



Solar Ready Building Guidelines

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Solar Ready Building Design Guidelines

Solar Ready Building Design Guidelines for the Twin Cities, Minnesota

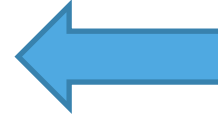
Solar Ready Guidelines

These guidelines address specific:

- Site planning
- Building form
- Space planning
- Roofing
- Mechanical & Electrical issues

Site Planning

- Select a site with good potential for solar access. (Southern exposure)
- Minimal shading (remember that trees grow)
- Future development
- Zoning & Ordinances
- Neighbors



Poor site
selection

Good site
selection



Building Form

- Think of the area for solar as an essential space in the building program.
- Rule of thumb is 80 sq.ft. for 1 kW of PV and 130 sq.ft. for typical thermal application.
- Determine the size for the future solar array.

- Plan the building form - building height, roof projections, etc. – so that the roof area reserved for the solar array can receive the maximum amount of sun exposure.



Orientation

- Keep in mind that solar is just one aspect of a building's design. Southern orientation is necessary in almost all cases, but tilt is more forgiving.
- In Minnesota a 38° tilt is optimal for PV, but anything between 20° & 45° is good.
- Thermal is between 90° & 90°

Resources for Building Companies & Their Customers

– Department of Commerce Solar Helpline

- (651) 539-1848
- Solar.Help@state.mn.us

– Solar America Communities

National Renewable Energy Laboratory

- (303) 275-3000
- www.nrel.gov

– CR Planning, Inc.

- (612) 558-4904
 - www.crplanning.com
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Thank You

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