

Saving Green with Efficiency

Action Item #5 from the Mayors' Climate Agreement: "Make energy efficiency a priority through building code improvements, retrofitting city facilities with energy efficient lighting and urging employees to conserve energy and save money.

Item 6. Purchase only Energy Star equipment and appliances for City use."

The cost of fuel is a wild card.

Did you read this week about the cost of electricity for the City? \$100,000 in 2006, about \$200,000 in 2007, and expected to be on the order of \$300,000 in 2008. Energy prices are expected to climb in the coming decades, as global oil production peaks sometime between 2010 and 2040, and will begin to lag behind demand. Cities around the country are beginning to plan for fuel scarcity.

The City of Portland has developed a plan for reducing its exposure to the instability of fuel shortages; they have set a goal of reducing city fossil fuel use by 50% over the next 25 years. Other cities are also seeing the downslope of peak oil coming, and are creating similar sustainability plans to avoid the potential chaos that fuel scarcity could bring.

The Council of U.S. Mayors, together with the American Institute of Architects, has committed to building Zero Net Energy buildings by 2030. These are buildings which are extremely well insulated and efficient, and generate enough of their own power on-site that, over the course of a year, they put as much energy into the power grid as they take from it. Note that this means an annual electric bill of zero.

Does it sound futuristic, or like something for people with money? Habitat for Humanity has built a Zero Net Energy building in Denver. Here in Alliance, Habitat is currently building Energy Star rated buildings, and is exploring moving towards zero net houses. There is also a movement to build commercial Zero Net Energy buildings by 2050. The National Renewable Energy Lab would like to see it happen by 2025, through a combination of energy efficiency and solar energy use.

So what can our city do to use energy more efficiently, despite our current lack of funds? Cities have used various strategies to find funding for their energy efficiency projects:

- Twin Falls, Idaho school district has negotiated an "energy savings performance contract" with the Honeywell Corp. to pay for efficiency upgrades with the savings created by the improvements;
- Ann Arbor is using 80% of its first five year's savings from efficiency improvements to create a Municipal Energy Fund for future improvements;
- New York City is proposing an electricity use surcharge to fund its improvements, as are Boulder, CO, Sacramento, CA and Austin, TX;

- other cities and institutions have used grants and low-interest loans from State or Federal DOE's, utilized rebates from local utilities, or leased from third parties who could take advantage of tax credits.

In all of these cases, the savings and return on investment have been significant, easing city budgets over the long-haul and providing some security against rising energy costs. Here are a few of the efficiency upgrades that cities are implementing (This list can also be used for schools and businesses, just substitute “signs” for “traffic lights,” and “parking lot lights” for “street lights”):

1. Upgrade city traffic lights, walk lights, and exit signs to LED fixtures - they're 90% more energy efficient, and last 6 – 10 years.
2. Upgrade city street lights to the most efficient bulbs available.
3. Upgrade lights within all city buildings to the most efficient bulbs available.
4. Upgrade the efficiency of heating and cooling systems in all buildings.
5. Purchase only Energy Star equipment.
6. Install occupancy sensors in place of light switches in buildings.
7. Install reflective roof membranes to reduce summer heat gain in buildings, or consider green roofs to increase insulation.
8. Reduce city air temperature by planting shade trees and shrubs to cool buildings and pavement.
9. Use Energy Star or LEED guidelines for new construction or remodels.

What can local government do to lead our community to greater energy efficiency? How about updating the local energy code to reflect Energy Star guidelines, or at least the current International Energy Code? Better yet, let's research what's up-and-coming, as the next changes in the International Building Code are likely to be significant, and consider changing the local code now so our community is ahead of the game when energy prices soar.

As individuals, we have the opportunity on May 8th to vote for the funds that will help our City to operate at the basic level, and hopefully to allow it to make initial investments in energy-efficient systems which will save us all money in the long run. Similarly, we can vote to allow the schools to continue to maintain their facilities and keep them efficient, rather than letting them fall into disrepair and become subject to rising energy prices due to out-dated systems. Voting for operating funds now will help to insulate our City and Schools from future energy cost increases.

And please, let's support Stark Parks, so that they can build a bike path for Alliance, and continue to green our County!

“The cleanest (and cheapest) energy is the energy you don't have to use.”

The most expensive thing we can do is nothing.

Check it Out:

City of Portland's Planning document: "Descending the Oil Peak: Navigating the Transition from Oil and Natural Gas":

www.portlandonline.com/osd/index.cfm?c=42894.

Cool Cities (clearing house of case studies, guides, ideas):

www.coolcities.us

Cool Mayors (clearing house of case studies, guides, ideas):

www.coolmayors.com/common/11061/default.cfm?clientID=11061

U.S. Dept. of Energy's Energy Efficiency and Renewable Energy site:

www.eere.energy.gov

U.S. Dept of Energy's Tax Incentives information page:

www.energy.gov/taxbreaks.htm

National Association of State Energy Officials:

www.naseo.org

Alliance to Save Energy:

www.ase.org

American Council for an Energy-Efficient Economy:

www.aceee.org