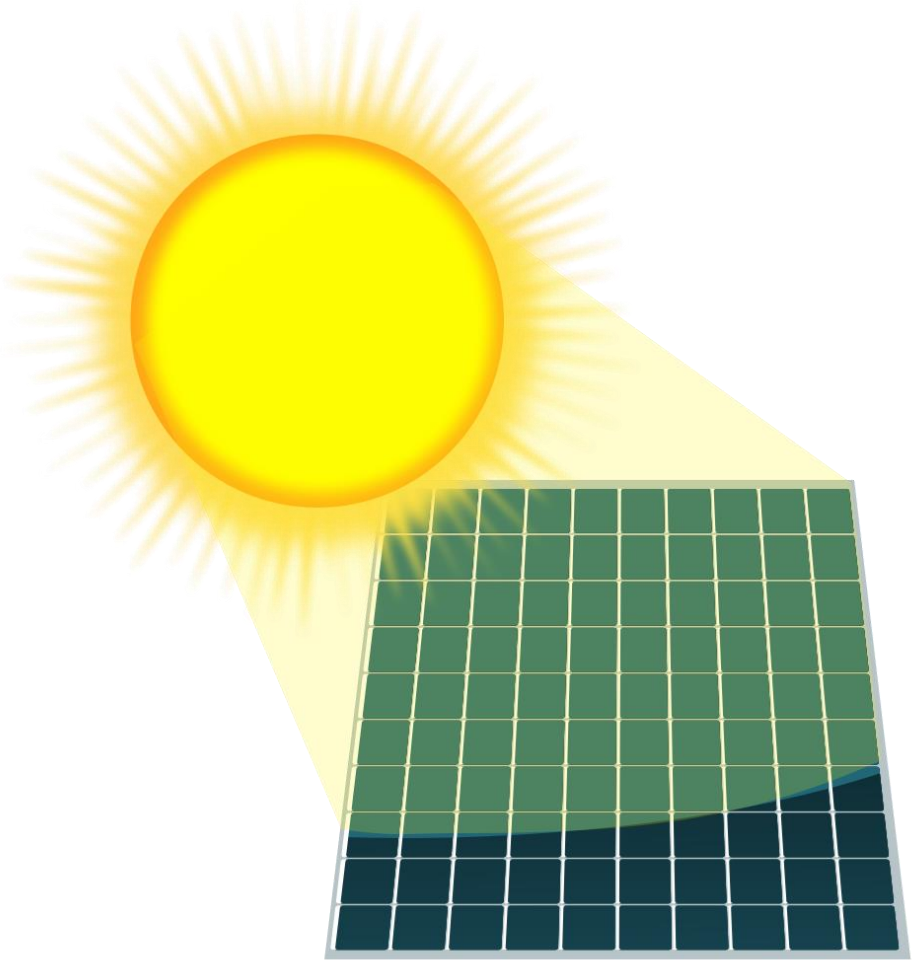
ACCELERATING RENEWABLE ENERGY AND ENERGY STORAGE



Facilitators:

Jenny Egan, Environmental Finance Center
Deb Perry, Cadmus

Prince George's County
DEPARTMENT OF THE ENVIRONMENT
Andrea Crooms | Acting Director

Benefits of Accelerating Renewable Energy and Energy Storage

- Reduces greenhouse gas emissions.
- Reduces air pollution.
- Increases efficiencies of electric grid.

Environmental Benefit

- Keep the power on during emergencies.
- Positive impact on air quality and public health.

Human Health Benefit

- Break the cycle of energy poverty
- Homes and businesses save money on energy costs.
- Can create net increase of jobs and GDP.
- Energy storage increases the economic value of solar and wind.
- Energy storage can help businesses reduce peak demand costs.

Economic Benefit

Prince George's County
DEPARTMENT OF THE ENVIRONMENT
Andrea Crooms | Acting Director

The County has installed solar at four county facilities that produce approximately 527,000 kWh of electricity and offset over 1.3 million pounds of carbon dioxide emissions annually (fleet services rooftop solar pictured above).

