Updates to AEA Funding Programs



Rebates on Energy-Efficient Products

Product Rebates

- Save \$\$
- Reduce greenhouse gases

Product Rebates

- For:
 - Homes
 - Businesses
 - Non-profit organizations
 - Community governments
 - Cabins

ENERGY STAR® Certified Appliances



Washers and ventless dryers



On-Demand Gas/Propane Water Heaters





On average, uses 30% less energy than a storage tank model

Rebate: \$750

Upright and Chest Freezers







50% up to \$400 in non-hydro community or \$200 in hydro community





Fridges and Dishwashers







LED Lighting

LED FACTS

- LEDs use up to 80% less energy than incandescent bulbs
- LEDs last 3 times longer than CFLs and
 25 times longer than incandescent bulbs
- Can be dimmable and very durable (depending on the model)



Programmable Thermostats

 Get 50% back on the cost of a programmable thermostat, up to \$100.



ECM Pumps



Rebate: 50%, up to \$175

Can be included for purchase and install rebates in our business, community government and non-profit funding programs

More: Heating Appliances & Home upgrades

 To find our more please visit <u>http://aea.nt.ca/programs/energy-efficiency-incentive-program</u>

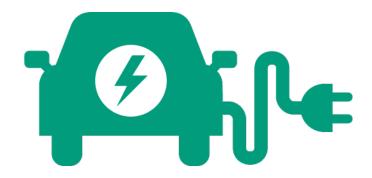


Electric Vehicles and Charging Infrastructure

Electric Vehicles

Item	Rebate
Battery electric vehicle	\$5,000
Plug-in hybrid electric vehicle	\$5,000
Level 2 charging station	\$500

Pre-approval is required.



Businesses and Non-profit Organizations

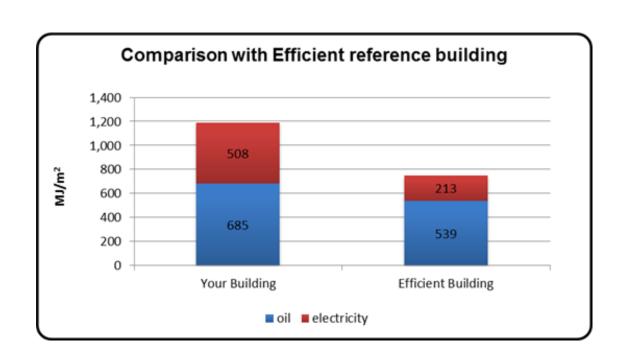
- Lower energy bills
 - Reduce electricity, heating fuel and water consumption in buildings
 - Reduce GHGs where possible

- Available services:
 - Advice
 - Building Energy Audits
 - Desktop
 - On-site
 - Rebates

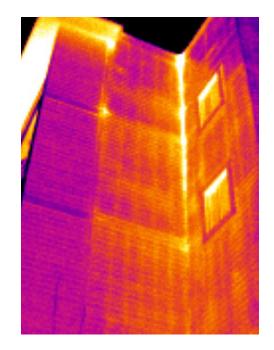
- Advice
 - Efficiency upgrades
 - Renewable energy
 - Appliances
 - Etc.

- Building energy audits
 - Desktop (a.k.a. yardstick audit)
 - On-site (a.k.a. targeted audit)

- Desktop energy audits
 Analyzes utility billing information from your building and compares it to a reference building
 - Determines if a more in depth, onsite investigation of your building would be useful



- On-site energy audits
 Only available after receiving a yardstick audit from AEA
 - Energy Advisor goes through building in detail



- Businesses: free
- Non-profits: free, but must commit to completing \$20,000 worth of energy upgrades to the building

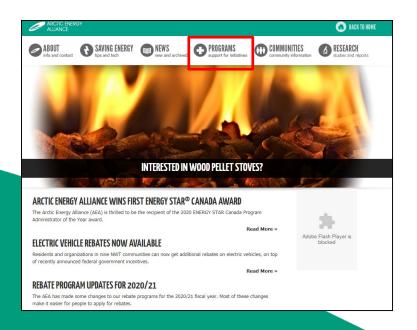
- Any project that will save energy
 - Electricity, heating fuel, water reductions
 - We calculate the savings
 - Must be technically feasible

