

SAVE \$\$ BY SAVING ENERGY

*Grants and interest free loans are available for many home retrofits.

[Canada Greener Homes Initiative](#) is a federally funded program

City of Penticton [Home Energy Loan Program](#) (HELP)

For programs in the RDOS & District of Summerland go to

<https://betterhomesbc.ca/rebate-search-tool>

Making your home more energy efficient:

- Which upgrades will give you ‘the *best bang for buck?*’
 - Get an **energy audit** & work with a CHBABC.org licenced [Energy Advisor](#) to find specific-to-your-home recommendations about which programs & incentives best match your budget.
 - Go to the [National Research Canada \(NRC\) Searchable Products](#) web page and look for the Energy Star certified products for ones that have the highest ratings.
- Seal drafts and add more **insulation** (drafts - are often #1 heat loss).
 - Insulation may be needed in attics, walls and/or basement.
 - Often it's easier to add insulation to the outside of the existing exterior and re-clad on top of it with a new rain-screened exterior.
 - Use rigid insulation panels on the outside of the foundation.
- Upgrade **windows & doors**.
 - Replace with [Energy Star most efficient](#) models.
 - Add removable storm windows (a lower cost option for heritage homes with single-paned, double hung and leaded glass windows).
- Install a **heat pump for both heat and cooling**
 - **Heat pumps are 2-3 times more efficient than gas or electric furnaces and air conditioners.**
 - Heat pump technology has evolved - cold-climate models are efficient below minus -22C & some models below -27C!
 - Inverter pumps can be reversed in the summer to provide cooling, ductless split heads typically have electrostatic panels to clean the air too of particulates.
- Install a **hot water pre-heating system**
 - Compact wall or roof mounted 4 season systems preheat the cold water before it goes to a tankless hot water heater.

- Interior heat recovery units that extract heat from outgoing warm waste water (from showers, dishwasher, & laundry) to preheat the incoming cold water before it goes to the hot water heater.
- Install **solar panels**
 - Roof-mounted, or free-standing / ground-mounted.
 - Excess power can be fed into the electrical grid for credit or stored with a battery storage system and inverter.
 - Some [areas](#) allow for additional 1.0m height for roof mounted solar
- Install a **heat or energy recovery ventilation unit** (HRVs or ERVs).
 - Energy efficient homes are more airtight so require mechanical ventilation to bring in fresh air while venting the stale air
 - HRVs/ ERVs provide ventilation while also recovering heat & humidity from the outgoing oxygen-depleted air.
 - Can be integrated with an existing furnace or air handler, or installed as a new separate system.

Reduce your energy use:

- Turn heat down at night and when going away.
- Use air conditioning only as needed. Install programmable controls.
 - **Smart WIFI enabled thermostats** use 'Set and Forget' daily & weekly schedules with manual or smart phone app controls that you can access while physically away via WIFI or cellular data.
- Turn off lights when leaving a room.
- Unplug or de-power appliances when not in use.
 - **Smart Home** systems will turn lights & appliances on and off (you might already have a system if you have an Apple TV 4k box, an LG or Samsung TV, or Amazon Alexa).
- Install LED lighting.
 - LED lights are 75% more energy-efficient than incandescent lights.
 - Consider adjustable colour temperature lamps to adjust them to higher, during the day to daylight cool tones (more -blue) and at night to warmer more yellow and orange light temperatures to sleep better ([consider this recent article about blue light risks](#))
- Line dry clothes, or replace your vented clothes dryer with a [more energy efficient](#) ventless / heat pump dryer

- Use a pressure cooker/crock pot combination appliance or induction stove top that heats just the pot and not the air around the pot
- Install low flush toilets, fix dripping faucets
- Replace your noisy, CO2 & soot emitting gas-powered yard & garden tools with quiet and clean, **fast-charge battery powered** chainsaws, string weed wackers, pole pruners, blowers, cultivators, snowblowers, and powered mowers. Consider a system with interchangeable batteries

Future Proofing:

- Electrical considerations for electric everything homes
 - Consider increasing the capacity of the electric panel (if you have room for a larger 400A rated electrical panel to dissipate heat) even though it might be a 200A service.
 - Ask if system design allows for future integration with solar panel storage systems (battery storage & inverter, etc)?
- Consider using prefab panels to reduce construction waste and speed installation
- **Provide shade** for windows & outdoor areas for hotter summers
 - Build a new or retro-fit existing roof with four feet or larger eaves / overhangs.
 - Plant trees or arbors with vines or screens that absorb heat before it hits your home, windows or adjacent deck or patio.
- Use **water-wise landscaping**:
 - Xeriscape to conserve water.
 - Install swales to absorb excess water (downpours, run off).
 - Minimize the amount of impermeable surfaces (e.g. asphalt/concrete) around your house.
 - Install a drip irrigation system for garden beds and potted plants
 - Install a reservoir to save rainwater from roofs for gardening

Check back at the [FirstThingsFirstOkanagan.com](https://www.FirstThingsFirstOkanagan.com) website for updates to this document for the latest info both updated & expanded!