is the highest ranking "wind only" option for Iqaluit. It is close to town and not in an area, from the land use report, that was noted for frequent hunting and fishing. It has been identified as a low risk site for animals, including birds. The energy output is not as high as hydro and you will still need diesel.

Ċᖅᓇ ᖁᑦᑎᓛᖑᔪᖅ "ᐊᑖᓄᑐᐊᖅ" ᐊᑐᖅᑕᐅᔪᓐᓇᖅᑐᖅ ᐃᖃᓗᖕᓄᑦ. ᓄᓇᓕᖕᒐᑕ ᖃᓂᒋᒻᒪᒍ ᐊᒻᒪᓗ ᓄᓇᒦᒐᓂ, ᓄᓇ ᐊᑐᖅᑕᐅᓂᖓᓄᑦ ᐅᓂᒃᑳᒥ, ᐅᖃᐅᓯᐅᓚᐅᖅᑐᖅ ᐊᖑᓇᓱᐃᓐᓇᓂᕐᒧᑦ ᐊᒻᒪᓗ ᐃᖃᓗᒐᓱᐊᕐᓂᕐᒧᑦ, ᓇᓗᓇᐃᖅᑕᐅᓯᒪᔭᖅ ᐊᑦᑕᕐᓇᐊᖅᑎᓐᓂᖓᓂ ᓂᕐᔪᑎᓄᑦ, ᑎᖕᒥᐊᕐᓗ, ᐆᒻᒪᖅᑯᑎᐅᑦ ᐊᓂᐊᓂᖓ ᖁᑎᓗᐊᖅᑎᑦᑐᖅ ᐃᒪᕐᒧᖅᑐᒥᑦ ᐊᒻᒪᓗ ᓱᓕ ᐅᖅᓱᐊᓗᖃᓇᖅᑐᑎᑦ.

7.4/10 ᓂᕈᐊᕆᓯᒪᔭᒥᖕᓄᑦ
Overall Rating

ᓄᓇᕗᑦ ᓄᑦᑭᒃᓴᐅᑏᑦ ᑯᐊᐳᕆᓴᖕ ᑕᐃᒪᖓᓂᑦ ᖁᓂᓲᑦ ᑖᒃᑯᐊ ᐃᓄᐃᑦ ᐊᒻᒪᓗ ᐃᓄᐃᑦ ᐊᐅᓚᑦᓯᔾᔭᖕᒋᑦ

For more information, read about this option in your handout or online.



04

ᓂᐊᕐᑯᖑᖅ ᐊᓄᑎ
Jaynes Inlet Wind

ᓇᐃᓈᖅᑐᑦ

- ᓂᑦᓚᓱᖕᓂᖅᐸᖑᔪᖅ ᓱᓚᐅᑉ ᖁᐊᖅᓵᕐᓇᕐᓂᖕᒐ
- ᐊᑦᑎᒃᑐᒥ ᓄᓇᓕᓇᓂᕐᒧᑦ ᐊᑦᑕᕐᓇᖅᑐᖅ
- ᐱᕙᓪᓕᐊᓗᐊᓇᐊᖃᖅᑎᓐᓂᖅ
- ᐸᒡᕕᓇᖅᑎᓐᓂᖅᓴᑦ ᐃᒪᕐᒥᐅᑦ ᓇᔪᖅᐸᒃᑕᖏᑦ/ᐊᖅᑯᑎᖏᑦ ᐃᒪᕐᒧᖅᑐᑦ
- ᐊᐃᑉᐸᖕᒐ ᐊᓄᓇᒧᖅᑐᒧᑦ ᐆᒻᒪᖅᑯᑎᖃᖅᓇᑐᐃᓐᓇᓇᐊᓕᒃ
- 60% ᑐᖕᒐᓂ ᐆᒻᒪᖅᑯᑎᒥᒃ ᑐᖕᓱᕋᐅᑕᐅᓱᒪᔪᑦ ᐱᓕᓇᐊᖑᓱᖑᔭᑦ ᐊᑐᒃᑲᓂᓂᖅᓇᖅᑐᓄᑦ
- >ᖅᑐᔪᑦ CO2 ᐃᓱᐊᕐᑭᓂᑦ ᐊᔾᔨᒋᖅᒋᓪᓗᓂᐅᒃ ᐃᒪᖕᒧᑦ ᓇᓖᕐᒐᒃᖅᓴᑦ (ᐆᖅᓱᐊᓗᖃᓇᐊᓕᒃ ᓱᓕᒍ)
- ᓇᐃᕐᑐᖅ ᐊᑐᖅᑕᐅᐊᖅᓇᕐᓂᖕᒐ ᑕᐅᑐᖕᒐᖅᓗᒍ ᐃᒪᕐᒧᖅᑐᖅ (15 ᐊᕐᒍᓱᑦ)
- ᐊᑯᖅᓂᖅᓱᖅᑐᑦ ᐊᑦᑕᕐᓇᖅᑐᑦ ᐊᒃᑐᐊᓂᓖᑦ ᑕᑎᒋᔭᖅᐅᓂᕐᒧᑦ
- ᐊᓱᔾᔨᑐᐃᖅᓇᓇᐊᖃᖅᑎᑦᑐᖅ ᐅᖅᓱᐊᓗᖕᒧᑦ
- ᐅᐊᔪᑯᑖᖑᔭᓇᐊᓕᒃ

Summary

- Lowest cold climate risk
- Low geotech risk
- Lowest development time
- Less intrusive to marine habitat/migration routes then hydro
- 2nd highest wind energy potential
- Less than 60% of energy demand is met by renewables
- High CO2 emissions compared to hydro options (still need diesel)
- Short life span compared hydro (15 years)
- Median risk associated with reliability
- Unlikely to replace diesel
- Long transmission line required

6.6/10 ᓂᕈᐊᓇᓱᒪᔭᒥᖕᓄᑦ
Overall Rating

49%
ᐊᑐᓗᐊᕈᖅᑭᖕᓂᖅ ᐅᖅᓱᐊᓗᑐᐃᓐᓇᕐᒧᑦ ᐊᐅᓚᐅᑎᖃᕐᓂᕐᒥ ᐆᒻᒪᖅᑯᑎᓄᑦ
Reduction in Diesel Consumption for Electricity Generation

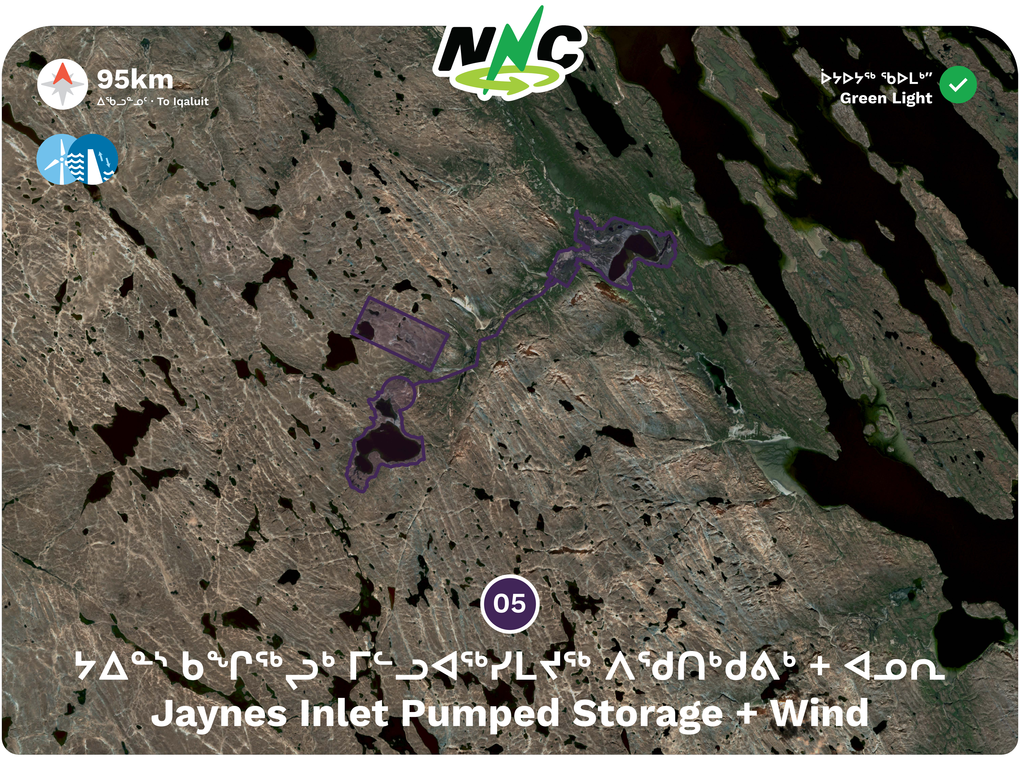
ᓂᕈᐊᓇᓱᒪᔭᒥᖕᓄᑦ · The Bottom Line

While one of the furthest sites from town, this is a strong wind resource as it is situated high up on a ridge. The length of the transmission line required for this option make Niaqunguk Wind a more cost-effective, and lower impact choice.

ᐃᓚᖕᒐ ᐅᖕᒐᓱᓛᖑᖃᑕᐅᑎᑦᓗᒍ ᓄᓇᓕᖕᓂᖅᒐᖅᑐᖅ, ᑖᖅᓇ ᐊᓄᓇᕐᔪᐊᖅᑐᖅ ᖁᑦᑎᒃᑐᒥᑦᓗᓗᓂ. ᑕᑭᓂᖕᒐ ᐅᐊᔭᐅᑦ ᐊᑐᖅᑕᐅᔭᓇᐊᓕᒃ ᑖᔾᓱᒧᖕᒐ ᐱᕕᒃᓴᒧᑦ ᓂᐊᕐᑯᖑᖅ ᐊᓄᓇᒧᑦ ᐊᑭᑭᖅᓂᖅᓴᐅᓗᓂ, ᐊᒻᒪ ᐊᒃᑐᐃᖅᑎᓐᓂᖅᓴᐅᓗᓂ.

ᓄᓇᕗᑦ ᓄᒃᑭᒃᓴᐅᑏᑦ ᑯᐊᐳᓇᓴᖅ ᑕᐃᒪᖕᒐᓂᑦ ᕿᓂᓱᑖᑦ ᑖᒃᑯᐊ ᐃᓄᐃᑦ ᐊᒻᒪᓗ ᐃᓄᐃᑦ ᐊᐅᓚᕐᓱᔾᔨᑦ

For more information, read about this option in your handout or online.