Prince George's County
DEPARTMENT OF THE ENVIRONMENT
Andrea Crooms | Acting Director

Snapshot of Efforts in the County

- In 2013, the Prince George's County Council adopted the Clean Renewable Energy in Public Buildings legislation requiring new County buildings and major renovations to incorporate clean energy systems.
- County Sustainable Energy Program set a goal to meet 20% of County government buildings electricity demand with distributed, renewable energy generation by 2022.
- In 2021, the Board of Education of Prince George's County Public Schools passed a resolution committing the school district's transition to 100% clean, renewable electricity by 2030.
- FSC First Green Energy Loan Fund advances public and private investment in clean energy and other innovative green technologies in Prince George's County (up to $250,000 for commercial buildings).
- Community solar offers opportunity for renewable access for renters and low-to-moderate income households at a discount rate.
- Maryland Energy Storage Tax Credit Program available

Change is Happening

- GHG emissions in the County have decreased 15% between 2005 and 2018.
- Rooftop solar systems in the County have increased from 50 systems in 2010 to more than 20K in 2020.
- An estimated 25% of energy consumption in the County comes from renewables as of 2018.
- UMD achieved its target to reduce carbon emissions by 50% in 2018 and procures 100% of its purchased electricity from renewable sources.
- Bowie State University has implemented several solar projects that generate between 15-20% of the campus energy needs from solar energy.

Prince George's County
DEPARTMENT OF THE ENVIRONMENT
Andrea Crooms | Acting Director

PRINCE GEORGE'S COMMUNITY COLLEGE

Prince George's Community College Sustainable Energy and Workforce Development Program

- ASE L3 Hybrid/Electric Vehicle Specialist Licensing Preparation
- Maryland Home Improvement Contractor License Exam Preparation
- NCCER Weatherization Technician
- NCCER Introduction to Solar Photovoltaics
- BPI Building Analyst
- BPI Envelope Professional

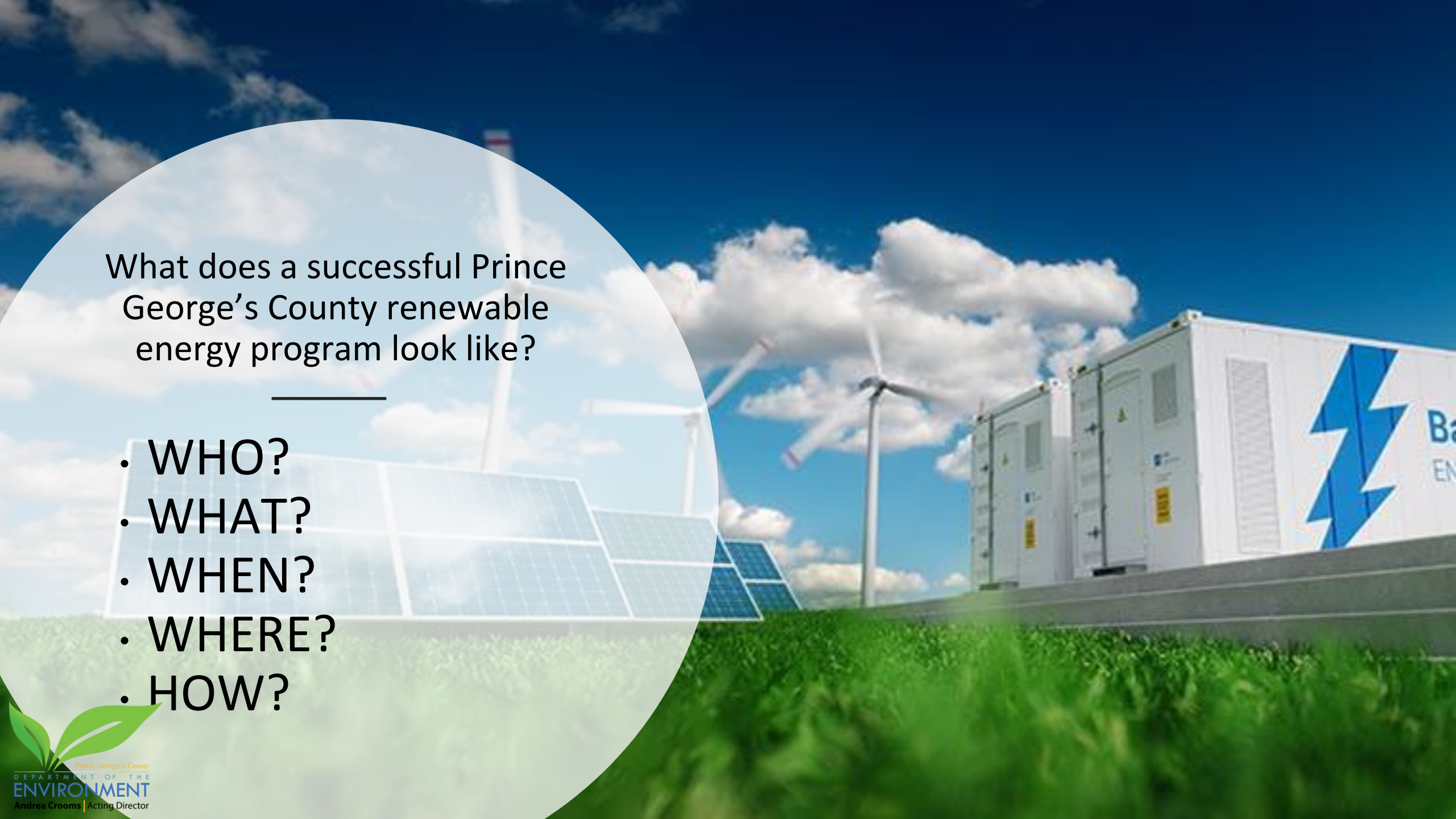
Sustainable Energy and Workforce Development Program Requirements

