

## Simple Facts about Residential Solar Systems

Hundreds of thousands of solar panels have popped up across the country as an increasing number of Americans choose to power their daily lives with the sun's energy.

The primary technology used is photovoltaics, or PV. These are the panels you have seen on rooftops.

### **What is important to know as a homeowner if I want to add a solar energy system to my home?**

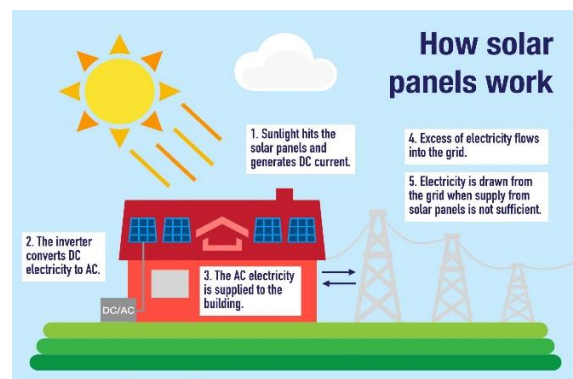
If you are thinking about adding a solar energy system to your home, here are some things to consider.

Solar panels are built to work in all climates, but in some cases, rooftops may not be suitable for solar systems due to age or tree cover. If there are trees near your home that create excessive shade on your roof, rooftop panels may not be ideal. The size, shape and slope of your roof are also important to consider. Typically, solar panels perform best on south facing roofs with a slope between 15 and 40 degrees. You may also consider the age of your roof and how long until it will need replacement.



### **How do solar energy systems work?**

A solar panel is made up of individual cells which turn sunlight into electricity in the form of DC current. Multiple panels are linked together to form a module. The DC current flows from the module into an inverter that converts the DC current into AC current. The AC current flows into the home's electrical panel and used to supply power to the house. Any excess current that is not used will flow onto the utility grid.



### **What are some requirements for solar energy systems?**

Solar energy systems connected to the utility grid are required to have a rapid shutdown device installed on the system that shuts down power from the panels on the roof in the event of power loss on the utility grid. This prevents electricity from the solar panels from flowing onto the utility grid so the utility company can safely work on their equipment. Solar panels are required to be setback a minimum distance from the sides and top of the roof to allow firefighters to safely walk around them.

### **What can I do to prolong the life of the solar energy system?**

Solar panel manufacturers recommend keeping the panels clean from dirt or debris. It is also recommended to frequently inspect underneath the panels to make sure birds or rodents are not nesting underneath them. This will allow for proper ventilation underneath the panels. It will also help prevent rodents from chewing on the electrical cables underneath the panels which could potentially start a fire on the roof.

It is important to know that solar energy systems will require a permit as well as an inspection.

**With these simple code facts together, we can continue to build Frisco's future sustainable communities.**