05

ᔭᐃᓐᔅ ᑲᖏᖅᓱᒃ ᒥᑦᓗᐊᖅᓯᒪᔪᖅ ᐱᕐᑯᑎᒃᑯᕕᒃ + ᐊᓄᑎ
Jaynes Inlet Pumped Storage + Wind

ᓇᐃᓈᖅᑐᑦ

- ᐊᑦᑎᒃᑐᒥᑦ ᐊᑯᓐᓂᖅᓱᖅᑐᒥᑦᓗ ᐱᓕᕆᔾᔪᑎᓄᑦ ᐊᑦᑕᕐᓇᐅᑎᑦ (ᓱᓚᐅᑦ ᓂᒡᓚᓱᖅᓂᖕᒐ ᓄᓇᓕᕆᔾᔪᑎᓄᑦᓗ)
- ᐊᑦᑎᒃᑐᒥ ᐱᑕᖃᖅᑐᓄᑦ ᐊᑦᑕᓇᖅᑐᖅ (ᐊᑐᐃᓐᓇᐅᓂᖕᒐᓗ ᑕᑎᒋᔭᒃᐅᓂᖕᒐᓗ)
- ᑭᖑᓂᑦᑎᓐᓂ ᐃᑲᔪᖅᑐᖅᑕᐅᓚᐅᖅᑐᖅ ᓄᓇᓕᖕᓂᑦ (2013) ᖃᐅᔨᓴᖅᑕᐅᒃᑲᖅᓂᑯᑦᓗᒍ
- ᐊᑦᑎᒃᑐᖅ ᐊᑦᑕᓇᖅᑐᖅ ᐊᒃᑐᐊᓂᓕᒃ ᑕᑎᒋᔭᒃᔭᐅᓂᕐᒧᑦ
- ᐊᑭᑭᑦᑐᑦ ᐊᑭᑐᑦ ᐊᑭᔭᑦ ᐊᓂᕙᑦᓕᐊᔪᓄᑦ; ᐆᒻᒪᖅᑯᑎᑦ ᐊᑭᒃᓱᒋᐊᑐᐃᓐᓇᓇᐊᓕᑦ
- ᐊᑯᓂᐅᓛᖅ ᐃᖕᑦᕋᐃᓐᓇᖅᑎᑦᑎᓲᑦ ᐊᓯᐊᓘᓐᖕᒐᓐᓇᖅᓗᑎᒃ ᐃᓱᒪᒃᓗᑕᐅᓕᓲᖅ ᐃᒪᐅᑦ ᐊᕙᑖᓄᑦ
- ᐃᓂᑎᒃᐅᔪᖅ ᕿᓚᓗᒐᖅᑕᐅᕙᖅᑐᕐ, ᓇᕐᑎᕐ, ᕿᓚᓗᒐᐃᕐ, ᐊᒻᒧᒪᔪᐃᕐ ᐊᒻᒪ ᑐᖅᑐᓕᐊᕐᕕᐅᓲᑦ (ᐱᒻᒪᕆᐅᓚᓗᓂ ᓇᔪᖅᐸᕐᑕᖕᒐ ᑐᖅᑐᓄᑦ)
- ᐃᓂᖕᒐ ᐃᒥᖅᑕᕐᕕᐅᖃᑦᑕᖅᑐᖅ ᑯᖕᒥᑦ ᓂᓚᖕᒥᑦᓗ
- ᐃᒻᓗᕋᓛᓚᑦ ᖃᓂᑎᒃᓂ
- ᐅᓄᖕᑎᓐᓂᖅᓴᑦ ᐱᕈᖅᐸᑦᓕᐊᑐᐃᓐᓇᓇᐊᓛᑦ ᒥᖅᓴᐅᑦᓱᑎᑦ ᖁᑦᑎᓛᒧᑦ ᐱᓕᕆᔾᔪᖅᓴᒐᕈᓐᓇᖅᑐᑦ
- ᐱᓕᕆᓂᖅᑯᑦ ᐊᑦᑕᕐᓇᕈᑎ ᐊᒃᑐᐊᓂᓕᒃ ᐅᑭᐅᖅᑕᖅᑐᒥ ᒥᑦᓗᐊᕈᑎᒃᑯᐃᖕᒧᑦ

Summary

- Low to Medium Technical Risks (Cold Climate & Geotechnical)
- Low Resource Risk (Availability + Reliability)
- Previously supported by the Community (2013) for further study
- Low risk associated with reliability
- Low capital cost for high output; potential to lower electricity rates
- Longest transmission corridor among alternatives which is cause for concern for the marine environment
- Area used for harvesting beluga, seal, narwhal, clams and hunting caribou (an important habitat for caribou)
- Site used for collecting drinking water from river and ice
- Cabins in the area
- Lower potential growth compared to top ranked option
- Technical risk associated with arctic pumped storage

99.5% ᐊᑐᓗᐊᕈᓐᓂᖅ ᐅᖅᓱᐊᓗᐊᓐᓇᖕᒧᑦ ᐊᐅᓚᐅᑎᖅᓂᕐᒥ ᑲᒻᒪᖅᑯᑎᓄᑦ **Reduction in Diesel Consumption for Electricity Generation**

ᓂᕈᐊᓇᓱᒪᔭᒥᖕᓄᑦ · The Bottom Line

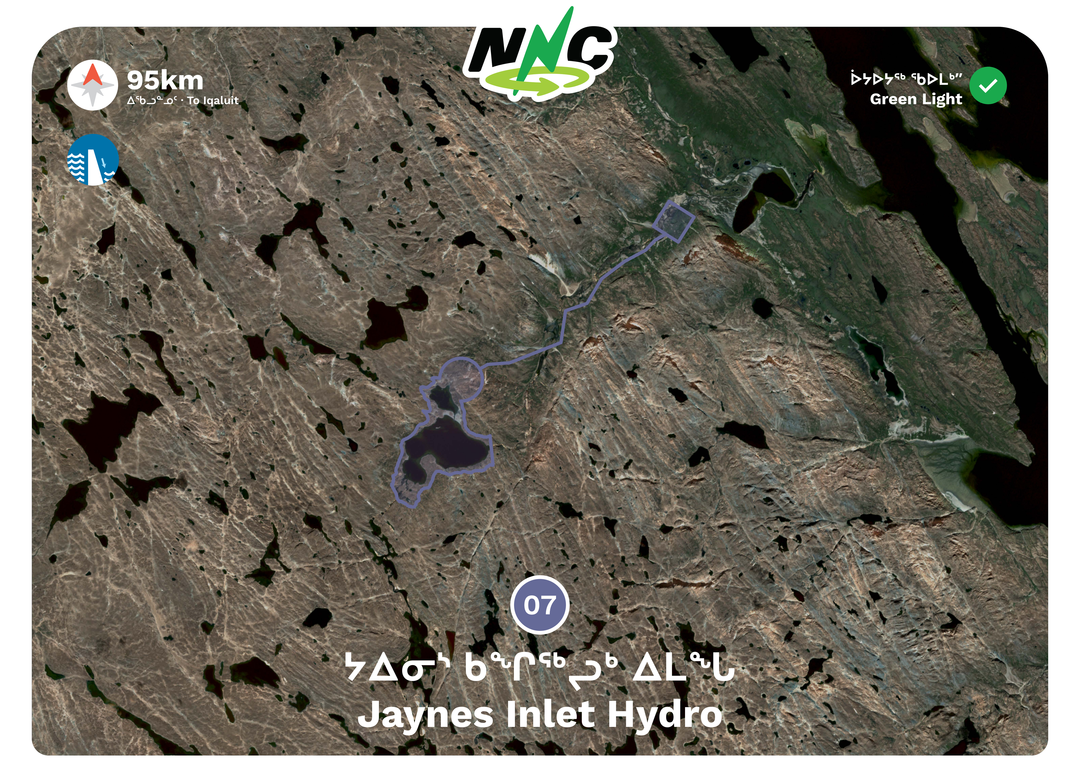
The pumped storage part of this option increases the energy output compared to Jaynes Inlet Wind, allowing it to grow as Iqaluit grows. Because this technology has not yet been demonstrated in the arctic, there is uncertainty and risk. But if the community prefers this site, it makes sense to study this option further.

ᒥᓗᑲᖅᑕᐅᓯᒪᔪᖅ ᑐᖅᑯᖅᓱᓱᒪᕝᕕᒃ ᐃᓚᖕᒐ ᑖᔅᓱᒪ ᐱᕕᒃᑲᑦ ᐊᔾᑎᒃᓕᑎᐊᖅᑎᑦᑎᔪᖅ ᑲᒻᒪᖅᑯᑎᐅᑦ ᐊᓂᐊᓂᖕᒐᓂᒃ ᐊᒃᓱᒋᖕᒥᑦᓗᓂᑦᑲᒃ ᓂᐊᑯᖑᖅ ᐊᓄᓇ, ᐱᕕᖅᑎᑦᑎᑦᓗᓂ ᐱᕈᖅᐸᑦᓕᐊᑎᑦᓗᒍ ᐃᖃᓗᐃᑦ ᐱᕈᖅᐸᑦᓕᐊᑎᑦᓗᒍ. ᓱᖃᐃᒻᒪ ᑖᓐᓇ ᐱᓕᕆᔾᔪᑎ ᓱᓕ Cdᒃᐅᑎᑕᐅᓯᒪᖕᒥᒻᒪᑦ ᐅᑭᐅᖅᑕᖅᑐᒥ, ᓇᓗᓇᕈᔪᒃᑐᖅ ᐊᑦᑕᕐᓇᕐᓗᓂᓗ. ᑭᓯᐊᓂ ᓄᓇᓖᑦ ᐱᔪᒪᒃᐸᑕ ᑖᔅᓱᒥᖕᒐ ᐃᓂᒃᓴᒥᒃ, ᑐᒥᒃᑲᖅᓇᖅᑐᖅ ᖃᐅᔨᓴᖅᑲᒃᓂᕐᓗᒍ ᑖᖅᓇ ᐱᕕᒃᓴᖅ.

ᓄᓇᕗᑦ ᓄᒃᑭᒃᓴᐅᑏᑦ ᑯᐊᐳᕆᓴᖅ ᑕᐃᒪᖕᒐᓂᑦ ᕿᓂᓱᑦ ᑖᒃᑯᐊ ᐃᓄᐃᑦ ᐊᒻᒪᓗ ᐃᓄᐃᑦ ᐊᐅᓚᑦᓯᔾᔪᖕᒥᑦ

For more information, read about this option in your handout or online.

6.2/10 ᓂᕈᐊᓇᓱᒪᔭᒥᖕᓄᑦ **Overall Rating**



07

ᓴᐃᓂᑦ ᑲᖏᕐᖃᓗᒃ ᐃᒪᖕᒐ
Jaynes Inlet Hydro

ᓇᐃᓈᖅᑐᑦ

- ᐊᑦᑎᒃᑐᒥᑦ ᐊᑯᖅᓂᖅᓱᖅᑐᒥᑦᓗ ᐱᓕᕆᔨᐊᑎᓄᑦ ᐊᑦᑕᕐᓇᐅᑎᑦ (ᓱᓚᐅᑦ ᓂᒡᓚᓱᖕᓂᖕᒐ ᓄᓇᓕᕆᔨᐊᑎᓄᑦᓗ)
- ᐊᑦᑎᒃᑐᒥ ᐱᑕᖃᖅᑐᓄᑦ ᐊᑦᑕᕐᓇᖅᑐᖅ (ᐊᑐᐃᖕᓇᐅᓂᖕᒐᓗ ᑕᑎᒋᔭᒃᓴᐅᓂᖕᒐᓗ)
- ᐊᑯᑦᓕᖅᐸᖅ ᓂᒡᓚᓱᒃᑐᒧᑦ ᓱᓚᒧᑦ ᖁᐊᖅᓴᕐᓇᕐᓂᖕᒐ
- ᐊᑦᑎᒃᑐᖅ ᐊᑦᑕᕐᓇᖅᑐᖅ ᐊᒃᑐᐊᓂᓕᒃ ᑕᑎᑎᔭᒃᓴᐅᓂᑦᒧᑦ
- ᐃᖃᓗᖕᓂ ᐅᐊᔭᓕᖅᓱᐃᓂᖅ
- ᕿᑎᐊᓃᑦ ᐊᕙᑎᒧᑦ ᐊᒃᑐᐃᔾᔪᑎᑦ
- 2-ᖕᒐᓂ ᐊᑦᑎᓛᖅ ᑲᒻᒪᖅᑯᑎᒥᑦ ᐊᓂᐊᕙᑦᓕᐊᔪᒥᑦ
- ᐊᑯᓂᒃᑑᖅ ᐃᖕᑦᕋᐃᓐᓇᖅᑎᑦᑎᓲᑦ ᐊᓱᐊᓘᓗᒃᑐᓐᓇᖅᓘᑐᑎᒃ ᐃᓱᒪᒍᑕᐅᓕᓲᖅ ᐃᒪᐅᑦ ᐊᕙᑖᓄᑦ
- ᐃᓂᑎᒃᑲᔪᖅ ᕿᓚᓗᒐᖅᑕᐅᕙᖅᑐᑦ, ᓇᑦᑏᑦ, ᕿᓚᓗᒐᐃᑦ, ᐊᒻᒧᒪᔪᐃᑦ ᐊᒻᒪ ᑐᖅᑐᓕᐊᑦᕕᐅᓱᑦ (ᐱᒻᒪᕆᐅᑦᓗᓂ ᓇᔪᖅᐸᑦᑕᖕᒐ ᑐᖅᑐᓄᑦ)
- ᐃᓂᖕᒐ ᐃᒥᖅᑕᑦᕕᐅᖃᑦᑕᖅᑐᖅ ᑯᖕᒥᑦ ᓂᓚᖕᒥᑦᓗ
- ᐃᒻᓗᕋᓛᒪᑦ ᖃᓂᒋᔭᓂ
- ᐅᐊᔭᑯᑖᖑᔭᕆᐊᓕᒃ

