

DER Advisory for Landfills and Brownfields

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Overview & Benefits

New York Power Authority

- DER Benefits & Challenges to Implement
- Primary DER Applications
- Implementation Models & Target Areas

DER Advisory Program

- Case Studies

Q&A



Benefits of Distributed Energy Resources (DER)

- Leverage underutilized space such as **landfills and brownfields**
- Create bill credits, **generate revenue**, and achieve cost savings
- **Reduce GHG emissions**
- Improve **grid resiliency**



Challenges

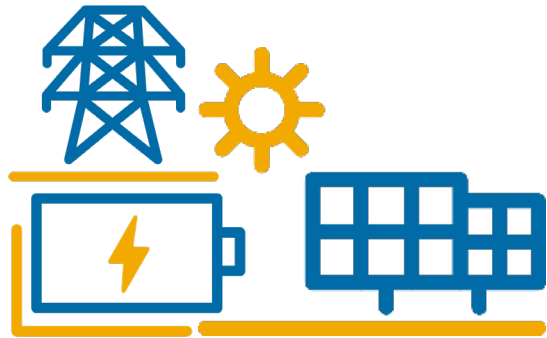
- **Landfills and Brownfields**

- Was the landfill closed properly?
- What hazards or contaminants may be present?
- Does the design support ballasted solar PV?
- Is there access to sufficient grid infrastructure?

- **General Market Challenges**

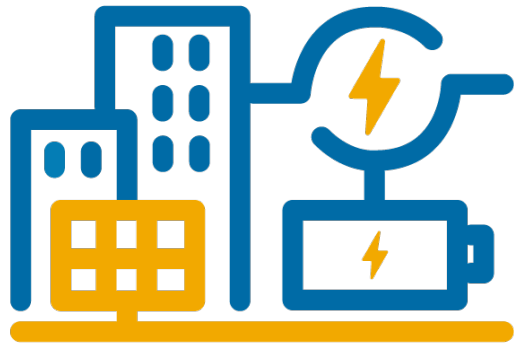
- Uncertainty about distributed energy resources (DER) and the installation process
- Complexity of the New York state solar and DER market, policies, and regulations
- Limited time to manage a competitive bid and negotiate agreements with developers
- US Treasury continues to finalize guidance on IRA provisions

Primary DER Applications



“Front of the Meter” (FTM)

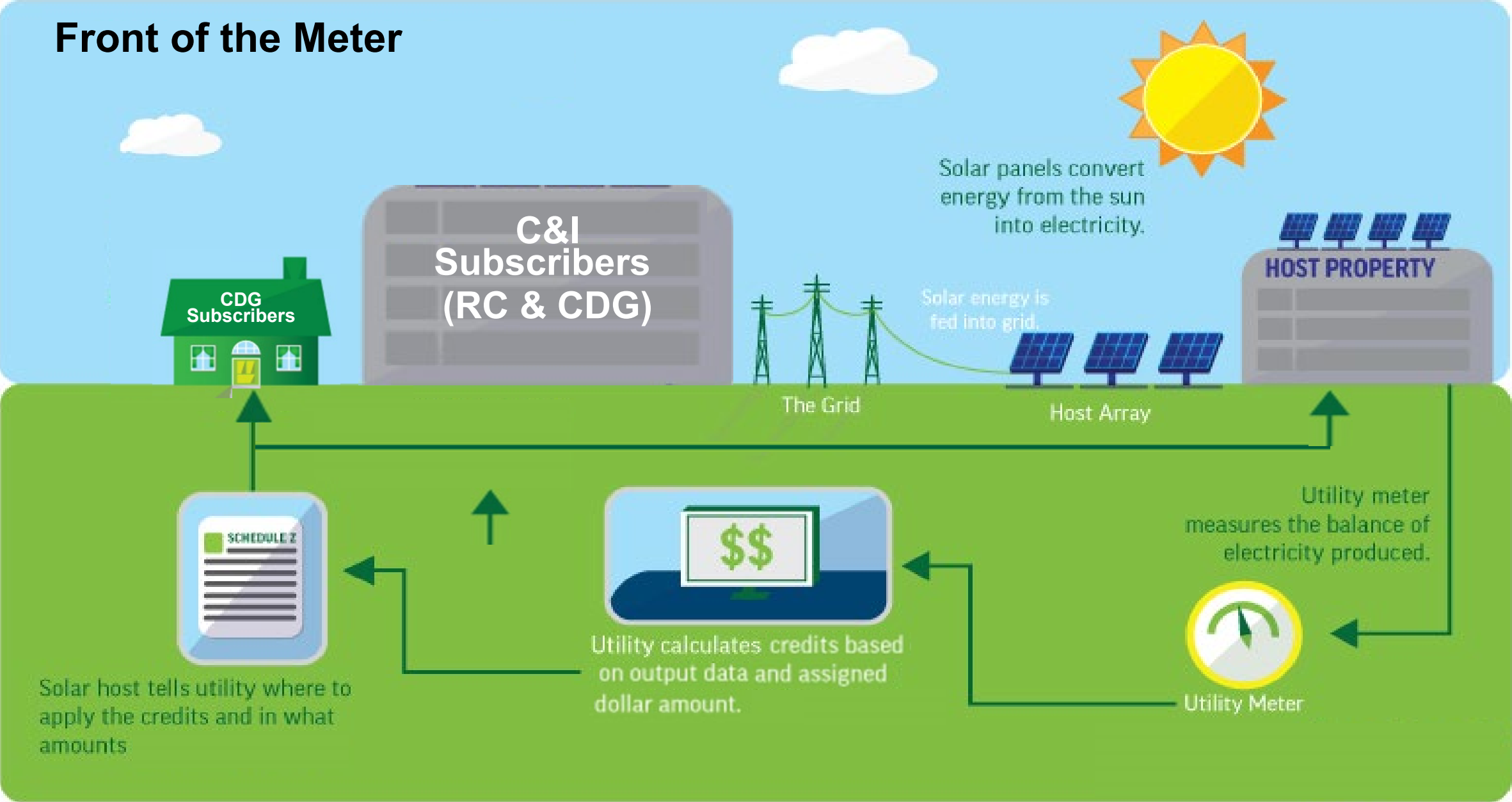
- All production receives Value Stack compensation
- Typically constructed “off-site”
- Energy storage maximizes Value Stack compensation
 - Potential for participation in grid services markets and virtual power plant (VPP) applications





