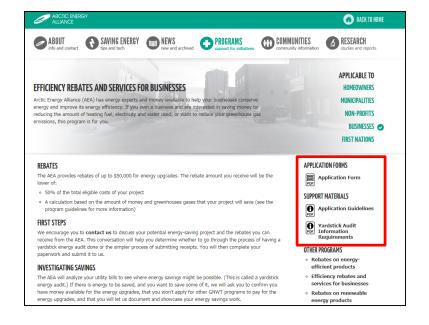
- You will receive the lower of:
 - 50% of total eligible costs
 - A calculation based on dollars and GHGs saved
- \$50,000 maximum

- Eligible costs
 - Materials
 - Shipping
 - Installation
 - Project management services provided by a third party contractor

- Next you decide on a project
 - Get advice from AEA
 - Or talk to a contractor
 - Or complete an audit to get a few project ideas (this takes time)
 - Choose a project
 - APPLY

How do I apply: http://aea.nt.ca/





Typical projects

- Lighting
- ECM pumps
- Insulation and air sealing
- Higher efficiency heating systems
- Controls
- Ventilation systems

Example: LED Upgrades (2019/20)

	Hydro Community	Non-Hydro Community
Avg. capital cost	\$16,000	\$26,000
Avg. rebate	\$5,800	\$13,000
Capital costs funded	36%	50%
Avg. annual savings	\$3,700	\$13,000
Payback with funding	2.8 years (many < 2 years)	0 years (many 0-2 years)



Example: ECM Pump/Fan Upgrades

- Reduce electricity use
- Typically used in:
 - Hydronic heating
 - Water circulation
 - Ventilation



Example: ECM Pump/Fan Upgrades

- More variable capital cost
 - Depends on amount and size of pumps being replaced

Example: ECM Pump/Fan Upgrades

Capital cost	\$5,000-\$50,000+
Typical rebates	50% of capital cost
Reduction in electrical consumption	Minimum of 50%
Payback with funding	<2 years

ECM Pump Upgrades

Existing non-ECM pump (for hydronic heating)



ECM pump (direct swap for the pump to the left)



Example of ECM pumps used for hydronic heating in a typical configuration



Example: Boiler Upgrades (2019/20)

From oil to high-efficiency propane

Avg. capital cost	\$28,000 (incl. labour, boiler replacement, piping, chimneys)
Typical rebates	50% of capital cost
Avg. annual savings	\$7,400
Avg. annual GHG savings	14 tonnes
Payback with funding	< 2 years

Boiler upgrades

Old oil-fired boiler



New, wall mounted, high efficiency propane boiler



Community Governments

Community Governments

 Upgrades to community governmentowned buildings

reduce electrical energy, heat energy and

water.

Air sealing and windows: Town of Inuvik

Community Governments

- Services:
 - Rebates
 - Building energy audits (desktop and on-site)
 - Project coordination

- 10 total rebates (in 7 communities)
- Total value of rebates: \$220,000

Payback

- Capital cost (all projects, before rebates):
 \$600,000
- Estimated annual savings: \$300,000
- Simple payback (after rebates): 1.3 years