Summary

- Low to Medium Technical Risks (Cold Climate & Geotechnical)
- Low Resource Risk (Availability + Reliability)
- Median cold climate risk
- Low risk associated with reliability
- Off-set Iqaluit's electrical load
- Medium environmental impact
- 2nd lowest average energy output
- Longest transmission corridor among alternatives which is cause for concern for the marine environment
- Area used for harvesting beluga, seal, narwhal, clams and hunting caribou (an important habitat for caribou)
- Site used for collecting drinking water from river and ice
- Cabins in the area
- Long transmission line required

5.1/10 ᓂᕈᐊᕆᓯᒪᔭᒥᖕᓄᑦ **Overall Rating**

79.4% ᐊᑐᓗᐊᕈᓐᓂᖅ ᐅᖅᓱᐊᓗᐃᓐᓇᒐᑦ ᐊᐅᓚᐅᑎᖃᓂᑦᒥ ᑲᒻᒪᖅᑯᑎᓄᑦ **Reduction in Diesel Consumption for Electricity Generation**

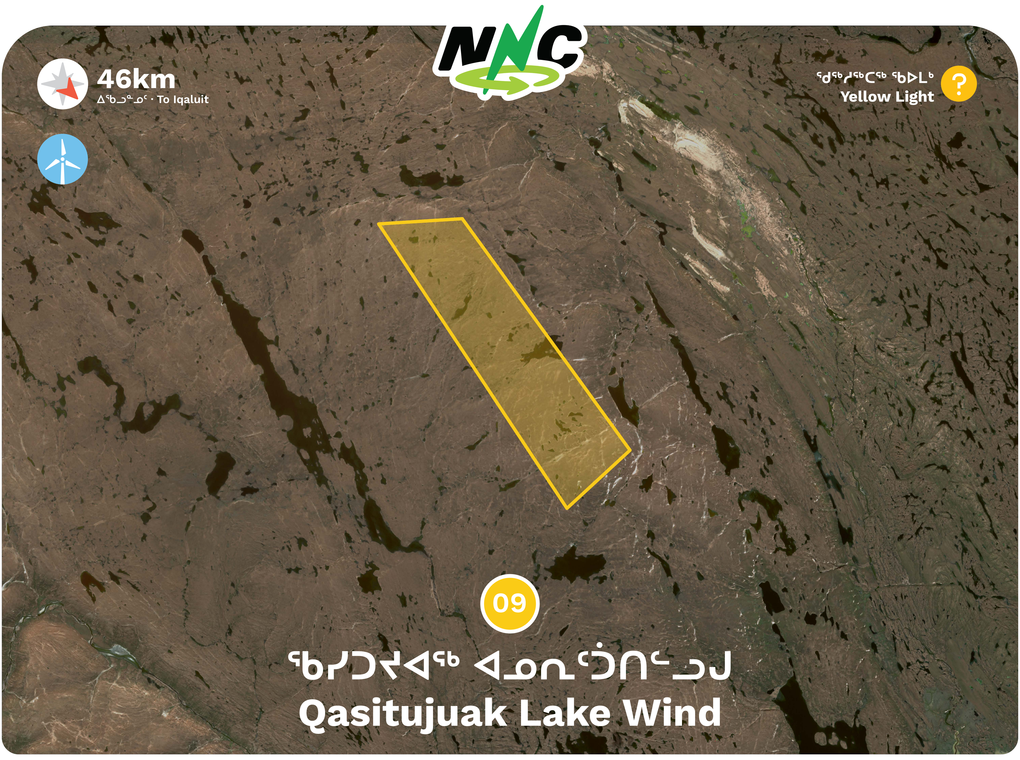
ᓂᕈᐊᕆᓯᒪᔭᒥᖕᓄᑦ · The Bottom Line

Jaynes Inlet hydro produces a lot of power for a small site, mainly thanks to its elevation. It can meet the current electricity needs in Iqaluit, but its limited in its ability to grow with the community. The transmission line would either go along the coast or on the seafloor, across Frobisher Bay. This site was preferred by the community in 2013 - when renewable energy was last explored.

ᓴᐃᓂᖕ ᑲᖏᕐᖃᓗᒃ ᐃᒪᖕᒐᓕᒥ ᐃᒪᕐᒨᖅᑐᖅ ᑲᒻᒪᖅᑯᑎᓕᐅᖅᑐᒻᒪᕆᐅᖅᑐᖅ ᒥᑭᕐᑐᒧᑦ ᐃᓂᒧᑦ, ᐱᓗᐊᖅᑐᒥᑦ ᖁᑦᑎᖕᓂᖕᒐᓄᑦ, ᐊᖑᒻᒪᑎᖅᓇᖅᑐᖅ ᒫᖅᓇᐅᔪᖅ ᑲᒻᒪᖅᑯᑎᒋᔭᐅᔭᕆᓇᖅᑐᖅᑐᓄᑦ ᐃᖃᓗᖕᓂ, ᑭᓯᐊᓂ ᑭᒡᓕᖃᕐᓗᓂ ᐱᒋᖅᐸᑦᓕᐊᓂᑦᒧᑦ ᓄᓇᓕᖕᓂ. ᐅᐊᔭᖕᒐ ᓱᒃᓴᔪᕋᔭᖅᑐᖅ ᐅᐊᓛᓗᖅᓄᑦ ᐃᒪᕕᖅᑯᑦᓗᓂ, Frobisher Bay-ᒥ. ᑕᖅᓇ ᐃᓂᒋᔭᐅᔪᖅ ᓂᕈᐊᕆᔭᐅᓂᖅᓴᐅᓚᐅᖅᐳᖅ ᓄᓇᓕᖕᓂ 2013-ᖑᑎᒻᓗᒍ - ᐊᓱᔾᔨᒋᐊᒐᓴᐅᔪᖅ ᑲᒻᒪᖅᑯᑎ ᐊᑐᖅᑕᐅᖃᖅᓂᓚᐅᖅᑐᖅ ᑭᖑᓪᓕᖅᐸᒥᒃ ᕿᓂᖅᑕᐅᑎᒻᓗᒍ.

ᓄᓇᕗᑦ ᓄᒃᑭᒃᓴᐅᑏᑦ ᑯᐊᐳᕆᓴᖅ ᑕᐃᒪᖕᒐᓂᑦ ᕿᓂᓱᑦ ᑖᒃᑯᐊ ᐃᓄᐃᑦ ᐊᒻᒪᓗ ᐃᓄᐃᑦ ᐊᐅᓚᑦᔪᔾᔭᒃᑭᑦ

For more information, read about this option in your handout or online.



ᖃᓯᑐᔪᐊᖅ ᐊᓄᕆᑦᑑᑎᑦᓗᒍ
Qasitujuak Lake Wind

ᓇᐃᓈᖅᑐᑦ

- ᓂᒡᓚᓱᖕᓂᖅᐸᖑᔪᖅ ᓱᓚᐅᑉ ᖁᐊᖅᓴᕐᓇᕐᓂᖓ
- ᐊᑦᑎᒃᑐᒥ ᓄᓇᓕᕆᓂᕐᒧᑦ ᐊᑦᑕᕐᓇᖅᑐᖅ
- ᐊᑭᑭᓛᒥᑦ ᐱᕙᓪᓕᐊᓂᖓᑕ ᐊᑯᓂᐅᓂᖓ
- ᐊᓄᕆᔪᐊᒧᑦ ᐆᒻᒪᖅᑯᑎᑐᓐᓇᑐᐃᓐᓇᕆᐊᓕᒃ
- ᓄᓇᓕᐅᑦ ᖃᓂᒋᔭᓂ (46km)
- ᐊᕙᑎᕗᑦ ᐊᑦᑎᒃᑐᒥ
- 60% ᑐᖑᓂ ᐆᒻᒪᖅᑯᑎᒥᒃ ᑐᒃᓯᕋᐅᑕᐅᓯᒪᔪᑦ ᐱᓕᕆᐊᖑᓱᖑᕗᑦ ᐊᑐᒃᑲᓐᓂᕈᓐᓇᖅᑐᓄᑦ
- >ᖅᑐᔪᑦ CO2 ᐃᓱᐊᕐᑭᓃᑦ ᐊᒃᑎᖅᑎᑦᓗᓂᐅᒃ ᐃᒪᖕᒧᑦ ᓇᓕᕋᒐᖅᑦ (ᐅᖅᓱᐊᓗᖅᑎᐊᓕᒃ ᓱᓕ)
- ᓇᐃᕐᑐᖅ ᐊᑐᖅᑕᐅᔪᓐᓇᕐᓂᖓ ᑕᐅᑐᒡᒐᖅᓗᒍ ᐃᒪᕐᒧᑑᖅᑐᖅ (15 ᐊᑦᕋᒍᕐ)
- ᐊᑯᓐᓂᖅᓱᖅᑐᑦ ᐊᑦᑕᕐᓇᖅᑐᑦ ᐊᒃᑐᐊᓂᓖᑦ ᑕᑎᒋᒃᒃᐅᓂᕐᒧᑦ
- ᐊᓱᒃᐅᑐᐃᓐᓇᕆᐊᖃᖕᒋᑦᑐᖅ ᐅᖅᓱᐊᓗᓐᒧᑦ

Summary

- Lowest cold climate risk
- Low geotech risk
- Lowest development time
- Highest wind energy potential
- Close to town (46km)
- Low environmental impact
- Less than 60% of energy demand is met by renewables
- High CO2 emissions compared to hydro options (still need diesel)
- Short life span compared hydro (15 years)
- Median risk associated with reliability
- Unlikely to replace diesel

4.8/10 ᓂᕈᐊᕆᓯᒪᔭᒥᓐᓄᑦ Overall Rating

48.8% ᐊᑐᓗᐊᕈᓐᓃᑦᓂᖅ ᐅᖅᓱᐊᓗᑐᐃᓐᓇᕐᒧᑦ ᐊᐅᓚᐅᑎᖃᑦᓂᕐᒥ ᐆᒻᒪᖅᑯᑎᓄᑦ Reduction in Diesel Consumption for Electricity Generation

