



**Winds of Change**

Uplifting Community

**neuac**

2024 Annual Conference

# Solar Pathways in Federal Energy Assistance Programs

## Expanding Low Income Home Energy Assistance Program (LIHEAP) and Weatherization Assistance Program (WAP)

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# Agenda

Today, we will discuss insights from NREL's research and the Colorado Energy Office's experience implementing solar through the Weatherization Assistance Program (WAP) and the Low Income Home Energy Assistance Program (LIHEAP)

- Policy framework for solar in WAP and LIHEAP
- Pathways for solar implementation in WAP and LIHEAP
- Colorado Energy Office experience
- Resources to assist with solar implementation.

# WAP and LIHEAP Program Overview

Characteristic	Weatherization Assistance Program (WAP)	Low Income Home Energy Assistance Program (LIHEAP)
Program Structure	Formula Grant	Block Grant
Typical Annual Funding	~\$300-350 million	~\$2.5-4.5 billion
Typical Annual Households Served	~35,000	~5-6 million
Infrastructure Investment and Jobs Act (IIJA)/Bipartisan Infrastructure Law (BIL)	\$3.5 billion until spent (initial 5-year period of performance)	\$500 million over 5 years
Income Eligibility	<200% of Federal Poverty Guidelines or categorical eligibility for recipients of SSI, LIHEAP, or certain HUD means-tested programs.	<150% of federal poverty level or <60% of State Median Income, whichever is greater. Recipients of SNAP, SSI, TANF, and certain means tested Veterans Administration Programs can be categorically income eligible.
Program Goal	Reduce energy costs for low-income households by increasing the energy efficiency of their homes, while ensuring health and safety.	Keep families safe and healthy through initiatives that assist families with energy costs, associated with home energy bills, energy crises, and weatherization and energy-related minor home repairs.

# WAP Solar Policy Framework

- [Energy Policy Act of 2005](#) authorized renewable energy systems (including solar) to be added as WAP measures, upon DOE approval.
- [WPN 23-06](#) outlines the process Grantees must follow to gain approval for solar photovoltaics (PV) to be a non-standard eligible measure.
  - Solar must have a Savings to Investment Ratio (SIR) greater than 1.0.
  - Renewable expenditures are limited to \$4,169 per unit for Program Year 2024.
  - Solar PV systems installed through WAP may be eligible for a NEPA Categorical Exclusion.
- Sustainable Energy Resources for Consumers (SERC) grants can be used for solar, not subject to formula grant SIR or spending thresholds.

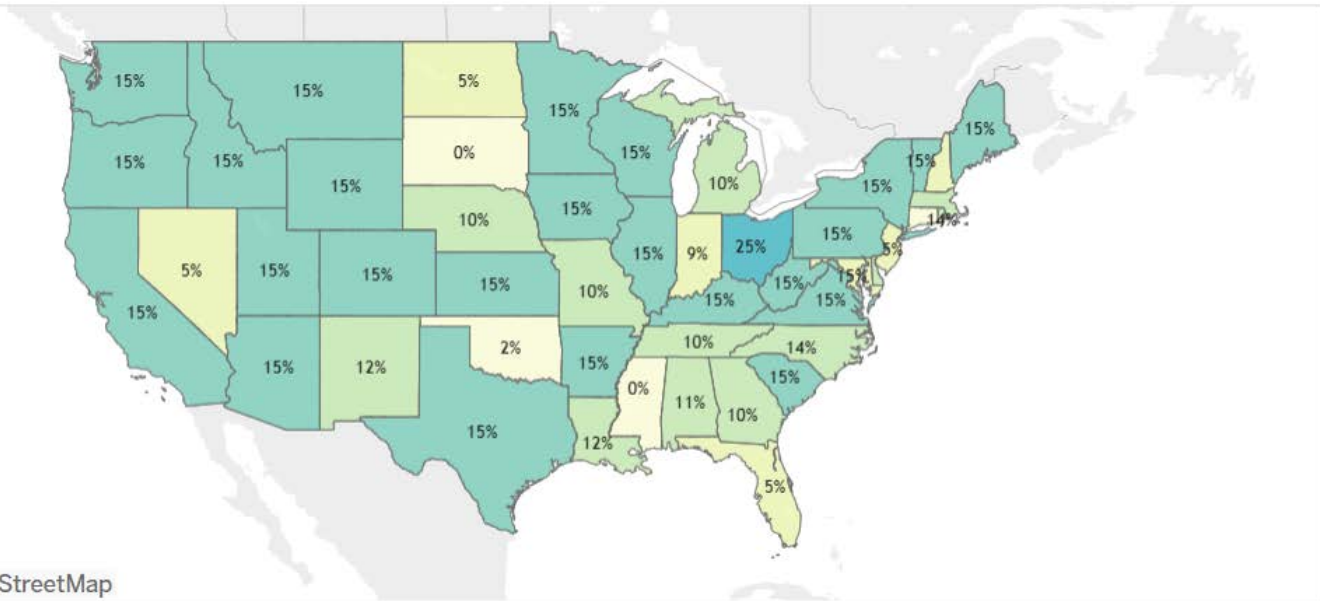
# LIHEAP Solar Policy Framework

- [Low Income Home Energy Assistance Program \(LIHEAP\) Act of 1981 \(amended\)](#) prohibits use of funds for improvement of land, or the purchase, construction, or permanent improvement of any building or other facility except for low-cost residential weatherization and energy-related home repairs.
- [Energy Policy Act of 2005](#) authorized LIHEAP funds to be used to “purchase renewable fuels.”
- [LIHEAP Information Memorandum \(IM\) 2023-04](#) identifies that LIHEAP funds may be used for community solar subscription fees, if allowed by the grant recipient’s rules and policies.