- Prince George's County Resident
- Possess a high school diploma, GED
- Relevant industry experience

Image Sources: SavWatt, Alison Beckwith, WMATA, WSSC

Preliminary Renewables Action Recommendations

- Commitment to Renewable Energy: How community, businesses, and local government, must transition away from fossil fuel and towards renewables.
- Continue to install renewable energy systems on new and existing county-owned buildings and facilities, including schools.
- Provide and promote innovative partnerships, incentives and financing solutions for solar PV and other RE solutions on residential and commercial properties.
- Promote and support development of resilient energy systems, including energy storage paired with solar PV and deployment of microgrids to support critical infrastructure.



What does a successful Prince George's County renewable energy program look like?

- WHO?
- WHAT?
- WHEN?
- WHERE?
- HOW?

Prince George's County
DEPARTMENT OF THE ENVIRONMENT
Andrea Crooms | Acting Director

What could a renewable energy program in Prince George's County look like?

- *Community solar (solar farms) are an option for those who can't install solar at their homes. Need to get the word out about community solar.*
- *Expand microgrids to support resilience- coordinated with Pepco.*

Challenges

- *older home, slate roofs, not south facing*
- *Lack of knowledge of community solar*
- *Expensive*
- *May need education & tech assistance*
- *Scammers- hard to know who to trust- can county help connect with legitimate sources*

Opportunities

- *Community solar programs*
- *Energy resilience – deployment of solar should include microgrid network – can limit the extent of outages.*
- *Battery farms, grid-scale storage*
- *Resiliency hubs- supported by solar+storage*
- *Have Tesla power walls installed in Prince George's County- could be incentivized even more- especially at places like rec centers.*
- *Pepco has one pilot so far*
- *Look at other "storage" opportunities beyond batteries (like heat/cold)*
- *Storage via electric cars (and buses)*

Who benefits?

-

Who is burdened or left out?

- Lower income residents
- Owners of older homes
- First generation immigrants
- Non-English speakers

How do we ensure equitable outcomes?

- Focus on information dissemination to a broad variety of persons and living situations

What does success in the County look like in the next 3-5 years?

- Research and Data Needs
- Policy/Ordinance Changes
- Residential Outreach Efforts
- Monitoring and Evaluation

- More microgrids – a more versatile grid. Fewer outages with a limited extent. Rethink the whole grid.
- Wider knowledge and understanding of programs that are available – how to participate in coops, etc
- Better outreach to a broader audience
- Successful transition from fossil fuels

Stay Engaged

Apply to be a County Climate Action Resident Expert

- https://forms.gle/z92cx7LLrYTmNLN17

Visit the DMV Climate Partners Website

- https://climatepartners.org

Learn More About Upcoming Meetings

- mypgc.us/climateactionplan

Explore the County CAP Virtual House

- https://bit.ly/2S7PgEQ

Provide Comments and Feedback

- https://bit.ly/3vBKqNJ

Prince George's County
DEPARTMENT OF THE ENVIRONMENT
Andrea Crooms | Acting Director

