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# Eco-Solar Home Tour 2017

Sunday June 4 2017

## Solar Heat Pump Home

**Tour Day:** Sunday

**Address:**

Tomahawk, AB

**Hosts:** Homeowners and  
Think Mechanical

**Parking:** In driveway

**Energide Rating:** 85



- First SunPump system installed in Alberta
- Space heating and domestic hot water heating provided by a Solar Heat Pump (SunPump)
- Thermal Battery Tank that stores heat for use 24 hours a day
- 9kW Solar PV array offset the electrical demand for SunPump system and home electrical usage.

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

- New heat pump heating system, sized to handle 100% of the space heating and hot water demands of the home.
- This home has upgrades that make comparable to a modern standard build
- R40 ceiling insulation
- R30 wall insulation
- Ridged foam insulation wrapped exterior

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

- SunPump solar collector array mounted on the side of the home so you can get up close
- SunPump thermal battery/heat pump in mechanical room
- Solar PV array

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

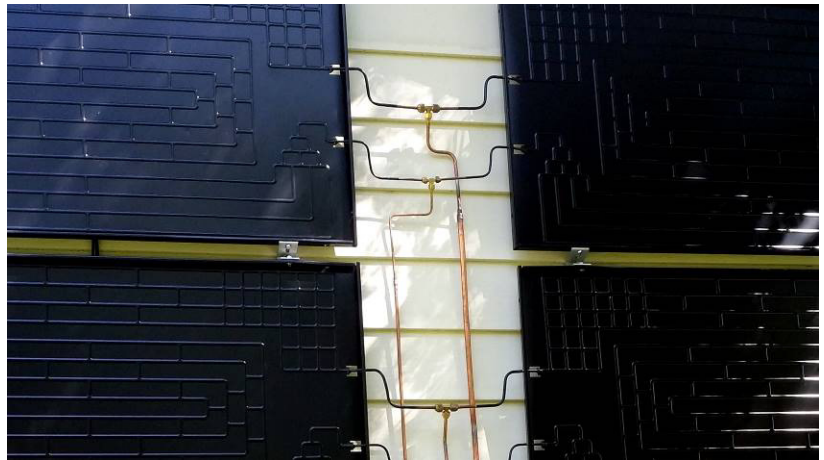
- Insulation

# Eco-Solar Home Tour -2017

## Solar Heat Pump Home

### Why is this home on the tour?

The first Solar Heat Pump (SunPump) installation in Alberta, with the addition of Solar PV makes this home a good example of a retrofit renewable option to reduce fossil fuel usage on an older home. With minimal structural disturbance, hot water and space heating are provided by a SunPump system. The addition of a solar PV system offsets the energy demands of the SunPump as well as the household energy needs.



### What features save on energy costs?

- Solar Heat Pumps (SunPump) combines heat pump technology with both air source and solar thermal technology and has a COP of between 2.7 and 7. This means it provides domestic hot water and space heating with a significantly reduced energy input than conventional methods
- Solar collector array and thermal battery collect and store heat for use 24 hours a day
- Solar PV offset electrical demands of the home and the solar heat pump system
- The home was built to better than standard specifications for insulation when it was built and has since upgraded its siding.