# LIHEAP and WAP Interface

- LIHEAP weatherization funds:
  - Grant recipients may allocate up to 15% of funds to weatherization, or 25% if approved by Department of Health and Human Services (HHS) waiver
  - Funds may be used for rooftop solar if approved in the grant recipient plan
  - LIHEAP funds may be used for community solar subscriptions if approved in the grant recipient plan.
- LIHEAP grant recipient plan must identify:
  - The agency/office that will oversee LIHEAP-funded weatherization activities
  - The rules that will apply to those funds: HHS LIHEAP, DOE WAP, or a hybrid of both regulations
  - The specific weatherization measures, which may include solar.

# PY 2024 Percent of LIHEAP Transfer to Weatherization Assistance



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Alaska



Northern Mariana Islands



Hawaii



Puerto Rico





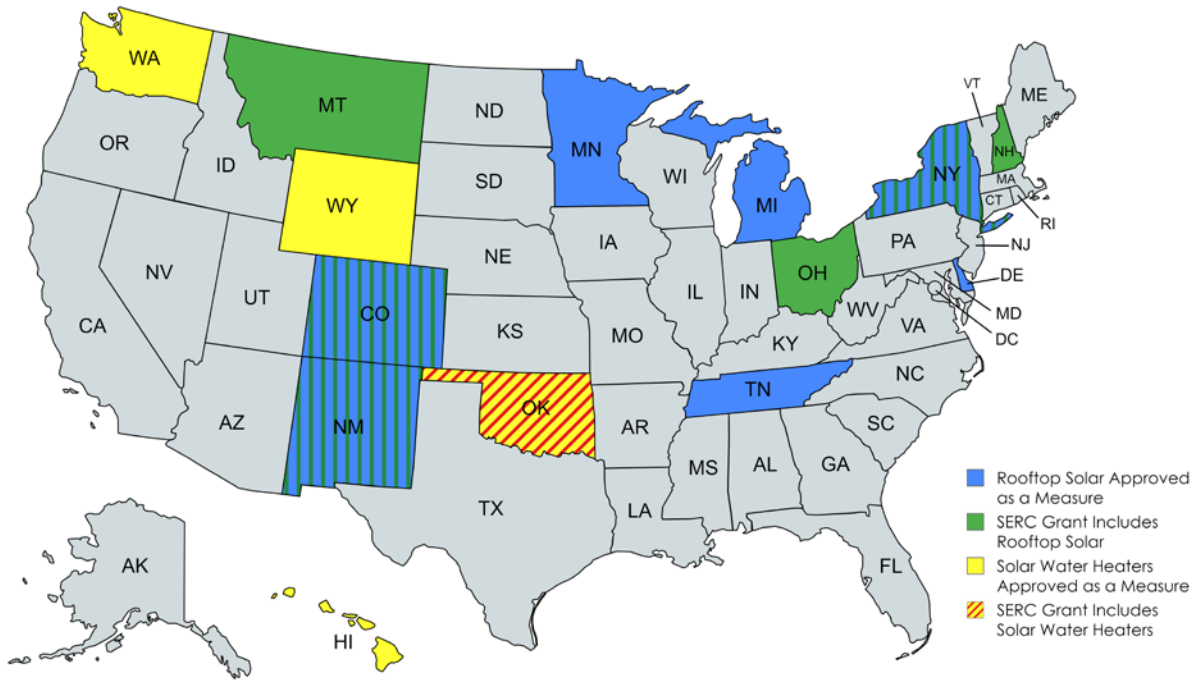
# Solar Activity in WAP and LIHEAP through Program Year 24

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# Solar Pathways in WAP and LIHEAP

1. Rooftop solar or solar water heaters as eligible weatherization measures in WAP.
2. Rooftop solar as eligible weatherization measure in LIHEAP.
3. LIHEAP crisis funds to repair or replace existing solar.
4. LIHEAP funds for community solar subscriptions.
5. LIHEAP funds for client solar bills.
6. Use of WAP or LIHEAP infrastructure for external solar programs (ex: verifying income eligibility or referrals).

