

Eco-Solar Home Tour 2021

Sunday 13 June, 12:20 to 1:00 pm

Huntington Hills Solar Home

Tour Day: Sunday 13 June Time: 12:20 to 1:00 pm Hosts: Homeowner Energuide Rating: 79 GJ/yr

Summary:

• New roof-mount solar PV framing system fully integrated into the building envelope.



- The home also has a solar hot water heating system.
- New solar thermal collector on backyard garden studio.

What will people see and learn about at your home?

• Learn how solar PV can power a home and provide long lasting roof protection.

- Learn how solar thermal heating works.
- Learn the importance of insulation and a tight building
- envelope for reduced energy use.

• Learn how suburban home owners can reduce energy costs and GHG emissions.

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

- Unique solar PV arrays
- R50 attic foam insulation
- Solar hot water heating system in house
- Solar thermal collector on accessory building
- Magnesium oxide pre-fabricated wall system for garden studio





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Why is this home on the tour?

Three solar technologies are showcased. The first is the CHE Power Structures solar PV framing system installed on two accessory buildings in the backyard. The CHE framing system eliminates the need to install racks on top of shingles before mounting the solar PV array. The frames attach directly to the roof and with the solar panels, provide a waterproof envelope for the building. The second feature showcased is the solar thermal heating system in the home. It uses evacuated tube thermal collectors. The third solar technology is the Freedom WonTM solar thermal collector on the garden studio. This



collector is intended to warm the backyard accessory building – a demonstration prototype built to display these solar technologies.

What features save on energy costs?

- Solar PV system
- Solar thermal water system
- Heat exchange ventilator
- R50 attic insulation
- R36 basement wall insulation
- High efficiency furnace
- On-demand water heater

What features save on water costs?

• Low flush toilets

Other features

• It's a retrofitted 1971 starter home bungalow using technologies that are widely available to anyone trying to live life more sustainably in the suburbs.

