



# Eco-Solar Home Tour 2018

Sunday 3 June 2018 Noon to 4 pm

## McKernan Solar Home

**Tour Day:** Sunday

**Address:**

**Hosts:** Owners

**Parking:** On Street

**Energuide Rating:**



### Summary points why people need to see your home

- Residential garage solar PV system
- East and West facing arrays
- Offsets 100% of homeowner's annual electrical demands with solar PV system.
- We also focused on creating a positive natural environment encouraging birds, bees and plants.

### What will people see and learn about at your home?

- Grid connected solar PV system and its components
- East and West facing rooftop installations
- The ability to offset the entirety of your annual electrical loads with a solar PV system.

### What are the main things people will see at your home?

- 6.21kW SolarEdge DC optimized solar PV installation
- REC345TP2S 72 cell Silver modules (18)
- SolarEdge monitoring portal display

### Are there main items that they can't see?

- Attic space and insulation R70+. Equipment not visible from ground such as under modules, optimizers, inside soladeck, etc.
- The main home will not be open but included a large reno
  - Spray foam on exterior walls
  - Extra ceiling insulation
  - Replace furnace with compact glycol heater
  - Glycol radiators in each room
  - Window upgrade
  - Energy Efficiency Alberta Upgrade
    - Lights changed to LEDs where applicable
    - Low flow faucets and showers

Edmonton



3 LEAFS





Edmonton, Alberta

# Eco-Solar Home Tour -2018

## McKernan Solar Home

### Why is this home on the tour?

Like most we just want to do what we can to live a positive lifestyle. It's a small 1950's home. Rather than tear it down we decided to do a large renovation and add a garage. We tried to optimize our efficiencies and did what we could to go green. We use a glycol radiator heating system. For power the solar rebate program was a major factor for the decision to go solar. The house and garage build are a 4-year ongoing process (NOTE: Garage solar array install took a mere 3 days). We also used reclaimed items like doors and insulation to save costs. As well as doing a lot of the building ourselves.



### What features save on energy costs?

- The solar grid can supply more than 100% of our power needs in optimal conditions.
- The radiators in each room are adjusted individually for savings and comfort.
- LED lighting in the house and garage, and dimmers on lights not changed over.
- No clothes dryer in service for 4 years, we use racks and hanging systems. We use a high-efficiency washer.
- The mowers used for the minimal lawn are a push mower and one old rechargeable electric mower for mulching grass and leaves.
- We finally replaced a 20 yr old fridge with a new energy star one.
- The compact unit that heats our glycol for home heat also doubles as the instant on hot water heater, which can supply an endless amount of hot water on demand.



### What features save on water costs?

- We have an extensive garden and use 4 water barrels to store rain runoff. It is surprising how quickly they fill up. Using rainwater made a huge difference on our water usage.
- The lawn is very minimal and has been mostly replaced with flowers, shrubs and trees.
- Low flow shower head.

