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Medford Energy Committee

Office of Energy and Environment
City Hall Room 205
Medford, MA 02155

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



Medford Energy Committee Agenda March 4, 2013, 6PM City Hall Room 201

1. Approval of the Minutes of the February 4, 2013 meeting
2. Anti-Idling Taking a step to turn off those engines (Jon)
3. Blog madness – Now where are all those blogs? (Jon)
4. Wind Turbine Capture Data (Jon)
5. Recycling Outreach Update (Susan)
6. Electronics Recycling Update (Brett & John)
7. Go-Green Update, including B&GC event (Alicia)
8. Green Awards Update
9. Review of LEAP items (Alicia)
10. New Business
11. Adjourn

For accommodations please call in advance: 781-393-2137
or TTY: 781-393-2516

THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

5300 S. DICKINSON DRIVE

CHICAGO, ILLINOIS 60637

PHYSICS 321

LECTURE 1

MECHANICS

1. Kinematics: Describing motion without reference to forces. Position, velocity, and acceleration.

2. Dynamics: Newton's laws of motion. Force and its relationship to acceleration.

3. Energy: Work, kinetic energy, and potential energy. Conservation of energy.

4. Momentum: Linear momentum and its conservation.

5. Rotational motion: Angular displacement, velocity, and acceleration.

PHYSICS 321 - MECHANICS

LECTURE 1

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Blog Madness

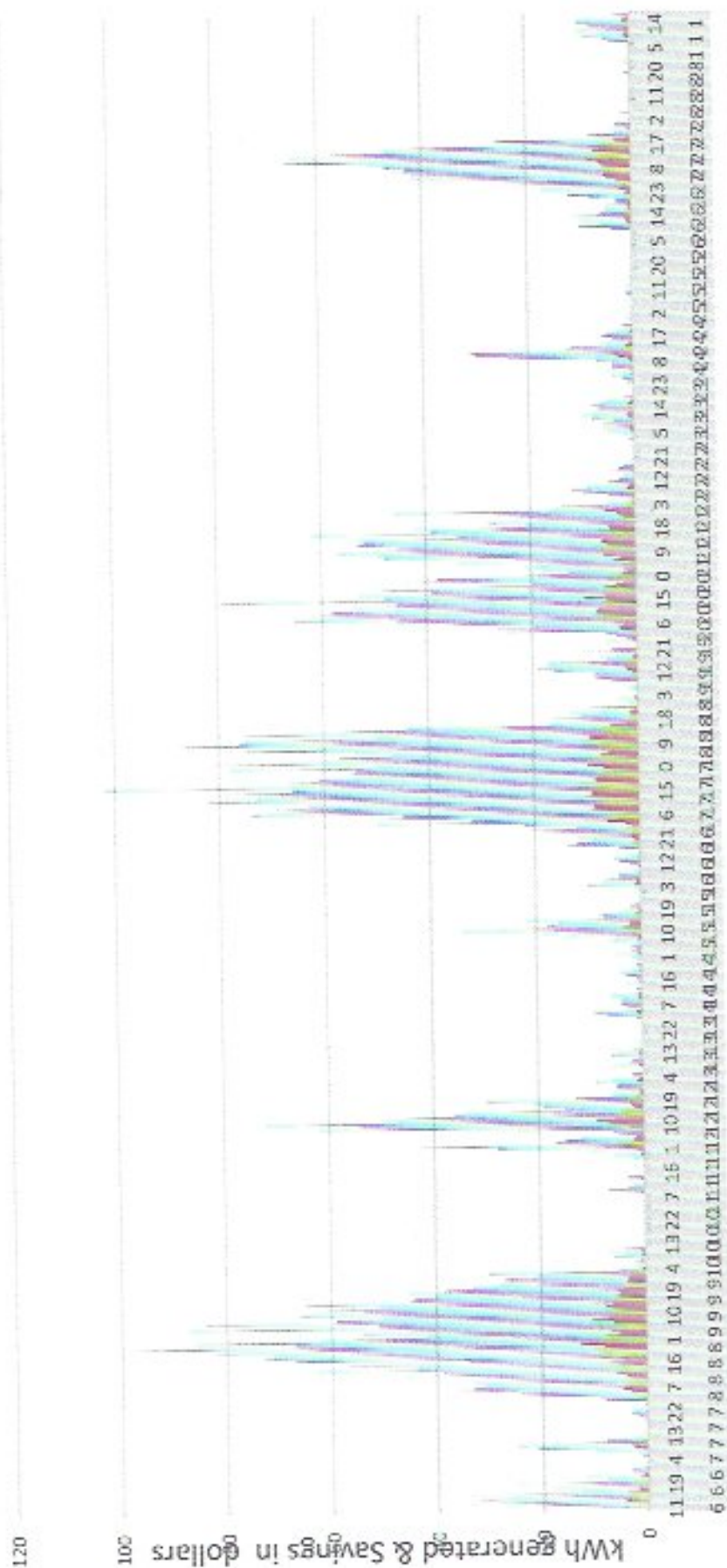
- Go Green Medford Initiative – Home Energy Assessments
<http://medfordenergy.org/gogreen/>
(medford.org/gogreen)
- Medford Energy Blog – all energy committee topics
<http://blog.medfordenergy.org/>
- Medford Energy Committee Site (not a blog)
<http://medfordenergy.org/>
- Medford Patch – various blogs by Alicia, Susan and Jon
<http://medford.patch.com>

