Mountain Maryland Energy Advisory Committee

Final Report

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Downstream Strategies
building capacity for sustainability

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Evan Hansen, Andrea Varrato, Jeff Simcoe

ABOUT THE AUTHORS

Evan Hansen, M.S., President. Mr. Hansen explores resource and environmental problems and solutions in three areas: energy, water, and land. He manages interdisciplinary research teams, performs quantitative and qualitative policy and scientific analyses, provides litigation support and expert testimony, develops computer tools, provides training, and performs field monitoring.

Andrea Varrato, B.S., Staff Scientist. Ms. Varrato offers expertise in source water protection, field monitoring, environmental research, social media, visual communications, and outreach. She has an academic background in aquatic ecology, sustainability, and environmental education

Jeff Simcoe, M.S., Former Energy Program Project Manager. Mr. Simcoe has diverse experience within both the private and government sectors, focusing on environmental analysis and solutions. He has held senior executive positions with companies focused on renewable energy, emerging carbon markets, and forest technology. Resource management has been a constant theme throughout his career, which includes expertise in energy, natural resources, and technology.

ACKNOWLEDGEMENTS

The authors would like to thank the Board of County Commissioners of Garrett County and Allegany County for funding and supporting this important project. We thank Mike Koch, Former Director of Garrett County Economic Development, who chaired the Mountain Maryland Energy Advisory Committee through most of its existence and Cheryl DeBerry, Natural Resources Business Specialist at Garrett County Economic Development, who took the lead in Mr. Koch's absence.

We appreciate the thoughtfulness and hard work provided by Mountain Maryland Energy Advisory Committee members, who volunteered to provide ideas and insights over the course of numerous meetings. We also appreciate the participation of members of the public, who attended committee meetings, submitted ideas, and provided useful feedback.

We also thank the numerous guest speakers who gave presentations to help committee members learn about new energy issues.

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INTRODUCTION

This final report documents the work completed by the Mountain Maryland Energy Advisory Committee, a county-sponsored work group that met between December 2013 and May 2015. The committee was established to advise the Board of County Commissioners of Garrett County and Allegany County, Maryland on local and state policies, regulations, programs, and legislation to help guide energy planning, with the goal of maximizing likely positive effects and minimizing potentially negative consequences of energy development.

Individuals from Garrett and Allegany counties participated in the work group. A variety of stakeholders were represented within the committee, including local government employees, local business owners, academic professionals, and residents. Committee meetings were facilitated by Downstream Strategies, an environmental consulting firm based in Morgantown, West Virginia. Monthly meetings were held at the Garrett Information Enterprise Center on the campus of Garrett College in McHenry, Maryland. The meetings were open to the public and members of the public were often in attendance.

During committee meetings, members examined a variety of energy production and energy efficiency measures that could be viable opportunities for Garrett and Allegany counties. Energy ideas were submitted by the public and by committee members. Ideas were reviewed by the committee, and the most promising ideas were selected for further research and action. The committee reviewed more than 20 ideas throughout a two-phase idea-generation process.

Ideas submitted by committee members during Phase 1 of the idea-generation process were examined and discussed in early 2014. Committee members used an online survey to narrow down the 12 ideas submitted during Phase 1. Results of the survey were discussed at the March 2014 meeting, and several ideas were bundled together to create three main focus areas that became active project ideas.

Committee members and the public then submitted 10 additional ideas in Phase 2. Of these, two were identified as priorities during the September 2014 meeting and were researched by the committee.

A total of 12 submitted ideas were tabled. The feasibility and potential impacts of tabled ideas could be periodically reevaluated to determine if these ideas could be viable options for the counties in the future.

Three focus areas emerged and were presented to the Board of County Commissioners of Garrett County in September 2014. They were also presented to Dave Eberly, the County Administrator for Allegany County. The committee continued to refine and add to these ideas through May 2015, and committee members have started to implement several of the opportunities.

This report introduces the committee, provides details on the projects addressed by the committee, and provides recommendations for further action. Appendices document the meeting process, provide a bibliography of resources used over the course of the meetings, and provide contact information for presenters, facilitators, and guest speakers at committee meetings.

A table of all submitted ideas can be found on the following page. A discussion of the three active ideas that were pursued by the committee begins on page 12, and a discussion of the three ideas recommended for future consideration begins on page 36. The original forms submitted for the tabled ideas begin on page 94. Finally, recommendations to the Boards of County Commissioners can be found on page 47.

SUMMARY OF IDEAS SUBMITTED TO THE COMMITTEE

Idea	Addressed by committee	For future consideration	Tabled
C101-Biogas to Energy using Animal and Food Waste		✓	
C102-Commercial Biomass Boilers	✓		
C103-Compressed Natural Gas Filling Stations			✓
C104-Community Renewable Energy Generating Systems		✓	
C105-Landfill Methane to Energy			✓
C106-Low Head Hydroelectric Generation			✓
C107-Mountain Maryland Property Assessed Clean Energy Financing Program			✓
C108-Passive House Initiative (Bundled into Energy Efficiency)	✓		
C109-Mountain Maryland Property Tax Credit for Renewables and Conservation			✓
C110-Solar feasibility study for pool and water heating the CARC building (Bundled with C111 and C210)	✓		
C111-Solarize Mountain Maryland (Bundled with C110 and C210)	✓		
C112-Small Scale Pump Storage Using Wind Power			✓
C201-Business Park Solar Project		✓	
P202-Small Scale Wind Turbines			✓
P203-Utilize Spillways to Generate Energy			✓
P204-Geothermal for Hot Water and Radiant Heating (Bundled into Energy Efficiency)	✓		
P205-Western Maryland Rural Electric Cooperative			✓
P206-Acquire Deep Creek Lake Power Generation			✓
P207-Commercial Wind Local Consumption			✓
P208-Establish New Hydro Facility in Western Maryland			✓
P209-Energy Conservation Initiative (Bundled into Energy Efficiency)	✓		
P210-Crowd Funding Solar Project for Ruth Enlow Public Library System (Bundled with C110 and C111)		✓	

Committee startup

GARRETT COUNTY
ECONOMIC DEVELOPMENT
Reinventing Rural

Mountain Maryland Energy Advisory Committee (MMEAC)

Committee Responsibilities

MMEAC Charge:

Garrett and Allegany counties have a long history of energy production due to the presence and abundance of a variety of natural resources. Traditional resource extraction has played a significant role in the counties and has provided much needed sources of revenue that continue to support needs of the counties and their citizens. This tradition will likely continue but there are a host of additional opportunities that can be investigated to support diversification in energy production that could benefit the counties and their citizens. A long-term focus and commitment to exploring all available energy production avenues, while identifying and mitigating potential risks, represent the charge of the Mountain Maryland Energy Advisory Committee.

In addition, the Mountain Maryland Energy Advisory Committee members will generate and document program and policy suggestions that will allow the Boards of County Commissioners to explore a broad-based portfolio approach with an emphasis on guiding energy sector growth while maximizing jobs and other economic benefits while mitigating any negative effects.

The Approach:

The committee will use community input, expert presentations, and other research to develop a comprehensive document that can be leveraged to coordinate, manage, and focus energy development. This committee work product will include specific policy recommendations for the Boards of County Commissioners from Garrett and Allegany counties to consider. The committee will explore opportunities in all energy sectors, including traditional and renewable approaches, as well as explore incentives and programs at both the county and state levels to help guide each sector's growth in a responsible way.

The Timeline:

With the help of a consultant, Downstream Strategies, LLC, this committee will complete its work through a series of committee-only working meetings, public meetings, and community outreach within 18 months.

The Consultant:

Downstream Strategies offers environmental consulting services that combine sound interdisciplinary skills with the core belief in the importance of protecting the environment and linking economic development with natural resource stewardship.

Mountain Maryland Energy Advisory Committee (MMEAC)

Member Description

MMEAC Charge:

Garrett and Allegany counties have a long history of energy production due to the presence and abundance of a variety of natural resources. Traditional resource extraction has played a significant role in the counties and has provided much needed sources of revenue that continue to support needs of the counties and their citizens. This tradition will likely continue but there are a host of additional opportunities that can be investigated to support diversification in energy production that could benefit the counties and their citizens. A long-term focus and commitment to exploring all available energy production avenues, while identifying and mitigating potential risks, represent the charge of the Mountain Maryland Energy Advisory Committee.

In addition, the Mountain Maryland Energy Advisory Committee members will generate and document program and policy suggestions that will allow the Boards of County Commissioners to explore a broad-based portfolio approach with an emphasis on guiding energy sector growth while maximizing jobs and other economic benefits while mitigating any negative effects.

Member Responsibilities:

- Assist the Chairman and consultant in carrying out the charge of the MMEAC
- Assist the Chairman and consultant in developing the operational structure of the committee and participate in establishing realistic goals
- Determine and provide availability for MMEAC meetings
- Attend MMEAC meetings, either in person or through remote meeting technology
- Assist with the generation of energy related policy covering various energy sectors
- Prepare for meetings by reviewing committee materials ahead of scheduled meetings
- Engage in thoughtful dialogue and participate in a process to reach consensus on policy recommendations that support the MMEAC charge
- Help identify known subject matter experts to present on various topics in support of the MMEAC charge
- Assist with the development of the final work product by providing suggestions, comments, edits, and general engagement in the process

Member Qualifications:

- Knowledge of energy, planning, and/or policy as it relates to the MMEAC charge
- Willingness to engage in professional and thoughtful dialogue with other MMEAC members and ability to reach consensus on various recommendations generated by the committee
- Ability to work well in group settings
- Ability to allocate the time and effort required to serve on the committee
- Commitment to the committee charge
- Demonstrated track record of being productive on past/current committees or boards
- Knowledge of the demographics and relevant issues in Garrett and Allegany counties and the larger geographic area known as Mountain Maryland

Accountability:

- The MMEAC will ultimately report to the Boards of County Commissioners for Garrett and Allegany counties
- MMEAC members will report to the Chairman of the committee

Time Commitment:

- The MMEAC will complete its work within an 18 month period
- MMEAC members should plan for 1 to 2 committee meetings per month
- MMEAC members should allocate approximately 4 to 8 hours per month to committee activities

The Consultant:

Downstream Strategies offers environmental consulting services that combine sound interdisciplinary skills with the core belief in the importance of protecting the environment and linking economic development with natural resource stewardship.

FOR IMMEDIATE RELEASE

Mountain Maryland Energy Advisory Committee Seeks Public Solutions

OAKLAND, Md. – April 1, 2014 –Furthering dialogue about local energy production, the Mountain Maryland Energy Advisory Committee (MMEAC) solicited energetic ideas from the public at today's meeting of the Garrett County Board of Commissioners. After giving a brief update on the committees work to date, the MMEAC enlisted the public's help generating new, energy- focused initiatives.

Created in November 2013, the MMEAC advises the Garrett & Allegany County Commissioners on local and state policy, regulation, programs, and legislation issues. Together, they guide energy planning in an attempt to maximize positive effects and minimize potentially negative consequences of energy production. Representing a diversity of perspectives, the 12 committee members are private citizens, business owners, and leaders in economic development (Garrett & Allegany County representatives), health, education, and recreation.

Since their inception, the MMEAC has explored a range of energy topics, and generated numerous ideas on energy production. While three initiatives are slated for more focused review, the MMEAC seeks additional fresh ideas from the general public.

"Great ideas fuel our future," said Committee Chairman Mike Koch, who also serves as Garrett County's Executive Director of Community Planning & Development. "Energy development is an important part of our economic future, but we need to chart our course thoughtfully and responsibly. Public participation diversifies ideas and deepens this dialogue."

Citizens may formally submit their ideas using the form available on the MMAEC website at: http://garrettcounty.org/energy/mountain-maryland-energy-advisory-committee or by completing a hard copy form at the Garrett County Office of Economic Development (Garrett County Courthouse, Room 208). All energy-related ideas are welcomed, such as ideas that address:

- Energy finance, credits, and incentives
- Energy efficiency initiatives
- Alternative fuels
- Renewable energy
- Waste to energy

New ideas generated by the committee and local citizens will be explored during monthly committee meetings, all of which are open to the public. Meetings, featuring presentations from energy professionals, are held the third Wednesday of every month from 3-5 pm in Room 103 of the Garrett Information Enterprise Center on the Garrett College campus. Viable solutions, in turn, will be reviewed by the MMEAC and committee recommendations will be forwarded on for consideration by the Board of County Commissioners.

The MMAEC will hold its next meeting on Wednesday, April 16. To explore all energy initiatives within Garrett County, visit http://garrettcounty.org/energy/.

About Garrett County, Maryland:

Nestled in the mountains of Western Maryland, Garrett County features high elevations—and higher opportunities for prosperity. Lured by an abundance of resources and natural beauty, over 900 businesses elevate their workforce—and profit margins—in Garrett County. Boasting a solid workforce and affordable real estate, Garrett County blends modern conveniences with country living. Efficient by design, our technology and transportation infrastructure redefine rural life, offering convenience and proximity to key markets.

In Garrett County, we're reinventing rural. Mindful of our agrarian roots, we support the organic growth of innovation. Visit: www.reinventingrural.com to learn more.

MEDIA CONTACT:
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(301) 358-9255

Ideas addressed by the committee

BIOMASS ENERGY PROJECT PROPOSAL

Steps taken by the committee and other individuals

The committee was introduced to Paul Lewandowski from AFS Energy Systems, a biomass boiler provider. Mr. Lewandowski attended the July 2014 MMEAC meeting and presented information on various types of biomass boiler systems. He also provided examples of existing systems in surrounding states. Mr. Lewandowski met with committee members and representatives from Garrett College to examine the current boiler system at the college. Representatives from Garrett College provided Mr. Lewandowski with basic information and propane usage data to support desktop calculations for a proposed biomass boiler system. Mr. Lewandowski then met with the MMEAC biomass boiler subgroup to discuss the feasibility of installing a biomass boiler system at Garrett College.

Committee representatives toured facilities hosting existing biomass systems. Jeff Simcoe, Cheryl DeBerry, Eric Guthrie, and Jo Gilman attended a tour of a biomass system in Bedford, Pennsylvania.

An overview of this idea was presented to the Garrett County Commissioners in September 2014. It was also presented to Dave Eberly, the County Administrator for Allegany County.

In February 2015, the United States Forest Service completed a draft Preliminary Feasibility Report for a biomass energy system at Garrett College. This report investigated two options: a new biomass central plant and a new pellet boiler to offset oil. For each option, it estimated capital costs and provided a financial analysis and a fuel cost sensitivity analysis. The financial analyses documented when cash flow becomes positive and calculated the net present value of the systems over a 25-year horizon.

Cheryl DeBerry, Joseph James from Downstream Strategies, and Hugh Schrier and Eric Swearengen from Garrett College attended the Biomass Boot Camp event, sponsored by the Maryland Wood Energy Coalition, in February 2015. Ms. DeBerry summarized the event for the committee and made the conference materials available to committee members.

Current status

Garrett College is currently looking into opportunities to help finance the biomass boiler system and reduce its payback period. The Maryland Energy Administration's Game Changer Grant is of particular interest. Another potential funding mechanism is to write the biomass proposal into the state's Master Plan so that a percentage of the biomass system could be funded through the State. Grants and other funding sources could then be used to cover any remaining costs. Third-party financing available through the Maryland Clean Energy Center was also considered, although the college is hesitant to enter into this type of agreement.

Next steps

Once a funding strategy is established, the college can make a fully-informed decision about moving forward with installing the biomass system.

1. Your Name

Cheryl DeBerry

2. Idea Name/Title

Commercial Biomass Boilers: Energy Production Systems for Institutions, Businesses, and Communities

3. Idea Details (What is it? How could it work here? Who might be involved?)

Biomass energy production systems use locally-available biomass to generate heat and/or electricity. Chillers for air conditioning are a possible add-on as well. The biomass used in these heat and/or electricity generation systems is wood chips straight from municipal tree trimming companies, lumber mills, or logging operations. There are several different types and sizes of systems that can be customized for the application.

4. Specific Recommendations related to the idea (Who should do what, when, where, etc.)

Pilot/Demonstration project at the CARC at Garrett College, could be combined heat and power (CHP) or just heating. We would need to find some grant funding to offset initial costs and then the college would be able to see the cost savings more quickly. The site could be used as a training facility for persons who would service the systems.

5. Please provide examples (if any) of this idea in use now. (provide as much information as you can)

Multiple examples in Pennsylvania – schools, hospitals, greenhouses, etc., specifically:

- Hughesville High School. Heating & hybrid willow production fuel & 600 kW solar array. Messersmith wood energy system. First of kind for PA School.
- Sullivan County High School. Heating with thermal storage. AFS wood energy system. First of its kind for PA schools
- Bloomsburg University. AFS wood energy system.
- Evangelical Community Hospital. Heating, cooling & electricity production. AFS wood energy system.
- Twin Springs Fruit Farm. Family greenhouse business. Blue Flame wood energy system heats greenhouse.

6. List outside resources that accompany the idea. (Supporting materials such as websites, who to contact for more information, etc.)

Biomass Thermal Energy Council: http://www.biomassthermal.org/

Maryland Wood Energy Coalition:
https://agresearch.umd.edu/agroecol/educationoutreach/advancing-sustainable-wood-energy-maryland

7. What incentives, if any, already exist for this idea? (Or, if none, what could be implemented?)

Thermal energy credits

8. Who might benefit from this and how? (What types of individuals and/or businesses? Others?)

College, schools, Community Action, County, communities, ASCI, business parks, etc.

9. Additional Information about this idea?

Notes:

See next page

Maryland Wood Energy Coalition: Advancing the Use of Woody Biomass in Maryland

The *Maryland Wood Energy Coalition* organized in April 2010 is composed of representatives of state agencies, university extension, non-profits, and business.

- **Committed to increasing the adoption of high efficiency, low emission wood energy technology that meets the State's air quality standards.**
- **Believes this can be best achieved through small to medium-sized commercial and institutional applications for government, schools, and businesses, as well as residential thermal applications.**

Maryland's Energy Needs

Use of woody biomass (forests, short rotation woody crops & urban waste) can help meet thermal energy needs of the state. Promoting woody biomass presently absent from state renewable energy policy.

- Solar
- Wind
- Hydro

} Electricity

- Geothermal
- Woody biomass

} Thermal

Sustainability

The Pinchot Institute (www.pinchot.org/articles/323), with support from other organizations, developed the following reports:

1) **The Potential for Sustainable Wood-Based Bioenergy in Maryland. Basic Conclusions:**

- Small to medium-sized decentralized installations are best suited for Maryland.
- Opportunity exists for developing biomass energy industries in all jurisdictions.
- Small changes in existing policies could foster significant investment in wood energy.

2) **MD Forest Biomass & Harvesting Retention Guidelines**

- Protect biodiversity, Forest Productivity, and other important conservation values during biomass harvests.

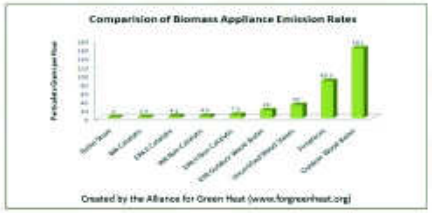
Perception Versus Reality

Public are uneducated about high efficiency, low emission wood energy technologies for residential and woody biomass boilers. EPA approved stoves are widely available for residential use with firewood and pellets.

Major challenge is the present lack of a Maryland Department of the Environment Permit for burning woody biomass in boilers for small to medium sized applications.

Emissions & Efficiency

New generation EPA wood stoves and boilers have low emissions and compare favorably to fossil fuels. Advanced wood burning technologies that produce thermal energy are also very efficient - about 70-80%. Using wood to produce electricity (at 25-35% efficiency) is a poor use of a limited resource.



Renewable Energy Subsidies

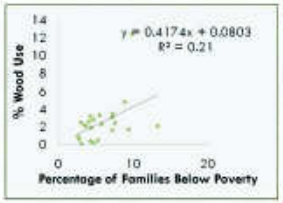
- If Maryland energy subsidies were put into promoting wood energy, 4.5 times more CO_2 would be offset and households would be served (see table below).
- Wood/pellet stoves are 3-10 times cheaper on the front end and generate as much or more carbon offsets as solar energy systems.

