

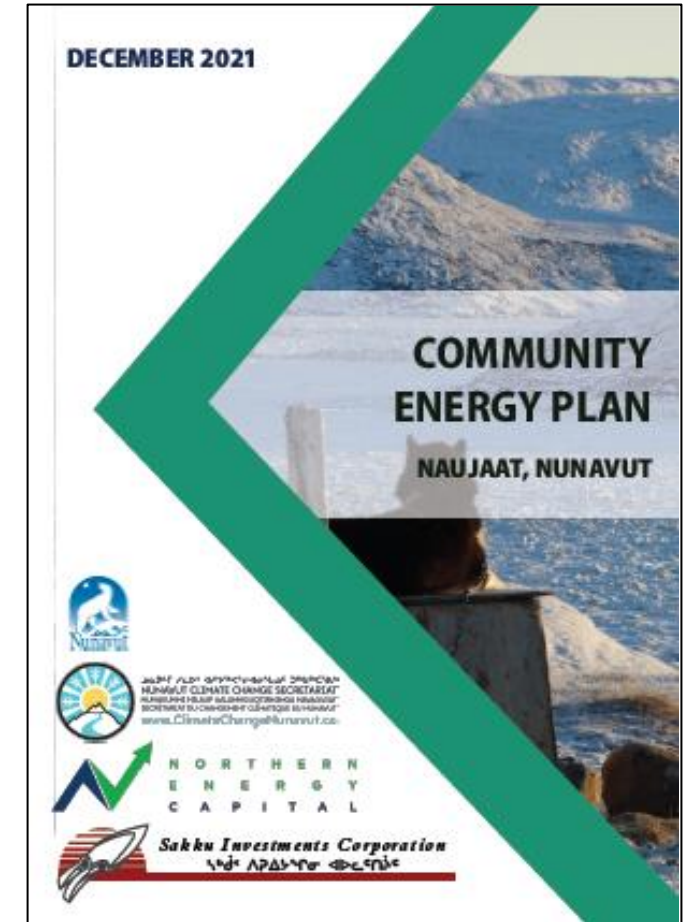
Energy Plan for Naujaat

Partners:

- Sakku Investments Corporation
- GN Dept. of Environment, Climate Change Secretariat
- Northern Energy Capital Inc.

Timeline:

- Began in Spring of 2020
- CEP Report delivered in January 2022



Objectives

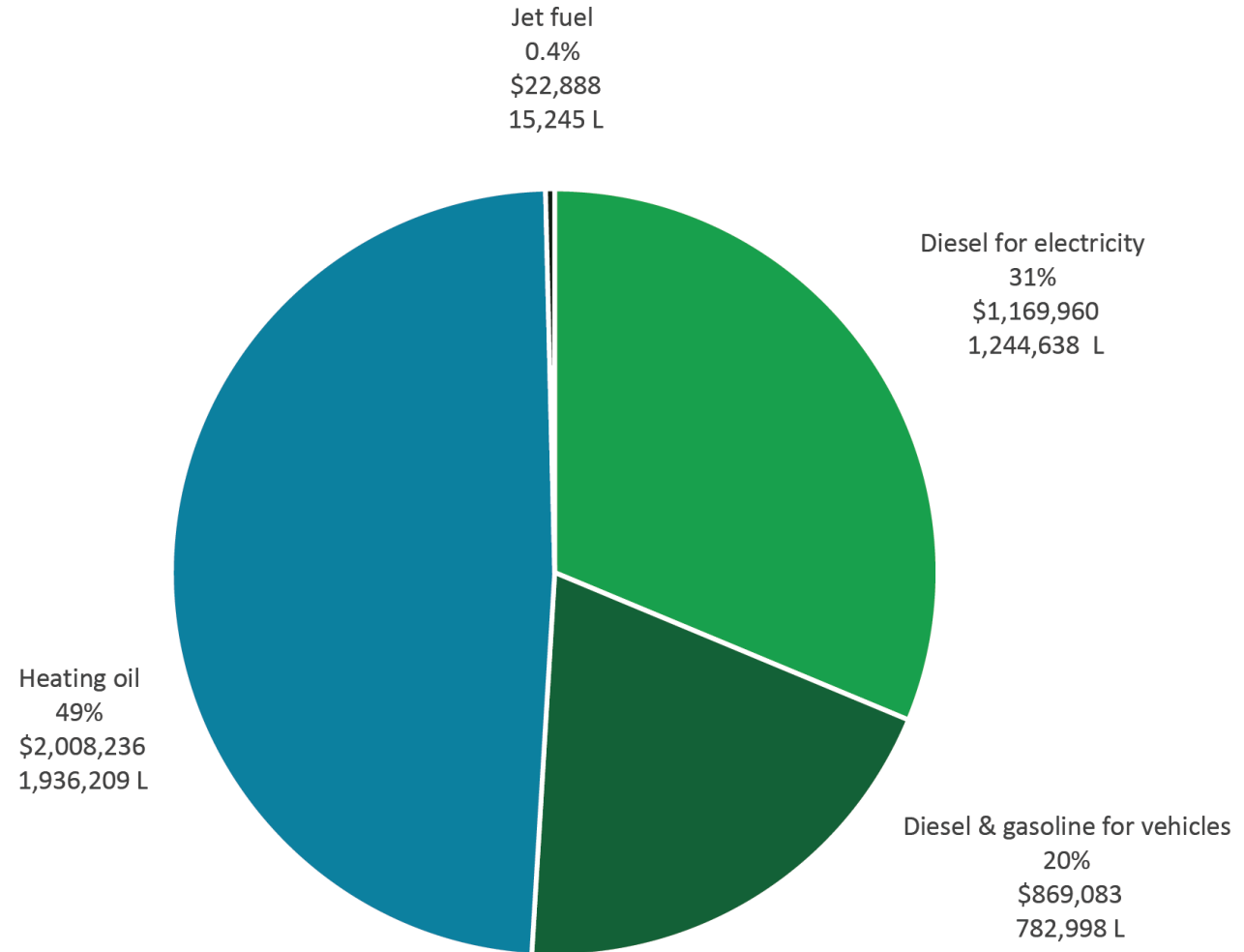
Objectives of the Energy Plan:

- Understand Naujaat's current energy uses and costs
- Collect feedback from community members
- Create strategies to increase energy efficiency and conservation
- Explore renewable energy opportunities
- Explore programs and activities to reduce energy costs
- Increase capacity in the community