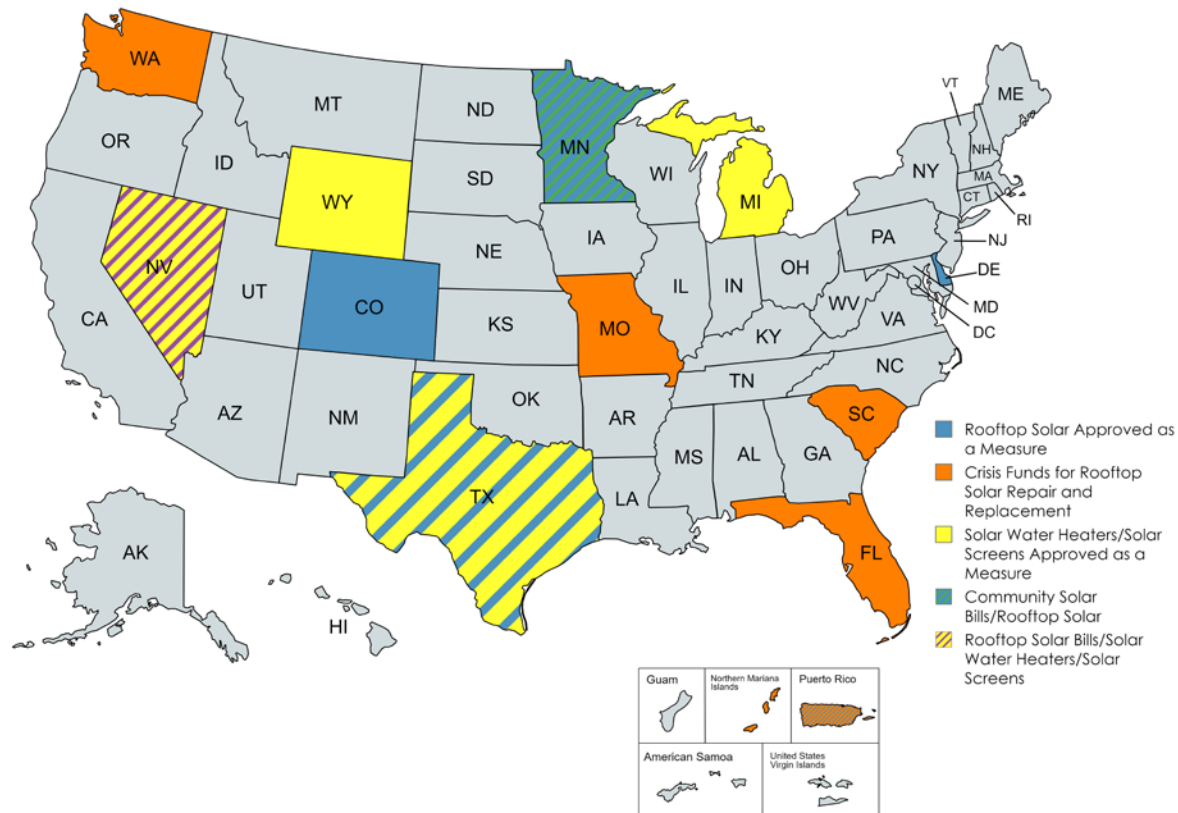
# Solar Activity in WAP, Program Year 24 Plans



- Rooftop Solar Approved as a Measure
- SERC Grant Includes Rooftop Solar
- Solar Water Heaters Approved as a Measure
- SERC Grant Includes Solar Water Heaters



# Solar Activity in LIHEAP, Program Year 24 Plans



# Clean Energy Connector

- The Clean Energy Connector is a digital tool to help stakeholders securely connect LIHEAP recipients with community solar subscriptions that provide meaningful electric bill savings.
- The Connector is being soft launched in the District of Columbia (D.C.), Illinois, and New Mexico, and is available to pilot subscription managers and local LIHEAP administrators in these states.

<https://connector.nrel.gov/>



# WAP and Solar



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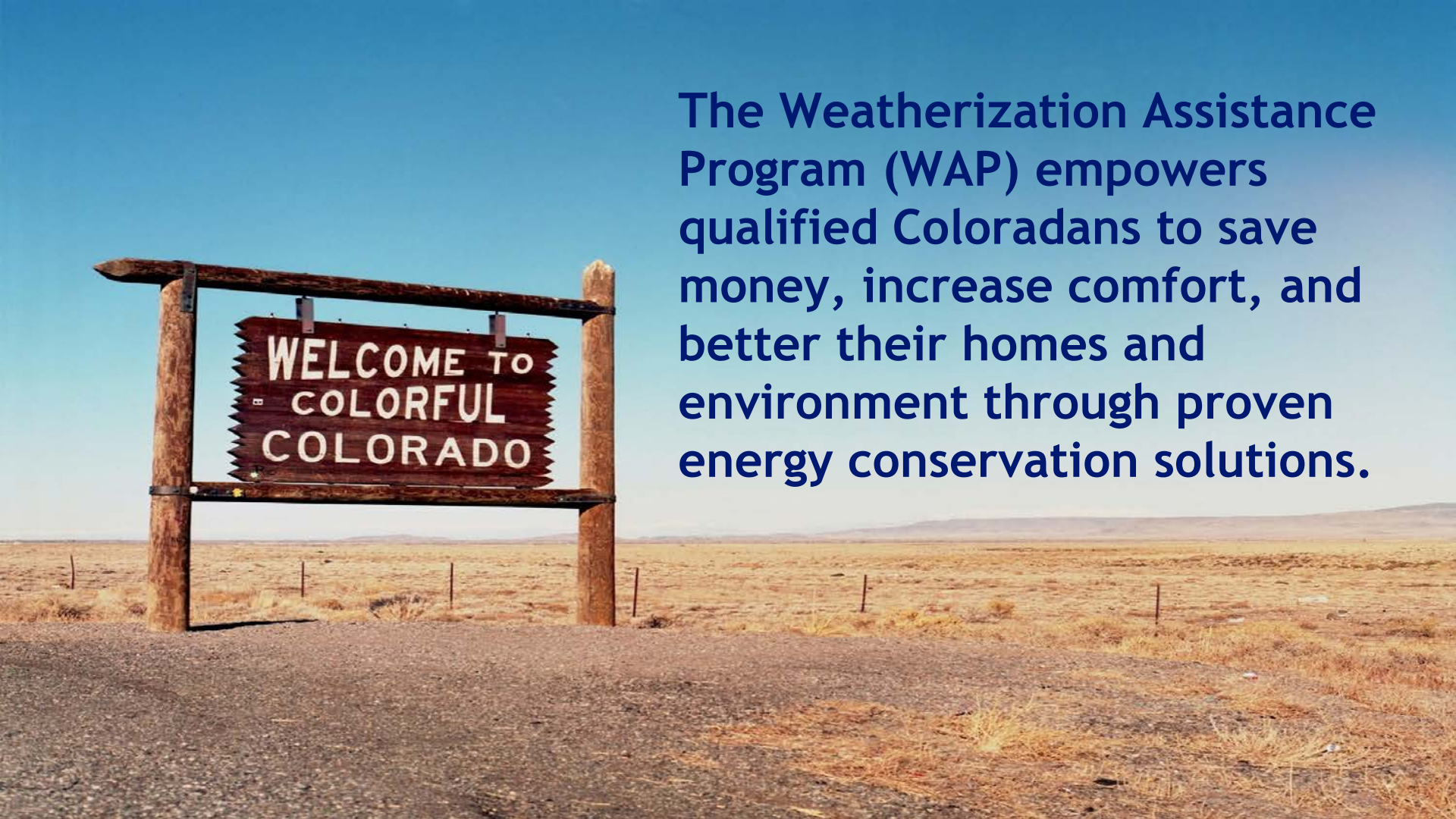
Energy Office