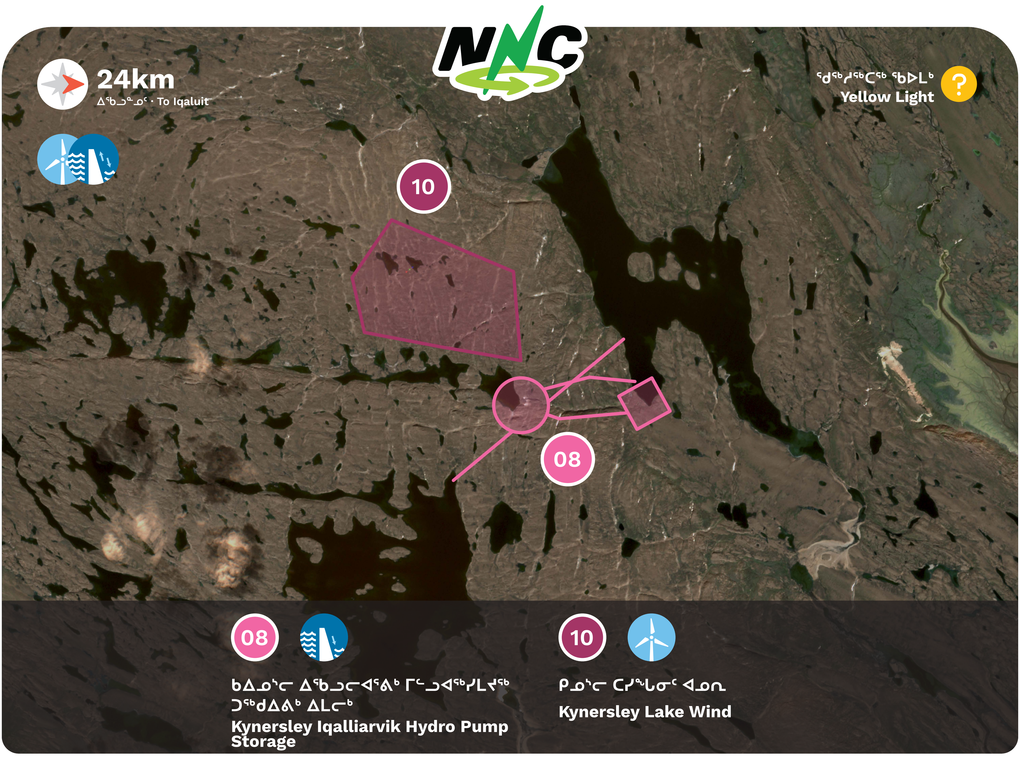
ᓂᕈᐊᕆᓯᒪᔭᒥᓐᓄᑦ · The Bottom Line

This is considered a very good “wind only” site, but there are higher-ranking options. It was a reasonably short transmission line and less disruption to the landscape compared to other “wind only” sites, like Jayne’s Inlet wind.

ᑖᓐᓇ ᐃᓱᒪᒋᔭᐅᕗᖅ ᐱᐅᓪᓗᓂ “ᒪᕿᐃᓐᓇᐅᓂᖓᓂᒃ”, ᑭᓱᐊᓂ ᖁᑦᑎᖕᓂᖅᓴᓂᒃ.ᐊᑐᖅᑕᐅᔪᓐᓇᖅᑐᓂᒃ ᐱᑕᖃᖅᐳᖅ. ᓇᐃᕐᑐᑯᓗᓚᐅᖅᑐᖅ ᐅᐊᒃᓴᖓ ᐊᒻᒪ ᐅᓚᐃᑕᐅᓗᐊᕐᒋᕐᓗᓂ ᓄᓇᖓ ᐊᒃᑲᒋᑎᕐᓗᓂᐅᒃ ᐊᓯᒃᒋᓐᓄᑦ “ᐊᓄᕆᑐᐊᓄᑦ” ᐃᓂᐅᔪᓄᑦ, ᓱᕐᓗ ᔭᐃᓐ ᑲᒃᒋᖅᓱᒃ ᐊᓄᕆᖓ.

ᓄᓇᕗᑦ ᓄᒃᑭᒃᓴᐅᑏᑦ ᑯᐊᐳᕆᓴᖅ ᑕᐃᒪᖕᒐᓂᑦ ᕿᓂᓱᑦ ᑖᒃᑯᐊ ᐃᓄᐃᑦ ᐊᒻᒪᓗ ᐃᓄᐃᑦ ᐊᐅᓚᑦᓱᒃᓴᒋᑦ

For more information, read about this option in your handout or online.



08

ᑲᐃᓄᔅᓕ ᐃᖃᓗᓕᐊᕐᕕᒃ ᒥᓕᓗᐊᖅᓯᒪᔪᖅ ᑐᖅᑯᐃᕕᒃ ᐃᒪᓕᒃ

Kynersley Iqalliarvik Hydro Pump Storage

10

ᑭᓄᔅᓕ ᑕᓯᖕᒐᓂᑦ ᐊᓄᕆ

Kynersley Lake Wind

ᓇᐃᓈᖅᑐᑦ

- ᖁᑦᑎᓛᖅ ᐃᓕᔭᐅᓯᒪᔪᖅ ᐃᓗᓕᖃᕈᓐᓇᕐᓂᖓᓂ ᑕᒪᐃᖅᓂᒃ ᐊᑐᖅᑕᐅᔾᒐᕈᓐᓇᖅᑐᓂᒃ (30MW)
- ᖁᑦᑎᓛᒥᒃ ᐊᑐᒐᔭᖅᑐᒥᒃ ᑲᒻᒪᖅᑯᑎᒥᒃ (ᓄᑭᑦᓚᐅᑎᓄᑦ, ᑲᓇᖅᑐᓄᑦ, ᓴᓇᕝᕕᖕᓄᑦ)
- ᖁᑦᑎᓛᖅ ᑮᓇᐅᔭᓕᐅᕋᓱᖕᓂᕐᒧᑦ ᐱᕙᓪᓕᕈᑕᐅᕙᒃᑐᑦ
- ᓄᓇᓕᐅᑦ ᖃᓂᑎᓛᖓ
- ᕖᑦ ᐳᖅᑐᓂᖓ ᓇᐃᒃᑲᔭᖅᑐᖅ
- ᐃᒐᓯᒃᑦ ᐊᓯᔾᔨᖅᑕᐅᕐᔪᐊᑐᐃᓐᓇᕆᐊᓕᒃ
- ᐳᖅᑐᔪᑦ CO2 ᐃᓯᐊᕐᑭᓂᑦ ᐊᔾᔨᒋᖕᒋᓪᓗᓂᐅᒃ ᐃᒪᖕᒍᑦ ᓇᓛᕐᖓᒃᖓᑦ (ᐅᖅᓱᐊᓗᖅᑎᓇᐊᓕᒃ ᓱᓕ)
- ᓂᒡᓚᓱᓛᒥᑦ ᓱᓚᐅᑦ ᐊᑦᑕᖕᓇᖕᓂᖓ
- ᐊᑦᑕᕐᓇᖅᓂᖅᐸᖅ ᐊᒃᑐᐊᓂᓚᒃ ᑕᑎᒋᔭᒃᓴᐅᓂᕐᒧᑦ
- ᐊᒃᑐᐃᓂᖅᑐᐃᓐᓇᕆᐊᓕᒃ ᐃᖃᓗᐃᑦ ᓇᔪᖅᐸᒃᑕᕐᒋᓐᓂᒃ HPS-ᒧᑦ ᐱᕙᓪᓕᐊᓂᒃᔪᒧᑦ.
- ᐊᑯᓐᓈᕐᑭᔪᖅ ᓄᓇ ᐊᒻᒪ ᐱᔾᔪᑎᒃᓴᑦ ᐊᑐᖅᑕᐅᔪᑦ ᐃᖃᓗᖕᒥᐅᓄᑦ : ᐊᔾᔨᒌᙱᑦᑐᑦ ᑲᒪᔪᑦ ᐊᒃᑯᓇᓱᒃᑕᐅᓱᑦ ᐃᓚᒋᔭᐅᓪᓗᑎᒃ ᑐᒃᑐᐃᑦ, ᑲᒃᑯᐃᑦ. ᑕᖕᒪᖅᓯᒪᕝᕕᑦ ᐃᖃᓪᓕᐊᑕᐅᓱᑦ, ᐃᖃᓗᐃᑦ, ᐃᖃᓗᓕᐊᕐᕕᒃ ᑕᓯᖅ ᐊᑯᖅᓂᖓᒨᖓᕙᓚᐅᖅᑐᑦ, ᐊᒻᒪ ᓄᓇᖓᓄᑦ ᓱᑭᑑᒃᑯᑦ
- ᐊᕙᑎᐅᑦ ᑲᔾᔨᕐᓇᕐᓂᓇᒃ: ᑐᒃᑐᐃᑦ ᓇᔪᖅᐸᒃᑕᕐᒋᑦ

Summary

- Highest installed capacity of all alternatives (30MW)
- Highest average energy (electric, thermal, industrial)
- Highest economic benefit
- Close to town
- Dam height would be short
- High likelihood of diesel replacement
- High CO2 emissions compared to hydro options (still need diesel)
- Highest cold climate risk
- Highest risk associated with reliability
- Possible impact on fish habitat due to the HPS development.
- Medium land and resource use by Iqalungmiut : various species are harvested including caribou, snow goose. Campsites used for fishing trips, Trails used to travel between Iqaluit, Iqalliarvik Lake, and Nunngarut by snowmobile
- Environmentally significant site: caribou habitat

55.2%

ᐊᑐᓗᐊᕈᓐᓂᖅ ᑭᖅᓱᐊᓗᐃᓐᓇᕐᒧᑦ ᐊᑲᓚᑦᑎᖅᓂᕐᒥ ᑲᒻᒪᖅᑯᑎᓄᑦ

Reduction in Diesel Consumption for Electricity Generation

ᓂᕈᐊᓇᓯᒪᔭᒥᖕᓄᑦ · The Bottom Line

This option is compelling, as it has the highest energy output. If we converted everyone's heating to electricity, this would be a 'top 3' option. There are no arctic examples of pumped storage, so there is significant technical uncertainty. There are lower risk options, but it could be studied further.