Wind Turbine Data

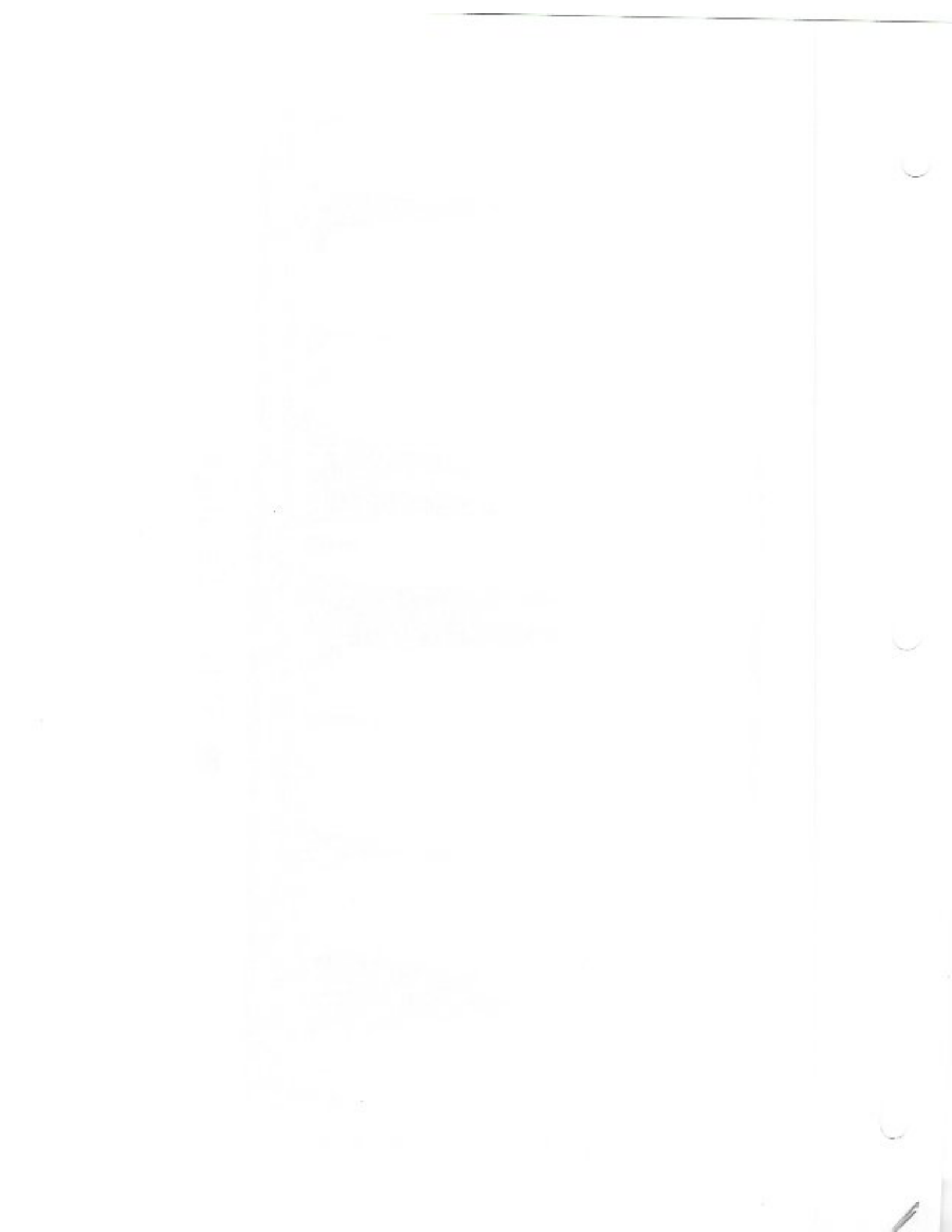
<http://medfordenergy.org/turbine-metrics/>

