

I. Introduction to the Energy Task force of the Environmental Sustainability Board

One of the underlying objectives of the Environmental Sustainability Board, as outlined in the final report of the Howard County Commission on Sustainability and the Environment, created in 2007, is to assist the County Executive in his objective to reduce greenhouse gas emissions attributed to Howard County, both government operations and the community at large.¹ Following on the energy recommendations contained in the Final Report of the Commission on Sustainability, the newly created Sustainability Board initiated a process to identify specific policies and programs for energy efficiency and conservation, and to encourage the development and use of renewable energy resources. A separate Energy Task force was created with the objective of providing policy and program recommendations to the Sustainability Board, County Executive, and County Council by spring 2009. The members of the Energy Task Force (listed below) were selected based on their experience in the energy industry and a commitment to participate in the meetings and discussions of the Task Force. The first meeting of the Task Force took place on November 21, 2008. There were 10 meetings held between November 21, 2008 and April 15, 2009 and the recommendations provided below are a product of group discussion, reflecting agreement among the participants that these are practical, achievable, and meaningful next steps.

II. Participants in the Energy Task Force of the Environmental Sustainability Board

Christina Mudd, Exeter Associates
Richard Deutschmann, GroSolar
Jerrold T. Johnson, Johnson Controls
Ruth Kiselewich, BGE
Dennis Meizys, Maryland Green Power
Michael Panich, New West Technologies
David Pratt, Lorax LLC
Rich Thometz, Efficient Home, LLC
Bert Wilson, South River Consulting
Josh Tzucker, Akin Gump Strauss Hauer & Feld LLP
Evelyn Tomlin, Howard County Environmental Services
Niti Blackwell, Howard County Environmental Services
Josh Feldmark, Howard County Office of Environmental Sustainability
Laura A.T. Miller, Howard County Office of Environmental Sustainability

(Organizations listed for informational purposes only)

¹ In Executive Order 2007-01 County Executive Ken Ulman signed on to the Mayor's Climate Protection Agreement which commits Howard County to reduce emissions of greenhouse gases to seven percent below 1990 levels by 2012.

III. Recommendations of the Energy Task Force

Recommendation 1: Green Central Station, a County specific public outreach and information clearinghouse will be asked to coordinate with utility (BGE) programs, State programs, and will create a single location for information on energy efficiency and renewable energy incentives. Next Steps:

- A. Request that MEA host an information site on energy efficiency and renewable energy resources as a one stop shop for information.
- B. Design a Howard County “face” to the MEA website
- C. Create Master List of Community Events for BGE participation, e.g., Green Fest.
- D. Share information regarding Green Central Station and Energy Efficiency via list serves, community associations, and e-school news.

Project Lead: Lindsey Leiterman, Howard County Office of Sustainability

Timing: Green Central Station is under development with expected completion by summer 2009. The MEA web portal is also planned for development.

Recommendation 2: Community-wide Residential Energy Efficiency and Renewable Energy Pilot Projects.

Next Steps:

- A. Identify neighborhood(s) – establish partnership and program administrator/champion.
- B. Seek funding from DOE Energy Efficiency Conservation Block Grants and/or MEA Clean Energy Communities Grant (Grant proposal was submitted in February 2009, awaiting results.)
- C. Establish partnership with BGE to determine the best method to incorporate this project in EmPower MD.
- D. Consider “neighborhood blitz” model of direct installation of measures for low and moderate income neighborhoods in partnership with utility and weatherization programs.
- E. Consider application of “smart meter” and “smart grid” technologies with neighborhood projects.

Project Lead: Josh Feldmark, Howard County Office of Sustainability

Timing: Immediate, grant Application was submitted and the County is waiting for a response from MEA. Supplemental funding may be available via Energy Efficiency and Conservation Block Grants.

Recommendation 3: Create financing for residential, non-profit, and commercial energy saving improvements.

Possible Next Steps – recommend funding options, draft legislation. Refer to Montgomery County Home Energy Loan Program as a model. The county would facilitate the offering of loans (or loan guarantees) which would be secured through a lien on the homeowners property repaid over 15 years as a voluntary line item on the property tax bill. Investments in renewable energy technologies, above and beyond the amount of local, state and federal financial incentives, would be eligible for the financing and loan programs. The County would need to consider the following:

- A. Resolve legal issues concerning the use of revolving loans in Howard County.
- B. Seek partnership with Howard County Economic Development Authority as a possible third party administrator of the revolving loan program.

