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## MEMORANDUM

**TO: Planning Commission**

**FROM: Chris Neubecker and Peter Grosshuesch**

**DATE: October 1, 2010**

**SUBJECT: Solar Panel on Town Owned Property (Power Purchasing Agreement)**

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The Town of Breckenridge has been in negotiations with Vibrant Solar Incorporated concerning a Power Purchasing Agreement. This agreement would authorize Vibrant Solar to install photovoltaic (PV) solar panels on several Town properties and buildings. Vibrant Solar would pay for the cost of the panels and the installation, and receive the tax credits for the installation. In exchange, the Town would receive electricity at a lower rate than from Xcel Energy. The Town would also have the option to purchase the panels from Vibrant Solar after six (6) years.

Many of the locations proposed would have roof mounted solar panels, while some would have ground mounted arrays. A representative from Vibrant Solar will attend the meeting on Tuesday evening and will provide images of the panels to show the Commission the visual impacts. The properties proposed in Phase 1 include:

Breckenridge Recreation Center, 880 Airport Road  
Roof mounted panels on flat roof

Swan River Pump #1 (Tract A, Highlands at Breckenridge); near Tiger Road and Delaware Drive  
Detached solar array

Main Irrigation at the Golf Course, near Golf Maintenance Building off Tiger Road  
Detached solar array

Steve C. West Ice Arena, 107 Boreas Pass Road  
Roof mounted panels on south facing roof

Fleet Maintenance Building, 1107 Airport Road  
Roof mounted panels on south facing roofs

Breckenridge Police Facility, 150 Valley Brook Street  
Roof mounted panels on south facing roofs, plus detached solar arrays

Policy 5 (Absolute) Architectural Compatibility sets criteria for the placement of solar panels. The policy identifies a placement preference based on the visibility of the panels. Following is the placement criteria for panels outside the Conservation District:

*Outside of the Conservation District a solar device shall be located based upon the following order of preference. Preference 1 is the highest and most preferred; preference 6 is the lowest and least preferred. A solar device shall be located in the highest preference possible. The order of preference for the location of a solar device outside of the Conservation District is as follows: (1) as a building-integrated photo-voltaic device; (2) flush mounted (9" above the roofline) panel on an accessory structure roof, or as a detached array of solar devices; (3) flush mounted roof panel on the primary structure or screened detached array; (4) a tilted roof mounted panel that is not highly visible from the public right of way; (5) a tilted or angled and tilted roof mounted panel that is not highly visible from the public right of way; and (6) a tilted or angled and tilted roof mounted panel that is highly visible from the public right of way.*

*Roof mounted solar devices shall run as closely parallel to the roofline as possible while still maintaining efficient solar access. Solar devices and related mechanical equipment and mounting structures shall be non-reflective such as an anodized finish. Mechanical equipment associated with the solar device such as invertors, convertors and tubing attached to the building fascia shall be painted to match the building color to blend into the building. New structures are encouraged to include building integrated solar devices into the initial design, rather than as a later addition.*

*Roof mounted solar devices shall not break the existing ridgeline of the roof to which the panels are mounted. All mounting structures shall be on the same roofline as the panels. Elevated solar arrays which follow the orientation of the roofline are allowed. An east or west facing roof may have an angled orientation in relation to the existing roofline. A maximum tilt angle of 45 degrees is allowed for electrical solar devices. An elevated array for a solar hot water heating system may have a maximum tilt angle of 50 degrees and a maximum tilt angle of 55 degrees for a solar heating system.*

*Solar devices which appear as an awning may be mounted onto building facades or decks.*

*The location of detached solar devices shall also consider visibility from adjacent properties and public right of way, which shall be reduced to the extent possible while still maintaining solar access. Detached solar devices which serve the structure on the site may be located outside of the building or disturbance envelope if no significant existing vegetation must be removed for the installation and an adequate buffer is provided to adjacent properties.*

We are bringing this to you now because the panels need to be installed this year. We look forward to your feedback on the proposed designs. We will also be presenting these plans to the Town Council on October 12th. After obtaining feedback from the Commission and Council, the staff will process a Class D Development Permit application for each site.