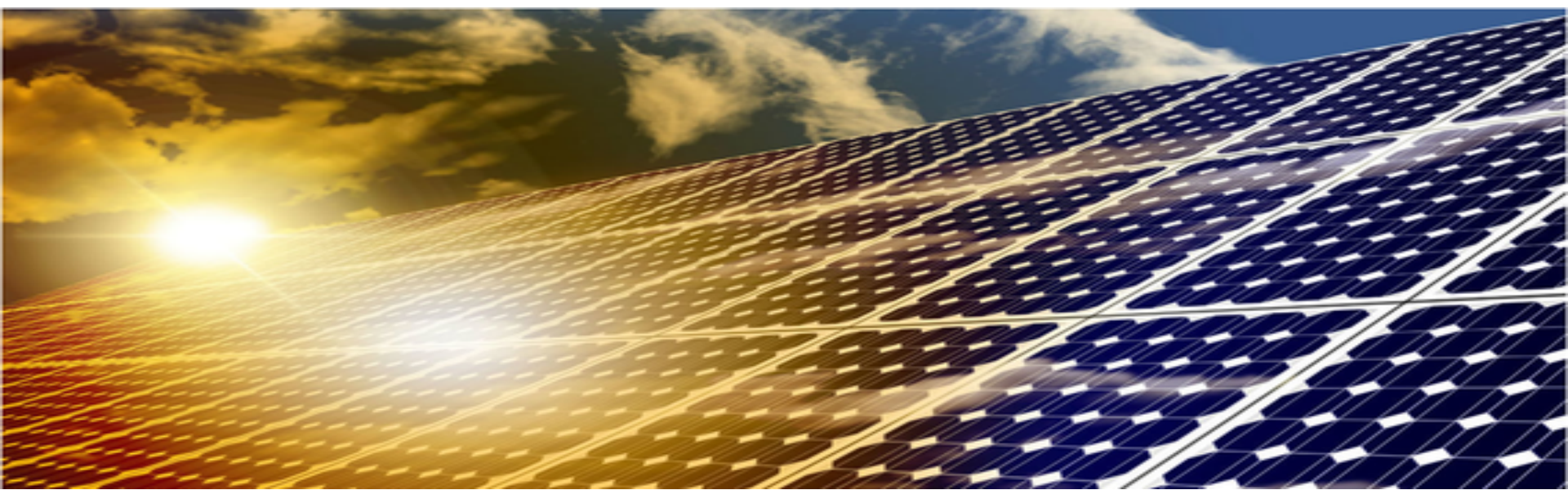


# SOLAR ENERGY INCENTIVES AND FINANCING FOR MARYLAND BUSINESSES



*Webinar is being recorded.*

*The recording will be posted to*

*[green.maryland.gov](http://green.maryland.gov)*

December 5, 2017  
1:00-1:45 PM EST

# Introduction and Agenda

Speaking:  
Laura Armstrong  
Maryland Dept. of the Environment

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- II. First Step: Energy Efficiency
- III. Solar Energy Incentive and Financing Programs

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- 2 *Bonus Depreciation*
- 3 *Property Tax Exemption*
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- 13 *PACE Financing*

- IV. Next Steps
- V. Additional Resources
- VI. Q&A

# TODAY'S PRESENTERS

Speaking:  
Laura Armstrong  
Maryland Dept. of the Environment

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# First Step: Energy Efficiency

Speaking:  
Laura Armstrong  
Maryland Dept. of the Environment

## Benefit:

Reducing demand will lower your energy bills and the size of the solar system you need, saving in up-front installation costs.