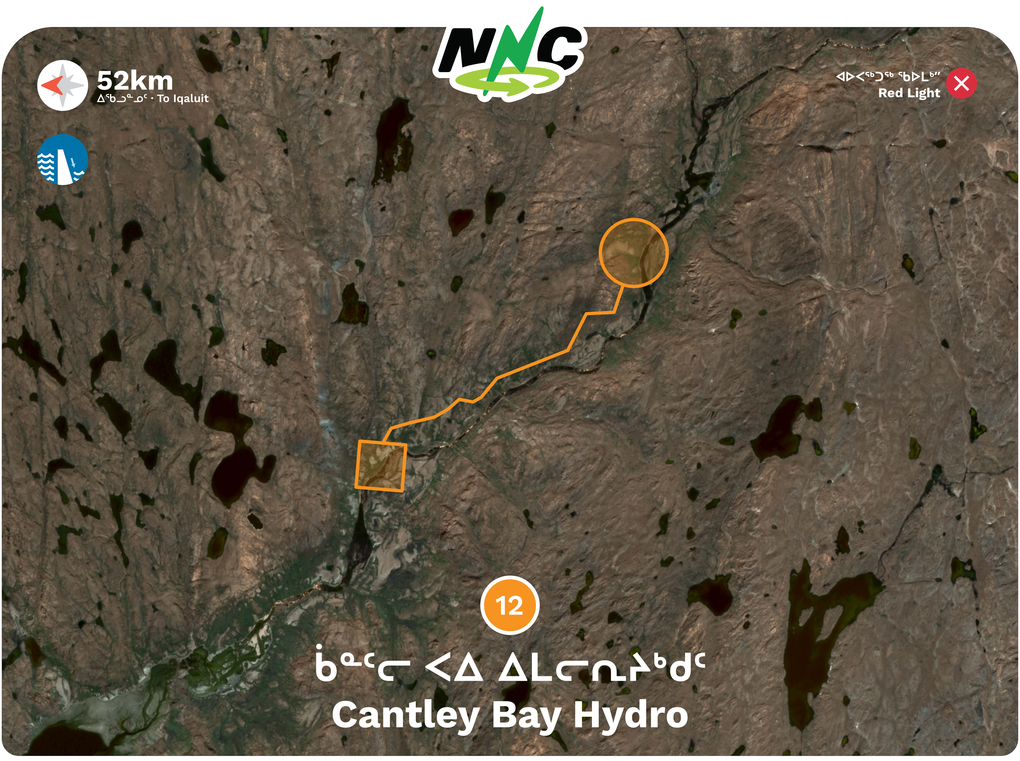
ᒪᑭᓐᑦ ᑰᑦ ᓂᒋᐊᓂᑦ ᐃᒪᖕᒨᖅᑐᑦ ᐱᕕᒃᓴᑦᑎᐊᕙᒃᑕᓐᓇᕐᖑᕗᖅ ᐱᑲᓛᒥᒃᓗ ᐊᑭᑭᒃᓕᒋᐊᖅᑎᑦᑎᓂᖕᒥᑦ ᑲᒻᒪᖅᑯᑎᓂᑦ ᐃᖃᓗᖕᓂᑦ. ᑕᒪᖅᓇ ᐊᑐᖅᑕᐅᓗᐊᖅᐸᐳᖅ, ᓄᓇ ᐊᑐᖅᑕᐅᓂᖕᒐᓄᑦ ᖃᐅᔨᓴᕐᓂᐅᔪᒥᑦ, ᐊᑐᖅᑕᐅᖕᓴᒋᓛᖕᖑᕗᖅ ᐊᖑᓇᓱᖅᓂᕐᒧᑦ ᐊᒻᒪ ᐃᖃᓗᒐᓱᖅᓂᕐᒧᑦ. ᑖᖕᓇ ᐊᑐᖅᑕᐅᔾᒐᕈᓐᓇᖅᑐᖅ ᐅᔾᔨᕐᓇᕐᑎᐊᖅᑐᖅ, ᐊᔾᒋᒃᓕᕙᓪᓕᐊᖅᓇᖅᓗᓂᓗ ᐱᕈᖅᐸᓪᓕᐊᑎᓪᓗᒍ ᐃᖃᓗᐃᑦ ᐱᕈᖅᐸᓪᓕᐊᑎᓪᓗᒍ. ᖁᓪᓕᖅᐸᖑᕗᖅ ᐊᑐᓪᖁᔭᐅᓱᖅᑐᖅ.

ᓄᓇᕗᑦ ᓄᑦᑭᒃᓴᐅᑏᑦ ᑯᐊᐳᕆᓴᖅ ᑕᐃᒪᖓᓂᑦ ᕿᓂᓱᑦ ᑖᒃᑯᐊ ᐃᓄᐃᑦ ᐊᒻᒪᓗ ᐃᓄᐃᑦ ᐊᐅᓚᕐᔪᔾᔭᒃᑭᑦ

For more information, read about this option in your handout or online.

5/10

ᓂᕈᐊᓇᓯᒪᔭᒥᖕᓄᑦ
Overall Rating



12

ᖀᓪᓕ ᐸᐃ ᐃᒪᓕᕆᔨᒃᑯᑦ
Cantley Bay Hydro

ᓇᐃᓈᖅᑐᑦ

- 100% ᑲᓵᒪᖅᑯᑎᑐᒋᑦ ᐱᔭᐅᔪᒪᔪᑦ ᓈᒻᒪᒃᑐᒦᖅᑦᑐᑎᒃ ᐊᑐᒃᑲᓂᓂᖅᓇᖅᑐᓄᑦ
- ᐊᑦᑎᓛᒥᑦ ᐃᓂᒋᔭᐅᔪᒥᑦ ᐱᕕᐅᔪᒃᓇᖅᑐᓄᑦ ᐊᑲᐅᖏᑦᓕᐅᕈᑕᐅᔪᑦ
- ᐸᑦᕕᓴᐃᓗᐊᖏᑦᓗᑎᒃ ᓴᐳᔾᔭᐅᓯᒪᔪᓂᒃ
- ᐊᑦᑎᒃᑐᒻᒪᕆᐊᓗᒃ C02 ᐃᓱᐊᑭᔪᑦ
- ᐊᑯᓕᓂᖅᐹᖅ ᓂᒡᓚᓱᒃᑐᒧᑦ ᓱᓚᒧᑦ ᖁᐊᖅᓴᖅᓇᖅᓂᖅᒐ
- ᐊᑦᑎᒃᑐᖅ ᐊᑦᑕᖅᓇᖅᑐᖅ ᐊᒃᑐᐊᓂᓕᒃ ᑕᑎᑎᔾᔭᒃᔭᐅᓂᒧᑦ
- ᐊᑯᓂᐅᓂᖅᓴᒃᑯᑦ ᐱᕙᓕᓕᐊᓂᒥ (6 ᐊᑦᕋᒍᑦ)
- ᑖᖅᓇ ᐃᓂᒋᔭᐅᔪᖅ ᐊᑐᖅᑕᐅᕙᒃᐳᖅ ᓇᑦᑎᕋᓱᒃᕕᐅᑦᓗᓂ ᑐᒃᑐᓂᒻᒧ. ᐊᔾᔨᓇᓱᒃᐸᒃᑐᑦ ᑯᑦ ᖃᓂᒋᔭᓂ
- ᐃᒡᓗᕋᓛᑦ ᑕᐅᕙᓂ ᐊᒻᒪ ᑐᑦᕕᒋᔭᐅᑦᓗᑎᒃ ᐊᒃᐱᕈᖅᑭᑦᑐᓄᑦ ᐃᓄᐃᑦ ᓄᓇᕋᖅᓄᑦ ᓱᑦᓗ ᓄᓇᓕᖅᐳᓂ ᑲᑎᑦᐸᒃᑐᑦ ᐊᒻᒪ ᐊᔾᔨᓇᓱᒋᐊᖅᑐᑦ ᖁᕕᐊᓱᑎᒃᖃᖅᑎᑦᓗᒋᑦ ᐃᓚᓕᐅᒃᔭᐅᑦᓗᑎᒃ ᖁᕕᐊᓱᑎᒃᖃᖅᑐᑦ ᒪᖁᒃᑐᑦ ᐊᔾᔨᓇᓱᑎᐅᖅᑎᑦᓗᒋᑦ
- ᐃᓄᖕᓄᑦ ᓇᔪᖅᑕᐅᖃᑦᑕᖅᑐᕕᓃᑦ - ᑕᖕᒫᖅᓱᒪᕝᕕᐅᓱᑦ ᑐᓃᑦ ᐊᒻᒪ ᐃᓄᒃᓱᒃ
- ᓄᓇᓕᓇᓂᑦᒧᑦ ᐊᑦᑕᓐᓇᖅᓂᖅᐹᖅ
- ᓄᓇᑐᔪᔪᐊᓂᒃ ᓱᕋᒃᑎᓇᓂᐊᖅᐳᖅ ᓂᑦᔪᑎᑦ ᓇᔪᖅᐸᒃᑕᕆᑎᖅᓄᑦ. ᑐᒃᑐᐃᑦ ᐃᓐᓂᐅᑦᕕᖕᑎᑦ ᐊᒻᒪ ᓇᑦᑎᐅᑦ ᑎᓱᕆᑎᑦ

Summary

- 100% of energy demand met by renewables
- Lowest site access issues
- Minimal intrusions on protected areas
- Very low C02 emissions
- Median cold climate risk
- Low risk associated with reliability
- Longer development time (6 years)
- This area is used for harvesting seal and caribou. Lots of harvesting activities near mouth of river
- Cabins in the area and used a hub for a range of Inuit land such as community gatherings and harvesting ceremonies including celebration of a youths' first hunt
- Cultural sites – including campsites used by Tuniit and row of inukshuk
- Highest geotechnical risk
- Will break up a large amount of land used for animal habitats. Caribou calving grounds and Seal den area

99.8%

ᐊᑐᓗᐊᕈᓐᓂᓂᖅ ᐅᖅᓱᐊᓗᑐᐃᓐᓇᓐᒧᑦ ᐊᐅᓚᐅᑎᑦᑲᓂᒥ ᑲᓵᒪᖅᑯᑎᓄᑦ
Reduction in Diesel Consumption for Electricity Generation

ᓂᕈᐊᓇᓱᒪᔭᒥᔅᓄᑦ · The Bottom Line

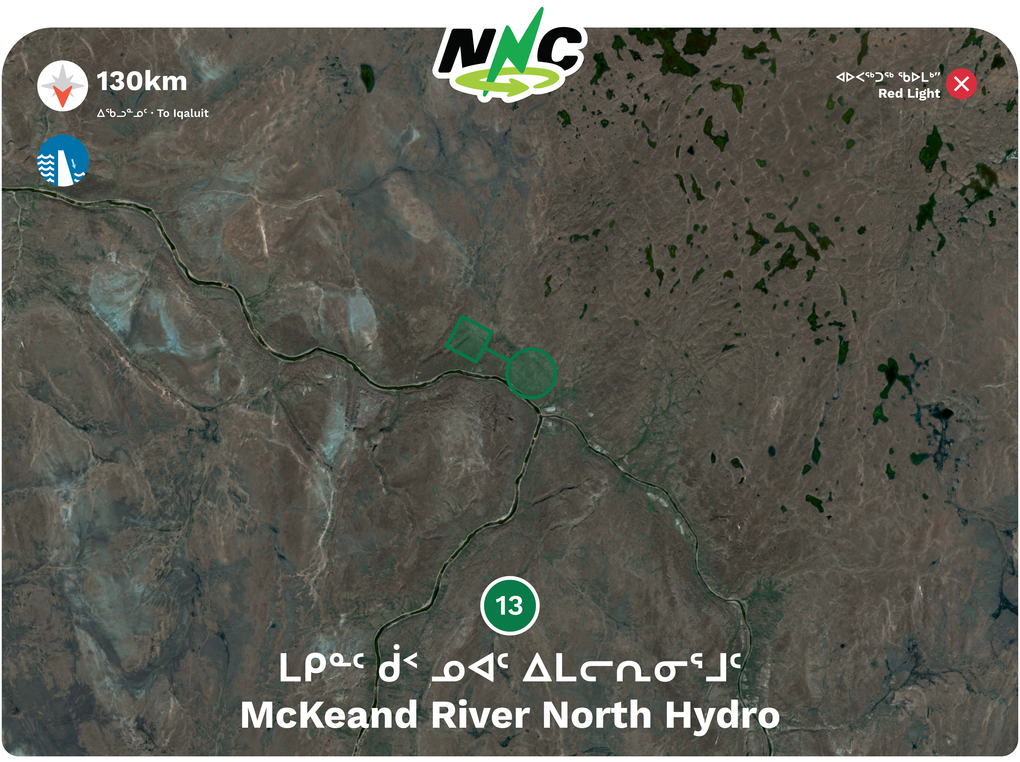
Cantley Bay Hydro would be a very large dam. We would not recommend this site because of the loss of animal habitat and the high geotechnical risk.

