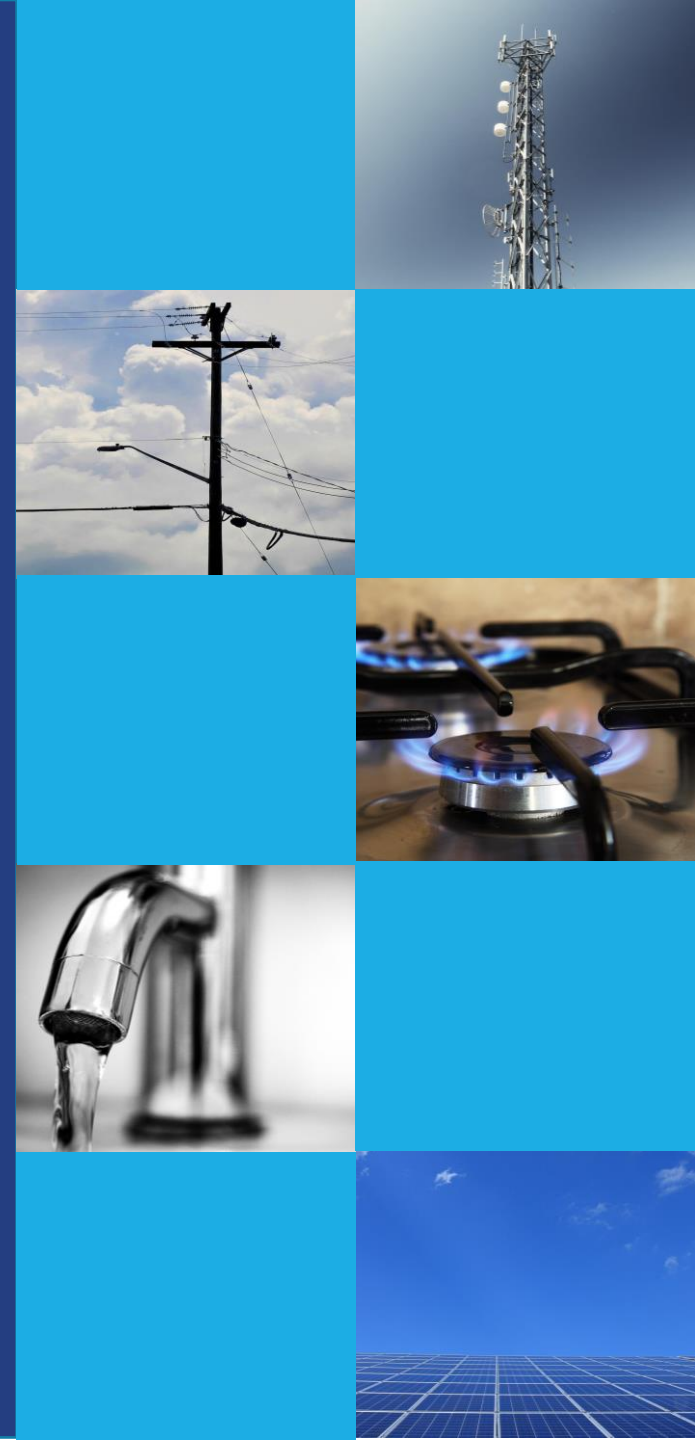


# CT Clean Energy and Low-Income Programs

This presentation is for informational purposes only and is not meant to represent, advise, or instruct any participant hereto. The Authority is not providing legal advice or counsel to any of the participants to this presentation. Participants should obtain appropriate legal counsel for interpretation and application of any of the information contained in this presentation. Any opinions expressed are that of the presenter and are not intended to represent the opinion or position of the Commissioners or the Authority.

BREP Energy Efficiency Sub-Committee

October 26, 2023



# Agenda

- About Us
- Residential Renewable Energy Solutions (RRES)
- Shared Clean Energy Facilities (SCEF)
- Low-Income Discount Rate
- Appendix
  - How to Participate in a PURA Proceeding
  - Additional RRES + SCEF Slides
  - Non-Residential Renewable Energy Solutions (NRES)
  - Energy Storage Solutions (ESS)



# About Us

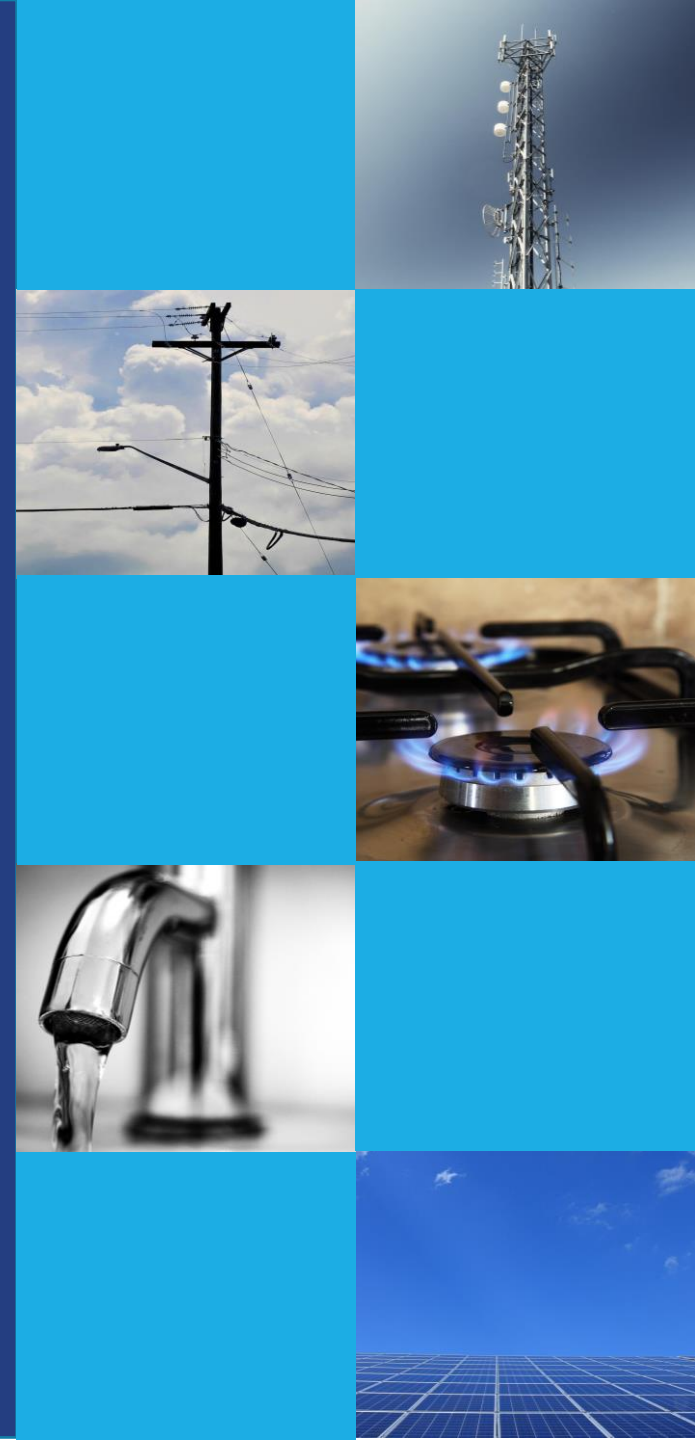
PURA is statutorily-charged with ensuring that Connecticut's investor-owned utilities, including the state's electric, natural gas, water, and telecommunications companies, provide safe, clean, reliable, and affordable utility service and infrastructure. PURA's mission is essential to advancing the state's energy, economic, and environmental goals and is critical to maintaining public health and safety as well as a robust economy.

