



## Frequently Asked Questions

### What is a photovoltaic solar system?

A system that captures light from the sun and converts it to electricity

### Are there different types of systems?

Yes there are systems that tie into the existing grid, systems that use battery storage, or a combination of the two.

### Can I put solar on my house?

Yes but it may require engineering reports to make sure the roof is safe for the extra weight and wind uplift. Also an application must be made to the city and province.

### Can I put any system on my house?

Yes but the orientation and of your roof may determine its efficiency

### Can I install a system myself?

Yes but it requires a vast amount of knowledge and we would recommend using a local licensed installer. Make sure you ask for references and examples of their work.

### How long do solar panels last?

Solar panels are designed to last at least 25 years and may last even longer.

For more information, please visit:

[www.environmentlethbridge.ca/solar](http://www.environmentlethbridge.ca/solar)



## Benefits of Solar

Save on the cost of electricity. Once the capital costs of installation are paid for, electricity generation is free for your home.

Having a solar installation will add to the value of your home.

Decrease your carbon footprint. Solar energy doesn't generate CO2 or other greenhouse gases (after installation).

Gain long-term energy security for your home. By installing a solar system, you can be buffered against future increases in energy prices.



## Disadvantages of Solar

Solar systems are expensive to install. Depending on the size of the system, the upfront capital costs of a new solar system can be significant.

Storage systems (for systems that use batteries) are large and expensive. Although technology is improving, batteries are still expensive and require large amounts of space.



## Solar Installation Guidelines

## Contact Information

**City of Lethbridge**  
**Planning, Development & Permitting**  
**Services**  
City Hall  
910—4 Ave. South  
Lethbridge AB T1J 0P6  
Telephone (403) 320-3920  
[www.lethbridge.ca](http://www.lethbridge.ca)

**Environment Lethbridge**  
319-6 Street South  
Lethbridge AB T1J 2C7  
Telephone (403) 330-6241  
[www.environmentlethbridge.ca](http://www.environmentlethbridge.ca)





## Installation Checklist

- Contact solar installers and ask for references.  
[www.solaroptix.ca](http://www.solaroptix.ca)  
[www.energysmartcanada.com](http://www.energysmartcanada.com)
- Work with your installer to determine the size of your system.
- If required, complete your roof inspection and engineering report.
- Apply for a building permit from the City. You will require a diagram of the location and placement on the roof.  
[www.lethbridge.ca/Doing-Business/Planning-Development/Permits-Applications/Pages/default.aspx](http://www.lethbridge.ca/Doing-Business/Planning-Development/Permits-Applications/Pages/default.aspx)
- Apply for an electrical permit from the City. You will need a line diagram of the system.
- Apply for a microgeneration agreement.  
[www.energy.alberta.ca/electricity/microgen.asp](http://www.energy.alberta.ca/electricity/microgen.asp)
- Sign an interconnection agreement with the City of Lethbridge Electric Utility.  
[www.lethbridge.ca/living-here/electric/Pages/default.aspx](http://www.lethbridge.ca/living-here/electric/Pages/default.aspx)



## Solar Installation Process

- 1** Contact a solar panel installer and decide which type of solar panel will be best for your situation.
- 2** Take your utility bill with you to the installer and they will assist you in figuring out how many solar panels you will require to reduce your utilities to where you would like to see them.
- 3** The solar panel installer will also request a budget from you, this will also be a deciding factor in how many solar panels will be able to be placed on your house.
- 4** The installer will come to your house and measure the size of your roof to design the system to fit your roof.

**We strongly encourage you to use a qualified solar panel installer.**

**A qualified installer will take care of all paperwork and permits needed to complete the process.**



If your panels are to be installed other than parallel to the roof plane, within 300 mm of the roof peak, or mounted on any system other than the approved racking system, you will require a roof inspection to have the trusses checked for load bearing capacity on an existing building before a permit will be issued. You will need an independent engineer to come & take care of the roof inspection on an existing building; if this is a new build you should be able to get a letter from the truss manufacturer with load bearing capacity.



Bring all paperwork from the installer and engineer to City Hall to receive your building & electrical permit. Ground mounted panels will not require a building permit (or roof inspection).



System installation. Your installation time frame will probably be between 4-8 Weeks



Once your installation is complete you will need to request inspections. Inspections are generally completed within 2 working days.



Once the inspections are complete it will be sent to the Electrical Operations at the City and they will come and install your bi-directional meter. This can take up to 1 week.



Your system is now ready to GO LIVE.



The City will contact the Fire Department to let them know that your house has solar panels. This is done in the case of a fire the firefighters are aware of the solar panels and they can properly shut them down for their own safety.



Contact your insurance company and add the solar panels to the value of your home.