Weatherization Assistance Program

Colorado Energy Office  
Weatherization Assistance Program (WAP)







The Weatherization Assistance Program (WAP) empowers qualified Coloradans to save money, increase comfort, and better their homes and environment through proven energy conservation solutions.

# Agenda

1. Why/How
2. Timeline/Evolution
3. Program Growth/Funding
4. Lessons Learned
5. What's Next



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Energy Office

Weatherization Assistance Program



# Why did we do this?

Energy  
Burden

Climate  
Change

Indoor Air  
Quality

Client  
Participation  
in Green  
Economy

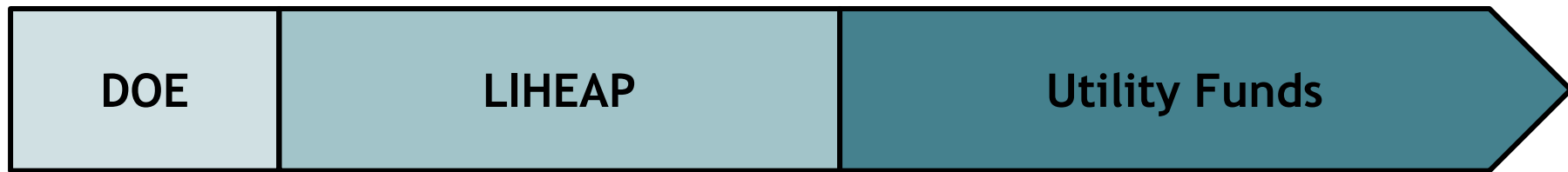
State  
Priorities

Energy  
Bills

Utility  
Partnerships

To Lead!