PURA is a quasi-judicial agency that interprets and applies the statutes and regulations governing all aspects of Connecticut's utility sector. Among other things, PURA sets the rates charged Investor-owned utilities, advances the modernization of the electric distribution system advances the modernization of the electric distribution system, regulates the retail electric supplier market, implements federal requirements for natural gas pipeline safety, ensures adequate water system infrastructure investments, reviews mergers and acquisitions, provides education and outreach for consumers, and regulates the expansion of telecommunications infrastructure.



# Overview of the Residential Renewable Energy Solutions Program (RRES)

Effective as of January 1, 2022



# RRES Program Summary

- Replaced net metering + Residential Solar Investment Program (RSIP) on January 1, 2022
- RRES began on January 1, 2022; runs for six (6) years
  - Administered by your electric utility company (Eversource and United Illuminating)
- Additional details:
  - Wind, solar, or fuel cell projects up to 25 kW-AC, unless Multifamily Affordable Housing
  - Twenty (20) year term



# RRES Tariff Options

- **“Buy-All” Tariff**

- Fixed (or flat) compensation over 20-year term
- Payments can be: 1) cash; or 2) applied to a customer's utility bill w/ annual cash outs

- **Netting Tariff**

- Similar to Net Metering
- Excess production provided to the grid paid retail rate
  - Compensation provided as monetary credits on customer utility bills
  - Monetary credits continually roll over until service terminated
- Direct payments for Renewable Energy Credits, as applicable



# Tariff Rates

- Projects applying to Residential Renewable Energy Solutions in 2023 receive the following rates:

2023 Residential Tariff Rates		
	Buy-All Rate (\$/kWh)	Netting REC Rate (\$/kWh)
Eversource	0.2943	0.0318
UI	0.2943	0.0000
Low-Income Adder	0.030	0.025
Distressed Municipality Adder	0.0175	0.0125

- Projects that apply in 2023 receive the above rates for the duration of the twenty (20) year term.
- PURA holds an annual process to determine the rates for projects applying in the subsequent program year.



# Multifamily Affordable Housing Participants

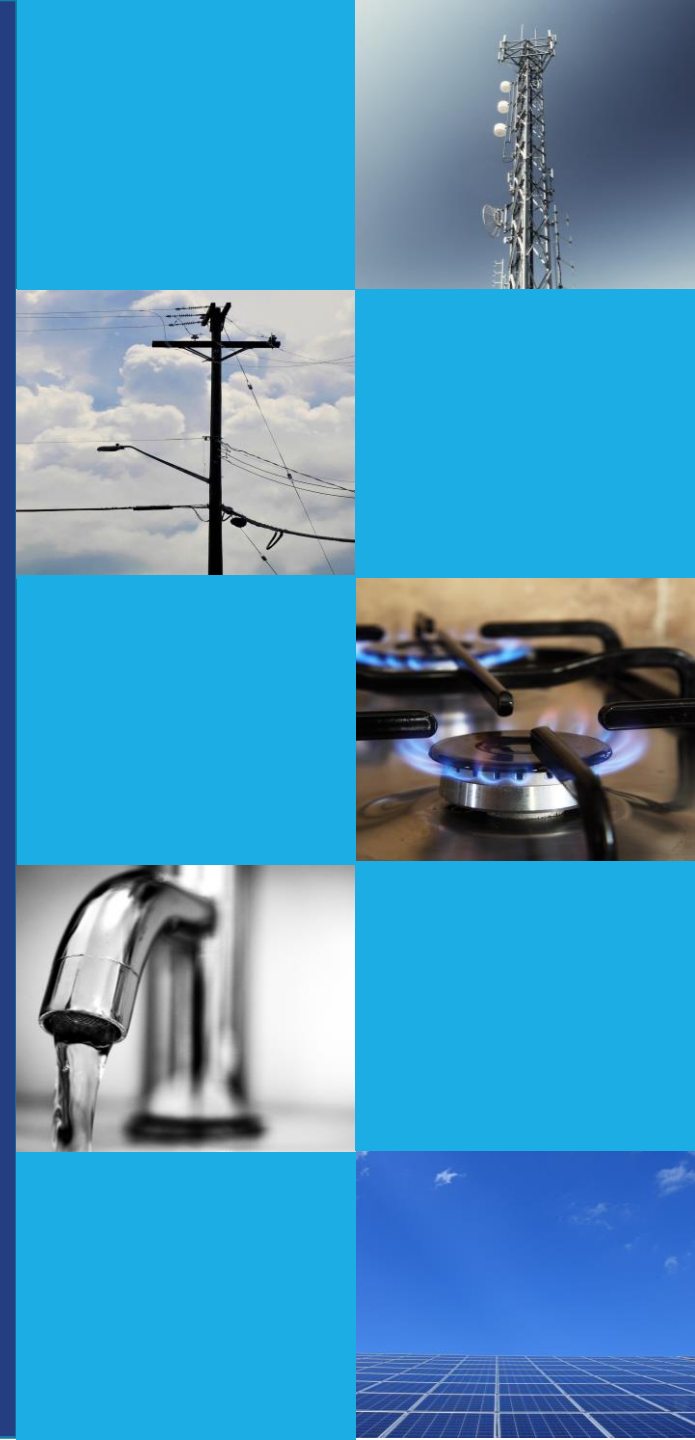
- Multifamily affordable housing (MFAH) meeting any one of the following definitions are eligible to participate in RRES:
  - Tier I: Multifamily properties with 5 or more units that participate in the Low-Income Housing Tax Credit Program (“LIHTC”) or that contain a majority of households earning 80% or less of Area Median Income (“AMI”) as set by the U.S. Department of Housing and Urban Development (“HUD”)
  - Tier II: Multifamily properties with 5 or more units where more than 66% of the residents have a household income at or below 60% of State Median Income (“SMI”) Naturally Occurring Affordable Housing (“NOAH”): Multi-family properties with 5 or more units located in a HUD Qualified Census Tract (“QCT”)
  - Tier III: Multifamily properties with 5 or more units that apply for review by the Agencies, are determined to meet the eligibility requirements of an affordable multi-family dwelling by the Agencies, and are approved as an affordable housing facility by PURA
- MFAH projects must share at least 20% of the RRES tariff value with tenants of the project site





# Shared Clean Energy Facilities (SCEF)

Effective January 1, 2022



# SCEF Program Overview

- The Shared Clean Energy Facility (SCEF) Program's first procurement occurred in 2020
  - Six (6) year program with one (1) solicitation per year
  - Administered by the electric utility companies (Eversource and United Illuminating), and the Department of Energy & Environmental Protection (DEEP)
- 50 MW per year are selected by the utilities
- Projects must range in size from 100 to 5,000 kW AC
- The electric utilities are required to enroll subscribers totaling at least 80% of a project's expected electricity production:
  - 20% must be low-income ( $\leq 60\%$  state median income)
  - 40% must be low- to moderate-income ( $\leq 60\text{-}100\%$  area median income)
  - 20% must be small businesses ( $< 200$  kW peak demand)
  - 20% **voluntary** enrollment of any eligible customer



