

Energy Team Meeting: 8-26-16

Attending: John, Judy, Heidi, Bob W., LeRoy, & JoAnn

Virtual Solar Home Tour: We discussed a variety of ways to promote the Tour including working with HOMTV, social media, [517 Living](#), MeetUp, Farmers Market, [Capital Area Local First](#), E. L. Food Coop, Recycling Event, and others. The event will likely be 2-4pm on Oct 1 at Town Hall Room, 5151 Marsh, Okemos. We also talked about the possibility of exploring HOMTV's interest in doing a story about [Harris Nature Center's System](#). JoAnn, Heidi, and John will meet Monday at 11:30am to discuss outreach.

Sustainable Climate Plan: Below is the outline. John shared draft 3 of the Section B (renewables). LeRoy shared an outline for Section C (solid waste mgmt). John will work on transportation and water and LeRoy will work on energy efficiency, waste, and intro sections hopefully to be distributed before next meeting. If others would like to help, please forward your interest or ideas. Bob suggested a stronger focus on solar and a solar demonstration project on a Township Bldg (Public Safety, New Parks Pavilion, etc.). He also mentioned a millage to build community solar capacity.

Master Plan Update: Judy attended the last Master Planning work session and expressed appreciation to the Planning Staff and Commission for including suggestions for renewable energy and a sustainability plan. Minor wordsmithing is still welcome ASAP. Judy will forward minor changes to Gail. See below.

Township Energy Improvement Update: LeRoy will check with Dennis

Other: Haslett Community Church is hoping to install a large solar system next spring. Also, Edgewood United is raising \$ for a solar system as well.

Next Meeting: Sep 23 at 9:30

Climate Sustainability Plan:

Meeting Long Term Needs for a Desirable Township in which to Live, Work, Learn, and Play

- I. Introduction
- II. Meridian Charter Township
- III. Established Township Environmental Goals
- IV. Climate Sustainability Plan Purpose, Scope, and Process
- V. Sustainability Plan Programs, Policies, and Progress to Date
 - a. Energy Efficiency
 - b. Renewable Energy
 - c. Waste Management
 - d. Transportation
 - e. Water Management
- VI. Conclusion
- VII. Acknowledgements

Development Plan

- I. Environmental Commission Hosted Community Discussions
- II. Township Departmental Participation: On-going
- III. Township Board and Commissions' Participation: On-going
- IV. Full Draft Assembled
- V. Community Input
- VI. Final Plan: December

b. Renewable Energy

Renewable energy systems are becoming more cost effective as technology advances increase efficiency, system costs decrease, and the price of traditional power sources increase. Meridian Township will explore and examine opportunities to install solar, wind and other renewable energy systems at Township facilities and to foster installations at private developments. Meridian Township will look at policies and procedures that can hinder or encourage a greater use of renewable energy.

Past and Current Renewable Energy Efforts:

Meridian Township adopted a wind energy ordinance in May 2011. The purpose of the wind energy ordinance is to:

- a. Provide standards and regulations pertaining to the location, construction, design, maintenance, and abandonment of wind energy systems and anemometer towers;
 - b. Enhance and expand the alternative energy options available to residents and businesses located in the Township; and
 - c. Limit potential impacts to adjacent and nearby properties from wind energy systems and anemometer towers through proper design, engineering, and siting.
- Meridian Township is not aware of any small wind turbines in the Township.

Meridian Township worked with Peninsula Solar, Michigan Energy Options, U.S. Dept. of Energy, Mother Nature, and Consumers Energy to create a solar demonstration and educational project at Harris Nature Center. The demonstration includes a solar-powered webcam system, grid-connected photovoltaic (PV) system, and an indoor educational exhibit. The main panels are mounted on a racking system on the roof and a micro-inverter rests behind each panel. The two 250 watt roof-mounted solar panels are made in Michigan by Global Watt. These provide an average of 1.76 kWh on a sunny day. A separate 135 watt PV panel powers two webcams pointed at the bird-feeding area and hawk cage. The cameras are independent of the electric grid and send images to the web for remote viewing.



The Meridian Township Energy Team has been discussing various opportunities and approaches that could be used to encourage more solar energy in the Township. Community Solar has been a frequent topic of conversation and Consumers Energy was invited to select a Township site for their Solar Gardens pilot. Consumers Energy did actively look into a number of possible sites but was not able to find a site big enough (5-6 acres) and suitable for one of their Solar Gardens PV arrays. The Lansing Board of Water & Light (LBW&L) is developing a 300 kW Community Solar project in Burcham Park on the border of Meridian Township. Since the Township does have LBW&L streetlighting accounts, the Township Board authorized leasing ten 300 watt solar panels at the Burcham Park PV array. The Township will get utility bill credits for 25 years based on the electric production from the leased solar panels.

Objective b.1: Develop Township policies and procedures that encourage the use of renewable energy.

