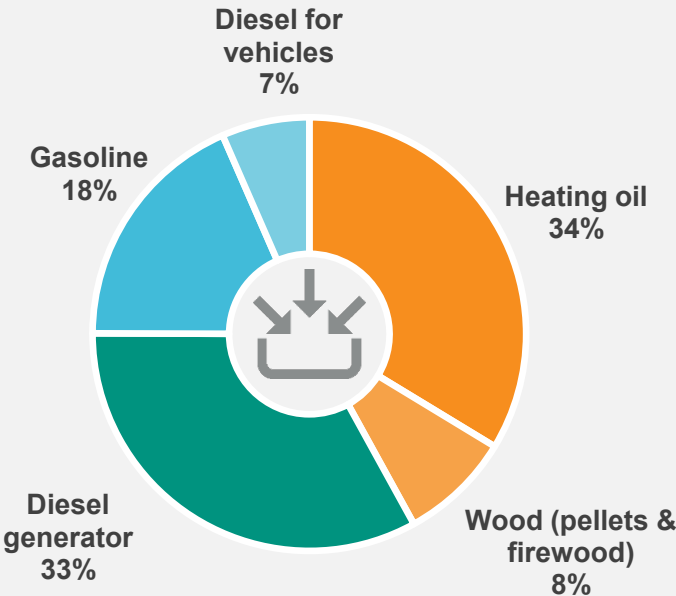


Energy Sources – 1 Year



Diesel generator produces electricity and heat

29% electricity  
71% waste heat



Energy cost

Total: \$6,100,000  
Cost per person: \$10,300

32% heating oil      36% diesel generator  
5% firewood        20% gasoline  
1% wood pellets    7% diesel for vehicles



Renewable energy

9% of total energy  
7% of total from firewood  
1% of total from wood pellets  
0.01% of total from solar PV

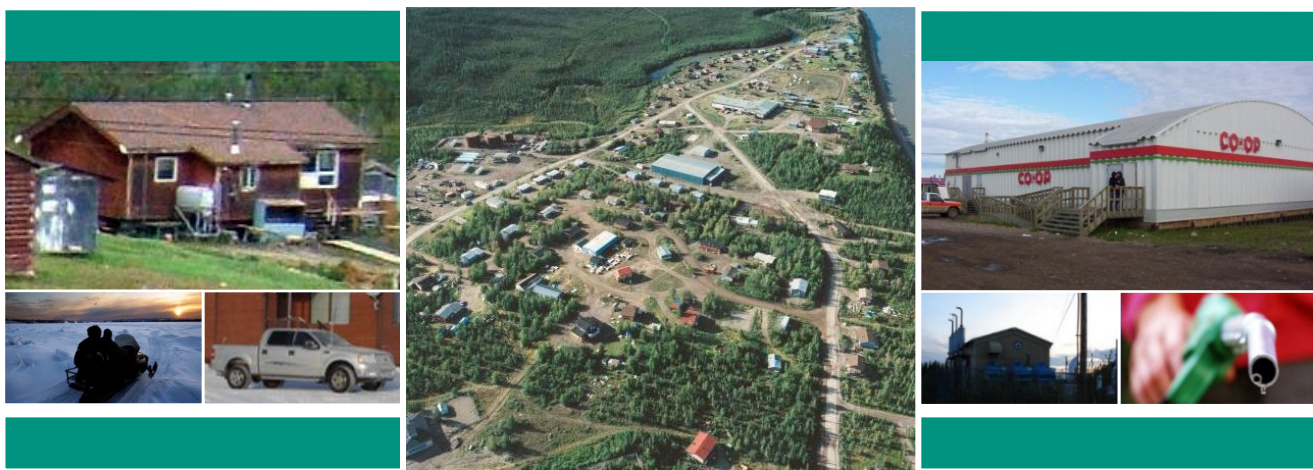
Unless otherwise noted, numbers reflect energy sources purchased or sourced in the community, and do not include industry or commercial transport. Percentages may not add to 100% due to rounding.

ENERGY PROFILE

Where we get energy and how we use it

FORT GOOD HOPE 2023

Population: 591

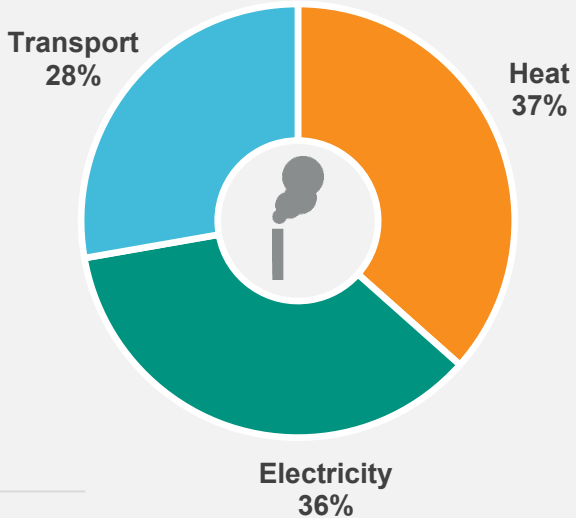
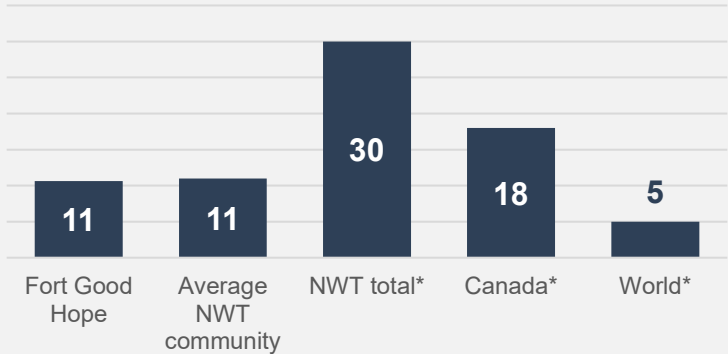


