City of Parksville

ENERGY EFFICIENT HOMES

DEPARTMENT OF COMMUNITY PLANNING AND BUILDING

ENERGY STEPCODE
BUILDING BEYOND THE STANDARD

INCREASING EFFICIENCY

To reduce costs associated with energy usage and to improve resource conservation, many are turning to building high-performance homes.

Today, measures to improve energy efficiency over traditional building materials and practices are optional. By 2032, however, British Columbia is expected to require all new buildings to be net-zero energy ready. The Province will require that local governments ensure that new construction complies with progressive levels of the Energy Step Code as time goes on.

To read more about the BC Energy Step Code, visit energystepcode.ca.

BENEFITS OF AN ENERGY EFFICIENT HOME

- **LOWER ENERGY BILLS**—reduced energy use lowers the cost of operating your home and protects against future rises in energy prices.
- **IMPROVED AIR QUALITY**—mechanical ventilation and the use of materials with lower toxicity improves indoor air quality.
- **GREATER COMFORT**—an airtight building envelope reduces drafts and temperature variations.
- **LOWER POLLUTION AND CO2 EMISSIONS**—reduced energy use lowers your contribution to greenhouse gas emissions.
- **NATURAL LIGHT**—using light effectively can provide a more pleasing indoor environment while reducing your energy bill.
- **HIGHER RESALE VALUE**—energy efficient homes often sell more quickly and for more money than conventional homes.
- **REDUCED NOISE**—more robust insulation and quality windows can reduce sounds from outside.

ENERGY EFFICIENT HOME FEATURES

High performance homes consist of a range of features. Certain features, like insulation or window locations, should ideally be considered before building a home, but retrofitting existing homes is also achievable. Other features, like low-E, argon-filled windows and efficient appliances can easily be integrated into existing homes.

BUILDING ENVELOPE AND ORIENTATION

The greatest gains in energy efficiency are found in features incorporated into the building envelope. These include:

- Insulation with higher R-values;
- Reducing thermal bridging;
- Continuous air barrier around the home, verified by blower door test;
- Orienting the building to take advantage of sunlight; and,
- Locating windows and roof overhangs to allow light and warmth in winter months and to shade from the heat in summer months.

WINDOWS

The most energy efficient windows are typically triple-glazed. Good windows will be rated to have low heat loss. If possible, have an energy advisor examine different configurations of windows for the highest efficiency.

SPACE HEATING AND COOLING

High-performance homes demand less power for heating and cooling over conventional homes. As such, the heating and cooling systems should be scaled down to match the reduced energy loads. Homeowners should also consider installing a heat recovery ventilator (HRV), which reuses heat from exhaust air to further reduce energy use.

OTHER ENERGY CONSIDERATIONS

After reinforcing the building envelope for energy efficiency, you may want to consider other factors to further decrease your energy demand. Opt for lighting, appliances, mechanical equipment (i.e. hot water heater) and electronics that use less energy. Look for products with a good EnerGuide rating or that are Energy Star-certified. You might also consider installing solar equipment on roofs with good southern exposure.

FOR MORE INFORMATION

BC Energy Step Code: energystepcode.ca

BC Housing: https://tinyurl.com/tcy6exo

https://tinyurl.com/s6tz9p3

CleanBC Better Homes: betterhomesbc.ca

BC Hydro: bchydro.com/powersmart

Photo Captions

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Information is for convenience only. Contact department staff to discuss current and applicable bylaws

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