

# GRID-TIED SOLAR: *frequently asked questions*



**Left:** *This ground mount solar power system was installed this past summer northwest of Fort St. John by Peace Energy Co-op. The 13.3 kilowatt grid-tied solar array is now providing 100%*

*of the power for this owner's rural home and ranch. Solar panels come with a 25-year warranty and will still be doing their job 50 years from now.*

## HOW DOES GRID-TIE WORK?

Power from your solar array powers your home first. Excess energy not needed at the time will go into the grid as a credit on your regular electrical account. You will then have that credit to use up at night or in the winter.

For a Net Zero system, a lot of excess power is generated during our high-solar summers, which is then used up during our low-solar winters. With a properly designed system, this will zero-out your electrical bills each year.

## Do I need BATTERIES?

No! That's the beauty of solar grid-tie: the grid is sort of acting as a big battery, storing your excess solar energy as a credit on your account. If you want emergency backup you can install a generator or battery system that will kick in should the grid go down, but that's an option, not a necessity.

The new lithium batteries (developed for electric vehicles) continue to come down in price and are now being used

to give homes the option of going partially or completely "off-grid" for true energy independence.

## What about MAINTENANCE?

Your solar power system is completely "solid state" – it has no moving parts. Panels are made with very tough tempered glass and are maintenance-free for their 40-year or more lifespan. Solar panels come with a 25-year warranty, and most other parts have 12-year or more warranties.

A bit of rain washes the panels off. No cleaning is required.

Snow? In northern BC, 90% of our solar energy arrives from the sun in the spring, summer and fall, only 10% in the winter. Because of this, most folks do not bother removing snow from their panels.

With a properly designed Net Zero system, your summer energy credit will be enough to see you through the dark winter months, insuring your cost for electricity for the year will be zero.

## WHAT DOES SOLAR COST?

Making your own solar electricity is not only about the cleanest, greenest thing you can do but also one of the best investments you can make.

In BC a typical solar system yields a 5-10% rate of return on the cash invested, calculated on the value of the solar energy produced divided by the initial system cost.

The solar system is also a hard asset that retains its value. It will increase the re-sale value and re-sale attractiveness of your home or property.

Hard, up-front costs will vary with how much power you use and how much you would like to displace with your own solar power. You can start

small and add more solar later, or go all-out and install enough solar to provide 100% of your power (known as Net Zero), eliminating the cost of your electricity completely.

For a small energy-efficient home, your complete cost to go solar could be as low as \$10,000. For a large family home or farm it could be three to four times that, but it's still a solid investment that gives an even better return than a smaller system.

Peace Energy Co-op will design a custom solar power system for you that will fit your budget and give you the best return on your investment.

***Call for a free estimate!***