# How We Funded Rooftop Solar



DOE: 2016

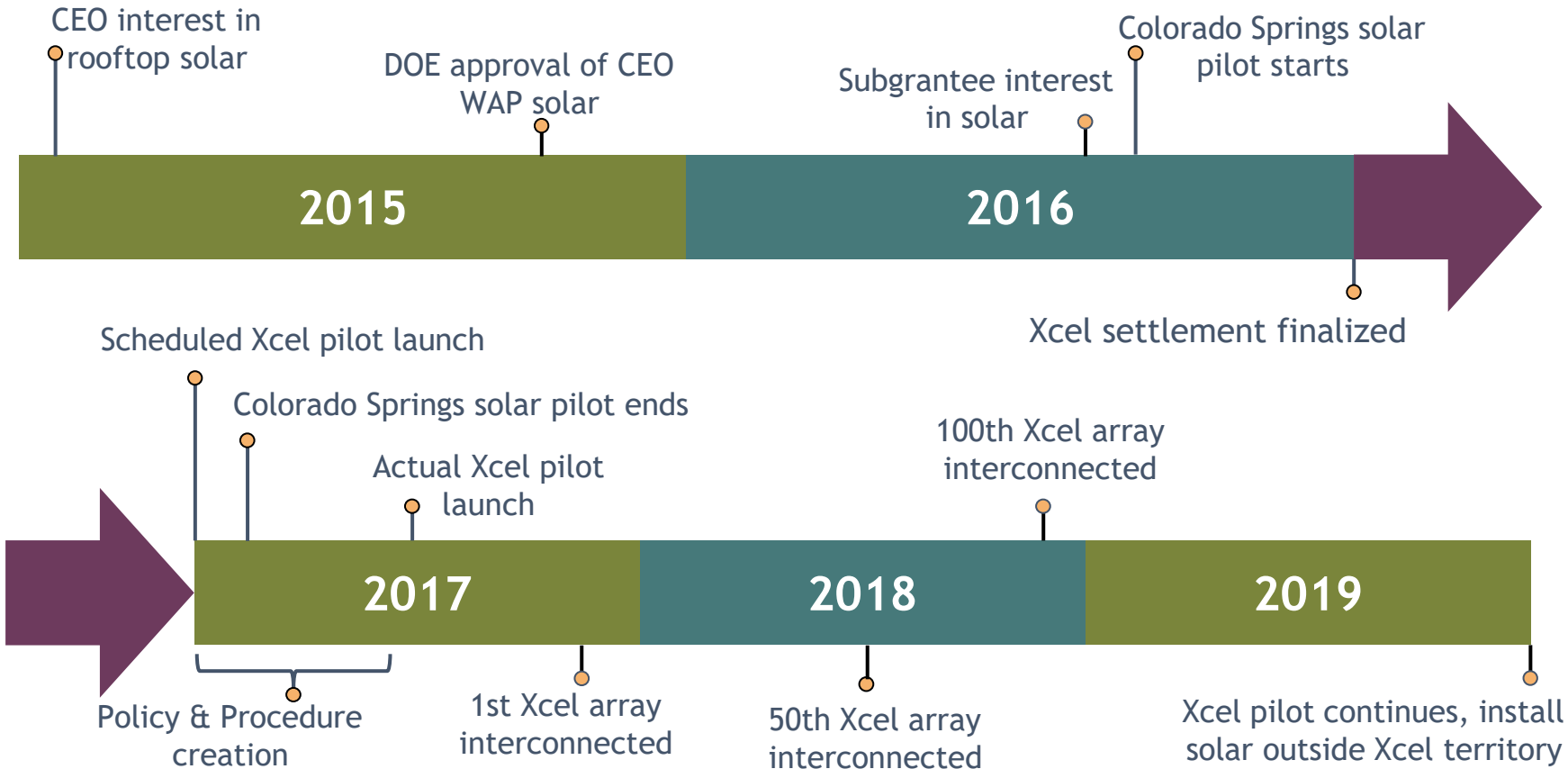
LIHEAP: 2017-2020

Utility Funds: 2021 →

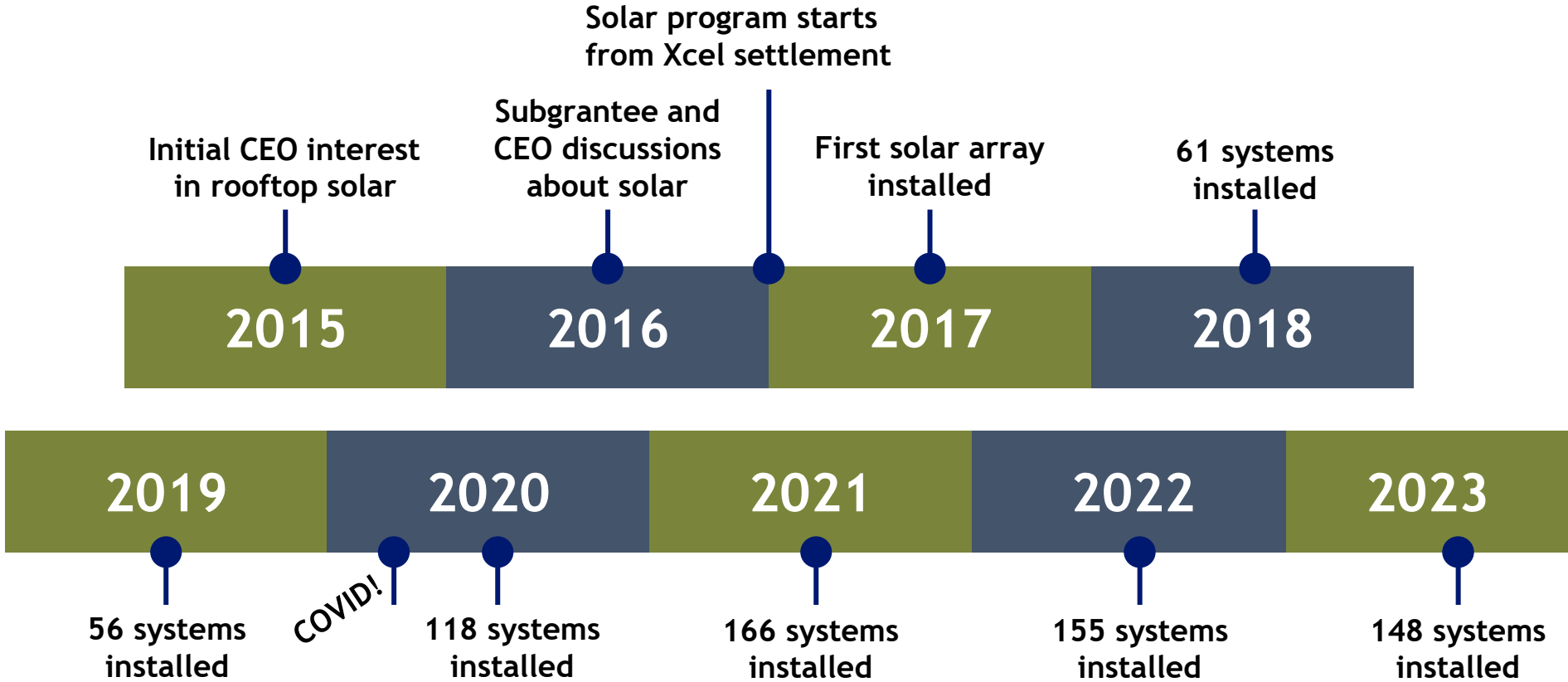
2021	2022	2023	2024	2025
\$1.96M	\$2.03M	\$2.57M	\$4.27M	\$3.04M