# Subscriber Guidelines

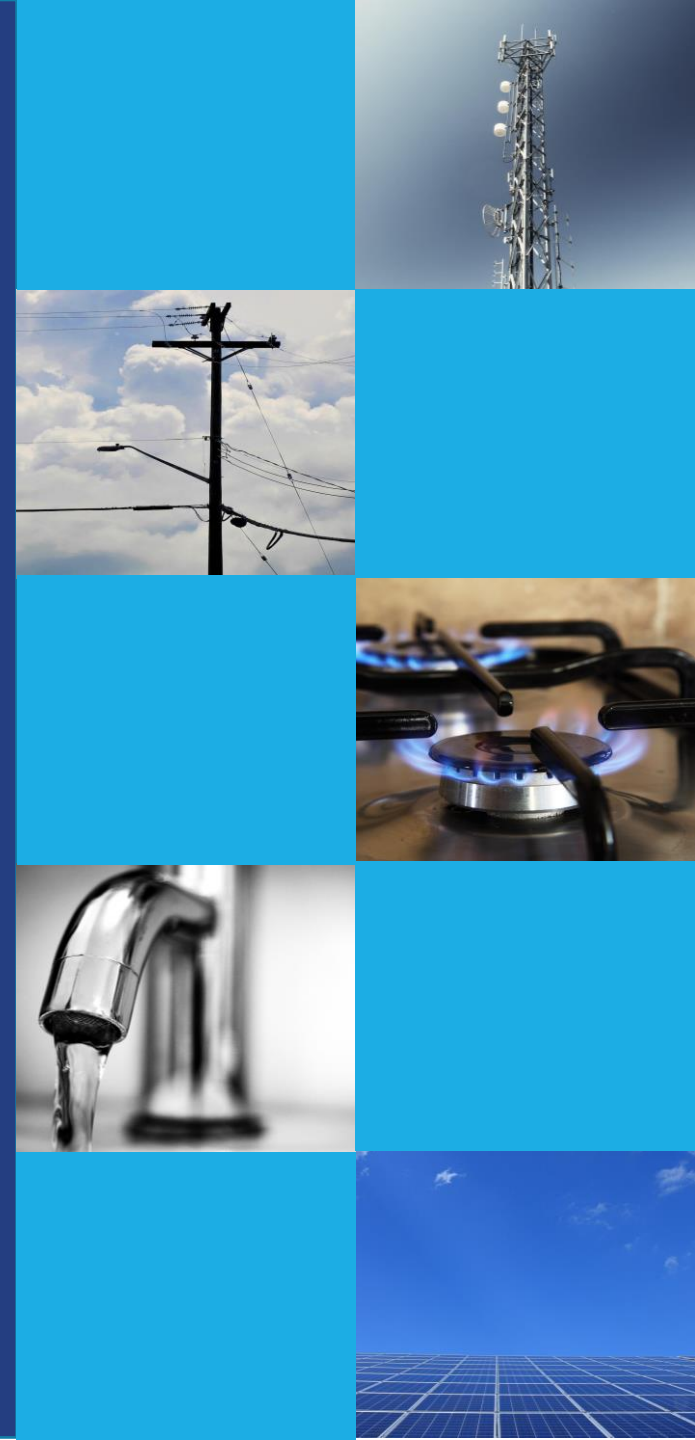
- Income Guidelines

1 Person Household	2 Person Household	3 Person Household	4 Person Household	5 Person Household	6 Person Household
\$78,250	\$89,438	\$100,625	\$111,750	\$120,750	\$129,688

- Customers who are not income eligible can still enroll in SCEF if they are:
  - A renter who does not have control of their roof **OR**
  - A customer whose home is not suitable for solar (e.g. the roof is too shaded or structurally unsuitable)
- Subscribers receive \$0.025/kWh bill credits monthly at no cost to them



# Other Clean Energy Programs



# C+I Solar and Energy Storage Programs

## NRES

- The Non-Residential Energy Solutions Program procures up to 110 MW per year in Class I renewable energy projects (i.e., solar, fuel cells, wind).
- Projects are either customer-sited or virtually metered for State, Municipal, and Agricultural customers
- Projects 0-200 kW have an administratively set price and projects are selected on a first-come, first-serve basis

## ESS

- The Energy Storage Solutions Program provides incentives for the deployment of energy storage systems with the objective of providing customer resilience and ratepayer value
- Systems receive an upfront incentive for agreeing to pre-set dispatch parameters and a performance incentive for additional dispatch during times of peak grid usage




# Clean Energy Program Resources

Visit the [PURA website](#) to the right for additional resources and links to the program administrator's websites

## New Clean Energy Programs

The Connecticut Public Utilities Regulatory Authority (PURA or the Authority) oversees several Clean Energy Programs established as part of PURA's [Equitable Modern Grid initiative](#) and Public Act 19-35.

View PURA's [2022 Clean & Renewable Energy Report](#) . The 82-page report provides updates and metrics on electric vehicle, solar, and battery storage deployment, among other information.

### Electric Vehicle (EV) Charging Program



The [Electric Vehicle \(EV\) Charging Program](#) is a statewide program that provides incentives for electric vehicle supply equipment and accompanying rate design offerings for program participants. Launched in January 2022, the nine-year program is administered by Connecticut's regulated electric distribution companies, Eversource Energy and The United Illuminating (UI) Company.

### Residential Renewable Energy Solutions Program



The [Residential Renewable Energy Solutions Program](#), established in 2021, is a successor program that changed how solar owners are compensated for the power their systems produce and provide to the local electric grid.