- Daily
<http://medfordenergy.org/turbine-metrics/medford-daily.csv>
- Hourly
<http://medfordenergy.org/turbine-metrics/medford-hour.csv>
- 15 min interval
<http://medfordenergy.org/turbine-metrics/15-min.csv>

Hourly Wind Production (kWh) Sample



■ kWh ■ Savings



Promote Clean Energy Actions and Policies in Medford.

2. Increase residential awareness of the opportunities for and benefits of clean energy actions.

a. Identify best practices for how to do effective outreach to promote Go Green Medford projects, programs, and information.

E&E Office; E&E Intern; Energy Committee
2013

b. Design and implement a residential energy campaign to help residents access cost-effective energy efficiency and renewable energy opportunities

E&E Office; E&E Intern; Energy Committee
2013-2014

d. Use “Go Green Medford” branding to frame energy and sustainability efforts; develop consistency and a common way for residents to recognize and become familiar with the benefits of incentives, rebates, and other financial opportunities for energy efficiency upgrades, oil to gas conversion, and solar development.

E&E Office; Energy Committee; Green Medford

Use MedfordEnergy.org as a one-stop shop for distributing Go Green Medford and clean energy-related information; Use social media, such as Twitter, local broadcasts such as TV 3 and Made in Medford, and hold public events, like open houses, community workshops, to share information.

Ongoing

3. Educate Medford youth.

a. Design and implement a school and youth group outreach campaign to educate students on clean energy science, measures, and policies.

E&E Office; E&E Intern; Energy Committee; Schools

Hold guest speaker series, design and conduct competitions, create events such as Energy Fair to inform students of clean energy knowledge.

Ongoing

4. Highlight local success stories in clean energy.

a. Promote clean energy success stories and opportunities to targeted audiences

E&E Office; Energy Committee; Local Civic Groups

Utilize existing networks and events, such as those connected to civic groups and community organizations (e.g., Green Medford, Tufts University, religious institutions, and the Chamber).

Ongoing

Improve Energy Efficiency and Encourage Conservation in Medford.

5. Promote participation in residential energy efficiency programs.

a. Design and conduct local outreach campaign to increase participation in MassSave’s audit and retrofit opportunities.

E&E Office; National Grid; Energy Service Vendors

Work with utilities and energy vendors to develop Medford-specific energy efficiency programs (i.e., competitions at schools and green resident awards); Conduct strategic outreach to targeted groups (i.e., students, non-English speakers, and low-income residents).