Strategies

- Review Township ordinances and procedures to ensure that they are renewable energy-friendly and do not provide any unnecessary barriers to the use of renewable energy.
- Incorporate provisions in the Master Plan that will encourage a greater use of renewable energy.

Objective b.2: Increase the use of renewable energy at Township facilities.

Strategies

- Since the Township receives almost all of its electricity from Consumers Energy, indirectly the Township gets 10% of its electricity from renewable energy resources because of the state Renewable Portfolio Standard (RPS) requiring the 10%. The Township can do better and set a goal of obtaining 20% of Township electric usage from renewable energy sources within 5 years.
- Pursue the installation of solar electric systems at Township facilities. If installation is not possible at this time, the feasibility should be revisited every 2 years to account for advances in technology and changes in economics.
- Participate in Community Solar or other green purchasing programs where possible.
- Pursue grant funding where possible to obtain funding for demonstrations of new renewable energy technologies.
- Explore non-grid connected applications like solar streetlighting and solar lighting for signs.

Objective b.3: Educate the community about renewable energy options and encourage the installation of renewable energy at private and public facilities throughout the Township.

Strategies

- Set a goal of obtaining 15% of total community electric use from renewable energy resources within 5 years. This includes the 10% due to the RPS.
- Inform Township residents, businesses, and institutions about programs and incentives that could help them utilize renewable energy.
- Explore the types of incentives that could be provided by the Township to encourage a greater use of renewable energy.
- Explore collaborations with schools and other institutions on joint purchasing of renewable energy systems.

Objective b.4: Monitor both energy and cost savings and determine benefits to the community and contributions to the Climate Sustainability Plan.

Strategies

- Continue current monitoring efforts.
- Invest in monitoring equipment as needed.
- Calculate energy and cost savings and reductions in greenhouse gases.

c. Solid Waste Management

Solid waste management includes recycling, waste-to-energy, composting, and other strategies to extend the life of our landfills, save money, reduce pollution, protect water supplies, reduce dependence on non-renewable resources, minimize climate change, and other strategies.

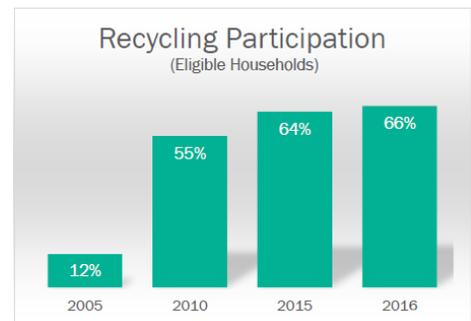
Past and Current Waste Reduction Efforts:



Meridian Township has greatly expanded recycling efforts during the past decade. These initiatives have included recycling events, a Recycling Center, a business recycling program (Green Star Initiative) and a partnership with a local waste hauler to offer curbside recycling. Other public education effort have included an electronic newsletter (Green Gazette), a website, news releases, compost bin sales, and video productions. In addition, Meridian is active in the Regional Recycling Coordinating Committee, Michigan Recycling Coalition, and MI Green Communities Network.

Objective c.1: Expand Curbside Recycling.

Strategies



Objective c.2: Expand Recycling in Multi-Family Housing (Apartments and Condominiums)

Strategies



Objective c.3: Support Regional Recycling Education and other Collaborative Efforts to Reduce Waste

Strategies

Other:

- Business Recycling
- Environmental Purchasing
- Recycling Center Improvements
- Coordination with other Departments (utility billing, planning, etc.)
- Policies/Zoning/Master Plan
- Composting – Food Waste
- Source Reduction
- Construction and Demolition

GOAL 7: PROMOTE EFFICIENT AND SUSTAINABLE GROWTH PRACTICES

Objective A: Implement sustainable energy and environmental practices throughout the Township utilizing the most current best practices

Strategies:

1. Budget funds to have Township buildings assessed for energy efficiency a minimum of once every five years.
2. For Meridian Township procurement purposes, when equivalent products or services are available, preference should be given to the more sustainable services or products.
3. Encourage electric car charging stations.
4. Establish a minimum level of LEED certification or the equivalent for all projects undertaken by the Township.
5. Establish ordinances providing incentives for development that emphasize redevelopment, infill development, alternative energy, and building material reuse.
6. Increase the use of alternative transportation modes for commuting and recreation by encouraging the use of mixed use planned unit developments and implementing the Greenway Plan.
7. Explore methods through ordinances or by providing incentives for existing businesses to upgrade their parking lots and landscaping to increase tree cover and shade to be energy efficient and environmentally friendly.
8. Explore incentives for new or redeveloped projects to be LEED certified or equivalent.
9. Work with developers to consider alternative energy in site plan and construction of new development
10. Encourage the use of alternative energy throughout the township and develop a coordinated, integrated vision to incorporate renewable energy into the energy mix.
11. Consider developing a Sustainability Plan that would include energy efficiency, renewable energy, water and waste management and public education. Use this framework for the future to illustrate a commitment to being a “green” community, maintaining a healthy ecosystem and reducing the Township’s carbon footprint.