## Resources:

[EmPOWER Maryland Energy Audits and Rebates](#)

[MCEC Maryland Clean Energy Capital Loan Program](#)

[MEA Data Center Energy Efficiency Grant Program](#)

[MEA Combined Heat & Power Grant Program](#)

[MEA Lawton Energy Loan Program](#)

[MEA Commercial & Industrial Grant Program](#)

[RMI Energy Efficiency Program for Manufacturers](#) (Delmarva & Pepco)

## Deadline Dates:

Ongoing

Ongoing

2/1/2018

2/15/2018

6/30/2018

8/2018 (opens)

2018-2020

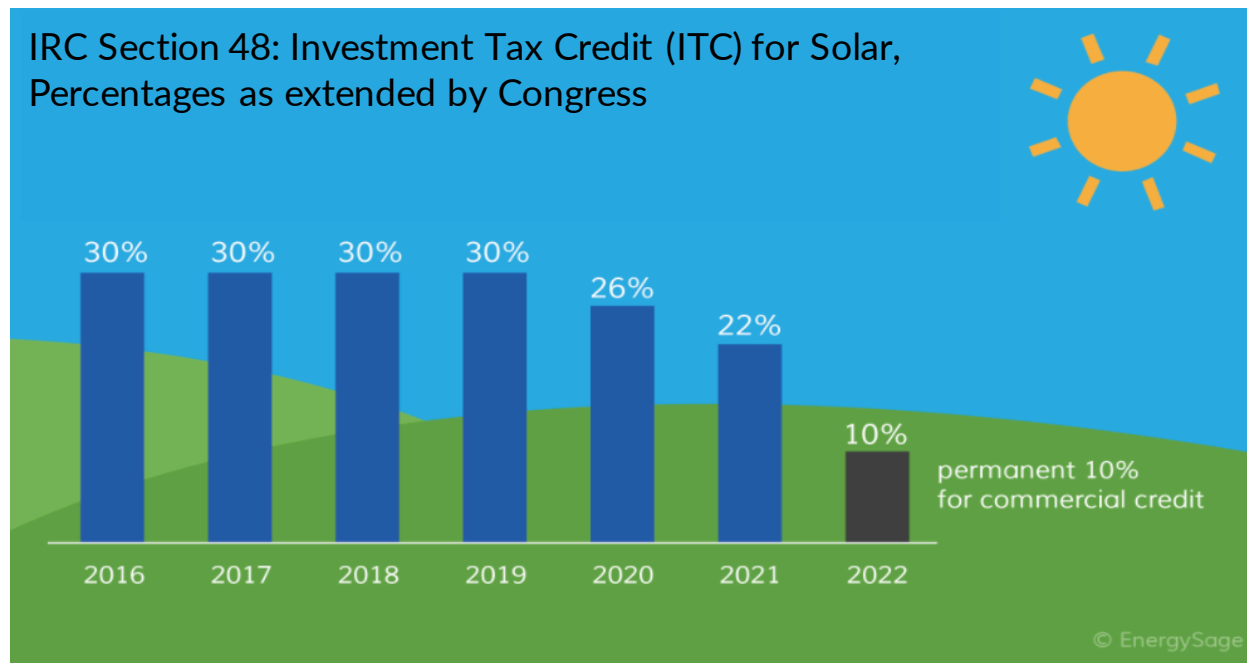


**Maryland**  
Department of  
the Environment

# Federal Investment Tax Credit

## Benefit:

- Up to 30% of eligible capital expenditures for solar
- Only the owner(s) of the energy property can claim the ITC
- The credit is reported in the year the project is placed in service ("PIS")



# Bonus Depreciation

**Benefit:** MACRS: Modified Accelerated Cost Recovery System Depreciation

## IRC Section 168

- Projects that use the ITC will need to reduce the asset basis by 50% of the ITC
- Not Applicable for PTC projects
- Tangible property only
- Most of the Property will fall into the 5 year asset class
- Depreciation Schedule under half-year MACRS:
  - °Year 1: 20%
  - °Year 2: 32%
  - °Year 3: 19.2%
  - °Year 4: 11.52%
  - °Year 5: 11.52%
  - °Year 6: 5.76%

## Bonus Depreciation

Tangible assets with a class life of 20 years or less have the ability to use bonus depreciation. Bonus depreciation is automatic which means owners actually “elect-out” of using bonus

vs “electing-in” to use it Bonus depreciation %'s:

- ° 50% of property is placed in service (“PIS”) by December 31, 2017
- ° 40% for property PIS by December 31, 2018
- ° 30% for property PIS by December 31, 2019