2013-2015

b. Design and conduct energy efficiency outreach campaign for rental housing to increase

Medford LEAP Actions – Medford Energy Committee Actions Only

landlord/tenant participation in MassSave's audit and promote energy efficiency retrofits at rental units.

Energy Committee; Utilities; Energy Service Vendors

Create a Multi-Family Housing Energy Efficiency Outreach Program; Hold workshops at community events, such as Community Day and Harvest Your Energy Festival, and at local university events to deliver the message to Medford residents.

2013-2014

6. Support community members who use heating oil.

a. Design and implement outreach program to promote oil efficiency and oil-to-gas conversion opportunities.

Energy Committee; National Grid; Next Step Living

Hold workshops on oil efficiency and oil to gas conversion opportunities.

2013-2014

7. Promote electric vehicle adoption.

a. Conduct outreach to educate the community on the environmental and financial benefits of electric vehicles.

Energy Committee

2013-2016

Promote Sustainability Efforts to Meet Present Energy Needs while Considering Future Generation Needs.

8. Increase awareness of solar PV and ease of installation.

a. Design and implement outreach program based on Solarize Mass model to inform residents of solar opportunities and encourage the use of financial incentive options for solar installation.

E&E Office; Energy Committee

Use the "SolarizeMass" program model to help residents vet vendors and aggregate demand for residential solar installation.

2013-2015

9. Plan for long-term sustainability development.

a. Improve bike and walking paths.

Energy Committee; Planning Department; Health Department

Conduct a Complete Streets Project; Partner with Health Department to support its existing grants and programs for promoting walking and biking; Increase biking and walking access to public transits.

2015

b. Increase public awareness of biking, walking, and public transportation opportunities.

E&E Office; MEC; Local Organizations; Health Department

Support Walk-Ride Days.

Ongoing

10. Promote equity in accessing clean energy opportunities.

a. Hold events with local organizations to help non-English speakers access clean energy opportunities.

Energy Committee; Local Civic Organizations

2013-2014

COMMERCIAL

Promote Clean Energy Actions and Policies in Medford.

11. *Track commercial energy consumption.*

b. Use aggregated commercial energy consumption data to benchmark energy reductions.
Energy Committee; National Grid; Energy Service Vendors
Ongoing

c. Create an ongoing system for tracking aggregated commercial energy consumption and participation in MassSave.

Energy Committee; National Grid; Energy Service Vendors
2012-2013

12. *Increase commercial awareness of the opportunities for and benefits of clean energy actions.*

a. **Identify best practices for outreach to promote Go Green Medford projects, programs, and information**

E&E Office; E&E Intern; Energy Committee
2012

b. **Use “Go Green Medford” branding to frame energy and sustainability efforts; develop consistency and a common way for businesses to recognize and become familiar with the benefits of incentives, rebates, and other financial opportunities for energy efficiency upgrades, oil to gas conversion, and solar development.**

E&E Office; Energy Committee; Green Medford

Use MedfordEnergy.org as a one-stop shop for distributing Go Green Medford and clean energy-related information; Use social media, such as Twitter, local broadcasts such as TV 3 and Made in Medford, and hold public events, like open houses, community workshops, to share information.

Ongoing

13. *Promote local clean energy opportunities.*

a. **Establish and hold an annual Green Business Program to engage local businesses in clean energy opportunities, celebrate energy improvements that have been implemented, educate and encourage others to pursue energy audits, and implement energy conservation and efficiency measures.**

E&E Office; Energy Committee; Chamber of Commerce; Utilities

Green Business Awards events

Ongoing

Improve Energy Efficiency and Encourage Conservation in Medford

14. *Promote participation in commercial energy efficiency programs.*

a. **Design and conduct outreach programs that target sector-specific energy use by helping businesses access project-specific retrofit opportunities and building-specific upgrades incentives.**

E&E Office; Utilities; Energy Services Vendors

Grocery focused energy efficiency program with PEI; Green Office Challenge; Commercial lighting fixture upgrades; Commercial ventilation control upgrades.