“Behind the Meter” (BTM)

- Majority of production offsets customer usage
- Located at customer sites
- Multiple energy storage applications
 - Customer demand charge reduction
 - Utility demand management programs
 - Resiliency services
 - Potential for participation in grid services markets and VPP.

Front of the Meter



Implementation Models

DER Project Application Type							
Primary Contract Mechanism	Capital Purchase	Power Purchase Agreement (PPA)	Remote Crediting Agreement	Community Solar Subscription Agreement	Project Host (Lease Agreement)		
Asset Owner	 Customer	 Developer	 Developer	 Developer	 Community	 Developer	
O&M					 Developer		
Upfront Payments					 Developer		
Off-taker		 Customer	 Customer	 Community	 Customer	 Community	

DER Advisory Program



How NYPA can help

Navigate project scoping, design, and implementation:

- Technical feasibility assessment and conceptual site design
- Economic analysis of tariff rates and utility data
- Development of project scope of work
- Administer and manage procurement process
- Dedicated policy & affairs team
- Pre-approved renewable developers



Funding for Clean Energy Projects

	Program		Description
Federal	Inflation Reduction Act (IRA)		<ul style="list-style-type: none"> Provides tax credits for renewables Tax-exempt entities able to receive direct cash payments in lieu of tax credits ★ Additional incentives available for landfills/brownfields
	Infrastructure Investment and Jobs Act (IIJA)		<ul style="list-style-type: none"> Competitive grant and lending programs from the Federal government for infrastructure
State	Environmental Bond Act		<ul style="list-style-type: none"> \$4.2 billion available for environmental and community projects
	NYSERDA	NY – Sun	<ul style="list-style-type: none"> Provides cash payments to project owner based on PV Capacity Varies by region and project characteristics ★ Additional incentives available for landfills/brownfields
		Clean Energy Communities Certification	<ul style="list-style-type: none"> Provides regional CC Coordinators, which help with prioritizing and identifying goals and funding opportunities Earn points for high-impact actions. More points gets access to more/ different funding pools
	Department of Environmental Conservation (DEC)	Climate Smart Communities	<ul style="list-style-type: none"> Helps local governments take action to reduce GHG and adapt to climate change Provides grants to help fund some of these actions

Case Study: City of White Plains Recycling Center

City of White Plains Community Solar

- NYPA, together with Distributed Solar Development (DSD), helped White Plains develop a community solar project across 9 city-owned properties, including a 2.4MW solar PV and 1.25MW battery energy storage system a landfill
- NYPA acted as the city's advisor – evaluating city property, determining the contract structure, developing an RFP, and providing project oversight
- Expected to deliver **\$1M annually in revenue from lease payments and energy savings** to the city
- Novel foundation design for canopy over portion of landfill



Floating foundation canopy mounted on a landfill cap at the Gedney Way Recycling Facility

6.8 MW
installed capacity

1.76 W
energy storage

8,100 MWh
clean energy
generated annually

\$1 million
economic benefit to
city annually

We can help move your clean energy initiatives forward!

Contact NYPA to learn more about how we can help you save money and improve your community through clean energy

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Q&A



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