# Property Tax Exemption

Speaking:  
David Comis  
Maryland Energy Administration

## Benefit:

Solar Photovoltaic and Solar Hot Water systems installed on structures are exempt from state and local real property taxes

## Resources:

[H.B. 377 of 2008](#)

[H.B. 1171 of 2009](#)

[S.B. 621 of 2009](#)

DSIRE website:

<http://programs.dsireusa.org/system/program/detail/2542>



# Property Tax Credits

## Benefit:

Property tax credits are available from: Anne Arundel, Harford, Baltimore, and Prince George's Counties for the installation of solar systems.

## Resources:

Anne Arundel:

<http://programs.dsireusa.org/system/program/detail/2908>

Baltimore County (annual monetary limit - fully subscribed through at least 2024)

<https://energy.gov/savings/baltimore-county-property-tax-credit-solar-and-geothermal-devices>

Harford County: (annual monetary limit)

<https://energy.gov/savings/harford-county-property-tax-credit-solar-and-geothermal-devices>

Prince George's (annual monetary limit - fully subscribed through 2020)

<http://programs.dsireusa.org/system/program/detail/3106>



**Maryland**  
Energy  
Administration



# Sales Tax Exemption

Speaking:  
David Comis  
Maryland Energy Administration

## Benefit:

Solar energy equipment is exempted from the state sales and use tax. Solar energy equipment included "equipment that uses solar energy to heat or cool a structure, generate electricity to be used in a structure, or provide hot water for use in a structure."

## Resources:

DSIRE Website: <http://programs.dsireusa.org/system/program/detail/2928>

Maryland Code: General Tax section 11-230



## Benefit:

Receive State financial grants to incentivize installation of solar PV (residential \$80/kW, commercial \$100/kW), and solar canopies \$400/kW). Incentive levels vary by year.

## Resources:

Residential Clean Energy Grant Program

<http://energy.maryland.gov/residential/Pages/incentives/CleanEnergyGrants.aspx>

Commercial Clean Energy Grant Program

<http://energy.maryland.gov/business/Pages/incentives/cleanenergygrants.aspx>

Parking Lot Solar PV Canopy with EV Charger Grant Program

<http://energy.maryland.gov/business/Pages/incentives/PVEVprogram.aspx>



# Renewable Energy Certificate

Speaking:  
David Comis  
Maryland Energy Administration

## Benefit:

RECs may be sold as an additional revenue stream. RECs must be retained to claim to be using renewable energy. SRECs may sell at a premium.

## Resources:

PSC website: Solar Certification Process Login

[http://pscwebapp2.psc.state.md.us/newintranet/solarapp/login\\_new.cfm](http://pscwebapp2.psc.state.md.us/newintranet/solarapp/login_new.cfm)

PJM-EIS Generation Attribute Tracking System website:

<https://www.pjm-eis.com/>

SREC Trade (one year historical graphic):

[http://www.srectrade.com/srec\\_markets/maryland](http://www.srectrade.com/srec_markets/maryland)



## Benefit:

The facility is billed based on the net energy used from the grid, NET energy equals energy used minus energy produced by qualified renewable sources.

- Essentially uses the electric grid to store excess energy and produce it on demand with 100% storage efficiency.
- Net metering authorized at up to 200% of annual energy use.
- Net metering limited to  $\leq 2$  MW projects.
- Current Maryland limit is 1,500 MW.
- Virtual Net Metering allows the solar source to be remote from the load. Community Solar is a form of Virtual Net Metering.

**Resources:** [Code of Maryland Regulations 20.50.10](#)



## CPCN: Certificate of Public Convenience and Necessity

Regulation requires the Maryland Public Service Commission to approve solar energy projects 2 MW or greater.

### **Benefit:**

Solar projects of <2.0 MW are exempt from the CPCN process as they are not defined as a “generating station”.