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- C. Source of funding: May be necessary to pool various sources of funds. Restrictions on EECBG allow just 20 % of the funds to be used for revolving loans and/or loan guarantees. (~\$500,000)
- D. Ask for feedback from DOE as to limitation of Block Grant Funds.
- E. Create Bank partnerships (Howard Bank out in front).
- F. May require County legislation to create the loan program.

Project Lead: Josh Feldmark with support from Rich Thometz

Timing: Immediate, making use of EECGB grants and MEA funding. Spring 2009

Recommendation 4: Super Energy Savers - Property Tax Incentive: Residential property owners that conduct a home energy audit and implement measures that save more than 15 percent of the annual energy consumption baseline as determined in the audit process, would receive a tax credit – this can include investments in renewable technologies as well (e.g., \$1/kWh for each kWh saved beyond a 15% reduction). Might also consider tax credits for Energy Star Whole House and Home Performance with ENERGY STAR certification. Next steps:

- A. Estimate fiscal impact to county at various participation rates.
- B. Create draft policy for consideration, start year FY 2011.
- C. Create baseline and weather normalization criteria and calculations.
- D. This is a one-time investment credit

Project Lead: Josh Feldmark

Timing: Policy to be proposed in summer 2009 for implementation in FY 2011.

Recommendation 5. Commercial Sector Sustainability and Energy Forum and Partnership
County will hold an Executive Breakfast where the County Executive requests that each of the major commercial property owners commit to maximizing energy efficiency and the use of renewable energy resources. In exchange for the commitment, the County will partner with each property owner to identify sources of information and funding. Next Steps:

- A. Seek funding from MEA to establish a “sustainable commercial properties” partnership program.
- B. Establish a statement of commitment to be signed by each major property owner. Commitments to be structured as a reduction of energy consumption and carbon footprint.
- C. Contact the largest commercial property owners to discuss commitments and willingness to participate.
- D. Set a date for Executive breakfast, to be followed by hands-on information session for building owners/managers. (Work with MEA to help fund and coordinate experts and agenda – ask BGE to participate as a sponsor).
- E. As part of the workshop, use facilitated discussions to better identify training and resource needs of property owners. Establish continuing education program suited to the needs of the commercial property owners.
- F. Follow up with training opportunities and protocols for sustainable building management in Howard County. Possible partnership with Howard Community College.

Project Lead: Josh Feldmark, Jim Caldwell of Howard County Green Business Council

Timing: Event to be held in summer/fall 2009.

Recommendation 6. Install solar PV systems and encourage the use of a diverse selection of renewable technologies on HCPSS and County facilities.

Howard County is lagging behind other counties and school systems in the number of installed solar PV facilities. There are numerous obstacles, both economic and operational, limiting the installation of solar on school rooftops. However, other counties have found ways to overcome these obstacles and Howard County can learn from their experience. Furthermore, Howard County should consider the installation of renewable technologies such as wind power and geothermal heat pumps as demonstration projects and as they are found to be cost effective means to reduce the County's energy usage. Next Steps:

- A. Representatives of Howard County should contact the Maryland Energy Administration to discuss grant and funding opportunities for schools and to seek contact information from officials in other counties with successful installations.
- B. Review county and school facilities and prepare a list of possible sites for PV installations. The list of possible sited should include location, orientation, square footage, yearly maximum and minimum demand, and basic site plan. If possible, establish a target range for total installed capacity (e.g., 100 kW total).
- C. Issue a Request for Offers seeking offers from owners and developers of distributed renewable resources. The RFO would allow for a variety of facility ownership agreements, length of contract, innovative financing, operation and management. An RFO allows vendors flexibility in structuring their projects and may provide a better suite of options than a county specific RFP.

Project Lead: Diane Sweeney, Josh Feldmark, with help from Rich Deutschmann and Bert Wilson

Timing: Identify schools in Summer 2009 and issue RFO in fall 2009/winter 2010.