Energy Baseline: By Fuel Type

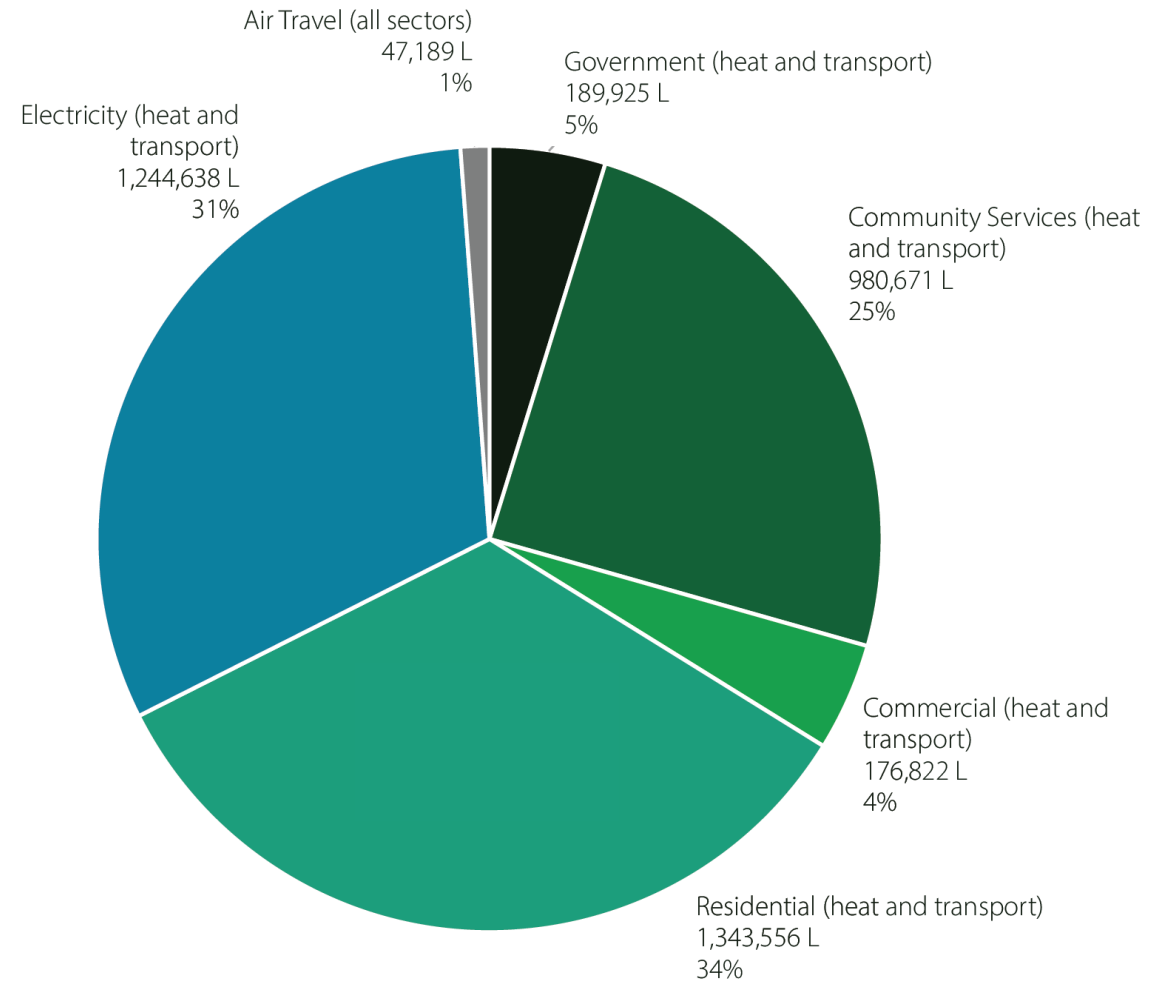
PPD reports a total of 3.98 million L of annual fossil fuel sales in Naujaat.

Burning of these fuels produces 11,000 tonnes CO₂e per year in GHG emissions, or 10.0 tonnes CO₂e /person /yr.



Energy Baseline: By User

Most fuel is used for heating, and peak demand occurs in winter.



Survey Results

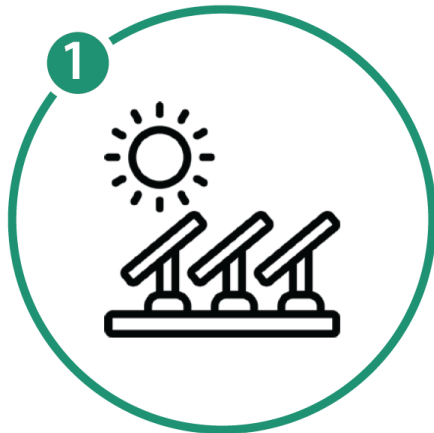
57 households (27% of total households) responded to our survey.