ᑕᒪᓐᓇ ᐊᔾᑎᔪᐊᓗᒍᒐᔭᖅᑐᖅ ᓱᒥᑦᑐᐃᓂᖅ. ᑖᖅᓇ ᐃᓂᐅᔪᖅ ᐊᑐᖅᑕᐅᖁᓇᔭᖅᑎᑕᕗᑦ ᓂᑦᔪᑎᑦ ᓇᔪᖅᐸᒃᑕᔾᔪᑎᑦ ᐊᓱᐅᔭᔭᐅᓂᔾᑎᖅᓄᑦ ᐊᒻᒪ ᓄᓇᐅᑦ ᐊᑦᑕᓐᓇᓂᖅᒐ.

ᓄᓇᕗᑦ ᓄᑦᑭᒃᓴᐅᑏᑦ ᑯᐊᐳᕆᓴᖅ ᑕᐃᒪᖕᒐᓂᑦ ᕿᓂᓱᑦ ᑖᒃᑯᐊ ᐃᓄᐃᑦ ᐊᒻᒪᓗ ᐃᓄᐃᑦ ᐊᐅᓚᑦᓱᔭᖅᑎᑦ

For more information, read about this option in your handout or online.

4/10
ᓂᕈᐊᓇᓱᒪᔭᒥᔅᓄᑦ
Overall Rating



ᓇᐃᓈᖅᑐᑦ

- 99% ᑲᒻᒪᖅᑯᑎᑐᕈᓱᑦ ᐱᔭᐅᔪᒪᔪᑦ ᓈᒻᒪᒃᑐᒥᑦᓱᑎᒃ ᐊᑐᒃᑲᓂᕈᖅᓇᖅᑐᓄᑦ
- 2nd ᖁᑦᑎᓛᒥᒃ ᐊᑐᒐᔪᒃᑐᒥᒃ ᑲᒻᒪᖅᑯᑎᒥᒃ (ᓄᑭᑦᓚᐅᑎᓄᑦ, ᑲᓇᖅᑐᓄᑦ, ᓴᓇᕝᕕᖕᓄᑦ)
- ᐊᑯᑦᓕᖅᐹᖅ ᓂᒡᓚᓱᒃᑐᒧᑦ ᓯᓚᒧᑦ ᖁᐊᖅᓴᕐᓇᕐᓂᖕᒐ
- ᐊᑦᑎᒃᑐᖅ ᐊᑦᑕᕐᓇᖅᑐᖅ ᐊᒃᑐᐊᓂᓕᒃ ᑕᑎᑎᔭᒃᔭᐅᓂᕐᒧᑦ
- ᐸᕐᕕᓴᐃᓗᐊᖏᑦᓗᑎᒃ ᓴᐳᔾᔭᐅᓯᒪᔪᓂᒃ
- ᐅᓄᙱᑦᑐᑦ ᑕᑯᔭᐅᔪᑦ ᓄᓇᒥᒃ ᐊᑐᕐᓂᖅ ᐊᔾᔨᒋᙱᑦᓱᓂᐅᒃ ᐊᓯᖏᒃᓄᑦ ᐱᕕᖕᓴᒃ
- ᐅᓄᙱᑦᑐᑦ ᑕᑯᔭᐅᔪᑦ ᓄᓇᒥᒃ ᐊᑐᕐᓂᖅ ᐊᔾᔨᒋᙱᑦᓱᓂᐅᒃ ᐊᓯᖏᒃᓄᑦ ᐱᕕᖕᓴᒃ
- ᖁᑦᑎᓛᖅ ᐃᓂᖏᓂ ᐱᔪᓐᓇᕐᓂᕐᒧᑦ ᐱᔾᔪᑎᑦ
- ᐊᑯᓂᐅᓛᖅ ᐅᐊᑲᑦ ᑕᑭᓂᖏᑦ ᖃᒥᙵᑐᐃᓐᓇᕆᐊᖃᓕᕐᓗᑎᒃ
- ᐊᑯᓂᐅᓛᖅ ᐱᕙᓪᓕᐊᑎᓪᓗᒍ
- ᖁᑦᑎᓛᖅ ᓄᓇᓕᕆᓂᕐᒧᑦ ᐊᑦᑕᕐᓇᖅᑐᖅ
- ᐊᕙᑎᒧᑦ ᐊᒃᑐᐃᕐᔪᐊᖅᑐᖅ; ᓴᖅᑭᑦᑎᓂᐊᖅᑐᖅ ᐊᖏᔪᒪᕆᖏᒃ ᐃᒥᖅᑕᕐᕕᖏᒃ ᓱᒥᒃᑕᐅᓚᐅᖅᑎᓪᓗᒍ ᓴᓇᔭᐅᓚᐅᖅᑎᓪᓗᒍ ᐊᓪᓚᖅᑎᓇᔪᑕᐅᓂᐊᖅᑐᖅ ᓄᓇᒥ ᐃᓂᕆᖅᑕᖏᑦᑎᓐᓂᒃ ᑐᔅᑐᐃᑦ ᐅᓄᑦᖏᑎᖅᓂᒃ ᑕᐅᕙᓂ ᐃᑦᓂᐅᒃᓇᐅᑎᓪᓗᒍ
- ᐊᕙᑐᔪᑦ ᐊᕙᑐᔪᑦ ᐊᕙᖏᑦ; ᑲᒻᒪᖅᑯᑎᑦ ᐊᕙᑐᓂᖅᓴᐅᓇᔭᖅᐳᑦ ᐃᒐᓯᐅᑎᒥᑦ

Summary

- 99% of energy demand met by renewables
- 2nd Highest average energy (electric, thermal, industrial)
- Median cold climate risk
- Low risk associated with reliability.
- Minimal intrusions on protected areas
- Few observations of land use compared to other options
- Highest site access issues
- Longest transmission line length required increasing risk of outage
- Longest development time
- Highest geotechncial risk
- High environmental impact: Will create a very large reservoirs following dam construction that will wipe out land habitat for the already struggling caribou population in the area during the calving season
- High capital cost; electricity would cost more than diesel

98.8% ᐊᑐᓗᐊᕐᓂᖅᓂᖅ ᐅᖅᓱᐊᓗᑐᐃᓐᓇᕐᒧᑦ ᐊᐅᓚᐅᑎᖃᖅᓂᒥ ᑲᒻᒪᖅᑯᑎᓄᑦ Reduction in Diesel Consumption for Electricity Generation

ᓂᕈᐊᓇᓱᒪᔭᒥᖕᓄᑦ · The Bottom Line

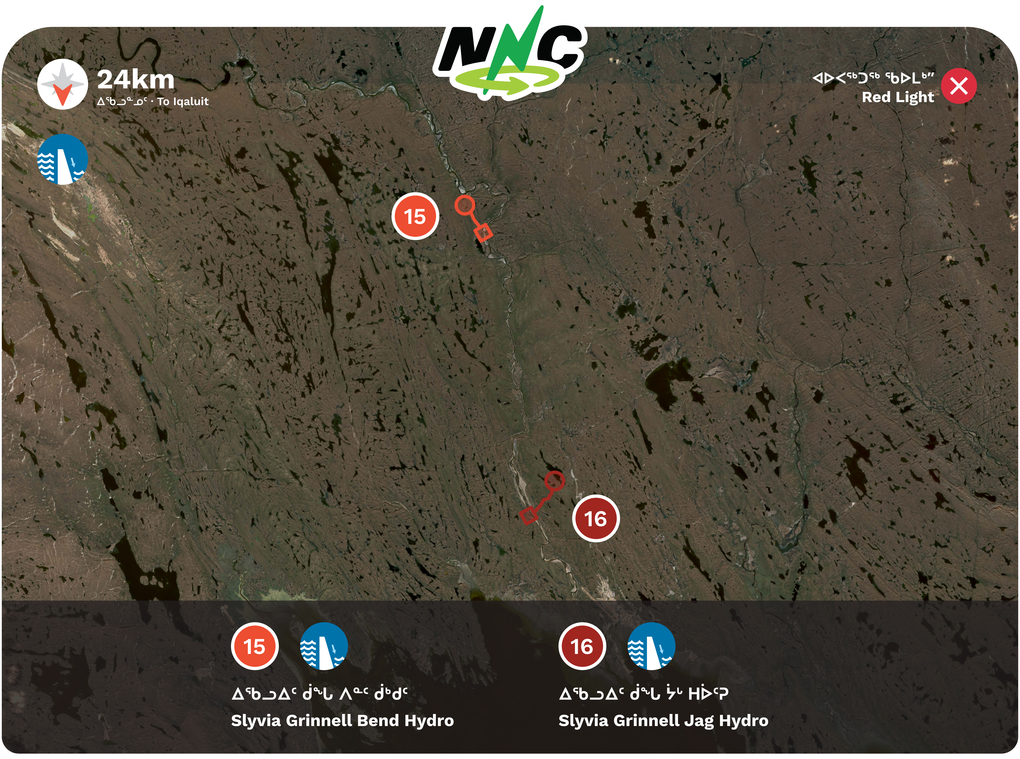
McKeand River North Hydro is more expensive than Iqaluit's diesel system and electricity costs would increase. It has a high geotechnical risk and a significant loss of animal habitat. We would not recommend this option.

ᒪᑭᓐᑦ ᑰᑉ ᓄᐊᑦ ᓄᐊᑦ ᐃᒪᖕᒨᖅᑐᑦ ᐊᑭᑐᓂᖅᓴᐅᖕᒪᑕ ᐃᖃᓗᐃᑦ ᐅᖅᓱᐊᓗᖕᒨᖅᑐᓂᑦ ᑲᒻᒪᖅᑯᑎᑦᓗ ᐊᑭᖏᑦ ᐊᑭᑦᑐᓇᐊᕋᔭᖅᑐᑦ. ᓄᓇᓕᓇᖏᔪᑎᒃᑯᑦ ᐊᑦᑕᕐᓇᖅᑐᖅ ᐊᒻᒪ ᓂᕐᔪᑎᑦ ᓇᔪᖅᐸᖅᑕᖏᒃᓂᒃ ᐊᓯᐅᔾᔪᔪᖅᓱᓂᓂ. ᑖᖅᓇ ᓇᓕᕋᕋᔭᖅ ᐊᑐᖁᒐᔭᖅᑎᑕᐅᑦ.

ᓄᓇᕗᑦ ᓄᒃᑭᒃᓴᐅᑏᑦ ᑯᐊᐳᕆᔭᖅ ᑕᐃᒪᖕᒐᓂᑦ ᖃᓂᓱᑦᑖᒃᑯᐊ ᐃᓄᐃᑦ ᐊᒻᒪᓗ ᐃᓄᐃᑦ ᐊᐅᓚᓱᓱᔭᖅᑎᑦ

For more information, read about this option in your handout or online.