Recommendation 7. Government Facilities and School System Energy Efficiency – Performance Contracts and Facility Management

Create a written policy approved by the County Executive, County Council and School Board that all major renovations include an energy performance contract. Require building commissioning and retro-commissioning on a 5 year cycle, and County-provided continuing education for facility managers and lead custodians of county buildings, including school. Possibly hire county energy manager with ARRA funds, under a one year contract with possible extensions if energy cost savings pay for the position in future years. Next Steps:

- A. Form a Committee with 2 representatives from the public schools, one representative from the Community College, and two from the County to draft the policy. The Committee will meet [quarterly] to assess progress in achieving the policy goals and. Potential Committee members include: Ken Roey, Director of Facilities Planning and Management, HCPSS; Diane Sweeney, Energy Manager, HCPSS; Josh Feldmark, Howard County Director of Environmental Sustainability; and TBD – possibly a representative from Howard County Public Works Bureau of Facilities.
- B. Based on the success of similar programs in other counties and states (e.g., Prince Georges County), create a directive requiring consideration of energy performance contracts across all school and county buildings (not just energy projects, but all renovations). Consider using Energy Star for Commercial buildings along with the EPC process. Seek Energy Star certification for renovated facilities.
- C. Establish building commissioning and routine retro-commissioning for existing facilities on a 5-year cycle.

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- D. Create a partnership with Howard Community College for continuing education for all facility managers and lead custodians on energy management and energy conservation. Include training on building energy management systems (JCI, Honeywell models). Participation in one training event per year should be mandatory.

Project Lead: Energy Management Committee

Timing: Form Committee and create policy in Spring/Summer 2009. Create annual training program.

Recommendation 8. Integrate Howard County commuter and local bus systems into the Washington Smart Trip system. Also consider participating in the Washington Council of Government transportation planning discussions. Next Steps:

- A. Contact Washington Metropolitan Transit Authority (WMTA)
- B. Contact MEA, Chris Rice, State Contact for Clean Cities
- C. Seek funding from ARRA Transportation Funds or Clean Cities
- D. Create public awareness campaign on Howard County’s Smart Trip (will also raise awareness on public transit in general).

Project Lead: Carl Balsler, Transportation Department

Timing: Immediate, or else risk losing funding opportunity.

Recommendation 9. Establish a strategy for influencing national legislation on transportation priorities and funding. Work with Maryland Congressional Leaders to identify critical transportation and transit programs. Become more involved in the Washington Council of Governments planning process as a “keystone” county in the Washington region. Specific projects to emphasize include:

- A. Rt. 29 Rapid Bus Transit
- B. Green Line Extension to BWI
- C. Rt. 32 Rapid Bus Transit
- D. Better development and planning for bicycle commuting

Project Lead: Carl Balsler, Josh Feldmark, Ned Cheston

Timing: Summer 2009.

Recommendation 10. County telecommuting programs: lead by example, and partnership. The county would institute a business partnership (possibly led by the Green Business Council) on telecommuting, where they ask businesses to commit to specific telecommuting policies: 25 percent of staff one day a week (for example) and calculate the energy and GHG reductions as part of the business commitment to reduce their impact. Next Steps:

- A. Establish program commitment levels and recognition program.
- B. Review GHG monitoring and reporting protocols to establish conversion factors for calculating GHG reductions from vehicle miles traveled (VMT) reductions.
- C. Consider whether or not reductions might be used as part of CO2 markets: either compliance or voluntary.
- D. Establish county program and calculate VMT reduced and carbon reductions.
- E. Engage major county employers as partners (e.g., JHU APL)

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Project Lead: Ira Levy, Green Business Council (?)

Timing: Summer 2009

Recommendation 11. Consider developing grid-to-vehicle, or vehicle-to-grid pilot project at high visibility locations, Columbia Mall, or Howard Community College, for example. Next Steps:

- A. Contact MEA for information about Clean Cities and funding opportunities
- B. Contact MAGICC V-2-G (University of Delaware) partnership to gauge interest in participation
- C. Work with BGE on preliminary infrastructure and design issues
- D. Work with property owners to determine their interest and site selection.

Project Lead: Josh Tzucker ; Mark Desmangles, Howard County Fleet

Timing: Spring/Summer 2009

Recommendation 12. Develop additional alternative fueling stations in Howard County. Specifically consider biodiesel as a priority and Ethanol-85.

Next Steps:

- A. Identify possible locations
- B. Contact MEA for information about Clean Cities and funding opportunities

Project Lead: Carl Balsler, Mark Desmangles, and Josh Feldmark

Timing: Spring/Summer 2009

Recommendation 13. Establish criteria or county planning elements that include consideration of energy use and carbon footprint. This may be incorporated into environmental review documents and is probably best addressed by the full Sustainability Board as it may encompass sustainability issues that are beyond the scope of the Energy Task Force.

Project Lead: Ned Tillman, Chair Environmental Sustainability Board