Maryland Renewable Energy Subsidies Comparison

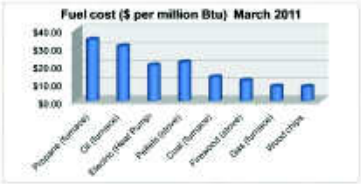
Renewable Energy	Cost	CO_2 Offset	Households Effected
Solar	$2,750,000	1,293 metric tons	500
Geothermal	$1,000,000	718 metric tons	350
Wind	$170,000	194 metric tons	23
Total	**$3,920,000**	**2,205 metric tons**	**873**

Wood Use & Poverty in MD

Wood heat is the most accessible renewable energy available to low income populations.



Saving Precious Energy $



Maryland House Bill 829

Renewable Energy For All

Submitted as a result of coalition efforts but not passed. To be reintroduced in 2012

- Create a residential heating grant program that provides financial incentives for families to purchase the cleanest renewable wood (<3.0g) and wood pellet (<1.5g) stoves on the market today.
- Targets low and middle income families
- Funds generated from tax on convenience store wood bundles.

Success Story

Eastern Correctional Institution
Princess Anne, MD
Fuel cost cut by 63%

Creating a "Green" Economy

- Energy dollars retained in local economy
- New economies from fuel chain
- Expenditures re-invested in local improvements
- Stable and cheaper source of energy

Wood Energy Applications

- District heating of villages, town, communities
- Medium scale biomass heating projects like schools, town halls, village center's, etc.
- Wood pellet & firewood heating for single family houses
- Combined heat and power - "CHP"

Things to Keep in Mind

- Wood not always the answer
- Do no harm to existing wood industries
- Where are the experts? Education needed for architects, engineers, HVAC, facility managers
- Creating mutually beneficial collaborations, not adversaries

Challenges

- Education of the public and decision makers: woody biomass is a clean sustainable source of energy.
- Develop a separate air permitting process for small to medium sized biomass boiler systems.
- Extend existing incentive programs for alternative energy to include wood energy applications.
- Establish programs to accelerate the transition from older, dirtier technologies to advanced technologies that are more efficient.

Future MD Coalition Efforts

- Finish development of policy paper with legislative and policy recommendations. Use clean energy forums and other educational outreach to implement changes.
- Work with Maryland Department of the Environment to get a permit for emission for woody biomass boilers.
- Pursue demonstration project - low hanging fruit - schools,

MOUNTAIN MARYLAND ENERGY EFFICIENCY PROJECT PROPOSAL

Steps taken by the committee and other individuals

Committee members combined three submitted ideas into one energy efficiency initiative. These ideas included P204-Geothermal for hot water and radiant heat, C108-Passive house initiative, and P209-Importance of energy conservation.

The committee researched and learned about various energy efficiency techniques, including passive house construction and geothermal heating systems.

Committee members determined that the energy efficiency project should focus on raising awareness of energy efficiency retrofits that could be useful for residents and local businesses.

An outreach event was suggested as a means to raise awareness. Various formats were considered for the outreach event, including hiring a professional event coordinator.

An overview of this idea was presented to the Garrett County Commissioners in September 2014. It was also presented to Dave Eberly, the County Administrator for Allegany County.

Ultimately, the committee decided to convey energy efficiency ideas to the public at a PechaKucha event. PechaKucha is an international social event series held in over 800 cities across the globe. It was created in Tokyo in 2003 as a networking event for young designers. The event focuses on concise presentations, in which eight to 12 individuals present twenty slides each and spend only 20 seconds discussing each slide.

With assistance from Maureen Myers from Gosnell, Inc., committee members coordinated with the PechaKucha Accident organization to begin planning for the event.

Committee members suggested, discussed, and ranked potential topics and speakers. The committee also discussed potential dates and locations for the event.

In addition to the PechaKucha event, the committee helped promote a separate energy-related event in Allegany County. Woody Getz, Commissioner of Public Works for the City of Frostburg, Maryland, organized the event, titled ENERGY MATTER$ 2: $avings through Conservation & Efficiency. The event took place at Frostburg's City Place on March 28, 2015 and featured presentations by industry professionals focusing on residential and commercial energy efficiency analysis and recommended improvements/upgrades. The presentations also included information about incentives and rebate programs available in Maryland for Potomac Edison customers.

Current status

Planning has been initiated for the PechaKucha event, which is scheduled for summer 2015.

Next steps

Once a final date and speakers are confirmed, the PechaKucha event will be publicized. The counties may consider using other methods of information dissemination, including brochures, flyers, and web sites focusing on energy efficiency.

1. Your Name

Ed Gates

2. Idea Name/Title

Passive House Initiative

3. Idea Details (What is it? How could it work here? Who might be involved?)
The Passive House concept represents today's highest energy standard with the promise of slashing the heating energy consumption of buildings by an amazing 90%. Widespread application of the Passive House design would have a dramatic impact on energy conservation. Data from the U.S. Energy Information Administration shows that buildings are responsible for 48% of greenhouse gas emissions annually and 76% of all electricity generated by U.S. power plants goes to supply the Building Sector [Architecture2030]. It has been abundantly clear for some time that the Building Sector is a primary contributor of climate-changing pollutants, and the question is asked: How do we best square our building energy needs with those of our environment and of our pocketbook? In the realm of super energy efficiency, the Passive House presents an intriguing option for new and retrofit construction; in residential, commercial, and institutional projects.

A Passive House is a very w ell-insulated, virtually air-tight building that is primarily heated by passive solar gain and by internal gains from people, electrical equipment, etc. Energy losses are minimized. Any remaining heat demand is provided by an extremely small source. Avoidance of heat gain through shading and window orientation also helps to limit any cooling load, which is similarly minimized. An energy recovery ventilator provides a constant, balanced fresh air supply. The result is an impressive system that not only saves up to 90% of space heating costs, but also provides a uniquely terrific indoor air quality.

A Passive House is a comprehensive system. "Passive" describes well this system's underlying receptivity and retention capacity. Working with natural resources, free solar energy is captured and applied efficiently, instead of relying predominantly on ‘active’ systems to bring a building to ‘zero’ energy. High performance triple-glazed windows, super-insulation, an airtight building shell, limitation of thermal bridging and balanced energy recovery ventilation make possible extraordinary reductions in energy use and carbon emission

4. Specific Recommendations related to the idea (Who should do what, when, where, etc.)

Implement a passive house standard and inspections and regulations that do not hinder this type of construction—

Today, many in the building sector have applied this concept to design, and build towards a carbon neutral future. Over the last 10 years more than 15,000 buildings in Europe - from single and multifamily residences, to schools, factories and office buildings - have been designed and built or remodeled to the passive house standard. A great many of these have been extensively monitored by the Passiv Haus Institut in Darmstadt, analyzing and verifying their performance.

5. Please provide examples (if any) of this idea in use now. (Provide as much information as you can)

Governmental agencies have adopted passive house standards in their policy-making (read more about the EU Commission's intent to implement the Passive House Standard).

Also, check out—

http://www .tbp.org/pubs/Features/Su11Bell.pdf

http://www .greengenerationbuilding.com/passive-house/

6. List outside resources that accompany the idea. (Supporting materials such as websites, who to contact for more information, etc.)

http://www .passivehouse.us/passiveHouse/PHIUSHome.html
http://www .communitysolution.org/housing.html
http://www .greengenerationbuilding.com/passive-house/
http://www .communitysolution.org/ppts/PlanCHousingMaster.ppt
http://www .phaus.org/home-page
http://passivehouserevolution.org/

7. What incentives, if any, already exist for this idea? (Or, if none, what could be implemented?)

http://www .phaus.org/learn/passive-house-education/government-advocacy

Current Incentives

National

On June 6, 2013, Senators Michael Bennet (D-CO) and Johnny Isakson (R-GA) reintroduced the Sensible Accounting to Value Act of 2013 (the SAVE Act). The legislation will rationalize the American mortgage underwriting process by including a home's expected energy cost savings when determining the value and affordability of energy efficient homes. To view the legislation go to SAVE Act.

Section 4 (c) (2) (C) (i) of the bill recognizes RESNET and Home Energy Ratings stating that an option to determine energy savings would be "in accordance w ith the Residential Energy Service Network's Home Energy Rating System (commonly known as ''HERS'') by an individual certified by the Residential Energy Service Network. RESNET press release and Sensible Accounting to Value Energy Act of 2013 draft.

Maryland

Bill 43-10 High Performance Homes In Baltimore County, MD, local Passive House professionals worked with then Councilman, Vince Gardina to amend a LEED for Homes tax credit to include a performance based tax credit including the PHPP as an approved energy performance modeling software and CPHC's as approved energy performance professionals. The bill was named the Baltimore County High Performance Homes Act, Baltimore County, MD and is listed as Bill 43-10.

8. Who might benefit from this and how? (What types of individuals and/or businesses? Others?)

Everyone—

http://passivehousecal.org/benefits-economics

http://passivehouserevolution.org/

9. Additional Information about this idea?

Passive House: A Building Revolution

http://www .youtube.com/watch?v=_agu9jJlvGo

Notes:
Idea converted from Survey Monkey to new format 2/5/14

1. Your Name
Rod Owens

2. Idea Name/Title
Geothermal for hot water heating and radiant heating

3. Idea Details (What is it? How could it work here? Who might be involved?)

http://terrathermaltech.com/index.html

Technology developer is interested in marketing his product in Mountain Maryland as well as exploring partnerships in manufacturing and distribution. Maryland currently offers incentives for this type of system that should be explored to better understand the economics.

Benefits (from website):

Efficiency
The HEAT20 provides unsurpassed energy savings. With a C.O.P. that exceeds 6.0 and the ability to produce 125˚ F water, the HEAT2O is a great alternative to fossil fuel or electric resistance water heating. The savings realized can allow a homeowner to recover their initial investment many times over during a normal life cycle. The HEAT20 can make this claim without factoring in any available government subsidies or tax credits. When you compare it to any other water heating system, HEAT2O is the clear choice for savings, safety and efficiency.

Environmentally Friendly
HEAT2O systems fulfill your water heating requirements using safe, readily available renewable energy. There are no fossil fuels utilized, no harmful emissions and only a fraction of the electricity used by conventional water heaters. The result is no pollution, no noise and extremely low energy use.

Reliability
HEAT2O water heaters are built to last, using proven components, internal protection systems and easy to read fault indicators. With proper piping and water flow the HEAT2O systems operate at a fraction of the stress imposed on conventional water heating systems. Because the unit is installed indoors it is not subjected to harsh weather elements such as snow, rain, dust or extreme heat. The result is higher efficiency and a longer life expectancy for the unit.

Aesthetics
The HEAT20 features a high quality powder coat finish, clean lines and a small foot print. It is installed indoors, so there is no unsightly or noisy outdoor unit. The unit is so quiet you might forget its there.

4. Specific Recommendations related to the idea (Who should do what, when, where, etc.)
Explore incentives and ways to partner with local companies and/or manufacturing in Mountain Maryland.

5. Please provide examples (if any) of this idea in use now. (provide as much information as you can)

From MEA: http://energy.maryland.gov/renewable/geothermal.html

How it works (from website):

Overview

Outdoor temperatures and climates vary regionally. And temperatures can change drastically, even within the same climate, from season to season. However, the temperature below the earth's surface remains fairly constant no matter the climate or season. This is due to the suns solar energy which is absorbed by the earth's crust. The earth is able to retain much of this energy as heat below the ground.

The HEAT2O system creates hot water by utilizing the solar heat stored in the earth's crust. The process revolves around a system of buried piping (or earth loops) installed in either a vertical or horizontal configuration within the ground.
A solution of water and antifreeze is circulated between these earth loops and the HEAT2O system. The HEAT2O receives the heat absorbed in the earth loops and compresses this heat to increase temperature. The heat is then transferred to the water inside a storage tank, radiant floor system or a hydronic heating coil.

Heat source options include ponds, open wells and waterways; however, closed loop systems (earth loops) buried underground are by far the most common. According to the Environmental Protection Agency, geo exchange technology is the most energy efficient, environmentally clean and cost effective system available today for heating water.

6. List outside resources that accompany the idea. (Supporting materials such as websites, who to contact for more information, etc.)

http://terrathermaltech.com/howgeoworks.htm

http://energy.maryland.gov/renewable/geothermal.html

http://www.geothermalgenius.org/states/maryland.html

7. What incentives, if any, already exist for this idea? (Or, if none, what could be implemented?)

Clean Energy Production Tax Credit (personal):
http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=MD17F&re=0&ee=0

Anne Arundal County – Solar and Geothermal Equipment Property Tax Credits:
http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=MD26F&re=0&ee=0

Other incentives detailed here:
http://www.dsireusa.org/incentives/index.cfm?re=0&ee=0&spv=0&st=0&srp=1&state=MD

8. Who might benefit from this and how? (What types of individuals and/or businesses? Others?)

9. Additional Information about this idea?

From Rod Owens:

First email:

To whom it may concern;
Regarding newspaper solicitation for energy related ideas, I have developed and built a ground source based water heating machine. Due to economic downturn and the death of a gentleman employed for the electrical construction component of this product, a Garrett county resident, we ceased production in 2010. The product has a proven track record with over 80 installed and operating since 2007.I am seeking personnel and facilities to revive the production. I am willing to discuss partnering, sale or any ideas that will get this system to market. The geothermal industry is burgeoning and Maryland is implementing REC credits that should propel the industry. You can get an overview of the product and its capabilities @ Terra Thermal Technologies.com
Regards

Rod Owens
President

Owens Comfort Systems, Inc.
Geothermal Heating & AC, Air Quality, In Floor Radiant Heat

Second email:
Thanks you for taking a look at this, yes that is our web site. FYI I had a meeting with Jim Hinebaugh of Garrett county economic development early in the development of this product with the intention of building in Garrett County, and we actually made a tentative agreement on property in the business park near Grantsville to set up a mfgr. facility. However as I said we did not move forward. Instead we built here in our Davidsonville facility. For what its worth I own a farm in Garrett County and share my time between addresses and I spent much of my childhood in the county on a farm where my father lived, so I have an interest in the region and its economic and more importantly environmental health.

Rod Owens
President

Owens Comfort Systems, Inc.
Geothermal Heating & AC, Air Quality, In Floor Radiant Heat

Notes:

Mountain Maryland Energy Advisory Committee

Ideas Generation Form

1. Name and Contact Information:
   E. Lowell Markey
   40 Hickory Drive
   Ridgeley, WV
   lmarkey19971@gmail.com
   (Former resident of Allegany County, still a "stakeholder" in Mountain Maryland due to continuing relationships with Allegany College of Maryland and the C&O Canal National Historical Park (volunteer).

2. Idea Name/Title:

   Importance of energy conservation.

3. Idea Details:

Energy conservation – often overlooked in a discussion of energy planning – is the cheapest way to help meet the future demand for electricity and heating, transportation and other fuels. Any form of electricity generation or other use of fuels comes at economic and environmental costs, whereas energy efficiency produces savings and a cleaner environment. My ideas focus on the benefits of improving electric use efficiency, though many of my thoughts translate directly to heating, transportation, and industrial fuels such as oil and natural gas.

A comprehensive study of energy efficiency's potential, by McKinsey and Company in 2009, found that the US could consume 23% less energy per year by investing $520 billion in energy efficiency, which would produce a present-value *savings* of about $1,200 billion.

By reducing the amount of electricity necessary to meet demand, reliability of the existing electric grid is improved, avoiding blackouts and brownouts. Efficiency also allows utilities and states to avoid building new transmission and generation facilities, thus saving money and environmental degradation.

If you happen to be concerned about climate change due to the production of greenhouse gases, energy efficiency has a potential role to play here as well.

Most of the highly cost-effective energy efficiency measures more than pay for themselves. These include more efficient residential appliances, lighting, electronics, industrial machinery and processes, and HVAC equipment, as well as insulation retrofits and new building construction with high efficiency standards. These cost savings contrast with the high costs of creating new electricity sources and the concurrent requirement to improve and enlarge transmission and grid facilities.

4. Specific Recommendations:

Start with government. County and municipal governments in Mountain Maryland can lead by example, widely publicizing the cost savings resulting from investment of taxpayer monies in more efficient government buildings, vehicles, and other assets and showing how these savings are being deployed in other government endeavors without raising taxes.

Local governments can urge citizens to take advantage of energy efficiency incentives being provided under the Maryland Energy Administration by the Administration itself and by electric utilities carrying out Administration policy. Local governments can sponsor events in counties and municipalities where citizens can get information on rebates and other incentives being offered by these entities.

Local governments could offer tax or permit and license fee incentives to landlords and building contractors who agree to energy performance standards such as might be found in LEED certification programs, the federal Energy Star program, etc.*

Local governments can also offer awards at public meetings and events (almost cost free) to businesses and industries making investments in energy efficiency, recognizing the contributions of private enterprise to a cleaner environment and the cost savings to all citizens through reduced need for development of new electric generation and transmission facilities.

See No. 5 below concerning possible establishment of goals for energy reduction by local governments.

*For residential energy in particular, the free market does not necessarily produce energy efficient decision-making. The decision as to what water heater or what HVAC equipment should be installed is often not made by a person or organization which will benefit from the cost savings of energy efficiency. Landlords and building construction contractors can maximize profits by supplying cheaper, less efficient equipment and materials. They will not benefit from provision of more efficient housing or commercial units. Thus, efficiency decisions are not being made by the tenants and building buyers who would benefit from lower energy costs. This makes government leadership in efficiency strategies all the more important.

5. Examples of Ideas in Use Now:

The states of Maryland and New York both have policies and programs designed to achieve 15% energy use reductions by 2015 (“15 by 15” in New York). Perhaps the county governments in Mountain Maryland can jointly promote a similar goal of reducing electric consumption of XX% by 2XXX.

Delaware and the District of Columbia both have Sustainable Energy Utilities carrying out programs and policies somewhat similar to the Maryland Energy Administration.

6. Outside Resources:

Some of the ideas set forth in No. 3 above came from “Public Utility Commissions and Energy Efficiency – A Handbook of Legal & Regulatory Tools for Commissioners and Advocates,” by the Columbia Law School Center for Climate Change Law (2012) and available via the internet. The McKinsey and Company study referenced in No. 3 above is detailed in Hannah, Choi, Granade, et al., “Unlocking Energy Efficiency in the U.S. Economy” (July 2009).

7. What Incentives Exist:

Direct and indirect cost savings to governments, private citizens, non-profits and private enterprise.

Rebates and other monetary incentives through the Maryland Energy Administration.

8. Who Might Benefit:

Governments, private citizens, non-profits and private enterprise. It should be mentioned that electric utilities and associated enterprises and other energy providers might not benefit and might offer resistance to conservation strategies.

9. Additional Information:

None.

Thank you for your consideration of these ideas.

MOUNTAIN MARYLAND SOLAR PROJECT PROPOSALS

Steps taken by the committee and other individuals

The committee reviewed various ideas for promoting solar in Mountain Maryland. Ideas included C111-Solarize Mountain Maryland, C210-Crowdfunded solar for the Ruth Enlow Public Library System, and C110-Solar project for Garrett College. The committee also considered other strategies, including community solar cooperatives and solar panel financing and installation through the firm SolarCity.

Solarize Mountain Maryland. The focus of the Solarize Mountain Maryland project proposal was to mitigate the barriers to residential solar by creating a program that reduces cost and complexity of installation. The Solarize process has been successfully implemented in other counties; these models could be copied or modified to fit Mountain Maryland. The counties would issue a Request for Quotation or Request for Proposal to develop a Solarize Program that would encompass outreach, education, and marketing to targeted regional business and residential customers. The RFQ or RFP would seek a "turn-key" solar energy provider capable of providing bundled services (design, installation, financing) for small- to mid-scale solar photovoltaic installations (approximately 5-50 kW) and discounted pricing based on aggregation of regional demand.