2.2/10 ᓂᕈᐊᓇᓱᒪᔭᒥᖕᓄᑦ Overall Rating



ᓇᐃᓈᖅᑐᑦ

- 100% ᑲᓴᒪᖅᑯᑎᑐᕈᓱᑦ ᐱᔭᐅᔪᒪᔪᑦ ᓈᓴᒪᒃᑐᒦᖕᓗᑎᒃ ᐊᑐᒃᑲᖕᓂᕈᖕᓇᖅᑐᓄᑦ
- CO2-ᒥ ᐃᓱᐊᕐᔪᔪᒃᖏᑦᑐᖅ
- ᐊᖏᔪᖅ ᑲᓴᒪᖅᑯᑎ/ᐃᓂᑎᔭᐅᔪᖅᓇᕐᓂᖕᒐ (ᑲᓴᒪᖅᑯᑎᓄᑦ, ᑲᓇᖅᑐᓄᑦ, ᓴᓇᕐᕕᖕᓄᑦ)
- ᕿᑎᐊᓂᑦᑐᑦ ᐱᓕᕆᓂᒃᑯᑦ ᕿᐊᖅᓴᕐᓇᖅᑐᑦ (ᓱᓚᐅᑦ ᐊᓱᔾᔨᖅᐸᕐᓕᐊᓂᖕᒐᓄᑦ ᓄᓇᓕᕆᔾᔪᑎᓄᑦᓗ)
- ᐊᑦᑎᔭᖅ ᐊᑦᑕᕐᓇᖅᑐᖅ ᐊᒃᑐᐊᓂᓕᒃ ᑕᑎᑎᔭᒃᓴᐅᓂᕐᒧᑦ
- ᐃᖃᓗᐃᑦ ᑰᖓ ᓄᓇᓕᖕᒐᑕ ᖃᓂᑎᔭᓂᑦᑐᖅ. ᐊᖅᑯᑎᑯᑕᒃᑲᕆᓇᖅᑐᖅ (14 ᑭᓚᒥᑕᑦ)
- ᕿᑦᑎᔭᑐᒦᑦᑐᑦ ᐊᒃᓂᐊᖃᓇᖏᑦᑐᓕᕆᓂᕐᒧᑦ ᕿᐊᖅᓴᕐᓇᖅᑕᐃᓕᒪᓂᕐᒧᓪᓗ ᐃᓱᒪᒋᔭᒃᓴᐃᑦ
- ᐊᑭᑐᔪᑦ ᐊᑭᑐᔪᑦ ᐊᑭᑎᑦ; ᑲᓴᒪᖅᑯᑎᑦ ᐊᑭᑐᓂᖅᓴᐅᓇᔭᖅᐳᑦ ᐃᒐᓱᐅᑎᒥᑦ
- ᐊᕙᑎᒧᑦ ᐊᒃᑐᐃᕐᔪᐊᖅᑐᖅ; ᐊᖏᔪᒥᒃ ᐃᒥᖅᑕᕐᕕᓕᐅᕐᓂᐊᖅᐳᑦ ᓱᒥᒃᑕᐅᓚᐅᖅᑎᓪᓗᒍ ᓄᓇᖕᒐ ᓱᕈᐃᔾᔪᑕᐅᓂᐊᖅᑐᖅ ᓇᔪᖅᐸᑦᑕᕐᑎᓐᓂᒃ
- ᓄᓇᕗᒻᒥ ᒥᕐᖑᐃᖅᓱᕕᒃ ᖃᔅᓯᑲᓪᓚᑦ ᐃᖃᓗᕐᒥᐅᑦ ᐅᐸᒐᒃᑕᕐᑎᑦ
- ᐃᓂᑎᔭᐅᔪᖅ ᐃᓕᖅᓂᐊᖅᑎᑦᑎᔭᐊᑕᐅᓪᓗᓂ ᐃᖃᓗᓕᕆᓂᕐᒧᑦ ᒪᒃᑯᒃᑐᓄᑦ ᐊᒻᒪ ᐊᖑᓇᓱᖕᓂᕐᒧᑦ ᐊᑦᑏᑦᖕᒋᑦᑐᓂᒃ ᑲᒪᔪᓂᒃ ᐊᒻᒪ ᐃᖃᓗᖕᓂᒃ.
- ᑰᒃ ᐱᔭᐅᔪᒪᔪᖅ ᐃᒪᑦᑎᐊᕙᖕᒥᑦ ᓄᐊᑦᑎᓂᐊᕐᓗᓂ

Summary

- 100% of energy demand met by renewables
- No CO2 emissions
- Large Energy/Capacity Range (electric, thermal, industrial)
- Medium Technical Risks (Cold Climate & Geotechnical)
- Low risk associated with reliability.
- Sylvia Grinnell is close to town. Short transmission line required (14 km)
- High Health and Safety issues
- High capital cost; electricity would cost more than diesel
- High environmental impact: Will create a very large reservoirs following dam construction that will wipe out land habitat
- Territorial Park where many Iqaluit residents frequent
- Site used for teaching fishing skills to youth and harvesting various mammals and fish.
- Popular river to gather fresh water

98.8% ᐊᑐᓗᐊᕈᓐᓂᖅ ᑲᖅᓱᐊᓗᓗᐃᓐᓇᕐᒧᑦ ᐊᑲᓚᒃᑎᖃᓂᕐᒥ ᑲᓴᒪᖅᑯᑎᓄᑦ **Reduction in Diesel Consumption for Electricity Generation**

ᓂᕈᐊᓇᓱᒪᔭᒥᖕᓄᑦ · The Bottom Line

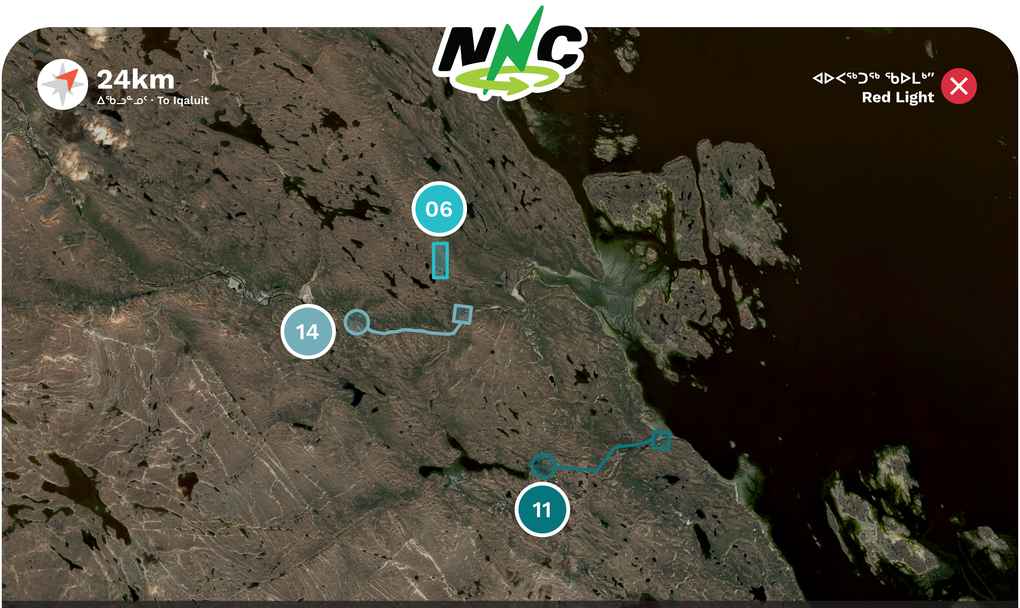
Slyvia Grinnell options are more expensive than Iqaluit's diesel system and electricity costs would increase. We would not recommend this site for multiple reasons, including community use, cultural importance and high cost. This is the lowest ranked site.

ᓴᓕᕕᐊ ᒍᓇᓂᑦᓗᑦᒧᑦ ᐊᑐᖅᑕᐅᖕᒐᓕᕈᖅᓇᖅᑐᑦ ᐊᑭᑐᓂᖅᓴᐅᕗᑦ ᐃᖃᓗᖕᓂ ᐃᒐᓱᐅᑎᓄᑦ ᐊᑐᖅᑕᐅᕙᖅᑐᒧᑦ ᑲᓴᒪᖅᑯᑏᑦᓗ ᐊᑭᖏᑦ ᐊᑭᑐᓇᔪᔭᖅᓗᑎᒃ. ᑖᖅᓇ ᐃᓂᑎᔭᐅᔪᖅ ᐊᑐᖅᓇᔭᖏᑦᑕᕗᑦ ᖃᔅᓯᑲᓪᓚᖕᒐᓄᑦ ᐱᔭᔪᑎᖃᖅᓗᓂ, ᐃᓚᒥᔭᐅᓗᓂ ᓄᓇᓕᖕᓂ ᐊᑐᖅᑕᐅᕙᖕᓂᖕᒐᓄᑦ, ᐃᓕᖅᑯᓱᑐᖅᓄᑦ ᐱᓴᒪᓇᐅᓂᖕᒐᓄᑦ ᐊᑭᑐᓂᖕᒐᓄᑦᓗ. ᑖᖅᓇ ᔪᑎᓛᖕᒐᔪᖅ ᐃᓂᐅᔪᖅ.

ᓄᓇᕗᑦ ᓄᒃᑭᖅᓴᐅᑏᑦ ᑯᐊᐳᓇᓴᖅ ᑕᐃᒪᖕᒐᓂᑦ ᕿᓂᓱᑦ ᑖᖅᑯᐊ ᐃᓄᐃᑦ ᐊᒻᒪᓗ ᐃᓄᐃᑦ ᐊᐅᓛᔭᐱᖕᒥᑦ

For more information, read about this option in your handout or online.

0/10 ᓂᕈᐊᓇᓱᒪᔭᒥᖕᓄᑦ **Overall Rating**



14 ᐊᑯᓕᖅᑯᑕᖅ ᑰᖕᒥ ᐃᒪᓕᕆᓂᕐᒧᑦ
Armshow River Hydro

11 ᐊᑯᓕᖅᑯᑕᖅ ᓂᒋᐊᓂᑦ ᐃᒪᖕᒨᖅᑐᑦ
Armshow South Hydro

06 ᐊᑯᓕᖅᑯᑕᖅ ᐊᓄᕆ
Armshow Lake Wind

99.3% ᐊᑐᓗᐊᕈᓐᓃᕐᓂᖅ ᐅᖃᓗᐊᕐᓂᕐᓂᖅ ᐊᐅᓚᐅᑎᖃᓂᕐᒥ ᐅᒻᒪᖅᑯᑎᓄᑦ **Reduction in Diesel Consumption for Electricity Generation**

56% ᐊᑐᓗᐊᕈᓐᓃᕐᓂᖅ ᐅᖅᓱᐊᓗᑐᐃᓐᓇᕐᒧᑦ ᐊᐅᓚᐅᑎᖃᓂᕐᒥ ᐅᒻᒪᖅᑯᑎᓄᑦ **Reduction in Diesel Consumption for Electricity Generation**

51.5% ᐊᑐᓗᐊᕈᓐᓃᕐᓂᖅ ᐅᖅᓱᐊᓗᑐᐃᓐᓇᕐᒧᑦ ᐊᐅᓚᐅᑎᖃᓂᕐᒥ ᐅᒻᒪᖅᑯᑎᓄᑦ **Reduction in Diesel Consumption for Electricity Generation**