Prince George's County Climate Action Plan
VIRTUAL COMMUNITY MEETING
Thursday, June 24, 2021

1. ACCELERATING RENEWABLE ENERGY & ENERGY STORAGE CHAT TEXT

19:25:53	From Cameron-1 Renewable Energy...in Riverdale : WDC has had quite strong energy/PV subsidy programs. Have MD-counties similar capabiities? MD does not appear anywhere close to as progressive as the District.
19:26:04	From Ralph Bennett : Where is the Pepco Microgrid project?
19:26:35	From ruth white -renewable : There is a FORMAL community solar program through the PSC
19:28:03	From Cameron-1 Renewable Energy...in Riverdale : Does Pepco intend to apply added charges to facilities/homes/etc utilizing PV (similar to California utilities)?
19:29:39	From ✨ Commissioner William Ellis - Pepco : Battery Storage project at the Livingston Road Substation in Oxon Hill MD.
19:29:49	From ruth white : NO We need to get word out about community solar options
19:30:08	From Vijay Parameshwaran (Renewable) : Sorry, I was confusing community solar (PSC program) with Neighborhood Sun (company that has large solar deployments that use Pepco's grid to deliver to residences)
19:30:52	From ruth white : Neighborhood Sun is ONE of several approved grouips that offer community solar
19:31:22	From ruth white : Community Solar is NOT offered by Pepco or BGE
19:31:22	From ✨ Commissioner William Ellis - Pepco : @Cameron , not as this time but Equity related to solar/chargers is a discussion that the Md PSC is reviewing.
19:31:37	From Cameron-1 Renewable Energy...in Riverdale : MtgyCo has mandated energy benchmarking for quite some time (large buildings). Is this something PGCo seeks to do? Isn't it recommended in the agreement with MWCOG?
19:32:09	From Debra Perry, Co-facilitator, Cadmus : Energy benchmarking is also a proposed recommendation for the Climate Action Plan
19:33:44	From Vijay Parameshwaran (Renewable) : I would say more education, rather than incentives
19:33:53	From ruth white : There is definitely a huge need to get the word out on community solar
19:34:54	From ruth white : right - the community solar groups don't have a HUGE amount of money to market as scammers do. They often partner with Churches and community groups to reach people
19:35:13	From Cameron-1 Renewable Energy...in Riverdale : MtgyCo adopted energy benchmarking requirements in 2014…https://www.montgomerycountymd.gov/DEP/Resources/Files/OfficialGuidetoBenchmarking.pdf
19:35:30	From ✨ Commissioner William Ellis - Pepco : Great point Imani.
19:35:53	From ruth white : The PSC is doing a HORRIBLE job about making info availale about the community solar program and the approved groups. GREAT idea for the county to promote these
19:36:15	From Debra Perry, Co-facilitator, Cadmus : I agree! In the short-term Energy Sage is a great source to ensure you are connecting with verified solar installers.
19:37:01	From Debra Perry, Co-facilitator, Cadmus : https://www.energysage.com/
19:39:20	From ruth white : With Community Choice Energy which Montgomery County is implementing the cost will be less and the electricity contracts will be greener. After the Moco pilot is underway , other counties need to start studying and figuring out how to implement Commuinty Choice Energy
19:41:03	From Cameron-1 Renewable Energy...in Riverdale : Does anyone think county-wide community centers need to be adequately equipped with resilient power (e.g., for charging community mobile phones in times of disaster)? Such are not currently planned for public sheltering.
19:42:15	From Debra Perry, Co-facilitator, Cadmus : Resilience hubs are another recommendation in the Climate Action Plan!
19:43:11	From Vijay Parameshwaran (Renewable) : Tesla Powerwalls are expensive, not everyone can afford them. I would advocate for the County and Pepco, and any other involved entities, to look at larger-scale and other technologies that can be incorporated in a microgrid support

19:43:28	From Gary Allen : Good discussion
19:44:54	From ruth white : And battery back up for grids. Yes grid needs improvement and micro grids !
19:45:07	From Gary Allen : At least double solar installations
19:45:26	From Cameron-1 Renewable Energy...in Riverdale : Must Require the professional design community to meet their association challenges—AIA2030, Living Building Challenge, and others.