

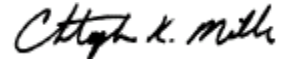
REQUEST FOR COUNCIL ACTION

DATE: 4/26/10
ITEM NO: 12.g

Department Approval:



Acting City Manager Approval:



Item Description: **Approval of Resolution creating a policy for reviewing and approval
Solar Energy Standards in Roseville.**

1.0 REVIEW OF REQUEST

1.1 Over the past year the Community Development Department (Planning and Permit Divisions) has received numerous calls and requests regarding the installation of solar energy systems.

1.2 A review of the current Zoning Ordinance reveals that the Code is silent on such standards or requirements, leaving staff no option other than to prohibit the issuance of permits for such installations and to rely on the up-coming zoning ordinance rewrite as the mechanism to create such standards.

1.3 Given the strong interest in solar energy systems, Staff does not feel that this is in the best interest of the community to wait until the zoning code update is complete. Staff has concluded that the passage of a policy on solar energy standards is more prudent as an interim step prior to specific adoption of the new Zoning Ordinance currently in development.

1.4 The Planning Division has been researching solar code requirements and is working with Mr. Brian Ross, Community Resources Planning, Inc (project coordinator with Minneapolis/Saint Paul solar energy projects) and the Minnesota Pollution Control Agencies model ordinance (attached).

1.5 The Planning Staff has reviewed the model ordinance, discussed our policy goal and necessary standards/requirements with Mr. Ross, and has developed the following items for consideration in Roseville's initial policy.

2.0 STAFF RECOMMENDATION

2.1 BY MOTION, APPROVE the attached resolution creating a policy for reviewing and approving solar energy systems in Roseville.

2.2 The proposed policy would create a set of definitions and regulations under which a proposed solar energy system could be approved by the City. Specifically the policy would define terms such as types of solar energy systems (active, building-integrated, and passive to name a few), and create specific regulations like setbacks, height, visibility and coverage (see attached Draft Resolution) It is anticipated that this policy will form the basis on an ordinance later this year as part of the Zoning Code Update.

30 **3.0 SUGGESTED CITY COUNCIL ACTION**
31 Adopt attached resolution creating a policy for reviewing and approving solar energy
32 systems in Roseville.

Prepared by: City Planner Thomas Paschke (651-792-7074)

Attachment A: Resolution

EXTRACT OF MINUTES OF MEETING OF THE CITY COUNCIL OF THE CITY OF ROSEVILLE

Pursuant to due call and notice thereof, a regular meeting of the City Council of the City of Roseville, County of Ramsey, Minnesota, was held on the 26th day of April 2010 at 6:00 p.m.

The following Members were present:
and ___ Members were absent.

Council Member _____ introduced the following resolution and moved its adoption:

RESOLUTION NO. _____ A RESOLUTION ESTABLISHING A POLICY FOR REVIEW AND APPROVAL OF RESIDENTIAL SOLAR ENERGY SYSTEMS

WHEREAS, the Community Development Department has received increased interest in residential solar energy systems; and

WHEREAS, the existing zoning regulations (Title 10) of the Roseville City Code does not provide any guidance or regulations on such accessory residential uses; and

WHEREAS, Roseville's 2030 Comprehensive Plan includes specific goals and policies regarding sustainability and the use of sustainable practices and encourage and promote the use of alternative energy such as solar and wind; and

WHEREAS, the City Council has determined it is in the best interest of the community to create a policy now versus waiting until the zoning ordinance update process is finished to address such alternative energy systems;

NOW THEREFORE BE IT RESOLVED, by the Roseville City Council, to APPROVE the following definitions and approval requirements:

DEFINITIONS

Active Solar System - A solar energy system that transforms solar energy into another form of energy or transfers heat from a collector to another medium using mechanical, electrical, or chemical means.

Building-integrated Solar Systems - An active solar system that is an integral part of a principal or accessory building, rather than a separate mechanical device, replacing or substituting for an architectural or structural component of the building. Building-integrated systems include but are not limited to photovoltaic or hot water solar systems that are contained within roofing materials, windows, skylights, and awnings.

Grid-intertie Solar System - A photovoltaic solar system that is connected to an electric circuit served by an electric utility company.

Off-grid Solar System - A photovoltaic solar system in which the circuits energized by the solar system are not electrically connected in any way to electric circuits that are served by an electric utility company.

Passive Solar System - A solar energy system that captures solar light or heat without transforming it to another form of energy or transferring the energy via a heat exchanger.

Photovoltaic System - An active solar energy system that converts solar energy directly into electricity.

Renewable Energy Easement, Solar Energy Easement - An easement that limits the height or location, or both, of permissible development on the burdened land in terms of a structure or vegetation, or both, for the purpose of providing access for the benefited land to wind or sunlight passing over the burdened land.

Renewable Energy System - A solar energy or wind energy system. Renewable energy systems do not include passive systems that serve a dual function, such as a greenhouse or window.

Roof Pitch - The final exterior slope of a building roof calculated by the rise over the run, typically but not exclusively expressed in twelfths such as 3/12, 9/12, 12/12.

Solar Access - A view of the sun, from any point on the collector surface, that is not obscured by any vegetation, building, or object located on parcels of land other than the parcel upon which the solar collector is located, between the hours of 9:00 AM and 3:00 PM Standard time on any day of the year.

Solar Collector - A device, structure or a part of a device or structure for which the primary purpose is to transform solar radiant energy into thermal, mechanical, chemical, or electrical energy.

Solar Collector Surface - Any part of a solar collector that absorbs solar energy for use in the collector's energy transformation process. Collector surface does not include frames, supports and mounting hardware.