*Negotiated*

# Early solar timeline

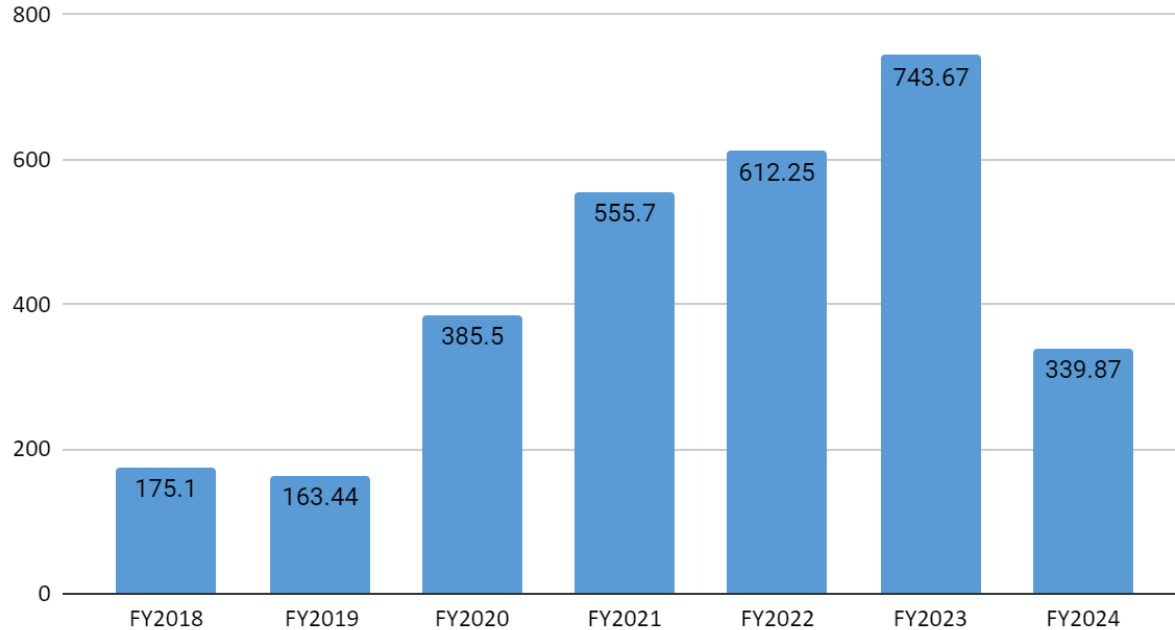


# Timeline of Colorado activities



# Rooftop Solar Growth by Year

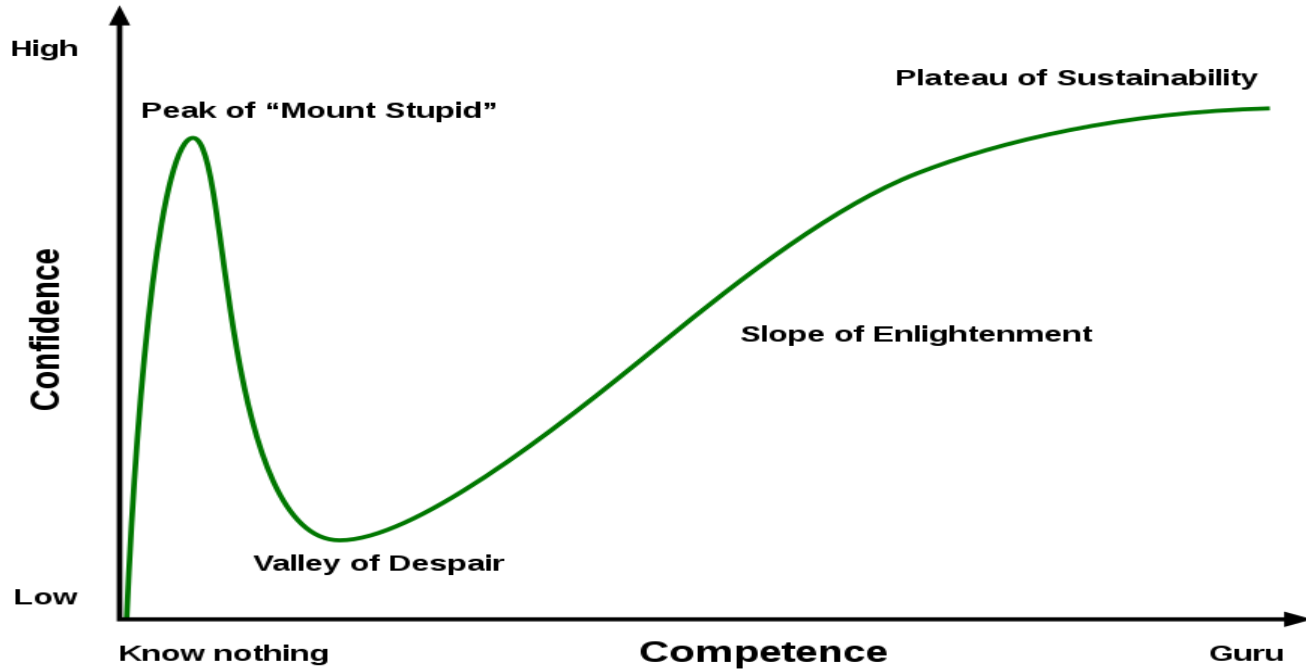
kW Installed by Fiscal Year



- FY is July - June  
(July 2017-June 2018 is FY2018)
- Total Installs:
  - 771 systems
  - 2,975.53kW
- FY24 Contracted kW installs = 1026
- FY25 Negotiated kW installs = 749