0.9/10 ᓂᕈᐊᓇᓱᒪᔭᒥᔅᓄᑦ **Overall Rating**

4.5/10 ᓂᕈᐊᓇᓱᒪᔭᒥᔅᓄᑦ **Overall Rating**

5.1/10 ᓂᕈᐊᓇᓱᒪᔭᒥᔅᓄᑦ **Overall Rating**

ᓇᐃᓈᖅᑐᑦ

- 99% ᐆᒻᒪᖅᑯᑎᑐᕈᓱᑦ ᐱᔭᐅᔪᒪᔪᑦ ᓈᒻᒪᒃᑐᒥᑦᓗᑎᒃ ᐊᑐᖅᓂᕈᖅᓇᖅᑐᓄᑦ
- ᐊᑦᑎᒃᑐᒥᑦ ᐊᑯᖅᓂᖅᓱᖅᑐᒥᑦᓗ ᐱᓕᕆᔾᔪᑎᓄᑦ ᐊᑦᑕᔅᓇᖅᑐᑦ (ᓱᓚᐅᑦ ᓂᑦᓚᓱᖅᓂᖅᓗᓗ ᓄᓇᓕᕆᔾᔪᑎᓗ)
- ᐊᑦᑎᒃᑐᒥ ᓴᓇᔭᐅᓂᕐᒧᑦ ᐊᑦᑕᕐᓇᕈᑎ
- ᐊᖏᔪᐊᓗᒃ MW ᐃᓐᓄᒍᓐᓇᕐᓂᖓ
- ᐅᖁᒪᐃᑦᑐᓂᑦ ᓄᓇᒥᑦ ᐊᒻᒪ ᓄᓇᒦᓐᓂᖕᒐᖅᑐᓂᑦ ᐊᑐᖅᑕᖅᑐᑦ ᐊᖑᑯᓕᒪᖅ ᐃᖃᓗᔾᒥᐅᓄᑦ
- ᐊᒃᑐᐃᓂᐊᖅᑐᖅ ᐃᖏᖅᑕᓂᖏᓐᓂᒃ ᐃᖃᓗᐃᑦ. ᑖᓐᓇ ᐱᔾᒪᕆᐅᔪᖅ ᐃᖃᓗᐃᑦ ᓇᔪᖅᐸᕐᑕᖏᑦ ᐃᖃᓗᒐᓱᖅᐃᐅᑦᓗ
- ᓄᓇᑐᔪᔪᐊᓂᒃ ᓱᕋᒃᑎᕆᓂᐊᖅᐳᖅ ᓂᔪᑎᑦ ᓇᔪᖅᐸᕐᑕᖏᓐᓄᑦ. ᑖᓐᓇ ᐱᔾᒪᕆᐅᔪᖅ ᑕᔪᔪᐊᖅᐅᓱᖅ ᐊᒥᓱᓄᑦ ᐅᒪᔪᓄᑦ
- ᐃᓂᒋᔭᐅᔪᖅ ᐊᖑᓇᓱᖅᐃᐅᑦᓗᓂ ᐊᔾᔨᖏᖅᑦᑐᓄᑦ ᐅᒪᔪᓄᑦ (ᕿᓚᓗᒐᖅ, ᐊᑦᐃᒃ, ᐊᒻᒨᒪᔪᖅᑕᑦᓂᖅ, ᐊᕿᒡᒋᖅ, ᑐᒃᑐᐃᑦ ᐊᒻᒪ ᐅᔾᖓᖅᓱᐅᓂᖅ).
- ᐊᒃᑐᐃᓂᖅᓂᐊᖅᑐᖅ ᐃᒪᐅᑦ ᐊᖅᑯᑎᖏᖅᓂᒃ ᐃᖃᓗᔾᔪᑎᓄᑦ, ᐱᖃᓱᐅᑎᑦᓗᓂᑦ ᐃᖃᑦᓕᐊᓇᐅᖅᓴᑎᑦᑎᓂᖅ ᒪᒃᑯᖅᓂᖅᓴᓄᑦ
- ᐋᖅᓂᐊᖅᖃᓇᖅᑐᑦᓗᕆᓂᕐᒧᑦ ᐊᑦᑕᕐᓇᖅᑕᐃᓕᒪᓂᕐᒧᑦᓗ ᖁᐊᖅᓴᕐᓇᕈᖅᓇᖅᑐᓄᑦ "ᐊᑯᖅᓂᖅᓱᖅᑐᖅ"

Summary

- 99% of energy demand met by renewables
- Low to Medium technical risks (cold climate + Geotech)
- Low constructability risk
- Large MW capacity
- Heavy land and resource use year-round by Iqalungmiut
- Will affect the migration of arctic char. This is an important char habitat and fishing area
- Will break up a large amount of land used for animal habitats. This is an important migratory corridor for many animals
- Site used for harvesting various species (beluga, bowhead, clam seaweed, ptarmigan, caribou and berry harvesting).
- Will affect waterways leading to Iqaluit, including areas used to teach fishing to younger generations
- Health and Safety risk rated "medium"

ᓂᕈᐊᓇᓱᒪᔭᒥᔅᓄᑦ · The Bottom Line

ᑭᖑᓪᓕᖅᐸᒥ ᐆᒻᒪᖅᑯᑎᒥᒃ ᐊᑐᒃᑲᓂᕈᖅᓇᖅᑐᒥᒃ ᕿᒥᕐᕈᔪᖅᑲᓚᐅᖅᐳᖅ ᐃᖃᓗᖕᓂ, ᑖᓐᓇ ᐃᓂ ᐊᖏᖅᑕᐅᓚᐅᖅᑭᖅᓱᓗᓂ ᐱᒻᒪᕆᐅᓂᖓᓄᑦ ᐊᖑᓇᓱᖅᓂᖅ, ᐃᖃᓗᒐᓱᖅᓂᖅ, ᑭᐱᖑᐃᔭᕐᓂᖅ ᐊᒻᒪ ᓂᕐᔪᑎᑦ ᓇᔪᖅᐸᕐᑕᖏᑦ. ᑐᓴᕙᕐᑎᑦ. ᓇᓚᑦᕋᖅᓴᓕᒪᑦ ᑕᕝᕙᓂ ᐊᑐᓕᖅᑯᐅᖏᑦᑐᑦ.

The last time renewable energy was explored for Iqaluit, this site was rejected due to its importance for hunting, fishing, recreation and animal habitat. We hear you. All options in this area are not recommended.

ᓄᓇᕗᑦ ᓄᒃᑭᒃᓴᐅᑏᑦ ᑯᐊᐳᕆᓴᖅ ᑕᐃᒪᖓᓂᑦ ᕿᓂᓱᑦ ᑖᒃᑯᐊ ᐃᓄᐃᑦ ᐊᒻᒪᓗ ᐃᓄᐃᑦ ᐊᐅᓚᕐᓱᔾᔪᑎᑦ

For more information, read about this option in your handout or online.

ᓈᓴᐅᑎᓕᖅᓱᖅᑕᐅᓯᒪᙱᑦᑐᑦ · Not ranked

ᐅᖅᓱᐊᓗᑐᐃᓐᓇᕐᒧᑦ ᐊᐅᓚᔪᓐᓇᐅᑦ
Diesel System

ᓇᐃᓈᖅᑐᑦ

- ᑐᕝᕙᓪᓕᐅᑦᑎᐊᖅᑐᖅ
- ᒫᓐᓇ ᐃᓂᖅᖅᑐᖅ
- ᖃᐅᔨᒪᔭᐅᑦᑎᐊᖅᑐᑦ ᐊᐅᓚᓂᓇᔭᐅᔪᑦ
- ᐊᑭᑐᔪᖅ ᐊᑭᓪᓗ
- ᐅᖅᓱᐊᓗᓪᒧᑦ ᐊᑭᓪᓗ ᐊᑐᐃᓐᓇᐅᓂᓪᓗᓗ ᐊᓱᔾᔨᑭᓐᓇᖅᑐᖅ ᐊᔪᖅᒍᑕᒦᑦ
- ᐅᒥᐊᔪᐊᖅᑐᖅᓴᓂᒃ ᐊᑐᖅᑕᖅᐳᑦ ᐊᓪᒪ ᐅᒥᐊᔪᐊᖅᖅᑎᑦᑎᖏᖅᓇᖅᐸᓪᓗᓂ
- ᑮᓇᐅᔭᑎᒍᑦ ᐃᑲᔫᑎᑦ ᐅᖅᓱᐊᓗᓪᒨᓱᑦ (ᑮᓇᐅᔭᐅᔪᑦ ᓄᖑᑭᑎᓛᖅᑐᑦ)
- ᓄᓇᒥᐅᑕᓕᓇᔨᐅᖏᑦᑐᑦ (ᖃᖓᒐᔪᖅ ᓄᖑᑭᑎᓛᖅᑐᑦ)
- ᐊᖏᑦᓱᑦ ᐊᕙᑎᒍᑦ ᐊᖑᑐᐃᔪᑦ ᐊᓂᖅᓴᖅᑐᖅᑕᑦᑕ ᓱᕈᖅᐸᓪᓕᐊᓂᖓᓄᑦ (ᐃᓱᐊᕝᕙᔪᑦ ᐊᓂᖅᓴᖅᑐᖅᑕᑦᑕᓗ ᐱᐅᓂᖓᓂᑦ)

Summary

- High Reliability
- Currently in-place
- Well known operations
- High Cost
- Diesel price and availability can change every year
- Relies on sealift and continuous supply
- Financial benefits go to the diesel supplier (the money leaves Nunavut)
- Non renewable resource (it will run out some day)
- Large environmental impact via air pollution (emissions and air quality)

0%

ᐊᑐᓗᐊᕈᓐᓂᓪᓂᖅ
ᐅᖅᓱᐊᓗᑐᐃᓐᓇᕐᒧᑦ
ᐊᐅᓚᐅᑎᖃᓂᒥ ᑲᒻᒪᖅᑯᑎᓄᑦ
Reduction in Diesel Consumption for Electricity Generation

ᓂᕈᐊᓇᓱᒪᔭᒥᓪᓄᑦ · The Bottom Line

The diesel system in Iqaluit, while highly reliable, is expensive, produces a lot of pollution and is completely reliant on dieasel supply from the south. Diesel is a non-renewable resource, so it will run out some day.

ᐅᖅᓱᐊᓗᑐᐃᓐᓇᕐᒧᑦ ᐊᐅᓚᔪᓐᓇᐅᑦ ᐃᖃᓗᓪᓂ, ᑕᑎᒋᔭᖅᑎᑦᑎᐊᕋᓗᐊᖅᑎᑦᓗᒍ, ᐊᑭᑐᓪᓗᓂ, ᓱᕈᓐᓇᖅᑐᓕᐅᔪᐊᕐᓇᕐᒪᑦ ᐊᒻᒪ ᑕᑎᖃᑦᑎᐊᖅᓄᓂ ᑐᑦᑯᐊᑦᓕᐊᔪᒥᒃ ᖃᑦᓗᓈᓂᖕᒐᖅᑐᓂᒃ. ᐅᖅᓱᐊᓗᒃ ᐱᕈᒃᑲᖅᓂᕈᓐᓇᕐᒋᑦᑐᖅ, ᓄᖑᕈᑎᓂᐊᖅᑐᖅ ᖃᖓᑐᐃᓐᓇᖅ.

ᓄᓇᕗᑦ ᓄᑦᑭᒃᓴᐅᑏᑦ ᑯᐊᐳᕆᓴᖅ ᑕᐃᒪᖓᓂᑦ ᕿᓂᕐᓱᑦ ᑖᒃᑯᐊ ᐃᓄᐃᑦ ᐊᒻᒪᓗ ᐃᓄᐃᑦ ᐊᐅᓚᑦᓱᕐᔨᖅᑭᑦ

For more information, read about this option in your handout or online.