Former committee meeting facilitator Jeff Simcoe was introduced to Anya Schoolman of Community Power Network (CPN) through a presentation she gave during an event. CPN has helped initiate numerous successful residential solar cooperatives in the Washington, D.C. area and in several states, including Maryland, Virginia, and West Virginia. Ms. Schoolman presented to the committee in November 2014. She detailed CPN's framework for undertaking a community solar cooperative and discussed the benefits of joining a community solar cooperative. With this approach, residents join together to issue a Request for Proposals to solar installers, who typically provide steep discounts of approximately 25% because they gain access to a large number of solar installations. In summer 2015, a cooperative in nearby Morgantown, West Virginia will select its installer and begin installations. Although the committee did not have time to move forward with this idea, it is a proven method for providing discounts to community members on solar installations.

Mike Koch and Bob Sutton had a conference call with the organizer of the Madison County, New York Solarize initiative. As a result of this call and information gained during Anya Schoolman's presentations, the committee determined that working with a turn-key organization would be the most beneficial way to approach this project. An RFP could be written for a turn-key provider so that the only assistance the counties would need to provide would be in marketing and communications.

An overview of this idea was presented to the Garrett County Commissioners in September 2014. It was also presented to Dave Eberly, the County Administrator for Allegany County.

Hot water heater retrofits to finance solar panel installation. Committee members learned about the Mosaic Power/Solar Holler crowdfunded solar hot water heater model from a presentation by Dan Conant at the August 2014 committee meeting. This model uses hot water heater retrofits to reduce energy loads at times of peak demand. In return for installing this demand-response system on a hot water heater, Mosaic Power provides a $100 annual payment, which can be used to help finance the installation of solar panels. Such an arrangement was used successfully to finance the installation of a solar system for a church in Shepherdstown, West Virginia. The submitted idea, C210, applied this model to benefit the Ruth Enlow Public Library system in Garrett County. Committee members also expressed interest in initiating a similar project for the Allegany County library system. The committee pursued these ideas and took initial steps to contact library representatives. However, the committee then learned that Mosaic's business model had changed so that it no longer supported single-family home hot water heater installations. Facilitators and committee

members attempted to find suitable multi-family buildings in Garrett or Allegany counties that would provide the appropriate settings for Mosaic Power, but were unable to secure such a location.

Solar lease. Committee members were introduced to the SolarCity business model through a presentation made by Lauren Harris, Aaron Kraus, and Chris Ercoli from SolarCity. Ms. Harris and her team detailed the SolarCity financing model and answered questions from the committee about the process. Committee members found this model to be favorable and suggested that the local school districts and county governments look into installing solar panels through Solar City.

Representatives from Garrett County met with SolarCity in fall 2014 for initial discussions on the feasibility of a county solar installation. Between December 2014 and March 2015, the county and SolarCity settled on establishing three sites for ground-mounted solar arrays. The Garrett County government entered into a 20-year Power Purchase Agreement (PPA) with SolarCity in March 2015. The rate offered under this agreement is lower than the rate that the county is currently paying, and SolarCity has projected that the county could see a cost savings of $2-5 million dollars throughout the course of this project, depending on the fluctuation of utility prices on the market.

A total of 5 megawatts of capacity will be installed at the three ground-mounted solar sites. These sites will produce just under 80% of the county's annual load. One site will be located behind the Oakland garage, one will be in Grantsville, and the third site will be at the Deep Creek Lake Wastewater Treatment Plant. The county has received funding from the MEA Smart Energy Community program to help fund the interconnection between the Oakland and Grantsville sites.

Eric Guthrie introduced the SolarCity model to the Beitzel Corporation, which undertook its own discussion with SolarCity on the possibility of installing solar panels at the industrial park in Grantsville, Maryland.

Solar project for Garrett College. Garrett College entered into discussions with a solar provider to determine the feasibility of installing solar at the college. The solar provider indicated that the solar installation would necessitate the use of all of their available expansion land. The college was not able to dedicate this amount of land to a solar installation, and because the provider indicated that a solar-covered parking lot was not an option for the college, the college was unable to move forward with this initiative.

Current status

Solarize Mountain Maryland. Although the committee found the idea of working with CPN to form a solar cooperative and issue an RFQ or RFP to be favorable, it did not have time to pursue the idea past initial discussions.

Hot water heater retrofits to finance solar panel installation. With the knowledge of the change in Mosaic power's business model, the committee determined that it could not proceed with the library crowdfunding project because it relied on hot water heater retrofits in single-family homes. Although initial research and outreach did not find willing multifamily home partners, there are additional possibilities.

Solar lease. The Garrett County government anticipates that the Oakland solar array will be established by the end of 2015, or in 2016 at the latest. They are currently in the process of getting the sites prepared and ready for installation.

Beitzel Corporation is nearing completion of an agreement with Solar City to build a 536-kW system, which will be installed at the company's new headquarters building and will also supply electricity to two leased manufacturing facilities—all at the industrial park in Grantsville, Maryland. This arrangement locks in a price of electricity for 10 years at no cost to Beitzel.

Solar project for Garrett College. This idea is no longer being pursued.

Next steps

Solarize Mountain Maryland. Next steps for this project include reinitiating conversations with CPN to being the process of launching a project in Mountain Maryland. Employees, leaders, or volunteers from Garrett and Allegany counties should document successes of nearby cooperatives, including those in Maryland and in nearby communities such as Morgantown, West Virginia. CPN and its sister organization, Maryland Sun, are available to provide assistance throughout the process. These organizations can help organize and publicize the cooperative, develop the Request for Proposals, help facilitate the installer selection process, and help oversee the installations. If the counties chose to move forward with this initiative, a marketing and communications focus would be essential to garner community interest and support for the project.

Hot water heater retrofits to finance solar panel installation. Multifamily housing units in Garrett and Allegany counties should be further researched. In order to take part in the project, housing units must have electric hot water heaters on which they could install the energy-saving retrofit devices. Initial contacts should be made with county housing organizations to discuss this idea. If the organizations are interested in participating, the county could facilitate meetings between these organizations and representatives from Mosaic Power. This project could be used to benefit low-income, multifamily housing units like those owned by the Garrett County Community Action Committee.

Solar lease. The Garrett County government's next step is to finalize site preparation for the three ground-mounted solar arrays. Beitzel Corporation's next step is to finalize and sign a lease agreement with Solar City.

Solar project for Garrett College. This idea is no longer being pursued.

1. Your Name - Jo Gilman

2. Idea Name/Title - Solar feasibility study for pool and water heating for the CARC Building

3. Idea Details (What is it? How could it work here? Who might be involved?)
In 2011 Garrett College opened the Community Aquatic and Recreation Complex (CARC) to the public. The CARC Building comprises of two main areas, an Aquatics area (32,499 GSF) with a competition size pool, a smaller warm pool, locker rooms and three exercise/lab rooms and a full 3 court gymnasium (36,907 GSF) with bleacher seats for 1600, athletic weight room, offices, locker rooms and coaches room. The college expends annually approximately $120,000 on electricity and $143,000 on propane for both areas of this building, however, the Aquatics area expends roughly 60% of these totals. Swimming pools are notorious for their cost of upkeep and the College began to look for alternative sources of energy.

In 2012 the College participated with Associated Wind Developers in a Feasibility Study through a "Game Changer" grant to look at the feasibility of wind as an alternative energy source. A preliminary wind study was conducted for the site using a 'Virtual Met Tower' study from Wind Analytics and published wind maps. This study indicated favorable winds at heights above 30m. Therefore the site was recommended to receive a one year meteorological study using a uniquely specified met tower through Maryland's Anemometer Loan Program to confirm the wind resource. The study concluded that due to limitation of the Airspace and Zoning restrictions for turbine size and the relative low cost of electricity for the College the amount of energy that could be created would not repay the capital costs over 20 years. The full study can be seen in the MMEAC Drop box Folder "Other Resources" ..\Other Resources\AWD_FS_GC_FS-2[2] final report.pdf

4. Specific Recommendations related to the idea (Who should do what, when, where, etc.)

The college through a consultant would like to look at the feasibility of using solar for the CARC, possibly backed up by current systems, and develop an idea of cost and payback and research possible other alternatives as a backup for this.

5. Please provide examples (if any) of this idea in use now. (Provide as much information as you can)

http://www.aquathermindustries.com/aquatic-facility-cuts-pool-heating-costs-with-solar/

6. List outside resources that accompany the idea. (Supporting materials such as websites, who to contact for more information, etc.)

http://www.examiner.com/article/use-a-swimming-pool-to-solar-heat-your-home

http://www.solarblogger.net/2012/07/bathing-in-sunshine-solar-heating-for.html

http://www.solarpanelsplus.com/residential/solar-pool-heating/

7. What incentives, if any, already exist for this idea? (Or, if none, what could be implemented?)

As a governmental entity I am not sure that any incentives exist – the biggest incentive would be to lower utility costs and in future years to even utilize potential savings for other areas of the college.

8. Who might benefit from this and how? (What types of individuals and/or businesses? Others?)

Public school, home school and college students, as well as the general public who use the facility. Benefits are possibly from not having reduced hours of operation to reduce costs as well as well as enabling savings to be directed to other college programs.

9. Additional Information about this idea?

Notes:

1. Your Name

Mike Koch

2. Idea Name/Title

Solarize Garrett - Residential Solar Initiative

3. Idea Details (What is it? How could it work here? Who might be involved?)

The idea has been successfully executed in several other similarly situated rural counties – Madison County NY for example. The county worked to mitigate the barriers to residential solar by creating a county-w ide program that mitigated cost, complexity of installation, and earning customer commitment (marketing). The program can literally be copied/modified based on these successfully models and could be positioned as a means to mitigate water heating costs.

4. Specific Recommendations related to the idea (Who should do what, when, where, etc.)

MMEAC works to research options and recommend program structure. Key elements: 1) Marketing & Community Engagement Strategies, 2) Identifying and securing a Financing Partner or partners, and 3) Identifying and contracting with equipment providers and installers (negotiating fixed volume discounts that reward mutual success). Once structured, MMEAC presents to Commissioners for approval and execution.

5. Please provide examples (if any) of this idea in use now. (Provide as much information as you can)

Solarize Madison County

http://www .youtube.com/user/solarizemadison

6. List outside resources that accompany the idea. (Supporting materials such as websites, who to contact for more information, etc.)

PV FAQs

http://www .nrel.gov/docs/fy04osti/35489.pdf

Solarize Handbook
http://www .nrel.gov/docs/fy12osti/54738.pdf

Jamie Hart, Senior Planner
Madison County MY
jamie.hart@madisoncounty.ny.gov

7. What incentives, if any, already exist for this idea? (Or, if none, what could be implemented?)

Solar renewable incentives

8. Who might benefit from this and how? (What types of individuals and/or businesses? Others?)

Homeowners, communities, small businesses...

9. Additional Information about this idea?

Notes:
Idea converted from Survey Monkey to new format 2/5/14

1. Your Name:

Eric Guthrie, Jeff Simcoe, Rodney Glotfelty, et al.

2. Idea Name/Title

Crowd funding solar project for Ruth Enlow Library

3. Idea Details (What is it? How could it work here? Who might be involved?)

Dan Conant from Mosaic Power described a project to MMEAC at our August 20th meeting. Using that project as a model, a similar project could be developed at the Ruth Enlow Library. The project would involve exploring the potential to install solar panels at one of the library sites and initiating a crowd funding approach to fund the project. Depending on the size of the solar array and the host sites electricity consumption, aggregate net metering may be able to be leveraged to transfer electricity credits to other library facilities.

4. Specific Recommendations related to the idea (Who should do what, when, where, etc.)

We would first have to contact the Library Board to see if they are even interested in the idea. If they are interested, we should get Mosaic Power involved to see if they believe the project is a good fit.

5. Please provide examples (if any) of this idea in use now. (provide as much information as you can)

http://www.solarholler.com/shepherdstown-presbyterian-dedicates-largest-community-solar-project-in-west-virginia

6. List outside resources that accompany the idea. (Supporting materials such as websites, who to contact for more information, etc.)

http://mosaicpower.com/

7. What incentives, if any, already exist for this idea? (Or, if none, what could be implemented?)

If the Library owns the solar package they should be able to take advantage of SREC's
http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=MD55F&re=0&ee=0

8. Who might benefit from this and how? (What types of individuals and/or businesses? Others?)

- The Library would benefit from lower electricity costs and from money earned from SREC's
- Library patrons who participate in the program can help support the library without any out of pocket donation.
- After the solar package is paid for, the patrons who installed the Mosaic Power devices on their water heater might benefit by receiving the yearly payment.
- The Library would have an educational tool

9. Additional Information about this idea?

Notes:

Ideas recommended for future action

BIOGAS TO ENERGY USING ANIMAL AND FOOD WASTE PROJECT PROPOSAL

Committee discussion

This initiative was submitted during Phase I of the ideas generation process but was not moved out of the parking lot during the committee's initial discussions on submitted ideas.

In February 2015, committee members determined that it would be unable to pursue this idea in the amount of time available.

When and how this idea could be moved forward

This idea could be revisited in future energy workgroups or by a county office or individual responsible for developing local energy initiatives. Next steps include conducting further research to determine if Garrett and Allegany counties are a good fit for this type of system and to examine any local biogas systems that may already be in operation. An analysis should also be performed on the types and quantity of feedstock that is available.

Additionally, potential markets for biogas system byproducts, such as compost or fertilizer, could be examined. Ultimately, it must be determined if production of electricity using the gas makes financial sense or if other uses are more appropriate.

1. Your Name

Jeff Simcoe

2. Idea Name/Title

Biogas (Anaerobic Digestion) to Energy Using Animal and Food Waste

3. Idea Details (What is it? How could it work here? Who might be involved?)

Anaerobic digestion is a biological process that produces gas mainly composed of methane and carbon dioxide (CO_2) in an oxygen-free environment. Methane is the principle constituent in natural gas and can be run through a reciprocating engine, used to fire a boiler or even to operate a vehicle. It can be burned in every way natural gas can be burned. An anaerobic digester is a technology used to speed the anaerobic digestion process and can be used on a large scale for wastewater treatment facilities or on a smaller sale on farms and with other biologic waste-producing businesses. The methane gas created by anaerobic digestion can be used as a fuel for electricity generation; in the same way that landfill gas is used for electricity generation. Many farmers are looking at anaerobic digesters as a solution to their odor problem, along with the use of the waste gas for small-scale electricity generation.

These types of systems could be installed at the farm as small distributed systems or larger centralized systems could be installed to help farmers dispose of animal waste. Schools or other entities that produce food waste could also dispose of those materials at the facility.

4. Specific Recommendations related to the idea (Who should do what, when, where, etc.)

Conduct further research and determine if Garrett County/Allegany County is a good fit for this type of system. Find out if any of these systems are already in operation in the county. Perform a feedstock analysis on types of feedstock available and in what quantities. Determine if there is a market for any byproducts such as compost or fertilizer. Determine if the production of electricity using the gas makes financial sense or if other uses (combust gas and recycle heat) are more appropriate.

5. Please provide examples (if any) of this idea in use now. (provide as much information as you can)

Massey, MD
http://biomassmagazine.com/articles/6335/md-biogas-project-will-digest-manure-food-waste

Projects in PA just north of Garrett County
http://epa.gov/agstar/projects/index.html
http://epa.gov/agstar/projects/profiles/hillcrestsaylorsfarm.html
http://epa.gov/agstar/projects/profiles/dovanfarms.html
http://epa.gov/agstar/projects/profiles/pennwoodfarms.html

6. List outside resources that accompany the idea. (Supporting materials such as websites, who to contact for more information, etc.)

NREL
http://www.nrel.gov/docs/fy14osti/60178.pdf

NRDC
http://www.nrdc.org/energy/renewables/biogas.asp

EPA AgSTAR
http://epa.gov/agstar/anaerobic/index.html

7. What incentives, if any, already exist for this idea? (Or, if none, what could be implemented?)

Clean Energy Production Tax Credit (Corporate)
http://www.dsireusa.org/solar/incentives/incentive.cfm?Incentive_Code=MD16F&re=1&ee=0

Clean Energy Production Tax Credit (Personal)
http://www.dsireusa.org/solar/incentives/incentive.cfm?Incentive_Code=MD17F&re=1&ee=0

Clean Energy Procurement (State Government)
http://en.openei.org/wiki/Clean_Energy_Procurement_(Maryland)

There may be others….

8. Who might benefit from this and how? (What types of individuals and/or businesses? Others?)

Garrett County's farmers and citizens of Garrett County. Water quality could be improved through better nutrient management. A system such as this would provide farmers with another alternative if they cannot store waste over long periods of time. Revenue generated from electricity or byproduct sales could be used to support other ag programs.

9. Additional Information about this idea?

Notes: Idea submitted on 2/6/14

BUSINESS PARK SOLAR PROJECT PROPOSAL

Committee discussion

Although the committee found the Business Park Solar project to be favorable, it was not moved out of the parking lot due to state legislation that limits aggregate net metering to agricultural customers, non-profit organizations, and municipal governments or their affiliates.

When and how this idea could be moved forward

In order to move forward with this initiative, state regulations would need to enable commercial entities to install solar arrays and distribute the energy generated to various private commercial and industrial users.

If this barrier were overcome, an energy workgroup or county representative could take next steps, including determining whether the business parks in the counties are good fits for solar, contacting business park representatives, and helping to enlist the support of a solar company that could provide cost estimates and develop the system.

1. Your Name Mike Dreisbach

2. Idea Name/Title Business Park Solar Project

3. Idea Details (What is it? How could it work here? Who might be involved?)

In each business park in Garrett County develop an attraction to business by offering a solar energy plan to give a business free electricity and the option to increase their need if the base solar package is not large enough. This will attract new business and in many cases will attract business interested in being renewable.

4. Specific Recommendations related to the idea (Who should do what, when, where, etc.)

Enlist an outside solar construction company that could help develop a plan to size such a system and begin to collect construction cost data

5. Please provide examples (if any) of this idea in use now. (provide as much information as you can)

6. List outside resources that accompany the idea. (Supporting materials such as websites, who to contact for more information, etc.)

Garrett County could fund such a project by using the new income off of wind turbines since there will be two new project coming on line in 2014

7. What incentives, if any, already exist for this idea? (Or, if none, what could be implemented?)

There are grants and possible small business incentives that the county could enlist to also help fund the project

8. Who might benefit from this and how? (What types of individuals and/or businesses? Others?)

This would be a giant step forward for the county to begin the process of establishing us as a sustainable business community. There could be a lot of publicity that would draw attention on solar as well as the project

9. Additional Information about this idea?

Notes:

COMMUNITY RENEWABLE ENERGY GENERATION PROJECT PROPOSAL

Committee discussion

This idea relies on virtual net metering, a system that enables a single energy source to be connected to multiple meters or multiple properties.

Although the committee found this idea to be favorable, current regulations limit virtual net metering to agricultural customers, non-profit organizations, and municipal governments or their affiliates.

When and how this idea could be moved forward

During the 2015 legislative session, Senate Bill 398 was introduced. This bill establishes a stakeholder workgroup to determine whether residential customers should be allowed to participate in community solar projects and virtual net metering.

At the February 2015 MMEAC meeting, the committee agreed to recommend that the Boards of County Commissioners for Garrett and Allegany counties support this legislation. This recommendation was submitted to the Boards in March 2015.

SB 398 was passed by the Legislature and approved by the Governor in May 2015. It requires the Public Service Commission (PSC) to establish a Community Solar Energy Generating System Pilot Program. PSC must adhere to specified guidelines in structuring the pilot program and must adopt specified regulations to implement the pilot program. PSC must also, in consultation with the Maryland Energy Administration, convene a stakeholder workgroup to study the value and costs of the pilot program and make recommendations to PSC on the advisability of establishing a permanent program.

Should the stakeholder workgroup advise the PSC to establish a permanent program, the county governments would be able to move this idea forward. Potential next steps include identifying barriers and local issues that may serve as disincentives and finding solutions to them, evaluating local incentives that may be appropriate, raising awareness of this opportunity, providing technical assistance to landowners who might be interested in installing a community system, and researching grant opportunities for pilot projects.

MMEAC Ideas Generation Framework

1. Your Name

PAUL DURHAM

2. Idea Name (you will add details below – this is just the "title" of the idea)

Community Renewable Energy Generating Systems

3. Idea Details (What is it? How could it work here? Who might be involved?)

The Maryland legislature is considering a bill (SB786) to promote the development of Community Renewable Energy Generating Systems which would serve two or more retails customers "subscribers". The program would be administered and managed under the authority of the Public Service Commission. The program includes incentives and provisions similar to those enjoyed by private residential renewable energy installations, including a share of the energy generated, generation credits, net energy metering and offset rates. The size of the system is limited to 2 MW.