Survey respondents expressed the highest concern for (in order):

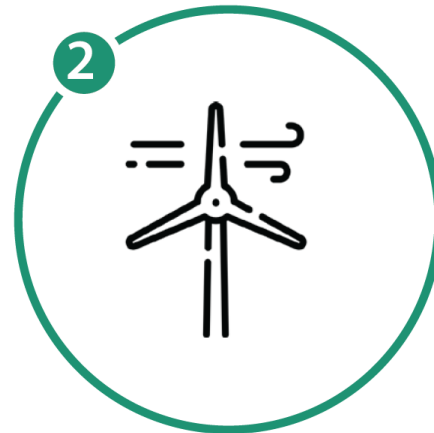
- 1 environmental impacts from fuels,
- 2 the cost of electricity and fuel,
- 3 reliability of energy sources
- 4 reducing imports,
- 5 GHGs & climate change.

Survey Results

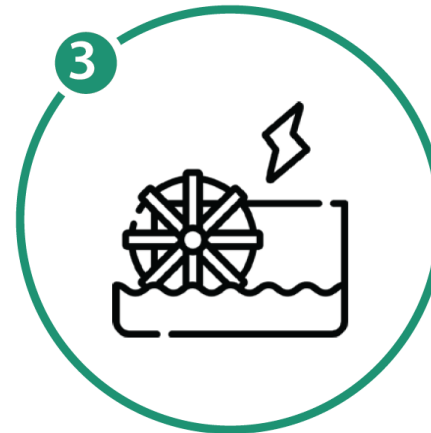
Survey respondents expressed the highest support for solar and wind energy, with lower levels of support for other fuel types.