### Non-Residential Renewable Energy Solutions Program

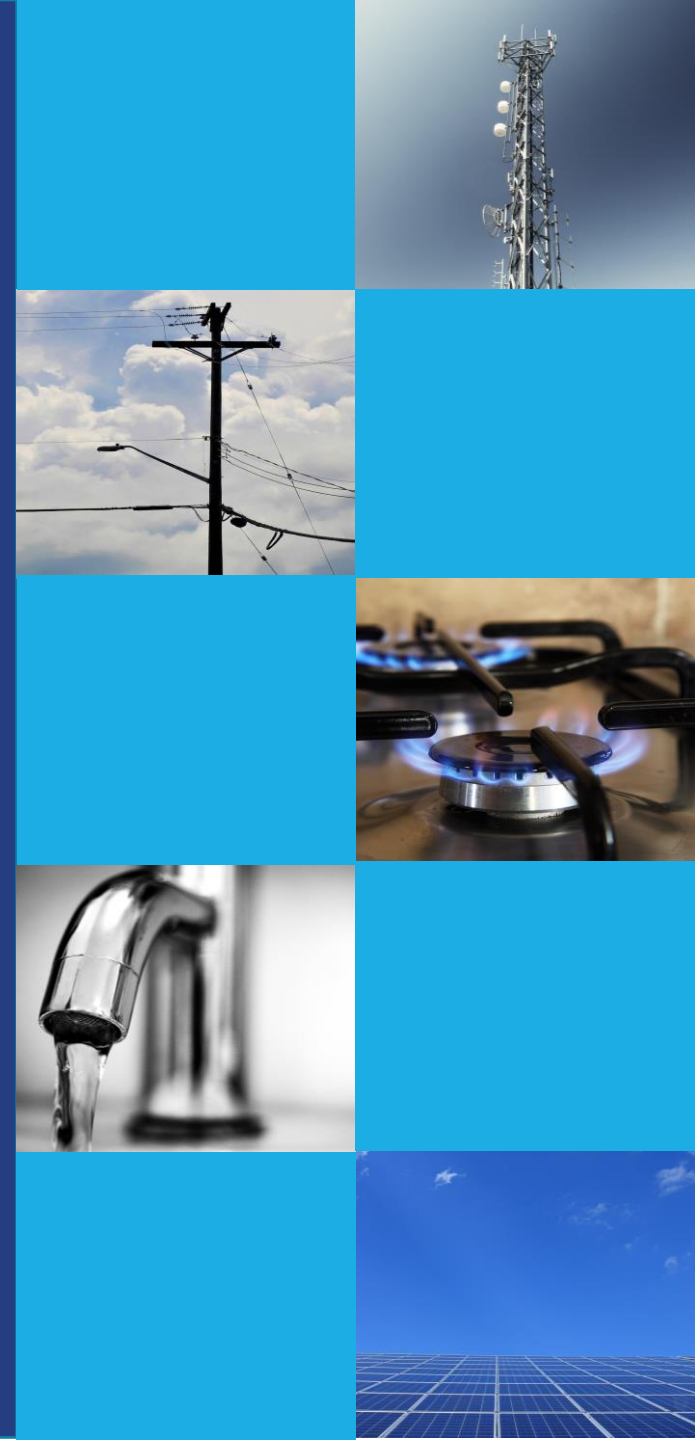


The [Non-Residential Solar Renewable Energy Solutions \(NRES\) Program](#) is a successor program to the Low Emission Renewable Energy Credit and Zero Emission Renewable Energy Credit (LREC/ZREC) and Virtual Net Metering (VNM) programs with the objectives to foster the sustained, orderly development of the state's Class I renewable energy industry and to encourage the participation by customers in underserved and environmental justice communities, among others. The program is statutorily authorized to run for six (6) years and to select up to sixty (60) MW of clean energy annually.



# Electric Customer Low-income Discount Rates (LIDR)

July 29, 2022



# What is LIDR?

- A tiered discount program for low-income residential electric customers of Eversource or United Illuminating
- There are two tiers:
  1. 10% discount for HH income  $\leq$  60% SMI
  2. 50% discount for HH income  $\leq$  160% FPG
- Monthly usage caps for discount:

Non-electric heating customers (Eversource's Rate 1; UI's Rate R)	Electric Heating Customers (Eversource's Rate 5 & Rate 7; UI's Rate RT)
800 kWh/month	1,200 kWh/month

- Set to launch on January 1, 2024





# Enrolling in LIDR

- The most essential step is to **verify hardship status**:
  - Hardship Status: special coding that utilities use to protect income-eligible customers from shutoff during the winter months (November 1 – May 1).
  - Household must be at 60% or less than state median income level
- Hardship status can be verified by directly contacting the utility, or working with a Community Action Agency (call 211)
- Income verification options:
- Proof that at least one person in the household receives public assistance benefits
  - Proof of income
- Existing hardship customers are auto-enrolled



# Related Affordability Programs

## MPP

- Utility works with the customer to establish a payment program to pay off accrued unpaid bills.
- Utility makes a matching payment for each payment from the customer until the balance is zero.

## CEAP

- Heating bill assistance
- The exact level of benefit is determined by the household income, number of members in a household, and whether any of the household members is considered 'vulnerable.'

## HES-IE

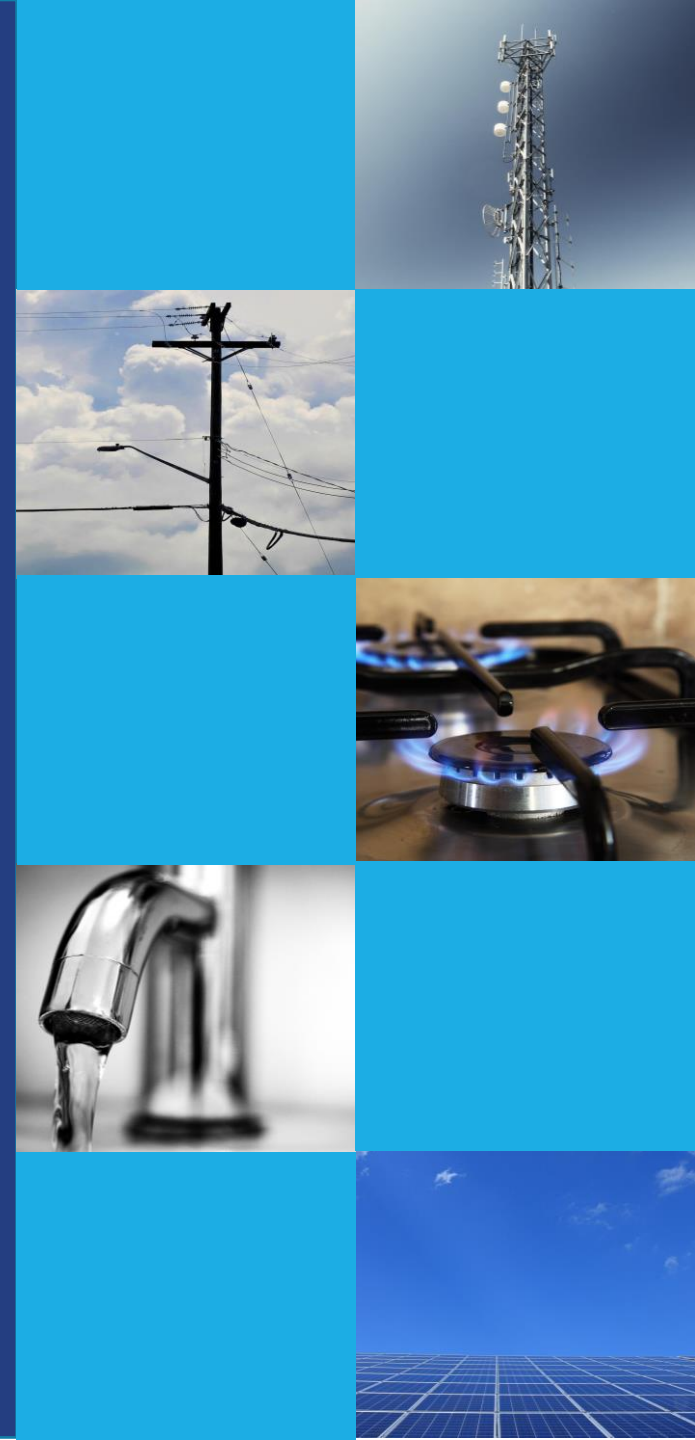
- No-cost energy efficiency and weatherization program for income-eligible customers
- Administered by the EDCs through certified contractors



