


CLEAN ENERGY COMMISSION STRATEGIC PLAN

6/28/2011

The following plan, drafted by the Gloucester Clean Energy Commission, articulates the Commission's five-year goals and strategies in support of its mission. It is designed as an operational plan to guide the Commission; support coordination and integration with City Departments, and to ensure continuity as the membership of the Commission changes over time. This operational plan shall be reviewed and updated annually by the Commission.

The table, on the following page, includes the following:

Column 1 is used to identify whether the strategy is a goal that was identified in our Green Community Plan (i.e., a reduction of 20% energy usage by 2016.), which was submitted as a plan to the State in November 2010. The symbol  is used to identify a Green Community goal.



Column 2 briefly identifies the strategy to be pursued. Note that implementation is likely to be "carried out" by City departments and staff.

Column 3 identifies the year in which we anticipate the strategy will be implemented.

① = Complete in one year – by end of June 2012

③ = Complete in three years – by June 2014

⑤ = Complete in five years – by end of June 2016

☐ = Undetermined






EXECUTIVE SUMMARY





TOP PRIORITIES OF COMMISSION IN NEXT YEAR


1. The Commission adopts its Strategic Plan
2. Support the potential installation of a wind turbine at Blackburn Industrial Park
3. Engage and inform the community – including city government, staff, committees and residents -- on efforts to achieve Green Community Goals through the website, regular reports from the Commission, articles and social media
4. Track, and assist in funding, energy conservation and efficiency implementation efforts such as O'Maley School, Rink, and street light ownership and upgrades
5. Assist the city determine the appropriate use of energy service contracts (i.e., ESCOs) and other innovative tools to finance energy conservation and efficiency improvements

20% ENERGY REDUCTION GOAL ---

The City's 2009 FY energy use is 81,992.68 MMbtu's. A 20% reduction in that use is equivalent to 16,398.5 MMbtu's which would reduce the city's annual energy consumption to 65,594.14 MMbtu's over the five year period ending in FY 2014.

Green Community Goals	Strategies	1, 3 or 5 Year Goals
I. Plan for the Future by Assisting the City		
	A. Develop Green Community 5-Year 20% Reduction Goal	Done
	B. Develop Clean Energy Commission Strategic Plan	Done
	C. Articulate roles and responsibilities of Clean Energy Commission, Facilities Manager (through Department of Public Works Director), Environmental Engineer, Energy Manager, Clean Energy Manager (through Community Development Director) and other relevant personnel, and relevant Boards and Committees	①
	D. Conduct energy usage/whole building audits at city owned properties	③
	E. Identify potential locations for renewable energy technologies	Ongoing
II. Assist City in Reducing Energy Demand (Work with key DPW personnel in focusing on buildings with highest energy usage and highest EUI)		
	A. Track energy conservation and efficiency improvements to O'Maley per Green Communities Grant	①
	B. Assist in funding lighting upgrades at city facilities, as identified in building audits	③
	C. Transfer ownership of street lights to city and implement new energy efficient technologies (e.g., LED), where appropriate and feasible.	①
	D. Institute behavior change and low cost measures (e.g., computer power controls, setbacks, phantom loads) to reduce demand at all city buildings	③
	E. Upgrade VSD drives and motors, as appropriate, at city buildings, identified in building audits	③

Green Community Goals	Strategies	1, 3 or 5 Year Goals
	F. Upgrade demand control ventilation, at city buildings, as identified in building audits	③
	G. Implement building envelope improvements and weatherization measures identified in building audits	③
	H. Track energy usage and costs	Ongoing
III. Assist the City and Facilities Staff in Identifying and Implementing Energy Conservation and Efficiency Measures		
	A. Assist in funding upgraded boiler/heating system at Beeman School	③
	B. Evaluate and implement HVAC upgrades at City Hall	③
	C. Evaluate and implement HVAC upgrades at O'Maley School/Rink	③
	D. Identify energy conservation opportunities at Veterans School and DPW Building and implement cost-effective energy efficiency measures, as identified in building audits	⑤
	E. Implement cost-effective energy efficiency measures at O'Maley School and Skating Rink identified in Whole Building Audit	①
	F. Implement cost-effective energy efficiency measures at High School identified in Whole Building Audit	③
	G. Implement Building Automation System upgrades at all municipal/school buildings, as identified in building audits	⑤
	H. Re-commission (e.g., evaluate performance against design specifications and adjust, as necessary) for municipal/school buildings	⑤
IV. Assist the City in Identifying and Implementing Renewable Energy Technologies		
	A. Evaluate feasibility of wind turbine(s) at Blackburn Industrial Park and bring results to Mayor regarding potential option(s)	Done