Solar Daylighting - A device specifically designed to capture and redirect the visible portion of the solar spectrum, while controlling the infrared portion, for use in illuminating interior building spaces in lieu of artificial lighting.

Solar Energy - Radiant energy received from the sun that can be collected in the form of heat or light by a solar collector.

Solar Energy Device - A system or series of mechanisms designed primarily to provide heating, to provide cooling, to produce electrical power, to produce mechanical power, to provide solar daylighting or to provide any combination of the foregoing by means of collecting and transferring solar generated energy into such uses either by active or passive means. Such systems may also have the capability of storing such energy for future utilization. Passive solar systems shall clearly be designed as a solar energy device such as a trombe wall and not merely a part of a normal structure such as a window.

Solar Energy System - A device or structural design feature, a substantial purpose of which is to provide daylight for interior lighting or provide for the collection, storage and distribution of solar energy for space heating or cooling, electricity generating, or water heating.

Solar Heat Exchanger - A component of a solar energy device that is used to transfer heat from one substance to another, either liquid or gas.

Solar Hot Water System - A system that includes a solar collector and a heat exchanger that heats or preheats water for building heating systems or other hot water needs, including residential domestic hot water and hot water for commercial processes.

Solar Mounting Devices - Devices that allow the mounting of a solar collector onto a roof surface or the ground.

Solar Storage Unit - A component of a solar energy device that is used to store solar generated electricity or heat for later use.

PERMITTED ACCESSORY USE - Active solar energy systems shall be allowed as an accessory use in all zoning classifications where structures of any sort are allowed, subject to certain requirements as set forth below:

A. **Height** - Active solar systems must meet the following height requirements:

1. Building- or roof- mounted solar systems shall not exceed the maximum allowed height in any zoning district. For purposes for height measurement, solar systems other than building-integrated systems shall be considered to be mechanical devices and are restricted consistent with other building-mounted mechanical devices.
2. Ground- or pole-mounted solar systems shall not exceed 15 feet in height when oriented at maximum tilt.

B. **Set-back** - Active solar systems must meet the accessory structure setback for the zoning district and primary land use associated with the lot on which the system is located.

1. **Roof-mounted Solar Systems** - In addition to the building setback, the collector surface and mounting devices for roof-mounted solar systems shall not extend beyond the exterior perimeter of the building on which the system is mounted or built. Exterior piping for solar hot water systems shall be allowed to extend beyond the perimeter of the building on a side yard exposure.
2. **Ground-mounted Solar Systems** - Ground-mounted solar energy systems may not extend into the side-yard or rear setback when oriented at minimum design tilt.

C. **Visibility** - Active solar systems shall be designed to blend into the architecture of the building or be screened from routine view from public right-of-ways other than alleys. The color of the solar collector is not required to be consistent with other roofing materials.

1. **Building Integrated Photovoltaic Systems** - Building integrated photovoltaic solar systems shall be allowed regardless of visibility, provided the building component in which the system is integrated meets all required setback, land use or performance standards for the district in which the building is located.

2. **Solar Systems with Mounting Devices** - Solar systems using roof mounting devices or ground-mount solar systems shall not be restricted if the system is not visible from the closest edge of any public right-of-way other than an alley. Roof-mount systems that are visible from the nearest edge of the street frontage right-of-way shall not have a highest finished pitch more than five (5) percent steeper than the roof pitch on which the system is mounted, and shall be no higher than ten (10) inches above the roof. Systems with a pitch more than five percent greater than the finished roof pitch are not allowed.

3. **Coverage** - Roof or building mounted solar systems, excluding building-integrated systems, shall not cover more than 80% of the south-facing or flat roof upon which the panels are mounted, and shall be set back from the roof edge by a minimum of one (1) foot. The surface area of pole or ground mount systems shall not exceed half the building footprint of the principal structure.

D. **Approved Solar Components** - Electric solar system components must have a UL listing.

E. **Plan Approval Required** - All solar systems shall require administrative plan approval by the Community Development Department.

1. **Plan Applications** - Plan applications for solar systems shall be accompanied by to-scale horizontal and vertical (elevation) drawings. The drawings must show the location of the system on the building or on the property for a ground-mount system, including the property lines.

a. **Pitched Roof Mounted Solar Systems** - For all roof-mounted systems other than a flat roof the elevation must show the highest finished slope of the solar collector and the slope of the finished roof surface on which it is mounted.

b. **Flat Roof Mounted Solar Systems** - For flat roof applications a drawing shall be submitted showing the distance to the roof edge and any parapets on the building and shall identify the height of the building on the street frontage side, the shortest distance of the system from the street frontage edge of the building, and the highest finished height of the solar collector above the finished surface of the roof.

PLAN APPROVALS - Applications that meet the design requirements of this policy shall be granted administrative approval by the zoning official and shall not require Planning Commission review. Plan approval does not indicate compliance with Building Code or Electric Code.

F. **Compliance with Building Code** - All active solar systems shall meet approval of local building code officials, consistent with the State of Minnesota Building Code.

G. **Compliance with State Electric Code** - All photovoltaic systems shall comply with the Minnesota State Electric Code.

H. **Utility Notification** - No grid-intertie photovoltaic system shall be installed until evidence has been given to the Community Development Department that the owner has submitted notification to the utility company of the customer's intent to install an

153 interconnected customer-owned generator. Off-grid systems are exempt from this
154 requirement.

155 The motion for the adoption of the foregoing resolution was duly seconded by Council
156 Member _____ and upon vote being taken thereon, the following voted in favor:
157 and _____ voted against.

158 WHEREUPON said resolution was declared duly passed and adopted.

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[illegible]

WITNESS MY HAND officially as such Manager this 26th day of April 2010.

(SEAL)