# Thank You



# Engaging with PURA

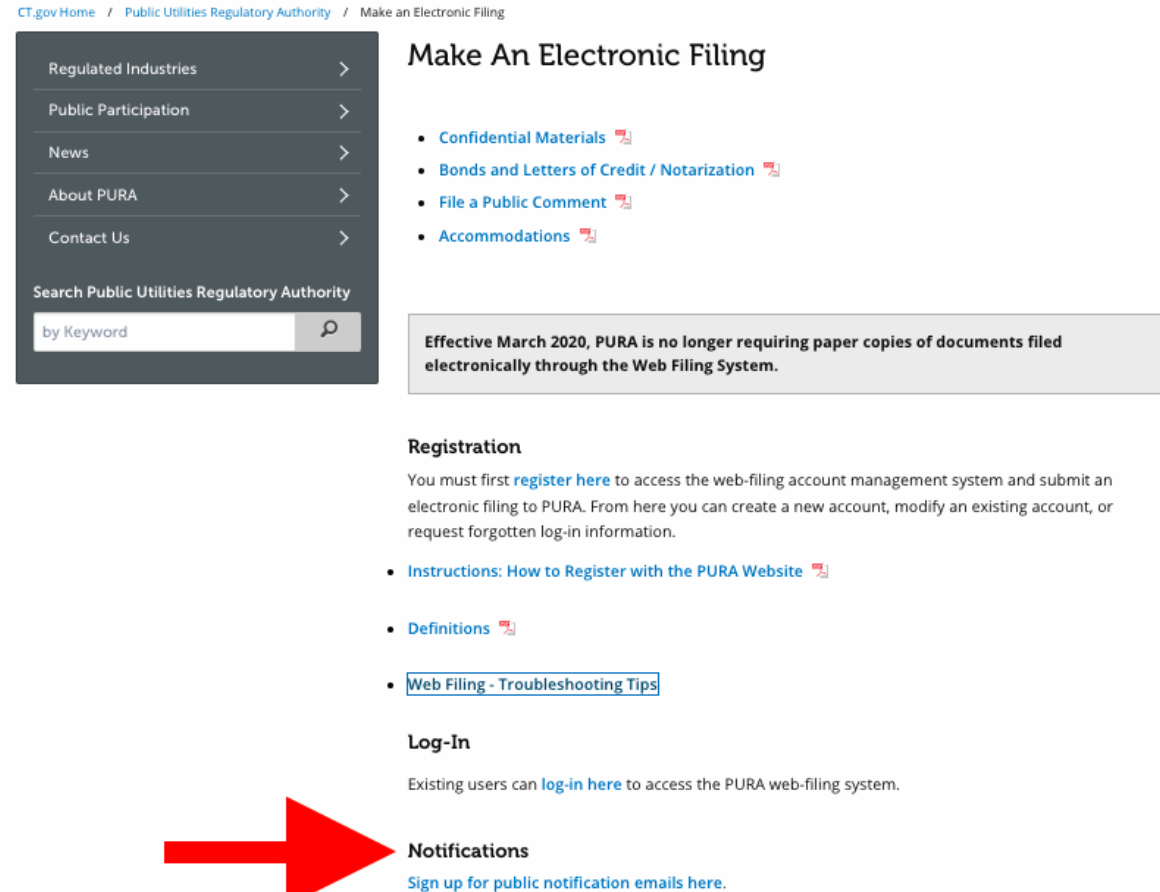


# How to Engage with PURA

- PURA's [online calendar](#)

- Sign up for email alerts:

Interested in receiving email updates for PURA proceedings? Sign up through [PURA's email notification system](#). If you're having difficulties updating an existing account, use the Internet Explorer browser and follow these [troubleshooting tips](#).



CT.gov Home / Public Utilities Regulatory Authority / Make an Electronic Filing

## Make An Electronic Filing

- [Confidential Materials](#)
- [Bonds and Letters of Credit / Notarization](#)
- [File a Public Comment](#)
- [Accommodations](#)

Effective March 2020, PURA is no longer requiring paper copies of documents filed electronically through the Web Filing System.

### Registration

You must first [register here](#) to access the web-filing account management system and submit an electronic filing to PURA. From here you can create a new account, modify an existing account, or request forgotten log-in information.

- [Instructions: How to Register with the PURA Website](#)
- [Definitions](#)
- [Web Filing - Troubleshooting Tips](#)

### Log-In

Existing users can [log-in here](#) to access the PURA web-filing system.

### Notifications

Sign up for public notification emails [here](#).



# How to Engage with PURA, Con't

- Provide comment during a public hearing
- Submit written comments into the record by email:  
[PURA.ExecutiveSecretary@ct.gov](mailto:PURA.ExecutiveSecretary@ct.gov)
- Intervene in the docketed matter



# Active Feedback Opportunity

- Section 15 of Public Act 23-102 directed PURA to establish a program that awards compensation to stakeholder groups and nonprofits representing environmental justice, hardship, and small business customers in proceedings of the Authority
- Annual funding limit of \$1.2M
- PURA has released a straw proposal for the program's design and are seeking comments on it through November 1.
- See: [Notice of Straw Proposal and Request for Written Comments](#)