Green Community Goals	Strategies	1, 3 or 5 Year Goals
	B. Develop business strategy/options for wind turbine(s) at Blackburn Industrial Park and present to City Council	①
	C. Evaluate solar and small wind feasibility for city schools/facilities (e.g., roof, land)	①
	D. Evaluate feasibility of ocean turbine at appropriate site within the City	③
V. Assist the City Identify and Implement Fuel Efficient Transportation Policies and Programs		
	A. Begin implementing vehicle replacement policy and establish fleet efficiency purchasing requirements	①
	B. Install Electric vehicle charging stations	③
	C. Phase-out older, inefficient vehicles with higher efficiency vehicles, as appropriate for intended use	Ongoing
	D. Evaluate, and implement as appropriate, the use of biodiesel/biofuels in city fleet	③
	E. Support policies that promote walking and biking in the city	Ongoing
	F. Enforce anti-idling policy in the City	Ongoing
VI. Engage the Community and Provide Outreach in Energy and Climate Change Related Topics		
	A. Develop and improve web site for Clean Energy Commission	Ongoing
	B. Offer Sustainable Design Criteria to Community Development as recommendations for major projects within the City (e.g., I4C2, Harbor Walk, Newell Stadium)	①
	C. Publicize City energy conservation, efficiency and renewable projects, including the activities of residents and businesses	Ongoing
	D. Network with other Massachusetts energy committees to identify best practices and successful approaches.	Ongoing

Green Community Goals	Strategies	1, 3 or 5 Year Goals
VII. Support the Economic and Community Development Goals of the City		
	A. Coordinate support for biofuel usage/fleets with any development of biofuels in Gloucester	③
	B. Coordinate, as appropriate, assessment, feasibility and installation of renewable technologies with for-profit and non-profit organizations in Gloucester	③
	C. Coordinate with Community Development officials and City Council in developing and amending city ordinances for reviewing and implementing renewable energy projects, and for preventing and mitigating climate change impacts	As necessary
	D. Promote existing and emerging organizations in Gloucester that use or develop clean energy technology	Ongoing
VIII. Assist the City in Developing and Articulating Financing Strategies		
	A. Review potential use of energy service contracts (ESCO) by City for upgrading city assets and present options/recommendations for potential use of ESCO to Mayor and City Council	①
	B. Evaluate and make recommendation of financing (e.g., ppa, purchase, bonds, etc) for large renewable projects in city	① Ongoing
	C. Use Green Community Funding, MassSave and utility programs to reduce energy demand and finance projects with sound Return on Investment (ROI)	① Ongoing
	D. Use Green Repair Fund for roofing projects, window replacement and boiler installations at School Buildings	① ③
	E. Use State Clean Energy Center (MassCEC) for clean technology pilot projects, as appropriate.	① ③
	F. Use CPA funds for upgrades of historic buildings, such as City Hall and to the extent possible include energy conservation measures	③ Ongoing
	G. Pursue utility rebates for recommendations for all electric and natural gas conservation and efficiency projects	Ongoing

Green Community Goals	Strategies	1, 3 or 5 Year Goals
	H. Track and pursue, as appropriate, other grants and funding options	Ongoing
IX. Assist the City in Developing Coastal Protection & Climate Change Mitigation and Adaptation Strategies		
	A. Review State’s Climate Change Mitigation and Adaptation Plans and distill key findings and strategies, as they relate to Gloucester, in a briefing report to the Mayor, City Council and the citizens of Gloucester	①
	B. Track mitigation and adaptation strategies implemented by northeast coastal communities and advise, as appropriate, the City Planner	③
	C. Conduct a risk and vulnerability assessment of critical infrastructure and facilities, vulnerable natural habitat and ecosystems, vulnerable groups or populations and critical areas and economic factors such as the harbor, marine industries, etc	⑤
	D. Provide ongoing coordination with City Facilities Manager and Capital Improvement Plan on climate change hazards and mitigation and adaptation strategies.	Ongoing
	E. Create a volunteer, citizen program to track tide elevations, especially as it relates to “special places” identified in the City’s 2001 comprehensive Development Plan	③
	F. Identify new flood/tide lines as new information (e.g., MAPC mitigation maps, Federal flood insurance maps, FEMA/MEMA information) becomes available	③

RESOURCES/APPENDICES

- I. Clean Energy Commission Ordinance

2011 COMMISSION MEMBERS

Thomas Balf, Chair	Linda Brayton
Candace Wheeler, Vice-Chair	John Moskal
Sam Cleaves	Linda Stout-Saunders
Jill Buchanan	

Staff Support: Steve Winslow, Community Development

Sec. 2-515 The Commission shall pursue the following tasks:

- a) Propose and develop strategies to reduce energy costs of city-owned facilities and vehicles through energy conservation, efficiency and renewable energy measures. The strategies may include electricity, vehicle fuel, natural gas and oil conservation and may identify innovative cost-saving measures.
- b) Recommend citywide programs including participation in federal or statewide energy initiatives, such as the Green Communities Program, to promote and facilitate smart energy strategies for Gloucester citizens on both public and private real property.
- c) Work with appropriate city departments to track energy usage and costs associated with key assets and operations of the City.
- d) Identify climate adaptation and mitigation issues and strategies to safeguard the long-term economic and cultural vitality of the City.
- e) Follow emerging federal and state mandates, as well as initiatives and funding opportunities for energy conservation, renewable energy, or climate adaptation and mitigation strategies. Recommend strategies to comply with applicable mandatory or voluntary standards.
- f) Provide guidance, in the form of education or information, to the Mayor, City Council and key city departments and personnel, to support their decision-making on recommended strategies and clean energy opportunities.
- g) Serve as a communications and information resource on clean energy issues and city initiatives for the public through:
 - i) Meetings and sponsored events;
 - ii) Maintenance of an active web site;
 - iii) Regular communications to interested parties; and
 - iv) Public/private partnerships.