Clean Energy in Alliance?

Action item #4 from the Mayors Climate Agreement:
"Increase the use of clean, alternative energy by, for example, investing in "green tags," advocating for the development of renewable energy resources, recovering landfill methane for energy production, and supporting the use of waste to energy technology"

This week's U.N. climate report is sobering. The effects of climate change will be far-reaching, and will eventually touch us all, although not necessarily equitably. Again, I am consciously choosing hope, and looking for what I can do locally in the face of such an overwhelming problem. How can our city make the switch to renewable energy? How can I, as an individual, use energy without contributing to the problem? Fortunately, there are alternatives to burning fossil fuels.

Methane recapture:
After the local news this week, we should all be aware of the energy produced by waste! How ironic that we should have an explosion at the waste water treatment facility while the city is exploring ways to capture that methane and put it to work! I guess there's no doubt that there's some potential energy there…

Likewise, we've been hearing about a smoldering chemical reaction of some sort producing heat (and stench) in the Stark Co. landfill. That's energy! All over the country cities are learning to capture the energy produced at landfills.

Solar and Geo Thermal:
Ever notice how hot the water in your garden hose can get? That's solar thermal. Paint the hose black, enclose it in a glass case, put it on your south-facing roof, fill it with antifreeze, and run a loop of it through your water heater. Voila – hot water when the sun shines (but use a certified contractor to avoid a burst water tank). Run a pipe underground for some distance to bring the water to 55 degrees before heating or cooling it, and you have geo-thermal.

Solar Electric:
The sun can do more than warm water. Even here in NE Ohio, solar photovoltaic panels can generate enough electrical energy when the sun shines to make up for when it doesn't. With federal and state tax credits, grants, and loans available, this is particularly cost effective for businesses this year. A system can be installed for a tenth of its normal cost, with an attractive return on investment. In California, Germany, Japan, and China this technology is taking off. Why not here?

Wind:
Wind is the up-and-coming large-scale alternative energy in Ohio. Wind turbines are currently being explored as a renewable energy option off-shore in Lake Erie. Wind maps are being developed for the entire state, to determine the feasibility of turbines at various locations. Hopefully energy from wind farms will become part of the Ohio energy portfolio soon.

But maybe you're not ready to make the investment in solar energy for your home, or to put a turbine in your back yard; you don't know how long you'll be living there, or your home is happily in the shade of trees, or it's just a larger chunk of cash than you care to spend right now. What are your options? …consider green tags.

Renewable Energy Certificates:
In many parts of the country, renewable energy (wind, solar, geothermal, biomass, hydro) can be purchased directly through the local power company; unfortunately, this isn't the case in our area of Ohio (you can let your state senators and representatives know if you wish it was). As an alternative, you can purchase Renewable Energy Certificates (REC's), otherwise known as "green tags." In purchasing green tags, you put renewable energy into the national power grid in another location, and help to provide demand and funding for renewable energy development. It is essentially a donation, and is often tax-deductible. Where does it go? …perhaps to a wind farm in Oklahoma or Pennsylvania or to a solar plant in New Mexico or New York, or to a methane recapture plant. Is the money getting to the right place and being put to work effectively? Legitimate programs are monitored and endorsed by a third party, and can be found listed at the U.S. Department of Energy's website: www.eere.energy.gov/greenpower/.

So there are options. We can go back to pre-industrial ways, and eschew modern appliances, vehicles and electricity; or we can install solar panels, a wind turbine, or geo-thermal at our home or business; or we can invest in changing the source of the energy that comes through the utility wires and revamp the whole system.

The best solution likely lies somewhere in-between. We can reduce our carbon footprint by increasing efficiency, recycling, and being more careful about what we buy and use. We can provide some renewable energy at home with solar panels or wind turbines. But it will be clean and renewable energy flowing through the wires that will make the biggest difference across the board. So consider investing in green tags – just make sure that they're going to reputable, effective projects. We can all do our part to help to solve the climate problem by using clean energy.

Check it out:

U.S. Department of Energy Green Energy site:
http://www.eere.energy.gov/greenpower/
Green Energy Ohio:
http://www.greenenergyohio.org/
Ohio Department of Development information on renewable energy projects:
http://www.odod.state.oh.us/cdd/oee/renewables.htm
Economics of Solar and Wind by DoveTail Solar/Wind:
www.dovetailsolar.com/Economics%20of%20Solar%20&%20Wind%20Energy.pdf
EPA Guide for Green Power purchasing for cities, universities and businesses:
http://www.epa.gov/greenpower/pdf/purchasing_guide_for_web.pdf
FAQ regarding Green Power, from Native Energy:
http://www.nativeenergy.com/faq.html#26