If allowed in Maryland, the idea would be appealing to small rural communities and neighborhoods who can partner with each other to install a community based system. Farmers and landowners with space to install such facilities could benefit in partnership settings where they can contribute land for a site as part of a partnership (shareholders) arrangement, while they and other residential and small business partners reap the generation benefits.

4. Specific Recommendations related to the idea (Who should do what, when, where, etc.)

Initially the county/local municipalities should support such a program on the statewide level and then evaluate what incentives would be appropriate locally.

Local incorporated towns and jurisdictions should also be consulted/encouraged to participate.

Identify barriers and solutions. Research and adjust local issues that might serve as disincentives to the program. For example, provide for an abatement of any real property tax increases that might occur due to the land improvement, especially for host property owners.

Develop or research model subscriber agreements and provide technical assistance to landowners who might be interested in installing a community system.

Research grant opportunities for pilot projects in Garrett County. Research ways to raise capital within a community framework.

Non-profit entities, social services, and private co-ops might also be employed to encourage such systems. For example, in University Park, MD, a church was used as a community solar system site.

5. Please provide examples (if any) of this idea in use now. (provide as much information as you can)

Existing programs and projects around the country include:

- Ashland, Oregon (2008 - 63.5 kW)
- Bainbridge Island, Washington (2009 - 5.1 kW)
- Berea Utilities, Kentucky (2011 - 14.1 kW)
- Boone Community Solar, North Carolina (2009 - 2.5 kW)
- Brewster Community Solar Garden Coop. Inc., Massachusetts (2012 - 345.6 kW)
- Colorado Springs, Colorado (2012 - 575 kW)
- Corvallis, Oregon (2011 - 15.5 kW)
- Delta-Montrose Electric Association, Colorado (2011- 20 kW)
- Edmonds, Washington (2011- 4.2 kW)
- Ellensburg, Washington (2006/2008 - 57 kW)
- Florida Keys Electric Coop, Florida (2008 - 117.6 kW)
- Holy Cross Energy/Clean Energy Collective, Colorado (2010/2011 - 938 kW)
- Okanogan Electric Cooperative, Washington (2010/2011 - 43.1 kW)
- Olympia, Washington (2012 - 75 kW)
- Poudre Valley/Clean Energy Collective, Colorado (2012 - 115 kW)
- Poulsbo Middle School Project, Washington (2011 - 75 kW)
- Sacramento Municipal Utility District (SMUD), California (2008 - 1000 kW)
- Salt River Project, Arizona (2011 - 9840 MW)
- San Miguel Power Association/Clean Energy Collective, Colorado (2012 - 1000 kW)
- Seattle City Light, Washington (2011 - 24 kW)
- St. George, Utah (2009 - 250 kW)
- Trico Electric, Arizona (2011 - 193 kW)
- Tuscon Electric Power, Arizona (2011 - 1600 kW)
- UniSource Energy Services, Arizona (2012 - 1720 kW)
- United Power, Colorado (2009 - 10 kW)
- University Park Community Solar, Maryland (2010 - 22.8 kW)
- Whidbey Island, Washington (2011 - 25 kW)

6. List outside resources that accompany the idea. (Supporting materials such as websites, who to contact for more information, etc.)

USDE – http://www.nrel.gov/docs/fy11osti/49930.pdf

Maryland – SB786
http://mgaleg.maryland.gov/webmga/frmMain.aspx?pid=billpage&tab=subject3&id=sb0786&stab=01&ys=2014RS

Washington, DC https://sites.google.com/site/dcsolarunitedneighborhoods/key-issues-and-committees/community-renewable-energy-act-of-2012

Nationwide – see above links # 5 and…
http://coloradocommunitysolar.com/ (Colorado – Clean Energy Collective)

7. What incentives, if any, already exist for this idea? (Or, if none, what could be implemented?)

Business Energy Investment Tax Credits
US Treasury Renewable Energy Grant
Modified Accelerated Cost recovery System (MACRS)
Tax Credit Bonds
Federal Grants
State and Local income and other tax incentives

http://www.nrel.gov/docs/fy11osti/49930.pdf see page 26

8. Who might benefit from this and how? (What types of individuals and/or businesses? Others?)

In communities across the United States, people are seeking alternatives to conventional energy sources. Whether they aim to increase energy independence, hedge against rising fuel costs, cut carbon emissions, or provide local jobs, they are looking to community-scale renewable energy projects for solutions.

One idea being promoted in Colorado is using these systems as part of one's retirement planning.

9. Additional Information about this idea?

Sustainable Economies Law Center http://www.theselc.org/community-renewable-energy/

Renewable Energy Cooperatives http://communitypowernetwork.com/node/9220

Conclusions and Recommendations

CONCLUSIONS AND RECOMMENDATIONS

The Mountain Maryland Energy Advisory Committee made significant progress, especially on the biomass, solar, and educational projects that have been addressed by the committee. After prioritizing all of the ideas that have been submitted, the committee is also proposing certain ideas for future consideration. Bringing these ideas to fruition will require continued effort by the Boards of County Commissioners, county staff, and/or volunteers.

Overall, the committee concludes that pursuing projects such as those identified in this report will help Garrett and Allegany counties develop and diversify their economies by supporting businesses that use environmental protection as a foundation for economic development.

The committee provides the following recommendations, which will build upon the work already completed:

1. **Implement projects that have already been started.** The committee recommends that the counties move forward with the biomass, solar, and educational projects that have been addressed by the committee.
2. **Initiate action on the ideas that the committee has proposed for future consideration.** Due to time constraints, the committee was unable to pursue certain ideas; however, these ideas deserve full consideration.
3. **Continue the process that was started by the Mountain Maryland Energy Advisory Committee.** Committee members expressed the desire for an institutional mechanism within County government that would support these and other initiatives. Energy initiative responsibilities could be housed within the Garrett County government in the Economic Development department, another department, or even a new department. The committee discussed the need for a dedicated staff member such as an "Energy Czar" to be able to provide the support and time needed to address energy issues. Alternatively, the county could possibly reassign current staff. Efforts should focus initially on opportunities that need only small investments of time or funding in order to make a big difference. Also, county efforts that support local initiatives, as well as initiatives with significant grassroots support, should be prioritized.
4. **Disseminate information to local residents.** Mountain Maryland Energy Advisory Committee agendas, minutes, and other materials have been made publicly available on the Garrett County Web site. The committee recommends the continued dissemination of information as new projects are implemented, as new projects are started, and as new opportunities arise. Information about the energy opportunities that the committee research could be disseminated through the website, or in a handout that includes contact information for key organizations.

Agendas

GARRETT COUNTY
ECONOMIC DEVELOPMENT
Reinventing Rural

Mountain Maryland Energy Advisory Committee (MMEAC)

December 11, 2013 Meeting Agenda

When: Wednesday, December 11 from 3:00pm – 5:00pm
Where: Garrett County Airport, 771 Airport Rd., Accident MD

Meeting goals:

- Introduce MMEAC members
- Discuss MMEAC logistics
- Discuss work process, potential topics, and outcomes

Agenda Items:

3:00pm – 3:20pm: MMEAC member introductions (all members)
3:20pm – 3:45pm: Review committee charge and member description document (Chairman – Mike Koch)
3:45pm – 3:50pm: Review Maryland open meeting laws and rules of engagement (Consultant - Jeff Simcoe)
3:50pm – 4:05pm: Review work process framework (Chairman Mike Koch and Consultant – Jeff Simcoe)
4:05pm – 4:20pm: Review topics to be covered (Chairman – Mike Koch)
4:20pm – 4:30pm: Expected outcomes (Chairman – Mike Koch)
4:30pm – 4:45pm: Discussion (all members)
4:45pm – 5:00pm: Public comment

MMEAC Meeting Ground Rules

Group norms of behavior under which the committee will operate:

- Please turn cell phones to silent mode
- Address each other with respect, whether in agreement or not
- Start and end all meetings on time
- Follow the agenda
- Committee members will read materials ahead of time and are prepared to participate
- Maximum meeting time is two hours, unless agreed upon by committee vote
- Avoid side conversations, listen and don't interrupt
- Allow for exchanges, do not speak 'over' another speaker
- Be concise and as 'to the point' as possible when speaking
- At committee discretion, issues can be tabled and/or added to the 'parking lot'
- Follow Robert's Rules, people will speak when recognized by the chair
- Speak without fear of reprisal
- Official emails come from Cheryl DeBerry with ample lead-time to review meeting materials prior to the committee meetings (24 hours minimum).
- Follow the Open Meetings model for procedures, etc. (see below)

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Open Meetings Law

Information can be found at the Maryland Open Meetings Act Manual, found at
http://www.oag.state.md.us/Opengov/Openmeetings/support.htm

Members are encouraged to take the Open Meetings (OM) Law training which can be found at the
http://www.igsr.umd.edu/VLC/OMA/class_oma_intro1.php

The general public needs to be witness to the deliberations of an officially appointed body such as our committee, during its transaction of public business. We have a responsibility to advertise our meeting times, dates and locations, and to post minutes, so the public can have access to our decisions and recommendations. A quorum, which for our group is 7 people, constitutes a meeting, which falls under the OM Law. Chance encounters are exempt, and committee members are dissuaded from discussing committee business when 3 or more members are present. Minutes are required to be posted within five weeks of the date of the meeting, and must contain each item considered and the result of the vote. Meeting rooms must be (ADA) accessible. Meeting cancellations must also be posted. While closed sessions are exempt, this committee will not deliberate over issues which qualify under the Closed Session exemption.

GARRETT COUNTY
ECONOMIC DEVELOPMENT
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Mountain Maryland Energy Advisory Committee (MMEAC)

January 15, 2014 Meeting Agenda

When: Wednesday, January 15 from 3:00pm – 5:00pm
Where: Room 103, Garrett Information Enterprise Center (GIEC) on the campus of Garrett College, 685 Mosser Rd., McHenry MD

Meeting goals:

- Complete required administrative tasks
- Learn more about and discuss global, national, and local energy trends
- Discuss process to develop and work through ideas generation framework

Agenda Items:

3:00pm – 3:05pm: Review and approval of December 11, 2013 meeting minutes (all members)
3:05pm – 3:10pm: Maryland Open Meeting Act compliance, appointment of committee representative (Jeff Simcoe and Andrea Varrato)
3:10pm – 4:10pm: Committee energy discussion – resources will be provided (all members)
4:10pm – 4:45pm: Review of the ideas generation framework (survey and blog) and idea review process discussion (all members)
4:45pm – 5:00pm: Public comment

Mountain Maryland Energy Advisory Committee (MMEAC)

February 19, 2014 Meeting Agenda

When: Wednesday, February 19 from 3:00pm – 5:00pm
Where: Room 103, Garrett Information Enterprise Center (GIEC) on the campus of Garrett College, 685 Mosser Rd., McHenry MD

Meeting goals:

- Complete required administrative tasks
- Present findings on action items from the January meeting
- Provide a legislative update
- Work on idea generation process and discuss submitted ideas

Agenda Items:

3:00pm – 3:05pm: Review and approval of January 15, 2014 meeting minutes (all members)
3:05pm – 3:35pm: Presentation of findings on action items from the January meeting (Jeff Simcoe)
- Maryland distributed energy generation project inventory
- Location and other information about Maryland backed natural gas plant
- Comparison of Garrett and Allegany County's energy profile

3:35pm – 4:00pm: Legislative update (Cheryl DeBerry, other members with knowledge of current situation)
4:00pm – 4:15pm: Ideas generation Dropbox tutorial (Jeff Simcoe, Cheryl DeBerry, Andrea Varrato)
4:15pm – 4:45pm: Presentation and discussion on currently submitted ideas (all members)
4:45pm – 5:00pm: Public comment

Mountain Maryland Energy Advisory Committee (MMEAC)

March 19, 2014 Meeting Agenda

When: Wednesday, March 19 from 3:00pm – 5:00pm
Where: Room 103, Garrett Information Enterprise Center (GIEC) on the campus of Garrett College, 685 Mosser Rd., McHenry MD

Meeting goals:

- Complete required administrative tasks
- Discuss ideas and ranking survey
- Present action item findings
- Provide a legislative update

Agenda Items:

3:00pm – 3:05pm: Review and approval of February 19, 2014 meeting minutes (all members)
3:05pm – 4:00pm: Discussion around currently submitted ideas and results of the ranking survey (all members)
4:00pm – 4:30pm: Presentation of findings on action items from the February meeting (Jeff Simcoe)

- Comparison of various renewable energy systems (payback period, carbon footprint, etc.)
- Current state of the electricity grid
- Maryland's new regulations regarding biomass

4:30pm – 4:45pm: Legislative update on selected bills (all members)
4:45pm – 5:00pm: Public comment

GARRETT COUNTY
ECONOMIC DEVELOPMENT
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Mountain Maryland Energy Advisory Committee (MMEAC)

April 16, 2014 Meeting Agenda

When: Wednesday, April 16 from 3:00pm – 5:00pm
Where: Room 103, Garrett Information Enterprise Center (GIEC) on the campus of Garrett College, 685 Mosser Rd., McHenry MD

Meeting goals:

- Complete required administrative tasks
- Energy presentation
- Establish in-review process and discuss project report

Agenda Items:

3:00pm – 3:05pm: Review and approval of March 19, 2014 meeting minutes
3:05pm – 4:05pm: Presentation from David Fricke (Owner, Eco Electric) & Haydn Cutler (CEO, Potomac Resource Group)
4:04pm – 4:45pm: Present in-review process, break into sub-groups to discuss strategy and to assign tasks
4:45pm – 5:00pm: Public comment

Mountain Maryland Energy Advisory Committee (MMEAC)

May 21, 2014 Meeting Agenda

When: Wednesday, May 21 from 3:00pm – 5:00pm
Where: Room 103, Garrett Information Enterprise Center (GIEC) on the campus of Garrett College, 685 Mosser Rd., McHenry MD

Meeting goals:

- Complete required administrative tasks
- Make significant progress on the in-review energy initiatives

Agenda Items:

3:00pm – 3:05pm: Review and approval of April 16, 2014 meeting minutes
3:05pm – 3:45pm: Group strategy discussion and status updates
3:45pm – 4:45pm: Break into sub-groups to work on Focused Review Project Reports
4:45pm – 5:00pm: Public comment

GARRETT COUNTY
ECONOMIC DEVELOPMENT
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Mountain Maryland Energy Advisory Committee (MMEAC)

June 18, 2014 Meeting Agenda

When: Wednesday, June 18 from 3:00pm – 5:00pm
Where: Room 103, Garrett Information Enterprise Center (GIEC) on the campus of Garrett College, 685 Mosser Rd., McHenry MD

Meeting goals:

- Complete required administrative tasks
- Learn about energy efficiency and solar technology from guest presenters
- Review initiative recommendations from sub-groups

Agenda Items:

3:00pm – 3:05pm: Review and approval of May 21, 2014 meeting minutes
3:05pm – 3:40pm: Presentation by Mark Watkins from Hotshotz Inspections
3:40pm – 4:15pm: Presentation by Gene Scherrer from Tri-state Solar and Wind
4:15pm – 4:45pm: Review sub-group initiative recommendations
4:45pm – 5:00pm: Public comment

GARRETT COUNTY
ECONOMIC DEVELOPMENT
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Mountain Maryland Energy Advisory Committee (MMEAC)

July 16, 2014 Meeting Agenda

When: Wednesday, July 16 from 3:00pm – 5:00pm
Where: Room 103, Garrett Information Enterprise Center (GIEC) on the campus of Garrett College, 685 Mosser Rd., McHenry MD

Meeting goals:

- Complete required administrative tasks
- Learn about solar technology and biomass energy systems from guest presenters

Agenda Items:

3:00pm – 3:05pm: Review and approval of June 18, 2014 meeting minutes
3:05pm – 4:00pm: Presentation by Lauren Harris, Brent Eskay, and Aaron Kraus from Solar City
4:00pm – 4:45pm: Presentation by Paul Lewandowski from AFS Energy Systems (biomass)
4:45pm – 5:00pm: Public comment

GARRETT COUNTY
ECONOMIC DEVELOPMENT
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Mountain Maryland Energy Advisory Committee (MMEAC)

August 20, 2014 Meeting Agenda

When: Wednesday, August 20 from 3:00pm – 5:00pm
Where: Room 103, Garrett Information Enterprise Center (GIEC) on the campus of Garrett College, 685 Mosser Rd., McHenry MD

Meeting goals:

- Complete required administrative tasks
- Learn about Mosaic Powers' unique electricity grid energy storage solution
- Discuss and finalize the three energy initiatives
- Review new parking lot ideas

Agenda Items:

3:00pm – 3:05pm: Review and approval of June 18, 2014 meeting minutes
3:05pm – 3:50pm: Presentation by Dan Conant from Mosaic Power
3:50pm – 4:30pm: Discuss and finalize one page energy initiative documents
4:30pm – 4:45pm: Review new ideas in the MMEAC idea parking lot
4:45pm – 5:00pm: Public comment

Mountain Maryland Energy Advisory Committee (MMEAC)

September 17, 2014 Meeting Agenda

When: Wednesday, September 17 from 3:00pm – 5:00pm
Where: Room 103, Garrett Information Enterprise Center (GIEC) on the campus of Garrett College, 685 Mosser Rd., McHenry MD

Meeting goals:

- Complete required administrative tasks
- Learn about DERP Technologies approach to community energy resiliency through microgrids
- Discuss the outcomes from the September 9, 2014 Garrett County Board of Commissioners meeting
- Discuss the next MMEAC priority energy initiatives

Agenda Items:

3:00pm – 3:05pm: Review and approval of August 20, 2014 meeting minutes
3:05pm – 3:50pm: Presentation by Rebecca Rush from DERP Technologies
3:50pm – 4:15pm: Discuss the outcomes from the Sept 9 Garrett County Board of Commissioners meeting, including next steps
4:15pm – 4:45pm: Discuss the next MMEAC priority energy initiatives (top three initiatives will be discussed based on email polling of the membership)
4:45pm – 5:00pm: Public comment

GARRETT COUNTY
ECONOMIC DEVELOPMENT
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Mountain Maryland Energy Advisory Committee (MMEAC)

November 19, 2014 Meeting Agenda

When: Wednesday, November 19 from 3:00pm – 5:00pm
Where: Room 103, Garrett Information Enterprise Center (GIEC) on the campus of Garrett College, 685 Mosser Rd., McHenry MD

Meeting goals:

- Complete required administrative tasks
- Learn about solar group purchasing from the Community Power Network
- Discuss progress around recommended MMEAC energy initiatives since last meeting
- Provide an overview of what was learned at the Maryland Clean Energy Summit

Agenda Items:

3:00pm – 3:05pm: Review and approval of the September 17, 2014 meeting minutes
3:05pm – 4:00pm: Presentation by Anya Schoolman and Chris Yeazel on solar group purchasing
4:00pm – 4:30pm: Update on Garrett College biomass energy project and update on Solar City project
4:30pm – 4:45pm: Maryland Clean Energy Summit summary
4:45pm – 5:00pm: Public comment

Mountain Maryland Energy Advisory Committee (MMEAC)

January 21, 2015 Meeting Agenda

When: Wednesday, January 21 from 3:00pm – 5:00pm
Where: Room 103, Garrett Information Enterprise Center (GIEC) on the campus of Garrett College, 685 Mosser Rd., McHenry MD

Meeting goals:

- Complete required administrative tasks
- Provide an overview of what was learned at the Energy for the Power of 32 event
- Provide a summary of relevant state legislation likely to be considered at the 2015 session
- Discuss progress around four existing MMEAC energy initiatives since last meeting
- Begin discussion of bringing additional energy initiatives from the parking lot to the MMEAC for consideration

Agenda Items:

3:00pm – 3:05pm: Review and approval of November 19, 2014 meeting minutes (all members)
3:05pm – 3:15pm: Discussion of Energy for the Power of 32 event (Cheryl DeBerry and Evan Hansen)
3:15pm – 3:25pm: Discussion of state legislation
3:25pm – 4:00pm: Committee discussion of four existing MMEAC energy initiatives (all members)
4:00pm – 4:45pm: Committee discussion of bringing additional energy initiatives from the parking lot (all members)
4:45pm – 5:00pm: Public comment