### **Resources:**

[COMAR 20.79.01.02](#)



# Ownership Model

## Overview & Benefits:

- Large upfront capital investment; can offer greatest overall value to customer if business can monetize tax benefits
- Once purchased, business can fully take advantage of:
  - 30% Federal Investment Tax Credit
  - MACRS accelerated depreciation
  - Maryland SRECs and other miscellaneous incentives
  - Clean electricity produced by system at no marginal cost
- Business can fully claim or sell environmental attributes (SRECs)
- Transaction typically requires fewer contracts than a financed deal, which increases simplicity of execution
- Business responsible for all operation and maintenance of the system, warranty claims if any, etc.
- Should be compared to the returns of investing in core business

**Resources:** <https://sam.nrel.gov/>



# 3<sup>rd</sup> Party Ownership: PPA and Solar Leases

## Overview & Benefits:

3<sup>rd</sup> Party financing provided in two options

- **PPA** - Pay a fixed rate for electricity
- **Leases** - Pre-determined lease payment for the use of solar
- No capital expenditures to customer
- Financier monetizes tax benefits and incentives
- Savings on electricity from day one
- Provides price certainty and protection from utility price volatility
- Allows businesses to budget years into the future for this portion of their electricity
- Terms range from 15-25 years
- Flexible end-of-term options

## Resources:

<https://www.seia.org/research-resources/solar-power-purchase-agreements>

<https://www.seia.org/initiatives/third-party-solar-financing>

<https://www.epa.gov/repowertoolbox/understanding-third-party-ownership-financing-structures-renewable-energy>



# Qualified Energy Conservation Bonds

## Benefit:

Funding eligible projects using Qualified Energy Conservation Bonds (QECCBs) through the Maryland SAVES Green Community Program (MDSAVES GCP) provides a direct pay credit subsidy from the U.S. Treasury to offset interest costs and reduce the net effective borrowing rate.

- Credit subsidy is calculated based on 70% of the Qualified Tax Credit Bond Rate, which is published daily ([www.treasurydirect.gov](http://www.treasurydirect.gov)).
- Historically, the credit subsidy has been approximately 3%.
- Subject to sequestration, currently 6.6% through September 30, 2018.
- Using QECCBs through a GCP allows for 100% funding for private projects and is not subject to the 30% private activity limitation.
- Maryland Clean Energy Center as the conduit issuer.

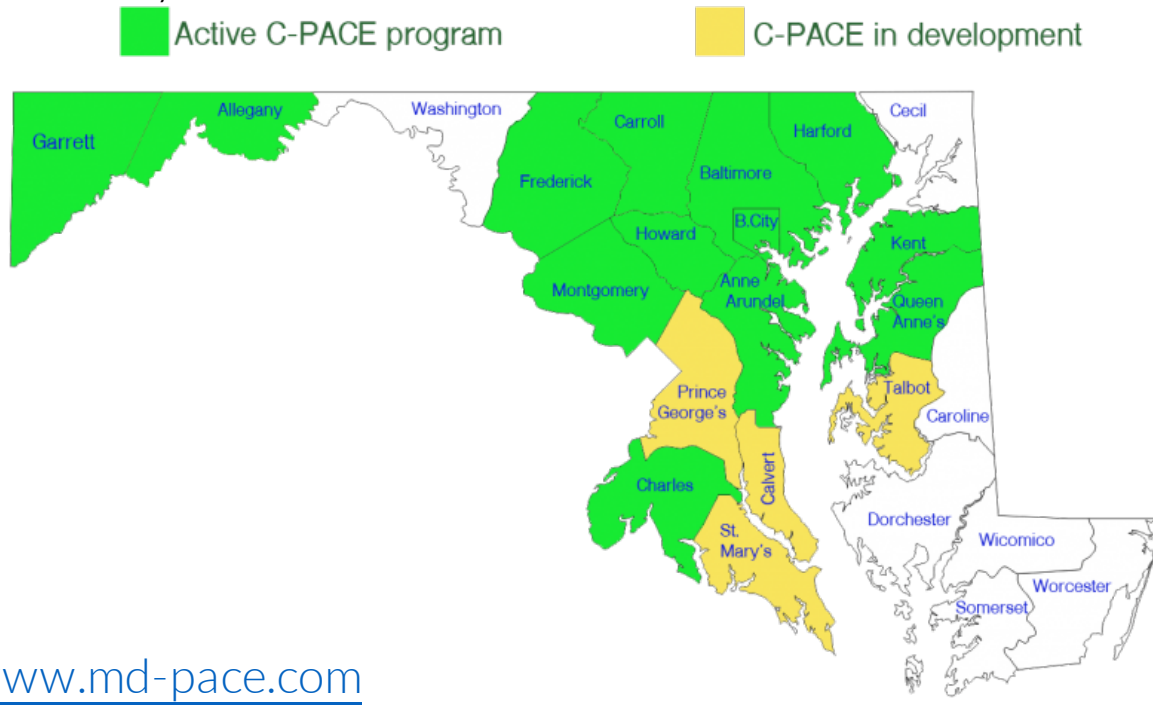
**Resources:** [mdsavesgcp.com](http://mdsavesgcp.com); [mdcleanenergy.org](http://mdcleanenergy.org)