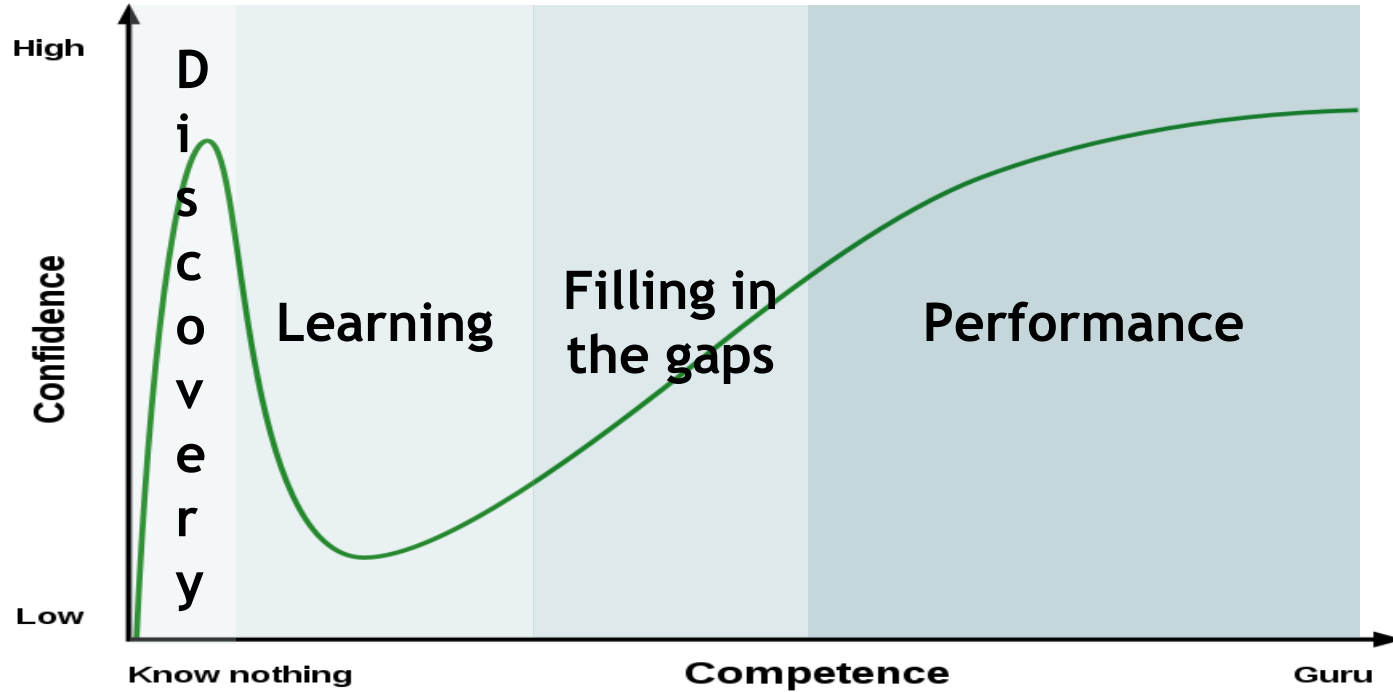
# Lessons Learned

## Dunning–Kruger Effect



# Lessons Learned

## Dunning–Kruger Effect



# Lessons Learned



**Crews vs. Contractors**

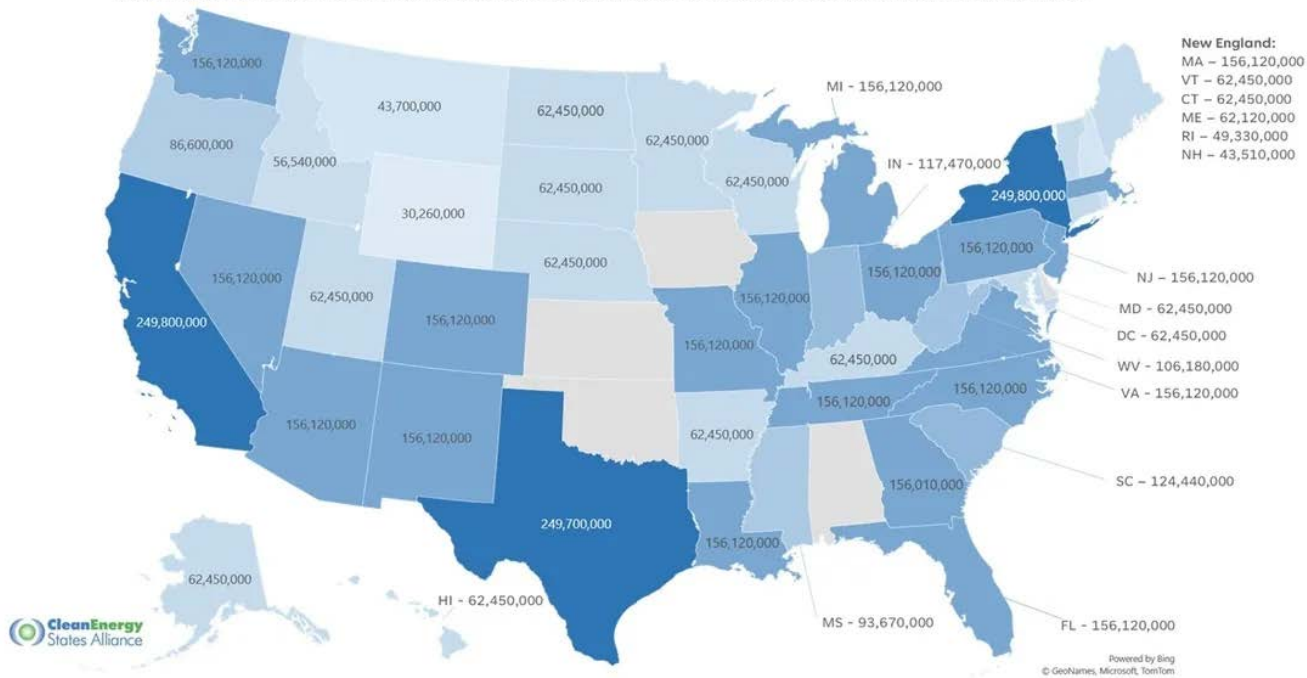




# What's Next?

## GGRF Solar for All State-Wide Awards

In US Dollars – Excludes tribes and overseas territories - Note: As per EPA, geographies that did not receive state-wide funding are still covered under multi-state and tribal awards, e.g., those led by Groundswell, GRID Alternatives, and Inclusive Prosperity Capital



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Weatherization Assistance Program

# Resources for Solar in WAP and LIHEAP

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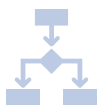
# Solar in WAP and LIHEAP Resources



Technical Report



Solar Case Studies



Solar Pathway Decision Guide



Frequently Asked Questions



Implementation Toolkit



SIR Calculator & Solar Energy  
Burden Calculator  
(forthcoming)

# Solar Resources in WAP and LIHEAP

## Weatherization Assistance Program

Weatherization Assistance Program » Solar Resources in WAP and LIHEAP

Low-and moderate-income households **comprised only 15% of solar adopters**, despite representing 43% of all U.S. households, as of 2018. The U.S. Department of Energy (DOE) Weatherization Assistance Program (WAP) and the U.S. Department of Health and Human Services (HHS) Low Income Home Energy Assistance Program (LIHEAP) can help address this gap in solar adoption through a variety of pathways for low-income solar access.

Each program issued guidance in 2023 to support the inclusion of solar. The DOE **Weatherization Program Notice 23-06 (Section 3 and Attachment 4)** clarifies and simplifies the process for WAP Grantees to request approval of solar photovoltaic (PV) systems as eligible, cost-effective weatherization measures. Similarly, HHS issued the **LIHEAP**

