



Eco-Solar Home Tour 2022

Sunday 12 June, Noon to 5 pm

Rocky Ridge Solar Home

4 Elements

www.4Elements.eco



Calgary



SkyFireEnergy
Solar Energy Solutions



GOelectric
VEHICLE CORPORATION



Tour Day: Sunday 12 June
Hosts: Homeowners
Parking: In alley by garage
Energuide Rating: 102 GJ/yr

Summary points why people need to see your home

- Practical design combining solar PV and EVs
- For people interested in the combination of Electric car and Solar



What will people see and learn about at your home?

- Considerations when designing Solar PV
- How to best fit an Electric car into your home setup
- Economics behind Solar + EV





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Rocky Ridge Solar Home

Why is this home on the tour?

When our young family needed more space, we decided to build a larger home. It might sound counter-intuitive to build a larger home and make it energy efficient, however, we decided on exploring the path to striking a balance between development and impact. We evaluated and incorporated a lot of energy efficiency technologies and incorporated when they made sense. We would like to share our experiences and learnings with homeowners and show them how a few simple changes at the design stage can make a huge impact from emission reduction (70% lower than a typical Alberta home, on a net basis) and operating cost perspective.



What features save on energy costs?

- Solar generation (10 kW)
- Combi-furnace (Furnace with hot-water on demand)
- Insulation, HRV, triple-pane dual-glazed windows
- Basement slab thermal insulation and heating without a boiler
- LED lighting

What features save on water costs?

- High efficiency toilets, fixtures, appliances
- Drain water heat recovery

Other special features

- Electric car (Tesla)
- Solar panels installed on the entire south side of the roof, free of any vents and obstructions
- Optimizing the layout (east-west orientation)
- South windows (where possible) to capture sun (heat gain) during cold winter months
- Running dishwasher, washer, dryer and other appliances when solar PV system is generating