GARRETT COUNTY
ECONOMIC DEVELOPMENT
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Mountain Maryland Energy Advisory Committee (MMEAC)

February 18, 2015 Meeting Agenda

When: Wednesday, February 18 from 3:00pm – 5:00pm
Where: Room 103, Garrett Information Enterprise Center (GIEC) on the campus of Garrett College, 685 Mosser Rd., McHenry MD

Meeting goals:

- Complete required administrative tasks
- Learn about upcoming energy event and state legislation
- Discuss progress made during the Energy Efficiency Initiative Subgroup meeting
- Prioritize ideas remaining in the Parking Lot

Agenda Items:

3:00pm – 3:05pm: Review and approval of the January 21, 2015 meeting minutes (all members)
3:05pm – 3:15pm: Discussion of Biomass Boot Camp event (Evan Hansen)
3:15pm – 3:30pm: Discussion of P210-Crowd funding solar for Ruth Enlow Library System (all members)
3:30pm – 4:00pm: Energy Efficiency Initiative Subgroup meeting discussion (Evan Hansen and Cheryl DeBerry)
4:00pm – 4:20pm: Update on SB 398: Public Service Commission Community Solar Projects or Virtual Net Energy Metering Study legislation (Evan Hansen)
4:20pm – 4:45pm: Parking Lot ideas prioritization (all members)
4:45pm – 5:00pm: Public comment

GARRETT COUNTY
ECONOMIC DEVELOPMENT
Reinventing Rural

Mountain Maryland Energy Advisory Committee (MMEAC)

March 18, 2015 Meeting Agenda

When: Wednesday, March 18 from 3:00pm – 5:00pm
Where: Room 103, Garrett Information Enterprise Center (GIEC) on the campus of Garrett College, 685 Mosser Rd., McHenry MD

Meeting goals:

- Complete required administrative tasks
- Discuss energy efficiency event
- Update on Biomass Boot Camp event and progress on the biomass feasibility study
- Work on crowd funding solar initiative

Agenda Items:

3:00pm – 3:05pm: Review and approval of February meeting minutes (all members)
3:05pm – 3:50pm: Presentation from Maureen Myers on PechaKucha events and discussion of energy efficiency event details
3:50pm – 4:05pm: Discussion of Biomass Boot Camp event and update on the biomass feasibility study for Garrett College (Cheryl DeBerry and Evan Hansen)
4:05pm – 4:35pm: Update on P210-Crowd funding solar for Ruth Enlow Library System (Evan Hansen)
4:35pm – 4:45pm: Update on March 28 energy event (Cheryl DeBerry)
4:45pm – 5:00pm: Public comment

GARRETT COUNTY
ECONOMIC DEVELOPMENT
Reinventing Rural

Mountain Maryland Energy Advisory Committee (MMEAC)

April 15, 2015 Meeting Agenda

When: Wednesday, April 15 from 3:00pm – 5:00pm
Where: Room 103, Garrett Information Enterprise Center (GIEC) on the campus of Garrett College, 685 Mosser Rd., McHenry MD

Meeting goals:

- Complete required administrative tasks
- Plan for PechaKucha energy efficiency event
- Update on biomass financing options
- General project updates
- Discuss final reporting to county commissioners

Agenda Items:

3:00pm – 3:05pm: Review and approval of March meeting minutes (all members)
3:05pm – 3:45pm: Discuss PechaKucha event details and event planning (all members)
3:45pm – 4:00pm: Review MEA biomass financing option (Evan Hansen)
4:00pm – 4:30pm: General updates on active projects (all members)
4:30pm – 4:45pm: Discuss final reporting to Garrett and Allegany County commissioners (Evan Hansen)
4:45pm – 5:00pm: Public comment

Mountain Maryland Energy Advisory Committee (MMEAC)

May 20, 2015 Meeting Agenda

When: Wednesday, May 20 from 3:00pm – 5:00pm
Where: Room 103, Garrett Information Enterprise Center (GIEC) on the campus of Garrett College, 685 Mosser Rd., McHenry MD

Meeting goals:

- Complete required administrative tasks
- Provide updates on active projects
- Discuss PechaKucha energy event planning
- Share details of a 3rd party financing option for the Garrett College biomass system
- Provide an update on state legislation
- Discuss draft report for county commissioners

Agenda Items:

3:00pm – 3:05pm: Review and approval of April meeting minutes (all members)
3:05pm – 3:20pm: Provide general updates on active projects (all members)
3:20pm – 3:35pm: Discuss PechaKucha event details and event planning (all members)
3:35pm – 3:45pm: Provide information on Maryland Clean Energy Center 3rd party financing (Andrea Varrato)
3:45pm – 3:55pm: Legislative Update on SB 398, virtual net metering (Evan Hansen and Andrea Varrato)
3:55pm – 4:45pm: Discuss draft report for the Garrett and Allegany county commissioners (all members)
4:45pm – 5:00pm: Public comment

Minutes

Mountain Maryland Energy Advisory Committee

December 11, 2013, 3:00 p.m., Garrett County Airport, McHenry, Maryland

Meeting Minutes

Committee members attending: Mike Koch, Tim Carney, Jim Torrington, Paul Durham, Dr. Ed Gates, Jo Gilman, Mike Dreisbach, Eric Guthrie, Bob Sutton

Committee members not in attendance: Rodney Glotfelty, Dr. Stephen Hartlaub, David Dorsey

Others attending: Jeff Simcoe, Cheryl DeBerry, Andrea Varrato

In the temporary absence of chair Mike Koch, Cheryl DeBerry opened the meeting at 3:02 pm by welcoming the members and thanking them for their service to the committee.

Committee member introductions:

Committee members were invited to introduce themselves and provide a short description of their background related to the energy issue.

Review Committee Charge (*Attachment A*) **and Member Description** (*Attachment B*) **documents:**

Chair Koch provided background to committee members about previous energy related efforts made by Garrett County and answered questions about committee member responsibilities and the committee charge.

Review Maryland open meeting laws and 'rules of engagement':

Mr. Simcoe reviewed the 'rules of engagement' for the committee members and provided guidance on the Maryland open meeting laws. One committee member had already taken the open meeting laws class and obtained a certificate. Members were encouraged to take the class as well.

Review work process framework:

Chair Koch shared the major components of the work process framework for the committee *(Attachment C)*. For sharing of resources and communicating with one another outside of meetings, Mike Koch suggested a working blog that is publically viewable but editable only by committee members. Emails can be sent to Cheryl DeBerry to be aggregated and sent to all committee members on a weekly basis.

Review topics to be covered:

The group was invited to suggest subject matter experts with expertise that may be of service to the committee. Subject matter experts will be invited to meetings once the meeting topics are set.

Expected outcomes:

Chair Koch outlined the vision of committee outcomes, which are expected to be as practical and results oriented as possible. Recommendations from the committee should provide direct, real value to Garrett and Allegany County commissioners. There will be a need to gain consensus for county recommendations. Committee members suggested that more controversial items be presented as potential opportunities that note both pros and cons of both sides or as recommendations with caveats. Committee members agreed

that particular attention should be given to differences in zoning, infrastructure, etc. between Garrett and Allegany counties and how those differences would change the recommendations of the committee.

Discussion:

The next meeting, on January 8, 2014, will have a broad scope and will focus on global and nationwide energy trends. At the meeting, any impractical opportunities (e.g., off shore wind) should be discarded so that the group can focus on opportunities that are viable for Garrett and Allegany counties. **[NOTE: The January meeting of the MMEAC was originally scheduled for January 8, 2014 but due to conflicts was moved to January 15, 2014. This change was made after the adjournment of the December 11, 2013 meeting. The website was updated immediately to inform the public of the change.]**

Adjourn:

A motion was made by Mike Dreisbach, seconded by Tim Carney, to adjourn at 5:00 p.m.

Attachment A

GARRETT COUNTY
ECONOMIC DEVELOPMENT
Reinventing Rural

Mountain Maryland Energy Advisory Committee (MMEAC)

Committee Responsibilities

MMEAC Charge:

Garrett County has a long history of energy production due to the presence and abundance of a variety of natural resources. Traditional resource extraction has played a significant role in the county and has provided much needed sources of revenue that continue to support needs of the county and its citizens. This tradition will likely continue but there are a host of additional opportunities that can be investigated to support diversification in energy production that could benefit the county and its citizens. A long-term focus and commitment to exploring all available energy production avenues, while identifying and mitigating potential risks, represent the charge of the Mountain Maryland Energy Advisory Committee.

In addition, the Mountain Maryland Energy Advisory Committee members will generate and document program and policy suggestions that will allow the Garrett County Board of Commissioners to explore a broad-based portfolio approach with an emphasis on guiding energy sector growth while maximizing jobs and other economic benefits while mitigating any negative effects.

The Approach:

The committee will use community input, expert presentations, and other research to develop a comprehensive document that can be leveraged to coordinate, manage, and focus energy development. This committee work product will include specific policy recommendations for the Garrett County Board of Commissioners to consider. The committee will explore opportunities in all energy sectors, including traditional and renewable approaches, as well as explore incentives and programs at both the county and state levels to help guide each sector's growth in a responsible way.

The Timeline:

With the help of a consultant, Downstream Strategies, LLC, this committee will complete its work through a series of committee-only working meetings, public meetings, and community outreach within 18 months.

The Consultant:

Downstream Strategies offers environmental consulting services that combine sound interdisciplinary skills with the core belief in the importance of protecting the environment and linking economic development with natural resource stewardship.

Attachment B

GARRETT COUNTY
ECONOMIC DEVELOPMENT
Reinventing Rural

Mountain Maryland Energy Advisory Committee (MMEAC)

Member Description

MMEAC Charge:

Garrett County has a long history of energy production due to the presence and abundance of a variety of natural resources. Traditional resource extraction has played a significant role in the county and has provided much needed sources of revenue that continue to support needs of the county and its citizens. This tradition will likely continue but there are a host of additional opportunities that can be investigated to support diversification in energy production that could benefit the county and its citizens. A long-term focus and commitment to exploring all available energy production avenues, while identifying and mitigating potential risks, represent the charge of the Mountain Maryland Energy Advisory Committee.

In addition, the Mountain Maryland Energy Advisory Committee members will generate and document program and policy suggestions that will allow the Garrett County Board of Commissioners to explore a broad-based portfolio approach with an emphasis on guiding energy sector growth while maximizing jobs and other economic benefits while mitigating any negative effects.

Member Responsibilities:

- Assist the Chairman and consultant in carrying out the charge of the MMEAC
- Assist the Chairman and consultant in developing the operational structure of the committee and participate in establishing realistic goals
- Determine and provide availability for MMEAC meetings
- Attend MMEAC meetings, either in person or through remote meeting technology
- Assist with the generation of energy related policy covering various energy sectors
- Prepare for meetings by reviewing committee materials ahead of scheduled meetings
- Engage in thoughtful dialogue and participate in a process to reach consensus on policy recommendations that support the MMEAC charge
- Help identify known subject matter experts to present on various topics in support of the MMEAC charge
- Assist with the development of the final work product by providing suggestions, comments, edits, and general engagement in the process

Attachment C

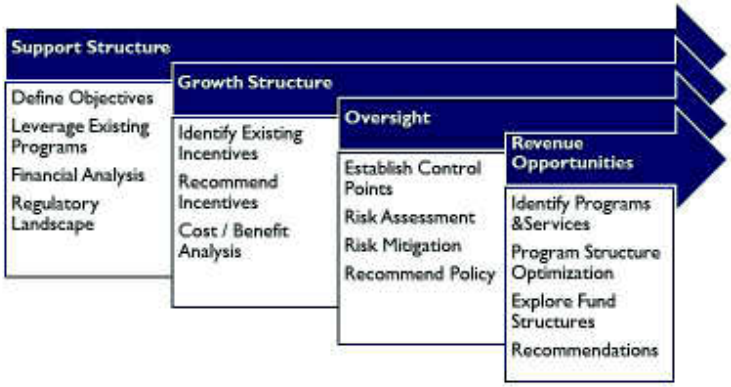
MOUNTAIN MARYLAND ENERGY ADVISORY COMMITTEE

WORK PROCESS FRAMEWORK

CURRENT ENERGY SECTOR OVERVIEW & PRIORITIZATION

- Initial focus on broad global/US trends with a drill down on MD/Mountain MD.
- Identify & discuss opportunities that exist within current governmental, residential, commercial, and industrial sectors.
- Prioritize these opportunities and seek ways to "bundle" as energy sector focus arenas.
- Prepare recommendations for short-term programmatic action.

FOCUSED OPPORTUNITY ANALYSIS & RECOMMENDATIONS



- Focused longer-term opportunity topics will fall out of prioritization exercise.
- Identify and discuss high value opportunities not supported in current environment.
- Work process will be outcome driven:
  - High priority will be given to energy sectors where favorable most conditions currently exist
  - Energy sector barriers and their magnitude will be identified; recommendations will be developed to address targeted barriers.

EXAMPLES OF POTENTIAL FOCUS AREAS

Centralized Energy Production

- Fuel switching
- Biomass co-firing
- Energy crops
- Gasification (coal, biomass)
- Solar PV
- Wind
- Hydro

Distributed Energy Production

- Residential / commercial solar PV
- Solar hot water heating
- Wind
- Micro turbines
- Geothermal
- Energy efficiency
- Energy Storage

Mountain Maryland Energy Advisory Committee

January 15, 2014, 3:00 p.m., Garrett Information Enterprise Center, McHenry, Maryland

Meeting Minutes

Committee members attending: Mike Koch, Tim Carney, Jim Torrington, Paul Durham, Dr. Ed Gates, Jo Gilman, Mike Dreisbach, Eric Guthrie, Bob Sutton, Rodney Glotfelty, Dr. Stephen Hartlaub, David Dorsey

Committee members not in attendance: N/A

Others attending: Jeff Simcoe, Cheryl DeBerry, Andrea Varrato, Jim "Smokey" Stanton, Eric Robinson

Committee member introductions:

Committee members were invited to briefly introduce themselves at the start of the meeting.

Approval of December meeting minutes (*Attachment A*)**:**

Committee members noted a correction in the draft minutes regarding the January meeting date. A motion was made by Mike Dreisbach, seconded by Jim Torrington, to approve the minutes as corrected. The motion was passed by a majority of the membership.

Maryland Open Meeting Act compliance:

Mr. Simcoe reviewed open meeting act requirements for reporting to the compliance board. A motion was made by Bob Sutton, seconded by Paul Durham, to appoint Jim Torrington as committee representative and to designate Andrea Varrato as a representative for the energy consultants.

Committee energy discussion:

Chair Koch initiated a committee discussion on the suggested readings: the Early Release 2014 Annual Energy Outlook by the U.S. Energy Information Administration (EIA) (*Attachment B*), the EIA's Maryland State Energy Profile (*Attachment C*), and The Electricity Revolution by the Brooking Institution (*Attachment D*). The committee responded to the suggested readings and discussed local, regional, and global energy markets.

Review of the ideas generation framework and idea review process:

Mr. Simcoe gave a brief PowerPoint presentation (*Attachment E*) regarding the ideas generation framework and review process. The committee explored options for improving the usability of technology in the ideas generation framework.

Discussion:

Public comment has been captured in an audio recording (*Attachment F*).

Adjourn:

A motion was made by Eric Guthrie, seconded by Tim Carney, to adjourn at 5:00 p.m.

--- Click on the links embedded in the text to open attachments --

Mountain Maryland Energy Advisory Committee

February 19, 2014, 3:00 p.m., Garrett Information Enterprise Center, McHenry, Maryland

Meeting Minutes

Committee members attending: Mike Koch, Tim Carney, Jim Torrington, Paul Durham, Dr. Ed Gates, Jo Gilman, Mike Dreisbach, Eric Guthrie, Bob Sutton, Dr. Stephen Hartlaub, David Dorsey

Committee members not in attendance: Rodney Glotfelty

Others attending: Jeff Simcoe, Cheryl DeBerry, Andrea Varrato, Eric Robinson, Jeff Hovis

Approval of January meeting minutes (*Attachment A*)**:**

A motion was made by Mike Dreisbach, seconded by Stephen Hartlaub, to approve the minutes. The motion was passed by a majority of the vote.

Presentation of findings on action items from the January Meeting:

Jeff Simcoe presented findings on three topics from the January meeting that had been identified as action items (*Attachment B*). These topics included the Maryland distributed energy generation project inventory, the location and other information about a Maryland backed natural gas plant, and a comparison of Garrett and Allegany County's energy profiles.

Legislative update:

Mr. Simcoe introduced several pieces of legislation, including an energy efficient home construction loan program, a community renewable energy generating system pilot program, and legislation aiming to increase Maryland's Renewable Portfolio Standard. The committee discussed the proposed legislation and its relevance to the committee's work.

Chair Koch asked that there be another update on these bills during the March MMEAC meeting.

Ideas generation DropBox tutorial:

Jeff Simcoe and Cheryl DeBerry gave a brief tutorial on how to use Dropbox and asked if committee members were having any difficulty accessing the materials. Jeff Simcoe agreed to re-invite members to the shared folders whose original invitation had expired.

Presentation and discussion on currently submitted ideas:

Jeff Simcoe presented highlights of each of the ideas submitted via the Ideas Generation Framework (*Attachment C*). Mr. Simcoe reviewed idea details, specific recommendations, and who might benefit from each of the projects. Twelve ideas were discussed.

It was agreed by the committee that the current ideas would be discussed further during the March MMEAC meeting as a full discussion wasn't possible at this meeting due to time constraints. Chair Koch asked that all members review the submitted ideas prior to the next meeting. Jeff Simcoe discussed the idea of using Survey Monkey to rank the current ideas to prioritize them for committee action. It was agreed that a survey would be produced and sent to committee members before the March meeting.

Action items:

Chair Koch asked that Downstream Strategies perform focused research on baseline payback periods for various renewable energy systems and their respective carbon efficiency/intensity. He also asked that research be conducted on the current state of the electricity grid. Finally, he asked that a short recap be

prepared concerning the changes to Maryland regulations concerning biomass. The findings will be presented to the committee during the March meeting.

Public comment:

Public comment from Eric Robinson has been captured in an audio recording (*Attachment D*).

Adjourn:

A motion was made by Chair Koch, seconded by Jim Torrington, to adjourn the meeting at 5:00pm.

Mountain Maryland Energy Advisory Committee

March 19, 2014, 3:00 p.m., Garrett Information Enterprise Center, McHenry, Maryland

Meeting Minutes

Committee members attending: Mike Koch, Tim Carney, Jim Torrington, Paul Durham, Dr. Ed Gates, Jo Gilman, Mike Dreisbach, Eric Guthrie, Bob Sutton, Rodney Glotfelty, David Dorsey

Committee members not in attendance: Dr. Stephen Hartlaub

Others attending: Jeff Simcoe, Cheryl DeBerry, Andrea Varrato, Brenda Smith

Approval of February meeting minutes (*Attachment A*):

A motion was made by Bob Sutton, seconded by Paul Durham, to approve the minutes. The motion was passed by a majority of the vote.

Discussion on currently submitted ideas and results of ideas ranking survey:

Mr. Simcoe presented the results of the ideas ranking survey in a PowerPoint presentation (*Attachment B*). Results of the survey were used to guide further discussions on which ideas would be selected to move into the next phase of committee review.

The committee determined that it would be beneficial in some cases to bundle related ideas into a single item. A subset of the original 12 ideas was desired so that the committee could focus on transforming the most feasible suggestions into recommendations for Garrett and Allegany counties.

Five ideas were selected for further review during a group discussion. Two of them were bundled with others, creating three primary focus areas. Focus areas included C111: Solarize Mountain Maryland residential solar initiative; C102: Commercial biomass boilers bundled with C110: Solar feasibility study for the CARC building; and C108: Passive house initiative bundled with C109: Local property tax credit for renewables and energy conservation devices.

Committee members determined which of the three areas they would like to focus on. They broke into groups based on their desired topic. The committee of 12 was split into three groups of four.