Medford LEAP Actions – Medford Energy Committee Actions Only

b. Identify corporate partners and encourage local businesses to participate in Better Buildings Challenge.

Energy Committee; Chamber of Commerce
Tufts University, Lawrence Memorial Hospital

15. Increase awareness of solar PV and ease of installation.

a. Design and implement outreach program based on Solarize Mass model to inform businesses of solar opportunities and encourage the use of financial incentive options for solar installation.

E&E Office; Energy Committee

Use the "SolarizeMass" program model to help businesses vet vendors and aggregate demand for commercial solar installation.

2013-2015

MUNICIPAL

Promote Clean Energy Actions and Policies in Medford.

18. Build municipal capacity and leadership.

a. Present Energy Action Plan to municipal officials and the public.

E&E Office; Energy Committee

Hold public presentation on plan prior to the Harvest Your Energy Festival

b. Annually review Energy Action Plan, document progresses, plan for next steps, and celebrate local achievements and savings.

E&E Office; Energy Committee

c. Hold annual municipal department meeting that celebrates energy accomplishments, gets staff input, and provides reminders on energy policies and opportunities.

E&E Office; Energy Committee; Mayor's Office

Hold annual review meetings with department heads to review the Energy Action Plan, remind staff of energy policies, and celebrate achievements.

e. Design and implement a policy for using life cycle cost analyses when making energy-related purchasing decisions.

E&E Office; Energy Committee; Mayor's Office; Procurement Office

g. Create sub-committees under the Energy Committee to lead specific energy work in Medford.
Energy Committee

19. Increase municipal awareness of the opportunities for and benefits of clean energy actions.

a. Identify best practices for outreach to promote Go Green Medford projects, programs, and information

E&E Office; E&E Intern; Energy Committee

b. Use "Go Green Medford" branding to frame energy and sustainability efforts; develop consistency and a common way for municipal staff and stakeholders to recognize and become familiar with energy and sustainability efforts

E&E Office; Energy Committee; Green Medford

Use MedfordEnergy.org as a one-stop shop for distributing Go Green Medford and clean energy-related information.

Improve Energy Efficiency and Encourage Conservation in Medford.

22. Enhance electric vehicle or alternative-fuel vehicle

a. Identify and implement parking policies that support electric vehicles/ alternate fuel vehicles/ high-efficiency vehicles adoption.

E&E Office; Energy Committee; Mayor's Office

Zoning code for requiring charging infrastructures at parking lots.

Encourage the Use of Renewable Energy in Medford

23. Increase municipal solar installation.

a. Research solar development opportunities, perform cost-and-benefit analysis, and adopt cost effective financing models for solar installation.

E&E Office; Energy Committee

Conduct cost-and-benefit analysis and compare the benefits of power purchase agreements, net metering, and virtual net-metering models.

24. Identify wind development opportunities.

a. Conduct study to identify siting options for additional wind turbine projects.

Energy Committee; MassCEC

2015-2016

25. Support renewable energy development opportunities.

a. Identify and implement zoning policies that support renewable energy development.

E&E Office; Energy Committee

As-of-Right Siting for renewable energy

b. Conduct feasibility study for anaerobic digestion.

Energy Committee; MassCEC

c. Explore opportunities to install solar thermal at municipal buildings.

E&E Office; Energy Committee; MassCEC

d. Explore opportunities to collect and use wood chippings.

Energy Committee; Department of Conservation and Recreation; MassCEC

Promote Sustainability Efforts to Meet Present Energy Needs while Considering Future Generation Needs.

26. Plan for long-term sustainability development.

a. Integrate clean energy into the City's broader planning and development efforts, like Master Planning.

Energy Committee; Office of Community Development

Audit municipal zoning and master plan documents to identify ways to promote sustainable growth.