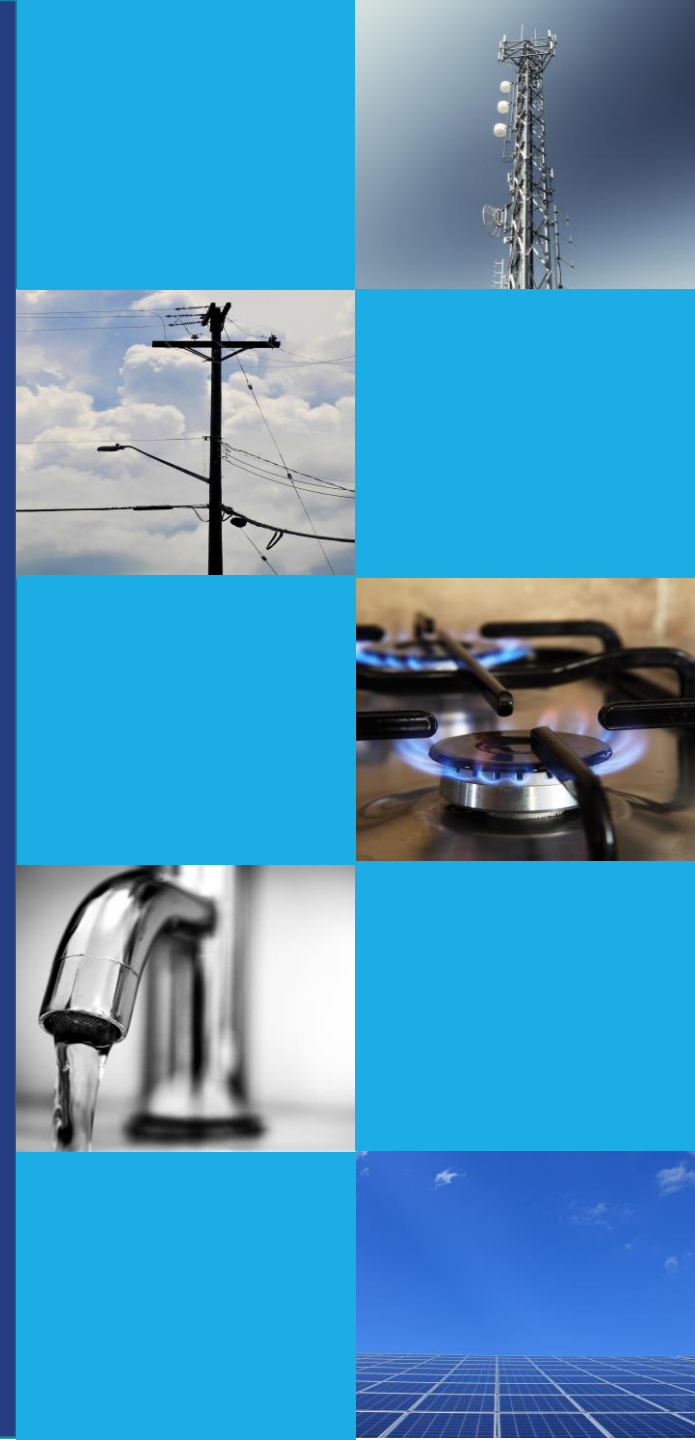


# Appendix





# Additional RRES + SCEF Slides



# RRES Program Objectives

- Sustained, orderly development of the state's solar industry, ensuring historical deployment (~50-60 MW);
- Achieve a 100% zero carbon electric grid by 2040, promoting additional annual deployment as needed;
- Encourage increased inclusivity overall, including participation by low and moderate-income (LMI) customers and customers in environmental justice communities.



# RRES Deployment to Date

RRES Application Data: January 2022-August 2023				
	Total Applications	Total Application kW	Approved Applications	Approved kW
<b>Eversource</b>	23,938	191,063	23,806	190,785
<b>UI</b>	4,631	32,484	4,399	30,764

RRES Deployment: January 2022-August 2023		
	Total Deployment	Total Deployment kW
<b>Eversource</b>	15,635	126,460
<b>UI</b>	2,217	15,487



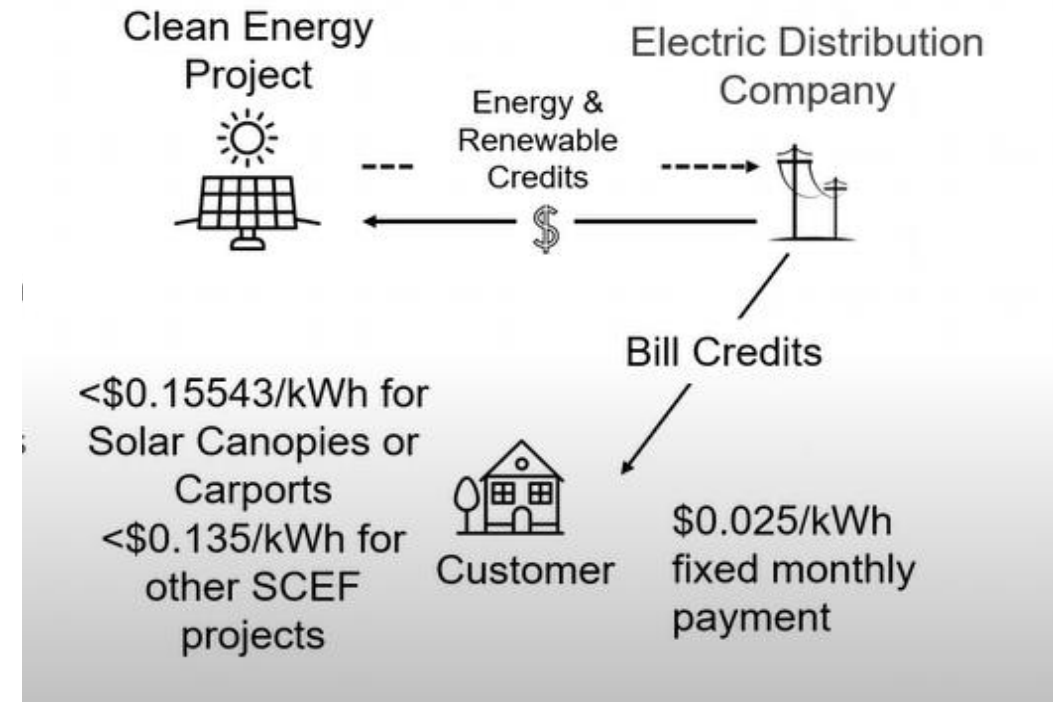
# SCEF Objectives

- Annually and cost-effectively procure up to 50 megawatts of SCEFs;
- Provide savings to specific categories of customers, particularly customers with low- to moderate-income (LMI), low-income service organizations, and customers who reside in environmental justice communities;
- Lower or eliminate barriers to entry for Subscriber Organizations, if and when possible



# Project Selection – Competitive Solicitation

- Competitive solicitation process:
  - Projects selected via a "reverse auction" (developer submits project bids to utilities)
  - Price cap of \$155.43/MWh for solar canopies; \$135/MWh price cap for all other projects
  - Developers receive compensation quarterly at their project's selected bid price
- SCEF has two bid preferences:
  - Landfills of brownfields (20%)
  - Solar Canopy (20%)



# SCEF Example RFP Schedule

- An example RFP and solicitation schedule is shown below:

Action Item	Date
Release of RFP	January 20, 2023
Bidders Conference – Webinar Only	On or about January 27, 2023
Deadline for Submission of Questions	On or about February 3, 2023
Bid Forms Due	March 3, 2023 by 1:00 p.m. (Eastern Prevailing Time “EPT”), at which time the Pricing shall become firm, irrevocable and binding.
Selection and Notification of Winning Bidders	On or about April 18, 2023
Tariff Terms Agreement Execution	After Selection and Notification of Winning Bidders. Executed Tariff Terms Agreements will be due 10 business days from the date they are sent.

