Approved Sources of Renewable Energy

The following sources of renewable energy were included as an appendix to Water and Light's Annual Renewable Energy Report of 2006. The report was favorably accepted by Council in March 2006.

Wind Energy. All electricity generated through wind power would qualify as a renewable resource, including wind energy that is stored in any form for later use as electrical power.

Solar Energy. All active solar energy systems would qualify as a renewable resource, including solar photovoltaics, solar water heating, solar space heating, and any other method of using the sun that requires 'active' collection techniques. In this regard 'passive' solar heating, or systems which do not employ the use of mechanical equipment to move or distribute the heat, would not be considered as eligible items.

Biomass Energy. Biomass is another renewable resource. Biomass energy is typically considered as energy that is derived from plants (which have accumulated solar energy through photosynthesis). This definition, however, is somewhat open-ended as virtually all our current 'fossil' fuels are derived from plants, even though their life span may have occurred in the geologic past. So, to create a definition of biomass that would correspond with its commonly understood meaning, we would propose that biomass energy be considered as energy derived from plant origin, considering only those plants that have been harvested within the recent past, certainly within the last 100 years.

The Department would suggest that eligible biomass energy specifically include (but not be necessarily limited to) the following materials:

Landfill Gas;
Paper based products, such as cardboard and newsprint;
Wood and wood wastes;
Cellulose based products that originate from trees or shrubbery;
Other materials that come directly from trees or plants.

In the event that an energy source would be derived from a mixture of biomass and other non-renewable materials the Water and Light Department would make a rigorous assessment to determine what energy content of the fuel is biomass derived, and only claim that portion for compliance with the renewable energy ordinance.

Hydropower. By all definitions, hydropower fits the definition of renewable power in that it is renewed by the earth's water cycle.

Geothermal Power. The Department considers that Geothermal Power, or any energy that may be extracted from the earth, is eligible as a renewable resource. This would only

be in reference to active mechanical systems that extract the heat energy from the earth. Passive systems would not be eligible under this definition. It would be the Department's responsibility to provide details on what constitutes energy provided through geothermal power on a case-by-case basis.

Green Tags. The 'Green Tag' system that has originated throughout the country allows utilities to make purchases of 'Green Tags' and thus participate in the development of green, or renewable, energy without actually receiving that energy in the utilities' system. In such situations the developer of the renewable resource is paid an agreed to amount for the Green Tag for each megawatt-hour sold, however, the electricity is not delivered to the utility. Thus Green Tags simply represent the value of the renewable portion of the project or the premium that is above the cost of conventional electricity project. Green Tags are commonly sold and traded across the US.

Although this works for other utilities, the Water and Light Department has every intention of complying with the renewable energy ordinance by finding sources located close enough to Columbia that the power can be physically transmitted into our system. In the future, however, the higher compliance requirements may force the utility to look at Green Tags as an option. The Water and Light Department would pursue this avenue only as a last resort and would seek approval before purchasing renewable energy in this manner.

Future Projects. The above list is not intended to be comprehensive as there may be new sources of power that would potentially be garnered as renewable resources in the future. The Department wishes to acknowledge that everything is not known in this field and would like to remain welcomed to come back to the governing bodies in the future should new issues arise.