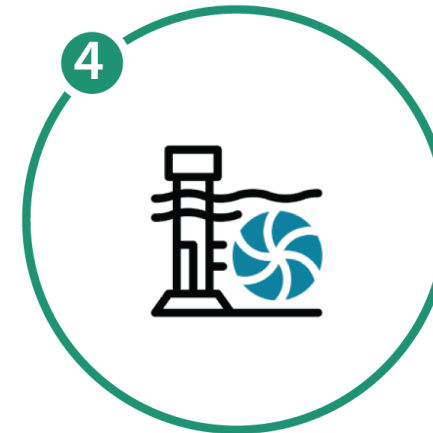
SOLAR ENERGY



WIND ENERGY

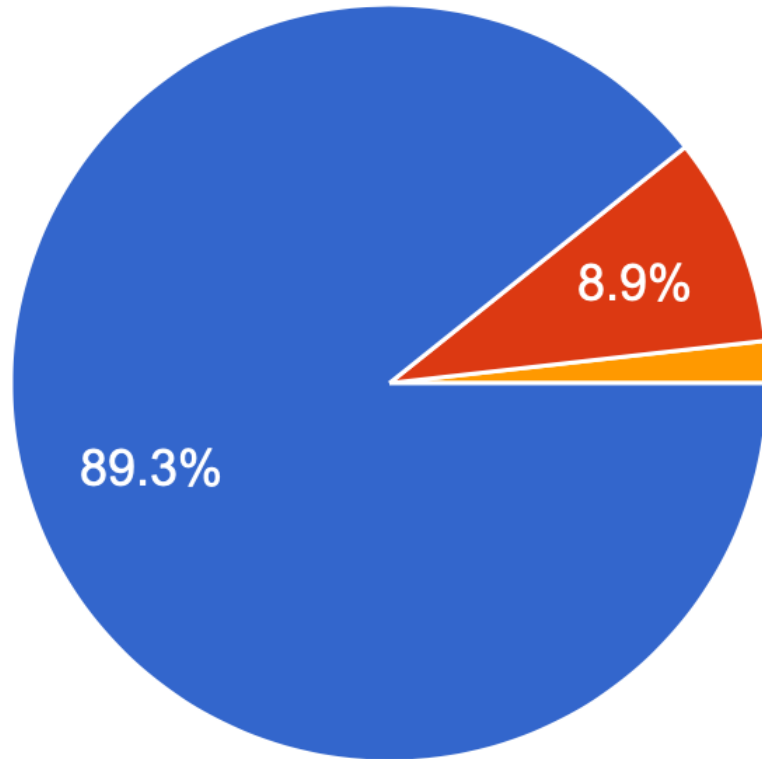


RUN-OF-RIVER HYDRO



TIDAL ENERGY

Survey Results

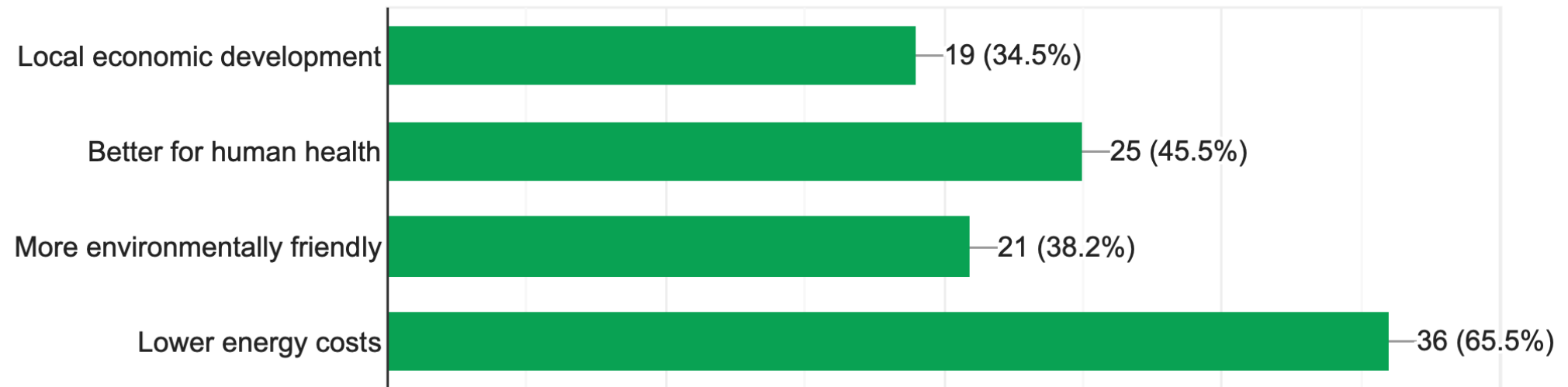


- I would be proud if Naujaat supported clean / renewable energy
- I don't care
- I would be disappointed if Naujaat supported clean / renewable energy

Survey Results

What is the main benefit you would like to see from a Clean Energy Project?

55 responses



Survey Results

What actions do the think Naujaat should take in relation to energy?

- 1 Implement renewable sources of energy such as solar, wind, and/or tidal,
- 2 Initiatives to reduce the cost of energy
- 3 Sell LED light bulbs in the local store
- 4 Fix leaky doors and windows, and general support for energy efficiency in homes
- 5 Turn of electrical devices when not in use
- 6 More public outreach and education regarding energy
- 7 Ensure food security, as a well nourished body is best able to keep warm
- 8 Install water pipes underground,
- 9 Reduce, reuse, and recycle

Near-Term Energy Goals

The Energy Plan Team recommends that the following projects be implemented within the next 5 years:

1. Self-Install Energy Kits
2. Building Renovations
3. LED Lights in Commercial Buildings
4. Clean Energy Project (solar)
5. Rooftop Solar (for unsubsidized ratepayers)
6. Biomass Heating Pilot Project

Implementation of these projects would reduce GHG emissions in Naujaat by 19%.

Longer-Term Energy Goals

The Energy Plan Team recommends that the following projects be studied further, and re-addressed upon fulfilment of the near-term goals:

1. Waste Heat Capture
2. Electric Thermal Storage
3. Heat Generation Research Project

Potential Benefits

Projects that arise from energy planning can have the following types of benefits:

- Fewer diesel fuel spills.
- Lower GHG emissions which contribute to climate change.
- More local involvement in energy operations.
- Protection from global commodity markets and ever-increasing fuel prices.
- Potential improvements to buildings through energy efficiency measures that could help to improve mold and air quality.
- Opportunities for education and capacity building.

Questions?



Thank you!



Sakku Investments Corporation
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N O R T H E R N
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