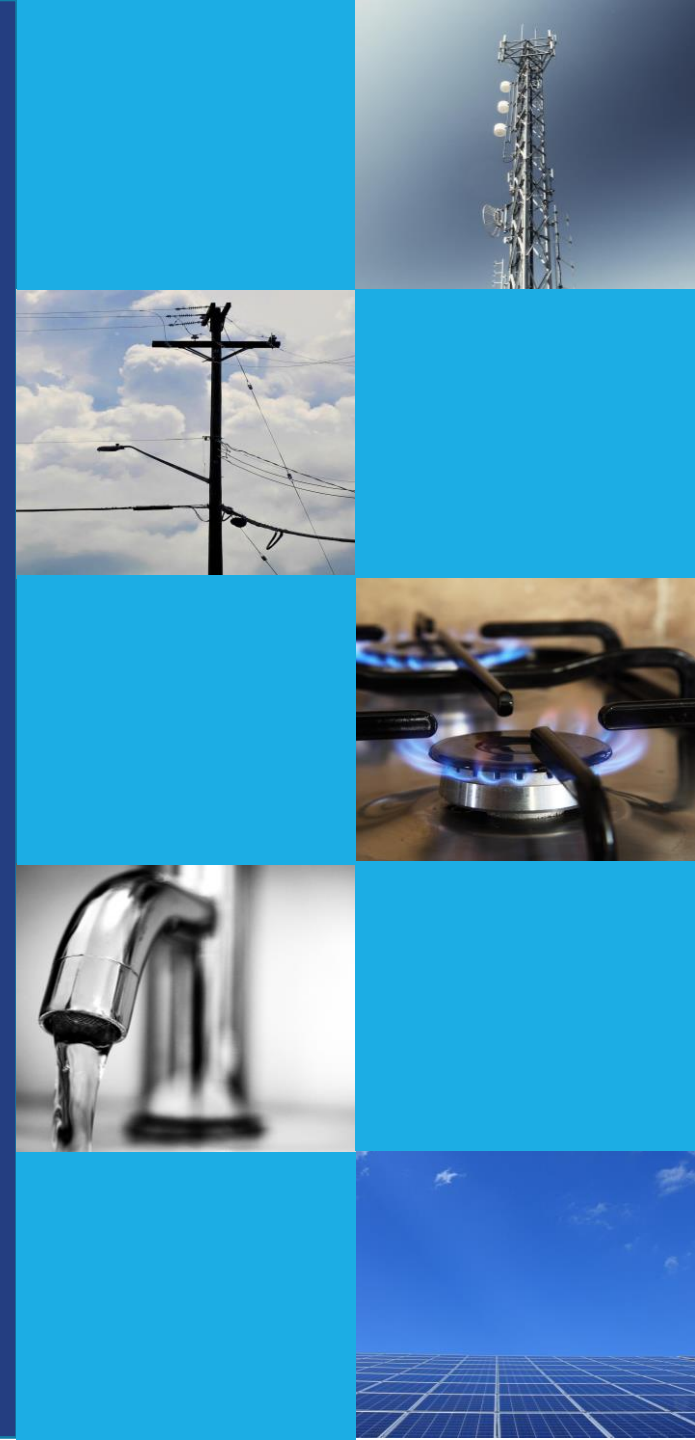


# SCEF Year 4 Project SElections

SCEF Year 4 Program Data		
	Available MW	MW of Executed Agreements
Eversource	40.00	40.00
UI	10.00	5.00
<b>Total</b>	<b>50.00</b>	<b>45.00</b>

# Overview of the Non-Residential Renewable Energy Solutions Program (NRES)

Effective February 1, 2022





# NRES Objectives

- Foster the sustained, orderly development of the state's Class I renewable energy industry;
- Ensure least-cost outcomes through the annual solicitation process;
- Encourage increased inclusivity overall, as well as program participation by customers in **underserved and environmental justice communities.**



# NRES Program Summary

- Replaced the Low and Zero Emissions Renewable Energy Credit (LREC/ZREC) and Virtual Net Metering (VNM) programs
- First Request for Proposals was issued on February 1, 2022.
  - Six (6) year program with two (2) solicitations per year (Feb. and Aug. each year)
  - Administered by the electric utility companies (Eversource and United Illuminating)
- **110 MW** per year can be selected by the utilities
  - 100 MW of zero emissions projects
  - 10 MW of low and zero emissions projects
- State, municipal, or agricultural (SAM) projects can be sized to the load of up to 5 electric accounts; all other projects are sized to onsite load
- Additional details:
  - Program goal is to deploy 580 MW by 2030
  - Wind, solar, or fuel cell projects up to 5 MW-AC
  - Two tariff options: “Buy-All” Tariff + Netting Tariff



# NRES Competitive Solicitation Process

- Competitive solicitation for the following project categories:
  - Low Emission Projects (includes zero emission projects)
  - Large and Medium Zero Emission Projects
  - Projects are selected via a "reverse auction" (developer submits project bids to utilities)

NRES Project Size Categories	
Category	New Project Size (AC)
Low Emission Projects	$\leq 5,000$ kW
Large Zero Emission Projects	$\geq 1000$ kW $\leq 5,000$ kW
Medium Zero Emission Projects	$> 200$ kW $< 1000$ kW
Small Zero Emission Projects	$\leq 200$ kW



# NRES Proposal Bid Preferences

- NRES has several bid preferences:
  - Distressed Municipality (20%)
  - Landfills of brownfields (20%)
  - Solar Canopy (20%)
- Example: if a project bids at \$100/MWh, and is eligible for a 20% bid preference, the electric utilities would evaluate the bid as \$80/MWh for the purposes of bid selection.



# NRES Tariff Options

## 200kW < Projects < 5000kW

- **“Buy-All” Tariff**
  - Fixed (or flat) compensation over 20-year term
  - Quarterly payments for both energy and RECs
  - Selected projects receive rate for 20 year term
- **Netting Tariff**
  - Similar to Net Metering
  - Excess production provided to the grid paid retail rate
    - Compensation provided as monetary credits on customer utility bills
    - Monetary credits continually roll over until service terminated
  - Separate bids for Renewable Energy Credits, quarterly payments
  - Selected projects receive rate for 20 year term

## Projects ≤ 200kW

- Projects eligible for the Small Zero Emission category (≤ 200 kW) receive an administratively set rate
- Currently, first-come, first-serve
- PURA annually reviews all NRES price caps and tariff rates

### NRES Buy-all Price Caps

Category	Price Cap
Small Zero Emissions	\$200.97/MWh
Medium Zero Emission	\$190/MWh
Large Zero Emissions	\$159/MWh
Low Emissions	\$159/MWh

### NRES Netting REC Price Caps

Buy All Price Cap - Net Present Value of Retail Rate



# NRES Example RFP Schedule

An example RFP and solicitation schedule is shown below:

## Year 1 RFP Schedule

Action Item	Date
Release of RFP	February 1, 2022
Bidders Conference	February 7, 2022
Deadline for Submission of Questions	February 11, 2022
Bid Forms Due	March 14, 2022 by 1:00 p.m. (Eastern Prevailing Time "EPT"), at which time the Pricing shall become firm, irrevocable and binding.
Selection and Notification of Winning Bidders	On or about April 14, 2022