Committee members working on the Solarize initiative include Mike Koch, Mike Dreisbach, Jo Gilman, and Bob Sutton. Members working on the biomass and CARC assessment include Tim Carney, Jim Torrington, Eric Guthrie, and Dr. Stephen Hartlaub. Committee members working on the passive house and renewable energy tax credit initiatives include David Dorsey, Paul Durham, Rodney Glotfelty, and Dr. Ed Gates.

Presentation of findings from action items outlined in the February MMEAC meeting:

Mr. Simcoe was asked to prepare a follow up presentation on action items outlined in the February meeting. He presented a PowerPoint (*Attachment C*) to the committee that detailed his findings. Topics included the current state of Maryland's electricity grid, a comparison of renewable energy systems in terms of payback period, carbon footprint, etc., and an examination of Maryland's new biomass regulations.

Legislative updated on selected bills:

Mr. Simcoe offered an update on selected energy bills that are under the consideration of the legislature. The update was presented to the committee in the form of a PowerPoint (*Attachment D*). Mr. Simcoe provided an update for three bills: H.B. 0553, an Energy-Efficient Homes Construction Load Program; S.B. 0733 / H.B. 1149, which would increase the annual solar requirements in the state Renewable Energy

Portfolio Standard; and S.B. 0786 / H.B. 1192, which would establish a community renewable energy generating system pilot program.

Public comment:

No public comment was received.

Adjourn:

A motion was made by Mike Dreisbach, seconded by Dr. Ed Gates, to adjourn the meeting at 5:00pm.

Mountain Maryland Energy Advisory Committee

April 16, 2014, 3:00 p.m., Garrett Information Enterprise Center, McHenry, Maryland

Meeting Minutes

Committee members attending: Mike Koch, Tim Carney, Jim Torrington, Paul Durham, Dr. Ed Gates, Jo Gilman, Mike Dreisbach, Eric Guthrie, Bob Sutton, Dr. Stephen Hartlaub, David Dorsey, Rodney Glotfelty

Others attending: Jeff Simcoe, Cheryl DeBerry, Andrea Varrato, Jeff Harris, John Emerick, Paul Shogren

Approval of March meeting minutes (*Attachment A*)**:**

A motion was made by Mike Dreisbach, seconded by Paul Durham, to approve the minutes. The motion was passed by a majority of the vote.

Present In-Review process, break into sub-groups to discuss strategy and to assign tasks:

Due to a delay in the arrival of David Fricke, Jeff Simcoe led the In-Review process discussion following the approval of the March minutes. Mr. Simcoe gave a short legislative update and reviewed the tasks charged to each subcommittee. Subcommittees include the Solarize Mountain Maryland residential solar initiative subcommittee, the commercial biomass boilers/solar feasibility study for the CARC subcommittee, and the passive house initiative/local property tax credit for renewables and energy conservation devices subcommittee. Mr. Simcoe discussed the In-Review process form and how it will be used by the committee during this portion of the ideas review process (*Attachment B*).

Presentation from David Fricke, owner of Eco Electric:

David Fricke presented a PowerPoint to the committee (*Attachment C*). Mr. Fricke discussed energy-saving lighting retrofits that could be viable options for Garrett and Allegany counties. He detailed a variety of energy saving techniques, and gave a brief overview of the financial feasibility of retrofit implementation for the commercial sector. Committee members and Mr. Fricke discussed several ideas that were of interest to the committee, including local biomass and solar initiatives.

Public comment:

Public comment has been captured in an audio recording (*Attachment D*).

Adjourn:

A motion was made by Stephen Hartlaub, seconded by David Dorsey, to adjourn the meeting at 5:00pm.

Mountain Maryland Energy Advisory Committee

May 21, 2014, 3:00 p.m., Garrett Information Enterprise Center, McHenry, Maryland

Meeting Minutes

Committee members attending: Mike Koch, Tim Carney, Jim Torrington, Paul Durham, Dr. Ed Gates, Jo Gilman, Eric Guthrie, Dr. Stephen Hartlaub, Rodney Glotfelty

Committee members not in attendance: Bob Sutton, David Dorsey, Mike Dreisbach

Others attending: Jeff Simcoe, Cheryl DeBerry, Andrea Varrato

Approval of April meeting minutes (*Attachment A*)**:**

A motion was made by Eric Guthrie, seconded by Jim Torrington, to approve the minutes. The motion was passed by a majority of the vote.

Group strategy discussion and status updates:

The Solarize Mountain Maryland residential solar initiative sub-group offered an update on their progress. The members created a framework that identifies potential targets, outreach opportunities, and considerations for grants and other financing options. They have reached out to a number of potential providers, and attended a conference call with a former member of Solarize Madison. Follow up items for this sub-group include developing an RFP, attending a conference call with the Natural Capital Investment Fund, and perhaps getting a speaker to address the full committee.

The commercial biomass boilers/solar feasibility study for the CARC sub-group provided an update on their progress and asked for clarification on the technical aspects of their deliverable in regard to the feasibility study. Mr. Simcoe advised the members to establish why a feasibility study is needed for the CARC and to provide suggestions on what the feasibility study could look into.

The Mountain Maryland energy efficiency sub-group also provided an update on their progress and offered background information to the committee at large on energy efficiency and passive home design. The members suggest an educational initiative to promote energy efficiency and passive home design in western Maryland. The educational initiative could also serve as a means to assess what the public knows about these opportunities and to help them take advantage of existing programs. The initiative could assist the public in finding the opportunities that fit their needs among the vast number of existing programs.

Break into sub-groups to work on Focused Review Project Reports:

Committee members split into the three sub-groups: Solarize Mountain Maryland residential solar initiative, commercial biomass boilers/solar feasibility study for the CARC, and Mountain Maryland energy efficiency. Committee members participated in active discussions within their sub-groups. Sub-groups worked on the Focused Review Project Report (*Attachment B*) as a means to organize and assess next steps for their projects.

Public comment:

No public comment was captured.

Adjourn:

A motion was made by Paul Durham, seconded by Dr. Ed Gates, to adjourn the meeting at 5:00pm.

Mountain Maryland Energy Advisory Committee

June 18, 2014, 3:00 p.m., Garrett Information Enterprise Center, McHenry, Maryland

Meeting Minutes

Committee members attending: Bob Sutton, Tim Carney, Jim Torrington, Mike Dreisbach, Dr. Ed Gates, Jo Gilman, Dr. Stephen Hartlaub, Rodney Glotfelty

Committee members not in attendance: Mike Koch, David Dorsey, Paul Durham, Eric Guthrie

Others attending: Jeff Hovis, Jeff Simcoe, Cheryl DeBerry, Andrea Varrato

Approval of May meeting minutes (*Attachment A*)**:**

A motion was made by Mike Dreisbach, seconded by Bob Sutton, to approve the minutes. The motion was passed by a majority of the vote.

Presentation by Mark Watkins from Hotshotz Inspections:

Mark Watkins of Hotshotz Inspections discussed measures that local homeowners could take to improve energy efficiency in the home. He discussed an energy efficiency initiative offered by Potomac Edison that enables homeowners to participate in home energy audits at a discounted price (Attachment B). The program also pays for certain retrofits that are implemented as a result of the energy audit. Thermal imaging is often used in these audits to isolate areas with missing or poorly installed insulation. Mr. Watkins showed thermal imaging videos taken in the field and explained the imaging process (Attachment C). Other assessment methods were discussed, including blower door testing, which is a test used to measure indoor air exchange over a period of time.

Mr. Watkins provided committee members with a number of informational brochures from Potomac Edison, including "Improve your home's comfort with a quick home energy checkup" (Attachment D), "Invest in energy-efficient improvements with the Home Performance with Energy Star Program" (Attachment E), "Energy-efficient appliance and household products for your home" (Attachment F), and "Energy-saving heating and cooling solutions for your home" (Attachment G).

Presentation by Gene Scherrer from Tri-state Wind and Solar:

Gene Scherrer of Tri-state Wind and Solar presented a PowerPoint (Attachment H) to the committee on solar installations for various users, including homeowners and businesses. Mr. Scherrer gave a short history and background of solar PV and detailed various grid connected systems. He also discussed Solar Renewable Energy Certificates (SRECs) and reviewed average payback periods for commercial solar operations in Maryland. Mr. Scherrer provided an informational brochure to committee members about Tri-State Wind and Solar (Attachment I).

Review sub-group initiative recommendations:

Jeff Simcoe led a discussion on potential committee recommendations. Mr. Simcoe presented a PowerPoint (Attachment J) with suggested recommendations intended to be brainstorming tools for the sub-groups. Each sub-group then discussed potential recommendations for the three focused initiatives in their own words. Draft recommendations and other comments were recorded in a PowerPoint (Attachment K). The suggested recommendations and comments captured during the committee discussions will be merged and presented back to committee members as draft recommendations for further discussion and consideration.

Public comment:

No public comment was offered during this meeting.

Adjourn:

A motion was made by Rodney Glotfelty, seconded by Dr. Stephen Hartlaub, to adjourn the meeting at 5:00pm.

Mountain Maryland Energy Advisory Committee

July 16, 2014, 3:00 p.m., Garrett Information Enterprise Center, McHenry, Maryland

Meeting Minutes

Committee members attending: Mike Koch, David Dorsey, Paul Durham, Eric Guthrie, Bob Sutton, Tim Carney, Jim Torrington, Mike Dreisbach, Jo Gilman

Committee members not in attendance: Dr. Stephen Hartlaub, Rodney Glotfelty, Dr. Ed Gates

Others attending: Dick Bolt, Jeff Simcoe, Cheryl DeBerry, Andrea Varrato, Lauren Harris, Aaron Kraus, Chris Ercoli, Paul Lewandowski

Approval of June meeting minutes (*Attachment A*)**:**

A motion was made by Eric Guthrie, seconded by Jo Gilman, to approve the minutes. The motion was passed by a majority of the vote.

Presentation by Lauren Harris, Aaron Kraus, and Chris Ercoli from Solar City:

Lauren Harris presented a PowerPoint on Solar City, a solar renewable energy development company. Aaron Kraus and Chris Ercoli from Solar City assisted Ms. Harris by participating in the discussion. Ms. Harris, Mr. Ercoli, and Mr. Kraus described Solar City's power purchase agreement structure and highlighted project qualifications for solar energy installations. Committee members participated in a discussion with Solar City representatives regarding the potential for commercial, public, and residential solar installations in Garrett and Allegany counties.

Presentation by Paul Lewandowski from AFS Energy Systems:

Paul Lewandowski presented a PowerPoint on AFS Energy Systems' biomass boilers. Mr. Lewandowski described various biomass installations and offered an overview of existing biomass systems operating in nearby states. He also offered insight into various types of fuel that can be used in biomass systems and offered to assist with identifying local fuel providers. Mr. Lewandowski also offered committee members packets of informational materials (*Attachment B*).

Public comment:

No public comment was offered during this meeting.

Adjourn:

A motion was made by Eric Guthrie, seconded by Jim Torrington, to adjourn the meeting at 5:00pm.

Mountain Maryland Energy Advisory Committee

August 20, 2014, 3:00 p.m., Garrett Information Enterprise Center, McHenry, Maryland

Meeting Minutes

Committee members attending: Mike Koch, David Dorsey, Paul Durham, Eric Guthrie, Bob Sutton, Tim Carney, Jim Torrington, Dr. Stephen Hartlaub, Rodney Glotfelty, Dr. Ed Gates

Committee members not in attendance: Jo Gilman, Mike Dreisbach

Others attending: Jeff Simcoe, Cheryl DeBerry, Andrea Varrato, Eric Robison

Approval of July meeting minutes (*Attachment A*)**:**

A motion was made by Bob Sutton, seconded by Paul Durham, to approve the minutes. The motion was passed by a majority of the vote.

Presentation by Dan Conant from Mosaic Power:

Dan Conant discussed Mosaic Power's energy optimization strategy with the committee. He detailed the impact of Mosaic Power's water heater technology on the electricity grid and discussed one practical application for this technology in community-funded solar installations for non-profit organizations. Mr. Conant provided committee members with several informational flyers detailing Mosaic Power's energy optimization strategy (*Attachment B*), energy markets and balancing the grid (*Attachment C*), and electric load control of the grid at the micro level (*Attachment D*).

Discuss and finalize one page energy initiative documents

One page documents for each of the three initiatives were discussed by committee members and finalized. These documents capture an overview, background, specific details, and financing for each initiative. One page documents were constructed for the Mountain Maryland Solarize Project (*Attachment E*), the Mountain Maryland Energy Efficiency Project (*Attachment F*), and the Biomass Energy Project (*Attachment G*). These ideas will be presented to the Garrett County Board of Commissioners during their session on September 9, 2014. A presentation to the Allegany County Board of Commissioners is also anticipated.

Review new ideas in the MMEAC idea parking lot

Mr. Simcoe presented a PowerPoint (*Attachment H*) that provided an overview of ideas submitted by committee members and the general public during Phase II of the ideas generation process. Ideas included a business park solar energy project, small scale wind energy production, and small scale hydropower, among others. The remaining ideas from Phase I were also included in the PowerPoint so that these ideas could potentially be re-visited by the committee.

Public comment:

No public comment was offered during this meeting.

Adjourn:

A motion was made by Tim Carney, seconded by Eric Guthrie, to adjourn the meeting at 5:00pm.

Mountain Maryland Energy Advisory Committee

September 17, 2014, 3:00 p.m., Garrett Information Enterprise Center, McHenry, Maryland

Meeting Minutes

Committee members attending: Mike Koch, Mike Dreisbach, Rodney Glotfelty, Eric Guthrie, Tim Carney, Paul Durham

Committee members not in attendance: Jo Gilman, David Dorsey, Bob Sutton, Jim Torrington, Dr. Stephen Hartlaub, Dr. Ed Gates

Others attending: Jeff Simcoe, Cheryl DeBerry, Andrea Varrato, Joey James, Senator George Edwards, Robin Summerfield

Approval of August meeting minutes (*Attachment A*)**:**

A motion was made by Mike Dreisbach, seconded by Paul Durham, to approve the minutes. The motion was passed by a majority of the vote.

Presentation by Rebecca Rush and Rick Lank from DERP Technologies (*Attachment B*):

Rebecca Rush and Rick Lank from DERP technologies presented a PowerPoint (*Attachment C*) on the role that microgrids can play in emergency preparedness. They discussed the current grid system and how emergency preparedness microgrids fit into this system. They also provided examples of existing microgrid systems and engaged committee members in conversations about microgrid use. Ms. Rush and Mr. Lank provided committee members with informational handouts on various topics, including Maryland resilience leadership (*Attachment D*) and DERP Technologies' Safe Haven Microgrid projects (*Attachment E*).

Discuss the outcomes from the September 9 Garrett County Board of Commissioners meeting, including next steps

Mr. Simcoe provided committee members with an overview of the September 9, 2014 Garrett County Board of Commissioners meeting in which he presented one-page documents that committee members assembled for each initiative. Mr. Simcoe discussed the Mountain Maryland Solarize Project, the Mountain Maryland Energy Efficiency Project, and the Biomass Energy Project with Garrett County Commissioners and found that these ideas were favorable. Committee members discussed the possibility of presenting the one-page initiatives to the Allegany County Commissioners.

Discuss the next MMEAC priority energy initiatives

Committee members were asked to nominate via email their most favored remaining initiatives. The top two ideas included a business park solar initiative and a solar crowdfunding project for the public library. These ideas were briefly discussed. Committee members were informed that the October meeting will not be held due to a conflict with the Maryland Clean Energy Summit (*Attachment F*). Mr. Simcoe and two committee members will attend this event. A presentation on the summit will take place during the November meeting.

Public comment:

No public comment was offered during this meeting.

Adjourn:

A motion was made by Eric Guthrie, seconded by Paul Durham, to adjourn the meeting at 5:00pm.

Mountain Maryland Energy Advisory Committee

November 19, 2014, 3:00 p.m., Garrett Information Enterprise Center, McHenry, Maryland

Meeting Minutes

Committee members attending: Mike Koch, Dr. Ed Gates, Dr. Stephen Hartlaub, Eric Guthrie, Mike Dreisbach, Bob Sutton, Jo Gilman, Jim Torrington, Rodney Glotfelty

Committee members not in attendance: Tim Carney, Paul Durham, David Dorsey

Others attending: Jeff Simcoe, Cheryl DeBerry, Andrea Varrato, Evan Hansen, Woody Getz

Approval of September meeting minutes (*Attachment A*):

A motion was made by Bob Sutton, seconded by Eric Guthrie, to approve the minutes. The motion was passed by a majority of the vote.

Presentation by Anya Schoolman with the Community Power Network:

Anya Schoolman from the Community Power Network presented committee members with information about the organization and their role in assisting communities with installing solar energy systems as part of a local cooperative (*Attachment B*). Community Power Network provides technical assistance, roof suitability screenings, assistance in drafting RFPs, and many other services. Committee members took part in a question and answer period about solar installations and Community Power Network's services. Ms. Schoolman also provided committee members with a detailed informational handout (*Attachment C*) that detailed Community Power Network's completed and pending projects.

Update on Garrett College biomass energy project and update on Solar City project:

Jeff Simcoe presented a PowerPoint (*Attachment D*) to committee members regarding Garrett College's progress in assessing the feasibility of installing a biomass to energy system on the Garrett College campus. This system would service the Community Aquatic and Recreation Complex (CARC) as well as other buildings. Paul Lewandowski of AFS Energy Systems presented a proposal to the college in October, which included a simple financial analysis associated with installing a biomass to energy system at the CARC. Committee members also watched an informational video of an existing AFS Energy Systems biomass boiler that is currently operating in a school in Pennsylvania and that was toured by representatives of Garrett College and committee members on November 17th.

Mr. Simcoe provided an update on the progress of the Solar City initiative. Conference calls have taken place between the Garrett County procurement office representatives of Solar City. Solar City has agreed to generate proposals for the installation of solar energy systems at a variety of Garrett County sites. Discussions between Solar City and Allegany County representatives have not progressed to this stage.

Maryland Clean Energy Summit summary:

Jeff Simcoe provided a summary of the Maryland Clean Energy Summit event that took place on October 14-15, 2014. The summit focused on the customer experience under changing energy markets and Maryland's role in facilitating a shift in reducing greenhouse gas emissions. Topics of discussion included energy efficiency, the reliability and security of electric power, and energy policy, among others.

Public comment:

Public comment has been captured in an audio recording (*Attachment E*).

Adjourn:

A motion was made by Jim Torrington, seconded by Mike Dreisbach, to adjourn the meeting at 5:00pm.

Mountain Maryland Energy Advisory Committee

January 21, 2015, 3:00 p.m., Garrett Information Enterprise Center, McHenry, Maryland

Meeting Minutes

Committee members attending: David Dorsey, Rodney Glotfelty, Eric Guthrie

Committee members attending via conference call: Mike Koch, Dr. Ed Gates, Paul Durham, Bob Sutton

Committee members not in attendance: Tim Carney, Dr. Stephen Hartlaub, Jo Gilman, Jim Torrington, Mike Dreisbach

Others attending: Cheryl DeBerry, Evan Hansen, Andrea Varrato, Jeff Hovis, Frank Shap

Others attending via conference call: Woody Getz

Approval of November meeting minutes (*Attachment A*):

A motion was made by Rodney Glotfelty, seconded by Mike Koch, to approve the minutes. The motion was passed by a majority of the vote.

Discussion of Energy for the Power of 32 event:

Evan Hansen and Cheryl DeBerry presented a summary of the Energy for the Power of 32 event (*Attachment B*). Energy for the Power of 32 is a regional planning initiative for the 32 counties surrounding Pittsburgh. It includes counties in Pennsylvania, Maryland, Ohio, and West Virginia. Mr. Hansen and Ms. DeBerry highlighted information that could potentially be of use to the committee. David Dorsey provided an update on zoning regulations in Allegany County for solar installations on reclaimed land and brownfield sites (*Attachment C*).

Discussion of state legislation:

Committee members briefly discussed Maryland state legislation as well as energy related legislation proposed in neighboring states.

