Mountain Maryland Energy Advisory Committee

Final Report - Summary



Evan Hansen Andrea Varrato Jeff Simcoe

Downstream Strategies

295 High Street Suite 3 Morgantown, WV 26505 www.downstreamstrategies.com



TABLE OF CONTENTS

1. INTRODUCTION	4
2. COMMITTEE STARTUP	6
3. IDEAS ADDRESSED BY THE COMMITTEE	12
3.1. BIOMASS ENERGY	13
3.2. MOUNTAIN MARYLAND ENERGY EFFICIENCY	17
3.3. MOUNTAIN MARYLAND SOLAR	28
4. IDEAS RECOMMENDED FOR FUTURE ACTION	36
4.1. BIOGAS TO ENERGY USING ANIMAL AND FOOD WASTE	37
4.2. BUSINESS PARK SOLAR	40
4.3. COMMUNITY RENEWABLE ENERGY GENERATION	43
5. CONCLUSIONS AND RECOMMENDATIONS	47
APPENDIX A: AGENDAS	49
APPENDIX B: MINUTES	67
APPENDIX C: IDEAS TABLED	94
APPENDIX D: BIBLIOGRAPHY	122
APPENDIX E: CONTACT INFORMATION	130

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	Committee	✓	Tablea
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			\checkmark
P203-Utilize Spillways to Generate Energy			\checkmark
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)		✓	



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.

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.

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.

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.

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.

MOUNTAIN MARYLAND ENERGY ADVISORY COMMITTEE (MMEAC)

Tim Carney

Former Senior Project Manager Allegany Co. Economic Development 701 Kelly Road – Suite 400 Cumberland, MD 21502

David Dorsey

Acting Planning Coordinator Allegany Co. Planning Services 701 Kelly Road Cumberland, MD 21502 301.876.9546 ddorsey@alleganygov.org

Mike Dreisbach

President
Garrett Trails
1600 Mt. Aetna Road
Frostburg, MD 21532
mike@savageriverlodge.com

Paul Durham

Citizen
Garrett County
22 North Second Street
Oakland, MD 21550
pdurham@shentel.net

Edward Gates

Professor University of Maryland Appalachian Lab 301 Braddock Road Frostburg, MD 21532 egates@al.umces.edu

Jo Gilman

Administrator
Garrett College
687 Mosser Road
McHenry, MD 21541
301.387.3091
Josephine.gilman@garrettcollege.edu

Rodney Glotfelty

Health Officer
Garrett County Health Department
1025 Memorial Drive
Oakland, MD 21550
301.334.7700
rodney.glotfelty@maryland.gov

Eric Guthrie

Division Manager
Pillar Innovations (Chamber Representative)
32 Corporate Drive
P.O. Box 550
Grantsville, MD 21536
ericquthrie@pillarinnovations.com

Stephen Hartlaub

Professor of Environmental Policy Frostburg State University Guild Center 139 101 Braddock Road Frostburg, MD 21532 shartlaub@frostburg.org

Mike Koch - Chairman

Former Director
Garrett Co. Economic Development
203 South Fourth Street – Room 208
Oakland, MD 21550

Bob Sutton

Member DCL Property Owner's Association 166 Woodland Way Swanton, MD 21561 rsutton166@comcast.net

Jim Torrington

Chief
Garrett Co. P&LD - Permits Division
2008 Maryland Highway
Mtn. Lake Park, MD 21550
301.334.7470
jtorrington@garrettcounty.org

FACILITATION AND ADMINISTRATIVE ASSISTANCE

Cheryl DeBerry

Natural Resources Business Specialist Garrett County Economic Development 203 South Fourth Street, Room 208 Oakland, MD 21550 301,334,6968

cdeberry@garrettcounty.org

www.gcedonline.com

Representative from the Garrett

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

Evan Hansen

President Downstream Strategies, LLC 295 High Street, Suite 3 Morgantown, WV 26505 304.292.2450

<u>ehansen@downstreamstrategies.com</u> <u>www.downstreamstrategies.com</u>

Facilitated MMEAC meetings starting in January 2015.

Jeff Simcoe

Former Energy Program Project Manager Downstream Strategies, LLC 301.501.1516

jeffsimcoe@hotmail.com

Facilitated MMEAC meetings through November 2014.

Andrea Varrato

Staff Scientist Downstream Strategies, LLC 295 High Street, Suite 3 Morgantown, WV 26505 304.292.2450

<u>avarrato@downstreamstrategies.com</u> www.downstreamstrategies.com

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
leap@derptech.net
www.derptech.net

Presented information on microgrids and emergency preparedness.

Gene Scherrer

Owner Tri-State Wind and Solar, LLC 36753 Garrett Highway Accident, MD 21520 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
Oakland, MD 21550
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

Swanton, MD 21561 240.893.5793

dickbolt@comcast.net

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

11801 Scarlett O'Hara Lane Oldtown, MD 21555 301.478.5546 Inhent01@gmail.com Submitted P202-Small Scale Wind Turbines.

E. Lowell Markey

40 Hickory Drive
Ridgeley, WV 26753
lmarkey19971@gmail.com
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