# NRES Project Selections to Date

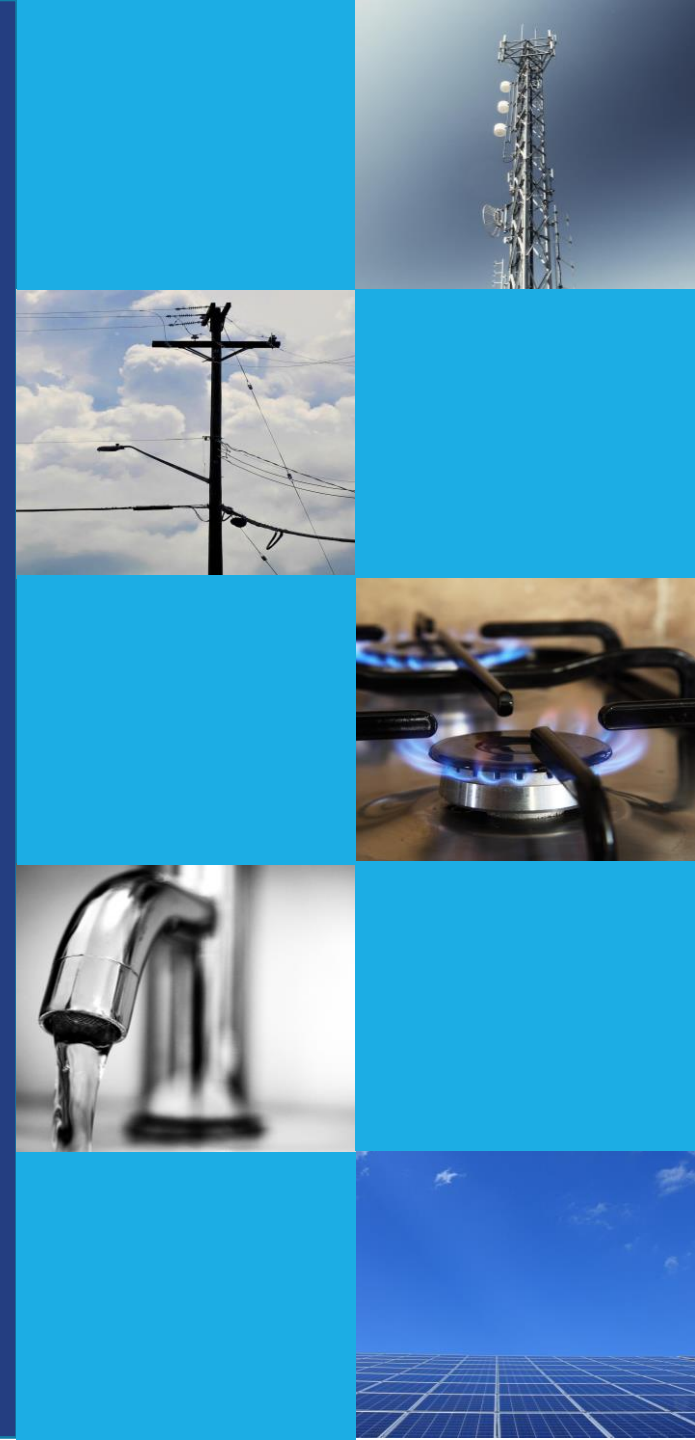
## Non-Residential Renewable Energy Solutions Program Data: February 2022 – February 2023

	Size Categories	Total Executed Agreements	Available MW	MW of Executed Agreements
<b>Eversource</b>	Small Zero Emission	166	22.00	22.12
	Medium Zero Emission	48	27.80	26.37
	Large Zero Emission	18	38.21	39.31
	Low Emission	7	12.80	6.19
<b>UI</b>	Small Zero Emission	35	5.50	5.46
	Medium Zero Emission	18	7.00	8.30
	Large Zero Emission	3	9.50	4.76
	Low Emission	0	4.00	0.00
<b>Total</b>		<b>295</b>	<b>126.80</b>	<b>112.50</b>



# Overview of the Energy Storage Solutions Program (ESS)

Effective January 1, 2022





# ESS Objectives

- Provide positive net present value to all ratepayers;
- Foster the sustained, orderly development of a state-based electric energy storage industry;
- Prioritize delivering increased resilience to: (1) low-to-moderate income (LMI) customers and customers in environmental justice or economically distressed communities;
- Lower the barriers to entry, financial or otherwise, for electric storage deployment in Connecticut



# ESS Program Summary

- Energy Storage Solutions is a nine (9) year program with a goal of deploying 580 MW of electric storage systems throughout Connecticut

CUSTOMER CLASS	2022-2024	2025-2027	2028-2030	TOTAL
Residential	50 MW	100 MW	140 MW	290 MW
Commercial and Industrial	50 MW	100 MW	140 MW	290 MW
<b>Total</b>	<b>100 MW</b>	<b>200 MW</b>	<b>280 MW</b>	<b>580 MW</b>

- Administered by the Connecticut Green Bank, along with the electric utility companies (Eversource and United Illuminating)
- ESS is open to both residential and commercial customers
- ESS customers can participate in either **passive or active dispatch**
  - If participating in **passive dispatch**, customers receive an upfront incentive to lower a battery's upfront cost
  - If participating in **active dispatch**, customers receive a biannual performance incentive, based on the battery's average kW performance in all seasonal active dispatch events



# Residential ESS Upfront Incentive

- Residential upfront incentives:

Baseline (\$/kWh)	Underserved Community (\$/kWh)	Low- Income (\$/kWh)
\$200	\$300	\$400

- Total per project incentive cap of \$7,500
- Incentive adder eligibility:
- Low-Income: income below 60% of the state median
- Underserved Community: economically distressed municipality
- An additional 50% adder if grid edge
- Customers are required to discharge their battery evenly between 3pm – 8 pm on non-holiday weekdays in June, July, and August (i.e., participate in passive dispatch)



# Non-Residential ESS Upfront Incentives

- Commercial upfront incentives:

Installed Capacity (MW)	Small Commercial (\$/kWh)	Large Commercial (\$/kWh)	Industrial (\$/kWh)	Priority Customer Adder <sup>1</sup>
50	\$200	\$175	\$100	+25%
100	\$200	\$175	\$100	+25%

- +25% upfront incentive adder:
- If a small business, critical facility, customer replacing a fossil fuel generator, or located on the grid edge
- Total per project incentive cap of 50% of total cost
- Customers are required to discharge battery evenly between 3pm – 8 pm daily on non-holiday weekdays in June, July, and August (i.e., participate in passive dispatch)



# Performance-Based Incentives

- Projects participating in Active Dispatch are eligible for an additional, performance-based incentive:

Years 1-5		Years 6-10	
Summer (\$/kW)	Winter (\$/kW)	Summer (\$/kW)	Winter (\$/kW)
\$200	\$25	\$115	\$15
\$225 annually		\$130 annually	

- The parameters of Active Dispatch are as follows:

	Summer	Winter
Season Dates	June 1 – September 30	November 1 – March 31
Number of Events	30-60	1-5
Event Duration	1 - 3 hours	1 - 3 hours
Timing	12:00 pm – 9:00 pm	12:00 pm – 9:00 pm



# ESS Participation as of June 2023

## Commercial Enrollments to Date

Size Category	Number of Approved Projects	Total System Power Rating (MW)	Total System Energy Capacity (kWh)
<b>Large C&amp;I</b>	<b>14</b>	<b>28.07</b>	<b>78,394</b>
Eversource	11	25.55	72,735
UI	3	2.52	5,659
<b>Medium C&amp;I</b>	<b>9</b>	<b>16.53</b>	<b>51,620</b>
Eversource	7	10.36	32,350
UI	2	6.17	19,270
<b>Small C&amp;I</b>	<b>7</b>	<b>4.09</b>	<b>16,890</b>
Eversource	7	4.09	16,890
UI	0	0	0
<b>Grand Total</b>	<b>30</b>	<b>48.68</b>	<b>146,904</b>

## Residential Enrollments to Date

	Number of Approved Projects	Total System Power Rating (kW)	Total System Energy Capacity (kWh)	Low Income (# of Projects)	Underserved Community (# of Projects)
Eversource	140	1,166	2,592	1	6
UI	175	991	2,018	0	166
<b>Grand Total</b>	<b>315</b>	<b>2,157</b>	<b>4,580</b>	<b>1</b>	<b>172</b>