Greenhouse gases

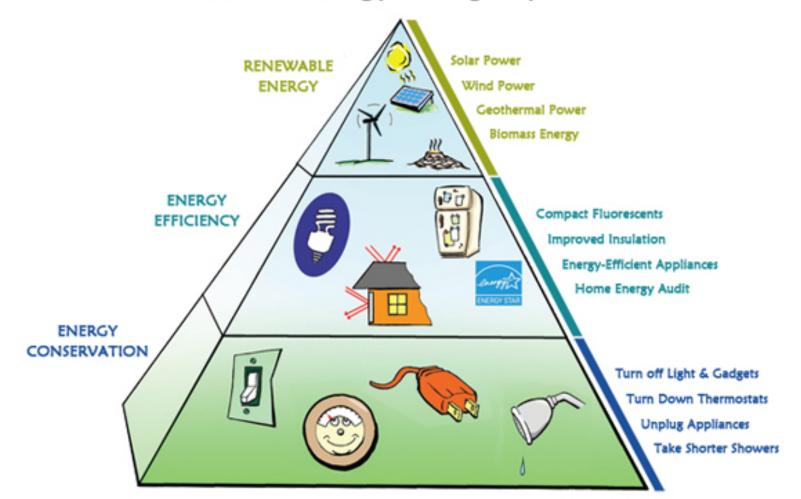
- Annual greenhouse gases avoided: 200 tonnes
 - equivalent to taking 43 cars off the road

Energy savings

- Annual electricity consumption avoided:
 250,000 kWh
 - equivalent to running 570 laptop computers 24 hours a day for a year

Home Energy Evaluations and Upgrade Recommendations

The Smart Energy Living® Pyramid



Home Evaluations

EnerGuide Rating Service

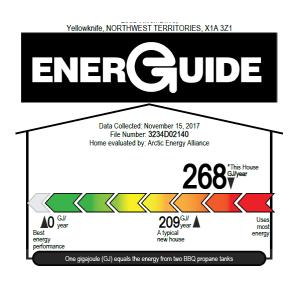
- Home energy evaluations provided:
 - By the AEA for 20+ years to all 33 NWT Communities !!
 - Natural Resources Canada = Program sponsor
 - To:
 - Residents
 - Businesses
 - Community & indigenous governments
 - Non-profit organizations

EnerGuide Rating Service

- Service includes:
 - 2.5 hour on-site full house evaluation
 - 75% of cost covered by GNWT
 - Homeowner only pays \$150+GST
 - Computer modeling of current house, plus various energy upgrades
 - Summary report, EnerGuide label & renovation upgrade report

EnerGuide Rating Service

- Homeowner receives:
 - Personalized plan for upgrades
 - including cost & GHG savings
 - Report
 - references eligible rebates/incentives
- A post-retrofit evaluation is not required to claim rebates



Energy Conservation & Efficiency

- Energuide Rating Service
- Project advice and expertise





Home Improvements

Deep Home Energy Retrofit Program

- Pre- & post-retrofit energy evaluation required
- Going "deep" with a building envelope insulation upgrade

\$20,000 maximum rebate!

- Up to \$20,000 per house,
 - up to 5 houses per year per owner
- Requires minimum R10 be added to walls
- Rebate ranges from \$3,000 \$8,000
 - R10-R14 = \$3,000
 - R15-R19 = \$5,000
 - R20+ = \$8,000

- Other rebates (after wall insulation complete):
 - 200% rebates on all other eligible insulation upgrades
 - ENERGY STAR certified windows
 - \$250 per eligible window up to \$3,000 (12 windows)
 - Primary heating system
 - Up to \$3,000

- Other rebates (after wall insulation complete):
 - Air sealing
 - Up to \$1,000
 - Shipping
 - up to \$2,000
 - for communities without year-round road access
 - Bonus rebate
 - up to \$4000

Available until March 31, 2022 (maybe longer)

Renewable Energy

Renewable Energy Rebates

Examples:

- Solar*
- Wind*
- Wood pellet heating
- Biofuel/synthetic gas
- Ground-source heat pumps

^{*}As of November 19, 2018, the AEA can no longer offer rebates on grid-connected renewable electricity projects in communities that use hydroelectricity.

Renewable Energy Rebates

- Residents: up to \$20,000
- Businesses, community governments, Indigenous governments and non-profit organizations: **up to \$50,000.**

Renewable Energy Rebates

- You will receive the lower of:
 - 50% of total eligible costs
 - A calculation based on dollars and GHGs saved

NAHANNI INN – BIO MASS & STORAGE 2019





Nonacho Lake Fishing Adventures



2019 & 2020 remote solar installation

Contact Info

Contact Info

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Thank you Merci Mahsi cho

Questions?