Greenhouse Gas (GHG) Emissions – 1 Year

Community total GHG emissions per year

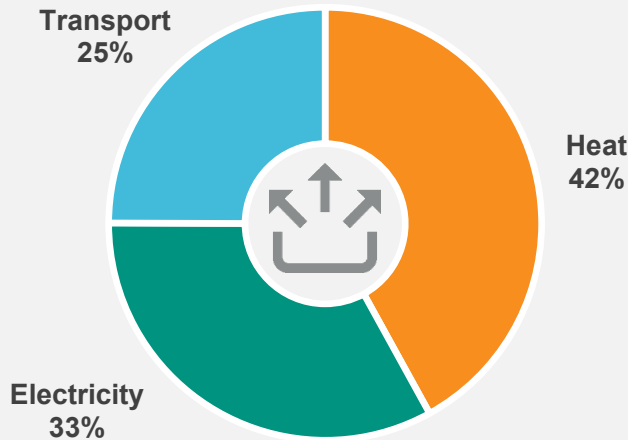
6,300 tonnes  
11 tonnes/person

Average tonnes of GHGs per person per year



\* Includes emissions from industry and commercial transport.

Energy Use – 1 Year



Energy use in homes

24% of total energy use  
45% of total electricity  
55% of total heating oil  
100% of total firewood



Energy use in other buildings

Store, school, church, office, arena, library, etc.

18% of total energy use  
55% of total electricity  
45% of total heating oil  
100% of total wood pellets



Transport (local – no air transport)

Cars, trucks, boats, ATVs, skidoos, etc.

25% of total energy use  
Fuel purchased in the community.



Waste energy

From electricity production and heating

33% of total energy use

# ENERGY PROFILE

FORT GOOD HOPE 2023

## EXTRA INFO

### What's a megajoule (MJ)?

A joule is a unit of energy. A megajoule is 1 million joules.

**Some examples:**

- 1 BBQ propane tank = 500 MJ
- 1 kWh = 3.6 MJ
- 1 L of heating oil = 38.4 MJ
- 1 L of propane = 26.6 MJ
- 1 tonne of wood pellets = 19,200 MJ
- 1 cord of wood = 18,700 MJ
- 1 barrel of oil = 6,100 MJ

### What's waste energy?

When fuels are burned, some of their energy is released as heat that can't be used. The amount of energy that an appliance or device can use is called its efficiency. For example:

**Diesel generators** can usually only convert 25–35% of the diesel's energy to electricity, while 65–75% is released as heat.

**Furnaces, boilers, wood stoves** and other heating appliances can use anywhere from 70% to more than 95% of the heat they produce. The rest is released up the chimney.

### Energy sources



#### Heating oil

- 34% of total energy
- Cost: \$1,940,000
- Amount: 850,000 Litres
- GHGs: 2,290 tonnes
- Energy: 32,600,000 MJ



#### Diesel generator

- 33% of total energy
- Cost: \$2,180,000
- Amount: 834,000 Litres
- GHGs: 2,240 tonnes
- Energy: 32,000,000 MJ



#### Gasoline

- 18% of total energy
- Cost: \$1,190,000
- Amount: 529,000 Litres
- GHGs: 1,300 tonnes
- Energy: 17,800,000 MJ



#### Diesel for vehicles

- 7% of total energy
- Cost: \$402,000
- Amount: 165,000 Litres
- GHGs: 445 tonnes
- Energy: 6,350,000 MJ



#### Firewood

- 7% of total energy
- Cost: \$330,000
- Amount: 367 Cords
- GHGs: 12 tonnes
- Energy: 6,870,000 MJ



#### Wood pellets (commercial)

- 1% of total energy
- Cost: \$43,900
- Amount: 62 tonnes
- GHGs: 2 tonnes
- Energy: 1,190,000 MJ



#### Solar PV

- 0.01% of total energy
- Cost: \$0
- Amount: 3,530 kWh
- GHGs: 0 tonnes
- Energy: 12,700 MJ

### Community GHG emissions

- Homes: 22%
- Other buildings: 14%
- Transport: 28%
- Diesel generator: 36%

### Total community energy use

- 96,900,000 MJ
- 164,000 MJ/person

The AEA has tried to ensure our data is as accurate as possible, but there could be mistakes. If something seems incorrect, please contact us to let us know.

**References**

Energy source and use data: Private suppliers and utilities, and the Government of the Northwest Territories Bureau of Statistics and Department of Infrastructure.

GHG emissions data: <https://www.cer-rec.gc.ca/nrg/ntgrtd/mrkt/nrgsstmprfls/nt-eng.html>  
[https://ourworldindata.org/grapher/co-emissions-per-capita?tab=chart&country=AUS+CAN+USA+OWID\\_WRL](https://ourworldindata.org/grapher/co-emissions-per-capita?tab=chart&country=AUS+CAN+USA+OWID_WRL)

### Total NWT energy use (2020)

Total: 17.5 billion MJ/year