Committee discussion of four existing MMEAC energy initiatives:

Cheryl DeBerry provided an update on the Biomass Energy Project. She detailed the progress that Garrett College has made in determining the feasibility of converting the majority of their facilities from propane fuel to biomass energy. Committee members also brainstormed ideas for the proposed Mountain Maryland Energy Efficiency initiative public awareness event. Ideas included providing the public with information on existing energy efficiency programs and cataloging energy saving opportunities derived from in-home retrofits.

Eric Guthrie provided an update on the Mountain Maryland Solarize project. He discussed the progress of solar installation negotiations between a local business and Solar City, a solar energy provider. Mike Koch provided an update on a separate renewable energy agreement with Tri-State Wind and Solar. Committee members assessed the progress made on these three initiatives and analyzed potential next steps.

Committee discussion of bringing additional energy initiatives from the parking lot:

Committee members were given a handout that contained a complete list of all ideas submitted to the committee thus far (*Attachment D*). A PowerPoint presentation (*Attachment E*) was used to summarize the ideas that still remain in the Parking Lot phase of the review process. Committee members discussed the remaining ideas and took interest in developing idea P210 – Crowd Funding Solar Project for the Ruth Enlow Public Library System.

Public comment:

No public comment was offered during this meeting.

Adjourn:

A motion was made by Eric Guthrie, seconded by David Dorsey, to adjourn the meeting at 5:00pm.

Mountain Maryland Energy Advisory Committee

February 18, 2015, 3:00 p.m., Garrett Information Enterprise Center, McHenry, Maryland

Meeting Minutes

Committee members attending: Mike Dreisbach, Rodney Glotfelty, Eric Guthrie

Committee members attending via conference call: Dr. Ed Gates, Paul Durham, Tim Carney

Committee members not in attendance: Mike Koch, Jo Gilman, Jim Torrington, David Dorsey, Bob Sutton

Others attending: Cheryl DeBerry, Evan Hansen, Andrea Varrato

Others attending via conference call: Woody Getz

Approval of January meeting minutes (*Attachment A*)**:**

A motion was made by Eric Guthrie, seconded by Mike Dreisbach, to approve the minutes. The motion was passed by a majority of the vote.

Discussion of Biomass Boot Camp event:

Cheryl DeBerry discussed the Biomass Boot Camp event scheduled for March 23, 2015. She provided a brief description of the event and informed the committee that she, Joey James from Downstream Strategies, and representatives from Garrett College would attend.

Discussion of P210-Crowd funding solar for Ruth Enlow Library System (*Attachment B*)**:**

Rodney Glotfelty provided committee members with an update on initial conversations with a representative from the Ruth Enlow Library System. Committee members discussed next steps for this initiative, including following up with representatives from the Ruth Enlow Library System and contacting representatives from the Allegany County library system. A joint meeting with representatives from both library systems was proposed. A motion was made by Eric Guthrie, seconded by Rodney Glotfelty, to move forward with this initiative and to invite Dan Conant from Mosaic Power to present the crowd funded solar hot water heater retrofit model to the library systems. The motion was passed by a majority of the vote.

Energy Efficiency Initiative Subgroup meeting discussion:

Evan Hansen and Cheryl DeBerry provided a summary of the energy efficiency subgroup meeting with Jeff Gosnell and Maureen Myers that took place on February 12, 2015. The subgroup discussed the potential for integrating the energy efficiency event with the recurring PechaKucha events that takes place in Accident, Maryland. The PechaKucha energy efficiency event would include eight to twelve guest speakers presenting slides on energy related topics. The committee found this idea favorable and will move forward with efforts to advance it.

Woody Getz described an upcoming event, ENERGY MATTER$ 2: $avings through Conservation & Efficiency at Frostburg's City Place, which will take place on March 28, 2015 in Frostburg, Maryland. The committee expressed interest in assisting Woody with this event. A letter to the council will be drafted expressing the committee's interest in potential co-sponsorship.

Update on SB 398: Public Service Commission Community Solar Projects or Virtual Net Energy Metering Study legislation:

Evan Hansen presented an update on Senate Bill 398 (*Attachment C*), which would establish a stakeholder workgroup to examine virtual net metering. Mr. Hansen provided committee members with a handout (*Attachment D*) that detailed virtual net metering programs in Maryland and other states. A motion was made by Rodney Glotfelty to send a letter from the committee to recommend that the governing Boards of County Commissioners support the SB398 legislation. The motion was seconded by Eric Guthrie and was passed by a majority of the vote.

Parking Lot ideas prioritization:

Committee members revisited ideas remaining in the Parking Lot phase of the Ideas Generation Framework (*Attachment E*). Evan Hansen facilitated a brief discussion on each remaining idea and encouraged committee members to make decisions regarding next steps. Ideas were divided into three categories: those that are active, those that may have a future in Mountain

Maryland but cannot be addressed at this time, and ideas that should remain in the parking lot with no further action. Although the majority of the remaining ideas will not leave the parking lot, some have become active and others will be recommended to the commissioners as potential options that could be developed.

Public comment:

No public comment was offered during this meeting.

Adjourn:

A motion was made by Mike Dreisbach, seconded by Tim Carney, to adjourn the meeting at 4:40pm.

Mountain Maryland Energy Advisory Committee

March 18, 2015, 3:00 p.m., Garrett Information Enterprise Center, McHenry, Maryland

Meeting Minutes

Committee members attending: Tim Carney, David Dorsey, Bob Sutton, Mike Koch, Mike Dreisbach, Jo Gilman, Rodney Glotfelty, Jim Torrington

Committee members attending via conference call: Dr. Ed Gates, Paul Durham

Committee members not in attendance: Eric Guthrie

Others attending: Cheryl DeBerry, Evan Hansen, Andrea Varrato, Maureen Myers, Woody Getz

Approval of February meeting minutes (*Attachment A*)**:**

A motion was made by Bob Sutton, seconded by Tim Carney, to approve the minutes. The motion was passed by a majority of the vote.

Presentation from Maureen Myers on PechaKucha events and discussion of energy efficiency event details:

Maureen Myers from Gosnell, Inc. presented information on the PechaKucha event series in Accident, MD. She discussed the origins of PechaKucha events and described the event format. The PechaKucha format is one night of 8-12 speakers presenting 20 slides. The average length of each speaker's presentation is just under seven minutes. Committee members asked questions about previous events and event details. The committee also discussed a variety of potential locations, guest speakers, and dates for the energy efficiency focused PechaKucha event. Potential locations include MoonShadow Café, Cornucopia Café, and Garrett College. The event could take place in May, July, or August 2015.

Discussion of Biomass Boot Camp event and update on the biomass feasibility study for Garrett College:

Cheryl DeBerry attended the Biomass Boot Camp event with Joey James from Downstream Strategies and representatives from Garrett College. Ms. DeBerry described the event and offered to make the event materials available to the committee.

Jo Gilman provided an update on the biomass feasibility study for Garrett College. She discussed various details, including financing and local options for boiler fuel. Committee members brainstormed potential financing options that could reduce the college's payback period.

Update on P210-Crowd funding solar for the Ruth Enlow Library System:

Evan Hansen provided an update on the solar crowd funding initiative. He informed the committee that Mosaic Power's business model has changed and that they are moving away from installing hot water heater retrofits in single family dwellings. Committee members suggested contacting Duane Yoder from the Garrett County Community Action Committee to determine if this organization owns any low income multi-family housing units that could benefit from a crowd funded solar installation. Committee members also brainstormed potential multi-family housing units in Allegany County.

Update on March 28 energy event:

Cheryl DeBerry provided committee members with an informational flyer for the ENERGY MATTER$ 2: $avings through Conservation & Efficiency event at Frostburg's City Place (*Attachment B*). This event will be held on March 28, 2015 in Frostburg, Maryland. Woody Getz provided committee members with an overview of the event and scheduled presentations. Although the committee submitted a letter to the council after the February meeting that expressed interest in potential co-sponsorship, the council was not in need of assistance.

Public comment:

No public comment was offered during this meeting.

Adjourn:

A motion was made by Jo Gilman, seconded by Mike Koch, to adjourn the meeting at 5:00pm.

Mountain Maryland Energy Advisory Committee

April 15, 2015, 3:00 p.m., Garrett Information Enterprise Center, McHenry, Maryland

Meeting Notes

Committee members attending: Bob Sutton, Rodney Glotfelty, Jim Torrington, Dr. Ed Gates, Eric Guthrie

Committee members not in attendance: David Dorsey, Mike Dreisbach, Jo Gilman, Paul Durham

Others attending: Cheryl DeBerry, Evan Hansen, Andrea Varrato, Rob Smith

Approval of March meeting minutes (*Attachment A*)**:**

A motion was made by Bob Sutton, seconded by Dr. Ed Gates, to approve the minutes. The motion was passed by a majority of the vote.

Discuss PechaKucha event details and event planning:

Committee members discussed potential guest speakers and topics that could be addressed at the PechaKucha energy event (*Attachment B*). Committee members prioritized event speakers based on which speakers best fit the theme of the event. A variety of topics were deemed to be high priority, including home energy audits, thermal imaging, passive homes/green design, and Solar City solar panel installations. The committee also decided on a name for the event, *Sustainable Energy: Efficiency, Conservation, and Renewables*.

Review MEA biomass financing option:

The committee reviewed potential grant opportunities that could help finance the Garrett College biomass boiler system. Andrea Varrato from Downstream Strategies provided a summary of the biomass financing options she researched (*Attachment C*). One of the most promising options researched was Maryland Energy Association's (MEA) Game Changer Competitive Grant (*Attachment D*). Ms. Varrato provided background information on this opportunity and summarized a call she had with MEA that suggested a fourth round of grant funding may be available in 2015.

General updates on active projects:

Committee members shared updates on active projects. Jim Torrington indicated that solar may be installed in Allegany County at the wastewater treatment plant and at parking garages in Oakland and Grantsville. Evan Hansen provided a brief update on Downstream Strategies' efforts to reach out to various parties about the crowdfunded solar project. There were no new updates on the Solar City project.

Discuss final reporting to Garrett and Allegany County commissioners:

Evan Hansen and Cheryl DeBerry lead a discussion on the future of the committee and the final reporting of its activities to the county commissioners. An overview of the committee's progress will be detailed during separate public meetings with the Garrett and Allegany County commissioners. Commissioners will be briefed on the details of projects that are in progress, projects that could be undertaken in the future but weren't addressed by this committee, as wells as projects that were tabled by the committee. Committee members provided feedback on aspects of the written report that will be submitted to the Garrett County Commissioners by Downstream Strategies.

Public comment:

No public comment was offered during this meeting.

Adjourn:

A motion was made by Rodney Glotfelty, seconded by Jim Torrington, to adjourn the meeting at 5:00pm.

Mountain Maryland Energy Advisory Committee

May 20, 2015, 3:00 p.m., Garrett Information Enterprise Center, McHenry, Maryland

Meeting Notes

Committee members attending: Jim Torrington, David Dorsey

Committee members attending via conference call: Paul Durham

Committee members not in attendance: Bob Sutton, Rodney Glotfelty, Jo Gilman, Dr. Ed Gates, Eric Guthrie, Mike Dreisbach

Others attending: Cheryl DeBerry, Evan Hansen, Andrea Varrato, Woody Getz, Barbara Beelar, Michael Bell

Approval of April meeting minutes:

A quorum of committee members was not present at the May meeting, and therefore the April meeting minutes were not approved. April meeting notes were captured in an attachment (*Attachment A*).

Provide general updates on active projects:

Few updates were offered due to low committee member attendance. A brief update was provided on the biomass at Garrett College initiative.

Discuss PechaKucha event details and event planning:

Committee members reviewed an updated copy of the PechaKucha planning document (*Attachment B*). Seven potential topics and speakers were identified as high priority during the last meeting. Committee members reviewed the list a second time to select additional high priority topics and presenters.

Provide information on Maryland Clean Energy Center 3rd party financing:

Andrea Varrato provided an update on potential funding opportunities for the Garrett College biomass system. She detailed the 3rd party financing structure offered by the Maryland Clean Energy Center (MCEC) (*Attachment C*). MCEC's financing structure is applicable to a variety of clean energy systems. The center borrows money from a bank on behalf of the energy system installer and accrues the associated debt. Banks will lend money for projects that pay for themselves through reductions in energy costs or other savings, such as reductions in fossil fuel usage. If Garrett College were to enter into this type of an arrangement, they could avoid accruing debt while using the energy savings associated with the biomass energy system to pay for the system.

Legislative Update on SB 398:

Ms. Varrato also provided an update on state legislation previously discussed by the committee (*Attachment D*). SB 398 was passed and approved by the Governor on May 12, 2015. This bill establishes a community solar energy generating systems pilot program under the authority of the Public Service Commission (PSC). The bill also provides for the structure and operation of the program and requires the PSC to conduct a meaningful study of the program's results. The PSC is required to adopt the specified regulations on or before May 15, 2016. The passage of this bill has implications for Mountain Maryland Energy Advisory Committee idea # C104 – Community Renewable Energy Generating Systems. Although the committee found the Community Renewable Energy Generation project to be favorable, this idea was not pursued due to state legislation prohibiting residents from installing community solar energy systems. With the passage of SB 398, this idea has the potential to be moved forward.

Discuss draft report for the Garrett and Allegany county commissioners:

Committee members and members of the public provided suggestions to Downstream Strategies regarding the draft report for the county commissioners. There was interest in community outreach opportunities to inform local

residents and businesses on what the committee is and what it has researched and accomplished. Emphasis was also put on encouraging the counties to continue with the alternative energy development strategies imitated by the committee and to follow up on initiatives that could be implemented in the future.

Committee members reviewed the draft report and provided feedback on the structure and organization of the final report. Feedback was also offered on committee member and non-committee member contact information sheets. Dissemination of the final report to the public was discussed.

Public comment:

Public comment has been captured in an audio file (*Attachment E*).

Adjourn:

A motion was made by Paul Durham, seconded by David Dorsey, to adjourn the meeting at 5:00pm.

Ideas tabled

1. Your Name

Eric Guthrie

2. Idea Name/Title

Compressed Natural Gas Filling Station(s)

3. Idea Details (What is it? How could it work here? Who might be involved?)

- Compressed natural gas, or CNG, is natural gas under pressure which remains clear, odorless, and non-corrosive. Although vehicles can use natural gas as either a liquid or a gas, most vehicles use the gaseous form compressed to pressures above 3,100 pounds per square inch.
- The average price for an equivalent gallon of CNG is $2.14 compared to the average gallon of gasoline at $3.31.
- The nearest filling stations are currently located in Washington, PA and Bridgeport, WV. There are stations located in the Baltimore/Washington area and Pittsburgh area. A station located along Interstate 68 in Garrett or Allegheny Counties would provide a strategic fueling stop along the east/west corridor.
- New technology exists where a modular dispensing station can be placed at a location, possibly an existing filling station that would accommodate filling of 25 vehicles per day. As the demand increases, additional modules are added to the dispenser allowing for more vehicles. As CNG becomes more widely used, permanent stations replace the modular station and the modular station moves to another location, expanding the availability of CNG.
- Entities involved will include a participating filling station, Columbia Gas, and a company partnering with the manufacture of the dispensing station to install and maintain it.

4. Specific Recommendations related to the idea (Who should do what, when, where, etc.)

- Pillar Innovations is already in talks with a manufacture of these dispensing stations to bring a station to the local area. Beitzel Corporation and Pillar Innovations are very interested in being able to use CNG in its fleet of vehicles.
- MMEAC can champion the idea and assist with navigating any regulation obstacles. MMEAC would also work to bring all parties together to make a successful implementation.

5. Please provide examples (if any) of this idea in use now. (provide as much information as you can)

- The technology of this modular dispensing station is not in use yet. There are however, a lot of examples of private industry switching to CNG using traditional filling methods.
    - http://www.wm.com/about/press-room/2013/20130731_CNGFuelingStation.jsp
    - http://www.nwga.org/wp-content/uploads/2012/06/ngvsuccessstories.pdf

6. List outside resources that accompany the idea. (Supporting materials such as websites, who to contact for more information, etc.)

- CNG Station Map - http://www.afdc.energy.gov/fuels/natural_gas_locations.html
- CNG Prices - http://www.cngprices.com/station_map.php
- GE's version of a similar concept - http://www.ge-energy.com/solutions/CNG_in_a_Box.jsp

7. What incentives, if any, already exist for this idea? (Or, if none, what could be implemented?)

- A 35% reduction in vehicle fuel price and buying domestic energy is incentive enough.

8. Who might benefit from this and how? (What types of individuals and/or businesses? Others?)

- Individuals and businesses will benefit from lower vehicle fuel prices.
- Businesses, in this case, probably gas stations will benefit from being able to offer CNG as an alternative fuel.
- Local auto dealerships would have a reason of offer CNG vehicles.

9. Additional Information about this idea?

- I should probably disclose that Pillar Innovations, my employer, is in discussion with a company about bringing a modular dispensing station to the area. We are also talking with this company about doing the manufacturing of the stations for them. That manufacturing work would happen here in Garrett County and has a potential to create new jobs. We are also discussing the possibilities doing the installation work. These discussions are in the very preliminary stages.

Notes:

1. Your Name

Bob Sutton

2. Idea Name/Title

Methane from landfill

3. Idea Details (What is it? How could it work here? Who might be involved?)

Capture and use (sell) the methane generated as trash decomposes in the public landfill. The county would have to agree to modify the site(s) but the recovery technology is known and well documented.

4. Specific Recommendations related to the idea (Who should do what, when, where, etc.)

Find out how much waste is collected and how much gas could be produced to determine if it would be feasible in a rural area. There should be literature on cost estimation for this technology.

5. Please provide examples (if any) of this idea in use now. (Provide as much information as you can)

Many municipalities utilize these systems and have for years.

6. List outside resources that accompany the idea. (Supporting materials such as websites, who to contact for more information, etc.)

7. What incentives, if any, already exist for this idea? (Or, if none, what could be implemented?)

Not sure

8. Who might benefit from this and how? (What types of individuals and/or businesses? Others?)

Reduced air emissions plus saleable gas.

9. Additional Information about this idea?

Notes:
Idea converted from Survey Monkey to new format 2/5/14

1. Your Name

Bob Sutton

2. Idea Name/Title

Low Head Hydroelectric Generation

3. Idea Details (What is it? How could it work here? Who might be involved?)

There are commercial low head/low flow turbines commercially available for use in rivers and streams to generate electricity. Garrett County has several places w here this technology could be utilized - Savage River/Potomac River/Yough River, etc. These systems do not require a dam or could be used at an existing dam such as Savage River Dam and Jennings Randolph (and possibly downstream of Deep Creek).

4. Specific Recommendations related to the idea (Who should do what, when, where, etc.)

I understand there may be state law s to prohibit these systems - what and why? There should be data on flows and velocities of most streams available for engineering analysis if the technology is permitted.

5. Please provide examples (if any) of this idea in use now. (Provide as much information as you can)

There are many systems working in the US on rivers such as the Hudson, Ohio, Allegheny.

6. List outside resources that accompany the idea. (Supporting materials such as websites, who to contact for more information, etc.)

Google low head turbines.

7. What incentives, if any, already exist for this idea? (Or, if none, what could be implemented?)

Power to the grid for sale.

8. Who might benefit from this and how? (What types of individuals and/or businesses? Others?)

Depends on who owns the stream?

9. Additional Information about this idea?

Notes:
Idea converted from Survey Monkey to new format 2/5/14

1. Your Name

Jeff Simcoe

2. Idea Name/Title

Mountain Maryland Property Assessed Clean Energy (PACE) Financing Program

3. Idea Details (What is it? How could it work here? Who might be involved?)

PACE financing effectively allows property owners to borrow money to pay for energy improvements. These energy improvements could take the form of energy efficiency retrofits or renewable energy systems. The amount borrowed is typically repaid via a special assessment on the property over a period of years.

In 2009, Maryland enacted legislation permitting counties and municipal corporations to adopt resolutions or ordinances establishing clean energy financing programs based on the PACE model. The legislation includes provisions permitting local governments to issue bonds to fund such programs. The program would allow local property owners to opt into a renewable energy or eligible energy efficiency loan program and repay the loan through a surcharge on their property tax bill. The surcharge remains attached to the property upon a change in ownership and is limited to the amount needed to recover costs associated with issuing bonds, financing the loans, and administering the program.

