

SolarSaver Mission Statement

Solar power has never been as accessible to the average Canadian family as it is today. With increasing panel efficiencies, decreasing manufacturing costs, and the uprising of local installation companies, there are lots of options for homeowners to pursue solar power. However, the concepts behind solar power generation may be overwhelming for many, discouraging viable homeowners from considering the long-term benefits of this renewable energy source. Traditional solar calculators require users to input specific measurements about their rooftop-measurements that aren't typically known by average homeowners. As well, the results are presented in a way that may not make sense for uninitiated individuals. This is a critical flaw, as these tools should act to encourage viable homeowners to start or continue their solar journey.

This is where SolarSaver shines. The purpose of this app is to provide the citizens of Halifax and Dartmouth with a simple, streamlined service for determining if rooftop solar power is a viable option for their home. Results are presented to the user in a way that allows for visualization of annual power bill savings should they decide to install solar panels. Using a 1m LiDAR-generated Digital Surface Model (DSM) and building polygons available through the Halifax Open Data Catalogue, the panel-eligible rooftop surface area and pitch is calculated to take the guesswork out of traditional solar calculators. The app allows for the user to refine this calculation, learn more about solar energy generation, and locate local solar installation businesses.

The intention of our app is to excite and inform homeowners about the environmental and financial benefits of installing solar panels on their rooftops. With greater public access to this information, we hope that more and more homeowners will consider this proven technology. Higher rates of household solar adoption across Canada will greatly assist in the battle against climate change, reducing overall dependency on non-renewable energy sources. We have designed SolarSaver to be flexible and easy to use, so that municipalities across the country can take advantage of the user-interface by including their own datasets. We also hope that this tool will influence research groups with more accurate data to upload and share their findings with the public, without having to worry about designing an effective user-interface. Through this collaborative process, we can all contribute to making a difference for the future of our planet.