### JUMPTO:

- [Decision Guide](#)
- [FAQs](#)
- [Implementation Toolkit](#)
- [Case Studies / Technical Report](#)

# Decision Guide

- The guide is intended to help WAP and LIHEAP implementers understand and assess which solar implementation pathways to pursue.
- Includes an overview of relevant enabling policies and pathways for implementing rooftop solar PV, community solar, solar water heaters within each program.
- Discusses key design and impact considerations.

# Implementation Toolkit

The toolkit includes resources related to:

- WAP Solar Program Design and Approval
- Procuring solar equipment or contractors
- Solar Technical Implementation and Monitoring Resources
- Determining suitability of solar on a client homes
- Client and contractor requirements

# Frequently Asked Questions for Solar Deployment in WAP and LIHEAP

Examples of answered questions included in the FAQ:

- What other sources of funding can be used to support solar in LIHEAP and WAP?
- What monitoring requirements apply to solar?
- What training or certifications are recommended for implementing solar in WAP?
- Can WAP or LIHEAP funds be used for solar water heaters as eligible measures?
- Do community solar subscriptions impact eligibility for income-based programs?
- What factors should be considered in program design for solar in WAP and LIHEAP?

# Continuing the learning

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Solar implementation resources can be accessed on the WAP Resource Hub:

<https://www.energy.gov/scep/wap/solar-resources-wap-and-liheap>

<https://energyoffice.colorado.gov/weatherization-assistance/low-income-solar-through-weatherization>