The authorizing legislation describes a series of details that must be included in the local legislation implementing such financing programs. The specific details are left up to the local governing body. These details might include: property owner eligibility, eligible improvements or technologies, and loan terms and conditions.

Based on the authorizing legislation both Garrett and Allegany could implement a PACE financing program. In concept, the program would work as described above but would be tailored based on the established goals of the program. Program development and administration would involve the County Commission, Economic Development, Tax Department, Legal, and others as appropriate.

4. Specific Recommendations related to the idea (Who should do what, when, where, etc.)

The initial recommendation would be to do a thorough review of the authorizing legislation to gain a full understanding of its applicability to Mountain Maryland. The next recommendation would be to market the idea to the public in order to gauge interest. Assuming there is interest, the next phase would involve program design

5. Please provide examples (if any) of this idea in use now. (Provide as much information as you can)

29 States, plus Washington DC, authorize PACE financing programs. Program examples from Vermont, California, and Maine are listed below.

6. List outside resources that accompany the idea. (Supporting materials such as websites, who to contact for more information, etc.)

Maryland – links to more information and reference for program description
http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=MD38F&ee=1

Vermont – links to more information
https://www.burlingtonelectric.com/page.php?pid=141&name=Burlington%20PACE%20Program

http://www.efficiencyvermont.com/docs/about_efficiency_vermont/initiatives/PACE_eligible_measures.pdf

Maine – links to more information
http://www.dsireusa.org/solar/incentives/incentive.cfm?Incentive_Code=ME20F&re=1&ee=0

http://www.efficiencymaine.com/?s=PACE

Sonoma County, California
http://www.solarsonomacounty.org/Programs/PACE-Financing.aspx

7. What incentives, if any, already exist for this idea? (Or, if none, what could be implemented?)

Various incentives and programs already exist for renewable energy and energy efficiency. These may take the form of tax credits (both federal and state), rebates, exemptions, etc. Both Garrett and Allegany Counties could offer various incentives, if needed, to grow the program.

8. Who might benefit from this and how? (What types of individuals and/or businesses? Others?)

Property owners would benefit from this program through reduced upfront costs associated with the purchase of renewable energy systems and energy efficiency retrofits. Garrett and Allegany County could show progress toward energy conservation goals through a revenue neutral program as well as reduction of the community's carbon footprint. This program could serve as a model for other counties interested in similar programs.

9. Additional Information about this idea?

State Database for Renewables and Efficiency – PACE Financing

http://www.dsireusa.org/solar/solarpolicyguide/?id=26

Notes:
Idea converted from Survey Monkey to new format 2/5/14

1. Your Name

Paul Durham

2. Idea Name/Title

Mountain Maryland Local Option – Property Tax Credit for Renewables and Energy Conservation Devices

3. Idea Details (What is it? How could it work here? Who might be involved?)

Title 9 of Maryland's property tax code provides local governments the option to allow a property tax credit for buildings equipped with a solar, geothermal or qualifying energy conservation device. These devices may be used to heat or cool the structure, to generate electricity to be used in the structure, or to provide hot water for use in the structure. The law was initially enacted in 1985, but at that time applied only to heating and cooling and water heating applications. Electricity production for on-site use was added in 2006.

Under this provision, counties determine the amount of the credit and are given the freedom to define solar, geothermal, and energy conservation devices. Counties also determine the length of time that the credit may be available up to a maximum of three years. It should be noted that the statute includes the city of Baltimore in this provision because Baltimore, the city, has its own jurisdiction as a county. Maryland's local option tax incentive is unique because it is applied in the form of a credit -- not an exemption or exclusion as in the case of many other property tax programs.

4. Specific Recommendations related to the idea (Who should do what, when, where, etc.)

The initial recommendation would be to do a thorough review of the authorizing legislation to gain a full understanding of its applicability to Mountain Maryland. The next recommendation would be to market the idea to our elected officials and to the public in order to gauge interest. Assuming there is interest, the next phase would involve program design.

Local incorporated towns and jurisdictions should also be consulted/encouraged to participate.

5. Please provide examples (if any) of this idea in use now. (Provide as much information as you can)

The Maryland Energy Administration reports that as of July 2012 at least five counties in Maryland offer a property tax credit under this section of the state code:

Anne Arundel County (solar)
Harford County (solar and geothermal)
Baltimore County (solar and geothermal)
Montgomery County (solar, geothermal, and energy conservation)
Prince George's County (solar and geothermal)

6. List outside resources that accompany the idea. (Supporting materials such as websites, who to contact for more information, etc.)

Maryland – links to more information and reference for program description

Md Code: Property Tax § 9-203 (attached)

http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=MD03F

Nationwide – see below link

http://www.dsireusa.org/solar/comparisontables/

7. What incentives, if any, already exist for this idea? (Or, if none, what could be implemented?)

There is also a federal Tax Credit available to homeowners.

http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=MD03F

8. Who might benefit from this and how? (What types of individuals and/or businesses? Others?)

Property owners would benefit from this program by anticipating year-one credits that would help to offset the costs associated with the purchase and installation of renewable energy systems and energy efficiency retrofits.

The credit, in association with other programs and incentives, would help to jump-start renewable home energy business opportunities in the county. The county has suffered from the loss of construction and associated professional services employment during the recession. Fostering an environment where existing local businesses can better diversify supports economic development

9. Additional Information about this idea?

Maryland Energy Administration

http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=MD03F

Notes:
Idea converted from Survey Monkey to new format 2/5/14

1. Your Name

Bob Sutton

2. Idea Name/Title

Wind Power to Pump Up Water to Hydro Dam

3. Idea Details (What is it? How could it work here? Who might be involved?)

Use windmill to generate electricity to pump water back uphill to a hydro dam such as Deep Creek to allow that energy to be stored for use when it is needed for power generation. (Solves the issue of unreliable wind energy since hydro plant can be used on demand unlike wind.) Also allow s the water to be recycled. Probably issues with downstream water users and Gov't would no doubt be involved in some type of permitting/environmental process.

4. Specific Recommendations related to the idea (Who should do what, when, where, etc.)

See if it would be allowed.

5. Please provide examples (if any) of this idea in use now. (Provide as much information as you can)

I believe there is a system either built or being built in Virginia.

6. List outside resources that accompany the idea. (Supporting materials such as websites, who to contact for more information, etc.)

Need to do research

7. What incentives, if any, already exist for this idea? (Or, if none, what could be implemented?)

Uses existing technology.

8. Who might benefit from this and how? (What types of individuals and/or businesses? Others?)

Renew able electricity generation.

9. Additional Information about this idea?

Notes:
Idea converted from Survey Monkey to new format 2/5/14

MMEAC Ideas Generation Form

Please answer the following questions to the best of your ability. All ideas will be considered for further review. Please contact Jeff Simcoe (304-292-2450, jsimcoe@downstreamstrategies.com) or Cheryl DeBerry (301-334-6968, cdeberry@garrettcounty.org) for questions about filling out the idea questionnaire. For hand written ideas, please write as clearly as possible and please use the back of the paper if needed.

Ideas can be submitted using the email addresses listed above, hand delivered to the MMEAC during a regularly scheduled meeting (please see website at www.garrettcounty.org/energy for location and schedule) or delivered by mail. Send to:

Office of Economic Development
Attention: MMEAC Ideas
Frederick A. Thayer, III Courthouse
203 South Fourth Street, Room 208
Oakland, MD 21550

1. Your Name and Contact Information (NOT REQUIRED)

HENRY LOUIS MAIER
11801 SCARLETT O'HARA LN
OLDTOWN MD 21555
301-478-5546

LNHENT01@GMAIL.COM
301-478-5546 FAX
CELL 301 707 3467

2. Idea Name/Title

SMALL WIND

3. Idea Details (What is it? How could it work here? Who might be involved?)

SMALL WIND TURBINE INSTALATION 10 KW TYP WORKS WELL IN WESTERN MD. WHERE WIND RESORSES ARE AVAILABLE BEST SUITED FOR FARM - HOME - LIGHT COMMERCIAL USE.

INVOLVES STEEL - CONCRETE - CRANES - LOCAL LABOR POOL - EXCAVATORS - STONE - CARPENTERS - ELECTRICIANS ELECTRICAL SUPPLIES TURBIN EQUIPTMENT MADE MFG IN USA

MMEAC Ideas Generation Form

4. Specific Recommendations related to the idea (Who should do what, when, where, etc.)

- NEED LOCAL FINANCING BANKS OTHER LENDING INSTIT.
- NEED TO MAKE AWAIC VIA LOCAL SOURCE TO PUBLIC VIA LOCAL CONTRACTOR LNH ENTERPRISES
- NEED TO HOLD OPEN HSE TO SHOWCASE IDEA AGAIN IN WESTERN MD.
- NEED ZONING FOLKS TO BE INVOLVED
- WOULD HELP IF FUNDING FOR GRANT + SURVEY + ANALYSIS WERE AVAILABLE

5. Please provide examples (if any) of this idea in use now. (provide as much information as you can)

WE (LNH) HAVE 2 WINDMILLS INSTALLED IN OLDTOWN AREA CURRENTLY IN OPERATION AS WELL AS ONE @ FROSTBERG UNIVERSITY.

6. List outside resources that accompany the idea. (Supporting materials such as websites, who to contact for more information, etc.)

CONTACT BERGY WIND @ WWW.BERGY.COM

LOCAL LNH ENTERPRISES LLC OLDTOWN MD
301-478-5546 HENRY MAIER
LNH ENT 01 @ GMAIL.COM

MMEAC Ideas Generation Form

7. What incentives, if any, already exist for this idea? (Or, if none, what could be implemented?)

- IN MARYLAND MARYLAND ENERGY ADMIN HAS GRANT (WIND SMART GRANT) CURRENTLY VALUED @ $26,700.00 READILY AVAILABLE
- RURAL DEVELOPMENT GRANTS APX $25,000.00 FOR 10 KW
- TAX CREDITS FEDERAL VALUE DEPENDS ON TAX SITUATION OF INDIVIDUAL

8. Who might benefit from this and how? (What types of individuals and/or businesses? Others?)

ALL RESIDENTS AND BUSINESSES WHO HAVE SUFFICIENT WIND RESOURCES AVAILABLE

9. Additional Information about this idea?

LNH CAN RUN FINANCIAL + WIND ANALYSIS FOR INTERESTED FOLKS FOR REASONABLE COST. ALSO LNH CAN APPLY FOR GRANTS ON FEE BASIS

Notes:

THIS IS A PROVEN TECHNOLOGY IN WESTERN MD

INCENTIVES ARE CURRENTLY VERY GOOD - BEST EVER. CAN SAVE OWNERS A LOT OF MONEY ON EVER INCREASING UTILITY COSTS

IS NOT EYE SORE - NOT UNREASONABLE NOISE - DOES NOT KILL BIRDS - WILL PAY FOR ITSELF IN SHORT ORDER NO MAINTENANCE ISSUES - EXPECTED LIFE B4 REBUILD 30+ YEARS - AVAILABLE FOR INSPECTION

MMEAC Ideas Generation Form

Please answer the following questions to the best of your ability. All ideas will be considered for further review. Please contact Jeff Simcoe (304-292-2450, jsimcoe@downstreamstrategies.com) or Cheryl DeBerry (301-334-6968, cdeberry@garrettcounty.org) for questions about filling out the idea questionnaire. For hand written ideas, please write as clearly as possible and please use the back of the paper if needed.

Ideas can be submitted using the email addresses listed above, hand delivered to the MMEAC during a regularly scheduled meeting (please see website at www.garrettcounty.org/energy for location and schedule) or delivered by mail. Send to:

Office of Economic Development
Attention: MMEAC Ideas
Frederick A. Thayer, III Courthouse
203 South Fourth Street, Room 208
Oakland, MD 21550

1. Your Name and Contact Information (NOT REQUIRED)

Brooks Hamilton (via phone call with Cheryl DeBerry 4/9/14)

2. Idea Name/Title

Utilize energy from spillways of current flood control dams to generate power.

3. Idea Details (What is it? How could it work here? Who might be involved?)

Garrett County (and Maryland, for that matter) has many flood control dams with spillways - this is an untapped energy source. Brooks has thought for a long time that those could be fitted with small/small hydro systems to supply energy for the surrounding areas. He is not very familiar with the technology but feels it should be achievable on at least some of the lakes, especially at Broadford Lake Park with it's considerable spillway.

MMEAC Ideas Generation Form

4. Specific Recommendations related to the idea (Who should do what, when, where, etc.)

5. Please provide examples (if any) of this idea in use now. (provide as much information as you can)

He has a friend who visited Costa Rica, and there was a 200 foot waterfall that had seven generators on it.

Old grist mills used to run on very little water flow.

6. List outside resources that accompany the idea. (Supporting materials such as websites, who to contact for more information, etc.)

MMEAC Ideas Generation Form

7. What incentives, if any, already exist for this idea? (Or, if none, what could be implemented?)

8. Who might benefit from this and how? (What types of individuals and/or businesses? Others?)

Town of Oakland - if using Broadford Lake Park or other flood control dams in the surrounding area.

9. Additional Information about this idea?

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1. Your Name and Contact Information (NOT REQUIRED)

Richard (Dick) Bolt
Swanton MD
dickbolt@comcast.net
Cell 240-893-5793

2. Idea Name/Title

Western Maryland Rural Electric Cooperative

3. Idea Details (What is it? How could it work here? Who might be involved?)

A1. This idea needs to be studied for State & Federal areas.
A2. Other US such cooperatives need to be visited and studied for both power grid issues and economic benefits long term.

4. Specific Recommendations related to the idea (Who should do what, when, where, etc.)

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1. Your Name and Contact Information (NOT REQUIRED)

Richard (Dick) Bolt
Swanton MD
dickbolt@comcast.net
Cell 240-893-5793

2. Idea Name/Title

Western Maryland Acquisition of Deep Creek Lake Power Generation

3. Idea Details (What is it? How could it work here? Who might be involved?)

B1. This issue likely would involve two states and much political involvement.
B2. Just get DCL power into separate Garrett County grid?

4. Specific Recommendations related to the idea (Who should do what, when, where, etc.)

5. Please provide examples (if any) of this idea in use now. (provide as much information as you can)

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1. Your Name and Contact Information (NOT REQUIRED)

Richard (Dick) Bolt
Swanton MD
dickbolt@comcast.net
Cell 240-893-5793

2. Idea Name/Title

Wind power generation from western Maryland stays in western Maryland

3. Idea Details (What is it? How could it work here? Who might be involved?)

C1. Likely would require approval of State.
C2. Likely many grid & power company issues!

4. Specific Recommendations related to the idea (Who should do what, when, where, etc.)

5. Please provide examples (if any) of this idea in use now. (provide as much information as you can)

6. List outside resources that accompany the idea. (Supporting materials such as websites, who to contact for more information, etc.)

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1. Your Name and Contact Information (NOT REQUIRED)

Richard (Dick) Bolt
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dickbolt@comcast.net
Cell 240-893-5793

2. Idea Name/Title

Western Maryland electric power "new" generating lake built

3. Idea Details (What is it? How could it work here? Who might be involved?)

D1. Likely DNR land use which might kill the WM deal as ALL of MD would be required to be to share power!
D2. Would require studies of possible rain & snow run offs that could be counted on for 30+ yrs into global warming period!
D3. Must consider post generation water run-off & additional recreation benefits.
D4. Swallow Falls? Na to much beauty to destroy!
D5. What about the Garrett County end of lake that is in two states, any elevation considerations to be low water ht generator? See one or more in Canada.

4. Specific Recommendations related to the idea (Who should do what, when, where, etc.)

5. Please provide examples (if any) of this idea in use now. (provide as much information as you can)

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Contact information

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Representative from the Garrett County government who assisted the committee with administrative and other tasks.

Evan Hansen
President
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Facilitated MMEAC meetings starting in January 2015.

Jeff Simcoe
Former Energy Program Project Manager
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Facilitated MMEAC meetings through November 2014.

Andrea Varrato
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Prepared agendas and minutes for MMEAC meetings and conducted requested research.

PRESENTERS AND GUEST SPEAKERS

Dan Conant
Founder
Solar Holler
PO Box 1265
Shepherdstown, WV 25443
802.595.0338
conantd@gmail.com
www.solarholler.com
Presented information on Mosaic Power and Solar Holler's crowdfunded solar installation model.

Chris Ercoli
Deputy Director of Policy and Electricity Markets
SolarCity Corporation
9000 Virginia Manor Road, Suite 250
Beltsville, MD 20705
888.978.7652
www.solarcity.com
Assisted Lauren Harris during her presentation to the committee.

David Fricke
CEO
Eco Electric
4631 Baltimore Avenue
Hyattsville, MD 20781
301.927.4900
www.go-companies.com
Presented information on energy saving lighting retrofits that could be viable options for Garrett and Allegany counties.

Lauren Harris
Project Development Manager
SolarCity Corporation
9000 Virginia Manor Road, Suite 250
Beltsville, MD 20705
301.980.1775
LHarris@solarcity.com
www.solarcity.com
Presented information on SolarCity, a firm that offers power purchase agreements for solar panels. Ms. Harris also served as a contact person for local organizations interested in exploring opportunities for solar installations through Solar City.

Aaron Kraus
Deputy Director of Policy and Electricity Markets
SolarCity Corporation
9000 Virginia Manor Road, Suite 250
Beltsville, MD 20705
888.978.7652
www.solarcity.com
Assisted Lauren Harris during her presentation to the committee.

Rick Lank
V.P. Business Development
DERP Technologies, LLC
50 Broadway
Hagerstown, MD 21740
301.797.4260
pcu@derptech.net
www.derptech.net
Presented information on microgrids and emergency preparedness.

Paul Lewandowski
Business Development Specialist
AFS Energy Systems
420 Oak Street
PO Box 170
Lemoyne, PA 17043
717.579.0775
www.afsenergy.com
Presented information on biomass boiler systems and worked with Garrett College to determine the potential costs and payback period associated with a biomass boiler.

Maureen Myers
Architectural Design
Gosnell, Inc
18906 Garrett Highway
Oakland, MD 21550
301.387.6401
maureen@gosnellinc.com
www.gosnellinc.com
Presented information on the Accident, MD PechaKucha event series. Ms. Myers also participated in general planning discussions for the PechaKucha energy event.

Rebecca Rush
Owner
DERP Technologies, LLC
50 Broadway
Hagerstown, MD 21740
301.797.4146
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Presented information on microgrids and emergency preparedness.

Gene Scherrer
Owner
Tri-State Wind and Solar, LLC
36753 Garrett Highway
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304.905.3925
Presented information on solar installations for various users, including homeowners and businesses.

Anya Schoolman
Executive Director
Community Power Network
3166 Mount Pleasant Street Northwest
Washington, DC 20010
202.256.4327
www.communitypowernetwork.com
Presented information on community solar co-ops.

Mark Watkins
Owner
Hot Shotz Thermal Imaging Services
132 Mayhew Inn Road
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240.321.5050
mark@hotshotzinspections.com
www.hotshotzinspections.com
Presented information on thermal imaging and energy efficiency retrofits.

MEMBERS OF THE PUBLIC WHO SUBMITTED IDEAS TO THE COMMITTEE

Richard "Dick" Bolt
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Submitted P206-Acquire Deep Creek Lake Power Generation, P206-Acquire Deep Creek Lake Power Generation, P207-Commercial Wind Local Consumption, and P208-Establish New Hydro Facility in Western Maryland.

Brooks Hamilton
Submitted P203-Utilize Spillways to Generate Energy.

Henry Louis Maier
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Submitted P202-Small Scale Wind Turbines.

E. Lowell Markey
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Submitted P209-Energy Conservation Initiative.

Rod Owens
President
Owens Comfort Systems, Inc.
www.owenscomfortsystems.com
Submitted P204-Geothermal for Hot Water and Radiant Heating.

MEMBERS OF THE PUBLIC IN ATTENDANCE

Barbara Beelar
Michael Bell
Dick Bolt
Senator George Edwards
John Emerick
Woody Getz
Jeff Harris
Jeff Hovis
Joey James
Eric Robinson
Frank Shap
Paul Shogren
Brenda Smith
Rob Smith
Jim "Smokey" Stanton
Robin Summerfield