

# **Energy Sustainability – Community Style**

## **References and Resources**

Ingrid Kelley, Energy Center of Wisconsin

### **Planning for a More Self Reliant Energy Future**

#### **Mini-Conference for Local Officials in the East Central and Bay Lake Region**

January 26, 2007

Liberty Hall, Kimberly, WI

### **Total energy self sufficiency: Earthships**

Earthships are the design of Michael Reynolds of Taos New Mexico. He has been working on developing the design since the sixties, and part of his vision is development of whole communities of earthships, where the land is owned communally except for the footprints of the homes. Earthships are off the grid, with self-contained sewage and energy systems. According to the earthship web site, “The Earthship is a completely independent globally oriented dwelling unit made from materials that are indigenous to the entire planet. The major structural building component of the Earthship is recycled automobile tires filled with compacted earth to form a rammed earth brick encased in steel belted rubber.” Earthship design employs passive solar to create a greenhouse space that helps heat the house and where food can be grown.

<http://www.earthship.org/>

### **Roseville Solar Electric Homes**

Billed as nation’s largest solar community, Lennar Homes is building over 600 homes, each with a 2.3kW solar electric tile system on the roof, grid tied. Developed by Roseville Electric, the local municipal utility, which offers rebates for solar and energy efficiency measures. Roseville Electric is working towards a Renewable Portfolio Standard of 20% renewable energy for all customers by 2017. Most of their renewable power is wind power from inside California, and they offer Green Roseville, a green power program for their customers.

<http://www.roseville.ca.us/news/displaynews.asp?NewsID=793>

### **Drake Landing Solar Community**

Drake Landing Solar Community (DLSC) is the largest subdivision of R-2000 single family homes in Canada, each 30% more efficient than conventionally built homes. A first in the world, 90% of residential space heating needs will be met by solar thermal energy. DLSC is a master planned neighborhood in the Town of Okotoks, Alberta, Canada that has successfully integrated energy efficient technologies with solar thermal energy.

The first district heating system of its kind in North America, it is designed to store abundant solar energy underground during the summer months and distribute the energy to each home for space heating needs during winter months.

A reduction of approximately 5 tons of greenhouse gas (GHG) emissions per home per year is projected.

<http://www.dlsc.ca/>

### **San Francisco and Community Choice**

San Francisco has made an ongoing commitment to energy efficiency and renewable energy, spearheaded by the local government. They have the goal to obtain all municipal energy from non-polluting sources. A city revenue bond financed the 675kW solar electric array on the roof of the Moscone Center, along with investment in energy efficiency measures such as efficient lighting in the center. Completed in 2004, the energy efficiency savings are projected to pay back the bond for the solar system in under seven years

<http://www.powerlight.com/success/moscone.php>

San Francisco has also declared Energy Independence Day by approving legislation to utilize the state's "Community Choice" law to switch San Francisco residents and businesses to a new power supplier for electricity service - and to finance a network of renewable energy and energy conservation projects that will dramatically reduce dependency on natural gas and nuclear power plants. The California Community Choice Law allows electricity customers to join together to aggregate their electricity load and purchase bulk power themselves rather than remain default customers of their investor owned utilities. This gives them greater flexibility to purchase renewable energy and to keep costs low. It also assists them in hedging against future energy cost increases.

<http://www.local.org/independ.html>

### **The U.S. Mayors Climate Protection Agreement**

(From the U.S. Conference of Mayors website) So far, over 300 Mayors, representing more than 50 million Americans have signed The U.S. Mayors Climate Protection Agreement.

Under the Agreement, participating cities commit to take following actions:

- Strive to meet or beat the Kyoto Protocol targets in their own communities, through actions ranging from anti-sprawl land-use policies to urban forest restoration projects to public information campaigns;
- Urge their state governments, and the federal government, to enact policies and programs to meet or beat the greenhouse gas emission reduction target suggested for the United States in the Kyoto Protocol -- 7% reduction from 1990 levels by 2012; and
- Urge the U.S. Congress to pass the bipartisan greenhouse gas reduction legislation, which would establish a national emission trading system

For more information about The U.S. Mayors Climate Protection Agreement, including how to sign it and who is already on board, click here:

<http://www.seattle.gov/mayor/climate/>

USCM web site: <http://www.usmayors.org/climateprotection/>

### **Pacific Northwest Sustainable Energy Demonstration: Vashon Island**

A Study by the Institute for Environmental Research and Education that looked at taking a community to energy independence. The Institute used surveys and evaluation of sample existing buildings to determine if the community on Vashon-Maury Island could be run on renewable energy only. They explored local acceptance of the idea as a key component of the study. 128-page pdf report downloadable.

<http://www.iere.org/>

### **Focus on Energy – Wisconsin’s Public Benefits Program**

Information and incentives for energy efficiency and renewable energy for utility customers in Wisconsin

[www.focusonenergy.com](http://www.focusonenergy.com)

### **Wisconsin Green Building Alliance**

An organization promoting green and efficient buildings in Wisconsin, and an affiliate of the U.S. Green Building Council, home of the LEED™ Certification program

### **Sustain Dane**

A non-profit organization in Madison that promotes sustainable communities, Sustain Dane is an excellent resource for any community in the state seeking information about the Natural Step Program. This is a community process developed in Sweden to promote energy efficiency, economic development, and ecological practices at the community level, through learning and cooperation. Several towns in Wisconsin have committed to becoming “eco-communities” through this program model.

<http://www.sustaindane.org/Pages/ecomunicipality.htm>

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