Eco-Solar Home Tour 2020

Saturday 13 June Noon to 4:30 pm

SAIT Green Building Tech Lab

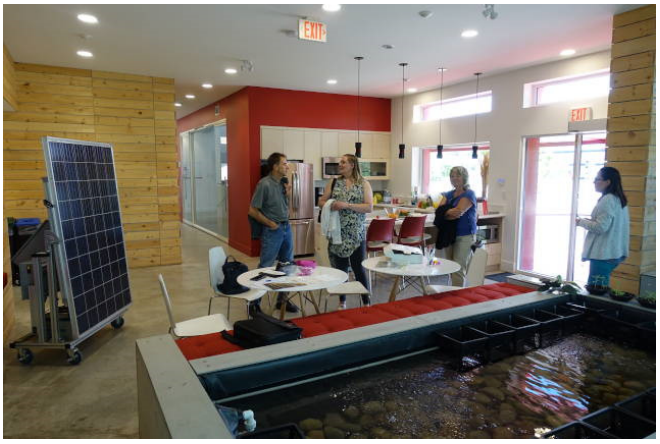
Tour Day: Saturday 13 June
Address: 60 Fowler Dr. NW
Hosts: SAIT Staff & Students
Parking: Paid parking lot
Energuide Rating: n/a

Summary:

- Research lab
- All systems are visible
- Solar PV test lab
- Solar thermal test lab
- Building envelope testing
- Solar carport and car charging station

What are the main things people will see at this location?

- A large solar carport at the entrance of the building that is a trackable sixty solar panel unit with 16,800 watts
- Thirty-one solar panels on the main building and eight panels on the sides.
- A light shelf over the walkway that directs sun into the building in the winter and shades the sun's rays during the summer months. The shelf reflects light deeper into the room.
- The concrete floors act as a thermal mass - captures the sun's heat in the winter and cools during the night for the summer months.
- Energy efficient triple pane windows; double stud walls with R-40 walls- R-60 roof
- A beautiful Living Wall in the reception area
- Green roof testing plots
- Wood façade in the kitchen that is from lumber collected from Pine Beetle kill



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SAIT Green Building Technology Lab

Why this site is on the tour

The Green Building Technologies (GBT) Lab and Demonstration Centre is Calgary's first net zero energy commercial building: a 6,350-square-foot living example of energy efficiency, building-integrated green technologies, and renewable energy solutions. With additional square footage dedicated to specialized workshops, testing bays, storage, and a large construction staging area, this amazing facility totals over 16,800 square feet of research infrastructure.

The Green Building Technologies Lab provides industry partners the ability to test:

- Net Zero energy compliance, energy performance and smart building management
- Cold climate mechanical and renewables
- Hygro-thermal and Structural testing – building envelope and advanced material assemblies
- Net Zero water conveyance, storage and use
- All systems can be viewed by industry leaders, decision makers, students, and the general public. The building showcases:
- Advanced envelope and passive solar design
- Photovoltaic and solar thermal test labs
- Solar carport equipped with an electric car charging station
- Rainwater harvesting – storage and bio-filtration
- Living walls and green roof testing plots