# residential solar system guidelines

The City of Burnsville encourages the use of alternative and "green" forms of energy at City facilities, for its businesses and residents. The use of solar panels and accessory solar systems for homes is becoming more popular and affordable.

The following information includes guidelines and examples for solar panels and systems. When reviewing plans for these types of systems, the City of Burnsville looks for construction design that adds quality or character to the building and site.

The following examples provide minimum requirements, and illustrate design elements the City considers to be more desirable and less desirable. This information will help you determine if solar is possible on your property, and may help you understand the construction techniques and installation used for solar panels the City desires to make Burnsville look its best.

For additional information and details on solar panels and accessory solar systems:

City of Burnsville Planning Department 952-895-4455

View the ordinance at <a href="www.burnsvillemn.gov/citycode">www.burnsvillemn.gov/citycode</a>
<a href="Itile 10">Itile 10</a> – Zoning: Chapter 7-29 (10-7-29)



#### Solar Panels/Accessory Solar Systems for Homes

Residential homes in Burnsville that meet certain requirements are allowed to add solar panels/accessory solar systems to provide energy to the home. These panels can be roof- or wall-mounted, or on the ground in the rear yard.

Minimum requirements for these types of systems include:

- Must have a view of the sun that is not obscured by vegetation, buildings or objects for a minimum of four hours every day
- Cannot be located within public rights-of-way or easements
- Cannot be located in a floodplain
- Tree removal must follow City woodland preservation requirements and be limited to only what is necessary for the system to operate
- Cannot include guy wires
- All power transmission lines must be placed underground
- With the exception of the solar panel itself, all surfaces of any equipment associated with the system must be non-reflective



## **Aesthetics**

While appreciating and encouraging installations that go above and beyond requirements, the City does still maintain basic aesthetic requirements for solar panels/systems, which include:

- Minimal visual impacts, and must complement, and not detract from the character of the neighborhood (as determined by the City's Development Review Committee)
- Must blend into the architecture of the building, structure and/or landscape
- Be designed to avoid solar glare or reflection into nearby properties and streets, not interfere with traffic, or otherwise be a safety hazard

## **Building-Integrated Solar Energy Systems**

Solar Systems that are integrated into the home – typically replacing or substituting for conventional building materials – are the City's **most desirable** outcome for solar panels. Features could include:

- Vertical facades (replacing glass or other façade materials)
- Semi-transparent skylight systems
- Roofing systems (replacing traditional roofing materials)
- Awnings

Building-integrated systems are always allowed, as long as they meet all setback, land use and performance standards for the neighborhood.









### Roof- and Wall-Mounted Solar Energy Systems

Depending on installation technique, roof- or wall-mounted panels can be more or less desirable. In general, any roof-mounted system must:

- Meet setback requirements and not extend beyond the building's perimeter (Exterior piping for solar hot
  water systems may extend down the side or rear of the building, but must be painted to blend in with
  adjacent surfaces)
- Not change a roofline or obscure defining features such as dormers or chimneys
- Be placed uniformly on the roof
- Be setback from the edge of a flat roof or screened so as not to be visible from the street
- Be surface mounted parallel to the pitch of the roof or wall, no higher than 10 inches above the surface
- Be installed below the ridgeline of a pitched roof
- Cover no more than 80 percent of the south-facing roof, or 50 percent of where it is attached

#### **More Desirable**







#### Less Desirable







# Ground-Mounted Solar Energy Systems

Depending on lot size and grade, ground-mounted solar systems can also be a desirable option. Ground-mounted systems are only allowed in rear yards and must:

- Meet all setback requirements
- Be no more than 200 square feet in area and 15 feet high at maximum tilt
- Be maintained so the area below the system is neat, uncluttered and covered with landscape rock, mulch or other approved material







#### **Additional Solar Resources**

University of Minnesota Solar Suitability Map: (Map showing how much sunlight is received at your property)	www.mps.solar.umn.edu
Minnesota Commerce Department:	www.mn.gov/commerce Search "Solar"
Minnesota Department of Labor & Industry:	www.dli.mn.gov Search "Solar"
Metropolitan Council:	www.metrocouncil.org Search "Solar"
US Department of Energy:	www.energy.gov Search "Solar"
Let's Go Solar:	www.letsgosolar.com
Clear Energy Project Builder:	www.clearnenergyprojectbuilder.org