# PACE

## Benefit:

PACE – Property Accessed Clean Energy, which was first signed into Maryland law in 2014, allows businesses under the Commercial-PACE program to finance clean energy projects through their property taxes. Over 12 counties in Maryland are now offering the PACE opportunity.



Resources: [www.md-pace.com](http://www.md-pace.com)



**C-PACE** (Commercial-PACE) is a government policy based on the principle that commercial energy projects such as installing solar equipment or improving a building's heat recovery system – are public benefits like sewers, roads, and bridges. PACE authorizes counties to work with private capital providers to provide upfront financing to commercial property owners for qualifying improvement projects, and to collect the repayment through annual or semi-annual surcharges on the property's tax bill.

### Benefits:

- 20-year financing you can pay back through your property taxes
- Requires no personal or corporate guarantee
- Prevents solar from competing with core business for capital
- Debt obligation travels with the property
- PACE loan can cover the cost of re-roofing your facility or the cost of a solar car canopy structure

**Resources:** [www.md-pace.com](http://www.md-pace.com)



# Next Steps



## Set Goals

- Cost reduction
- Capital improvement plan
- Sustainability objectives
- Corporate stewardship



## Organizational Collaboration and Buy-In

- Executive Leadership, Finance, Facilities, etc.
- Who is the project leader?



## Identify Existing Baseline

- Gather energy consumption data
- Operation and maintenance costs
- Equipment useful life analysis



## Identify Resource for Project Analysis (See next slide)

- Contractors
- Consultants
- Resource centers / Non-profit associations
- Today's panel

# Additional Resources

Organization	Description	Search Terms	Website
<b>National Solar Industries Association</b>	National solar association	Maryland	<a href="https://www.seia.org/">https://www.seia.org/</a>
<b>MDV-SEIA</b>	Regional solar association for MD, DC and Virginia	Find a solar professional	<a href="http://mdvseia.org/">http://mdvseia.org/</a>
<b>Let's Go Solar</b>	National solar advocacy group	Solar panels and installation	<a href="https://www.letsgosolar.com/">https://www.letsgosolar.com/</a>
<b>RMI</b>	Regional Manufacturing Institute of Maryland	Energy Services	<a href="https://rmiofmaryland.com/">https://rmiofmaryland.com/</a>
<b>DSIRE</b>	National database of all energy incentives	Maryland	<a href="http://www.dsireusa.org/">http://www.dsireusa.org/</a>
<b>PVWatts</b>	Allows you to quickly design potential solar installation and estimate kWh it will produce	Calculator	<a href="http://pvwatts.nrel.gov">http://pvwatts.nrel.gov</a>

# Questions and Answers

Moderator:  
Brion Fitzpatrick  
Inman Solar

## To ask a question:

- Place cursor at top of screen
- Click on second option button to enter chat box
- Enter question in chat box

Moderator will monitor and address questions in the order received.

*Thank you for your participation.  
A recording of the webinar will be posted to [green.maryland.gov](http://green.maryland.gov)*

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