

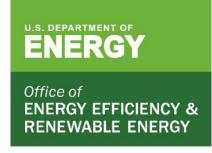
March 11 - 15 | Arlington, VA Crystal Gateway Marriott



WINTER TRAINING CONFERENCE

Turning Possibilities into Reality

Demystifying Solar in WAP



Solar Energy Opportunities

Kim Shields

Solar Energy Technologies Office - Workforce & Equitable Access Team



Solar Energy Technologies Office (SETO) Overview

MISSION

We accelerate the **advancement** and **deployment of solar technology** in support of an **equitable** transition to a **decarbonized economy no later than 2050**, starting with a decarbonized power sector by 2035.

WHAT WE DO

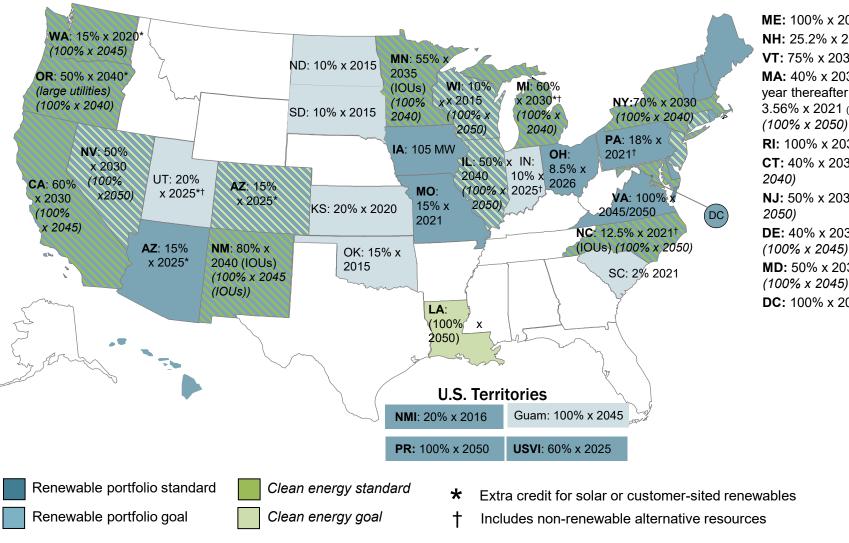
Drive innovation in technology and soft cost reduction to make solar **affordable** and **accessible** for all Americans

Enable solar to support the reliability, resilience, and security of the grid

Support job growth, manufacturing, and the circular economy in a wide range of applications



State Policies Driving Demand



ME: 100% x 2050 **NH**: 25.2% x 2025 **VT**: 75% x 2032

MA: 40% x 2030 + 1% each year thereafter (new resources) 3.56% x 2021 (existing resources)

RI: 100% x 2032

CT: 40% x 2030; (100% x

NJ: 50% x 2030; (100% x

DE: 40% x 2035 (100% x 2045) MD: 50% x 2030

DC: 100% x 2032

State and local governments, as well as corporations, have been driving demand with their own policies and incentives.

Due to the Inflation Reduction Act, a range of Federal tax credits for solar (and storage!) systems are available through 2033.

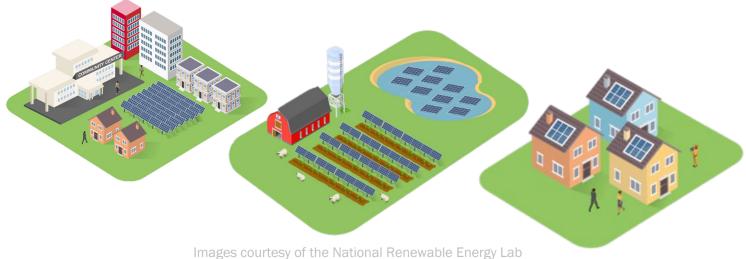
www.dsireusa.org / December 2023

What is in the Inflation Reduction Act (IRA)?

On August 16, 2022, President Biden signed the Inflation Reduction Act into law, marking the most significant action Congress has taken on clean energy and climate change in the nation's history.

The bill contained an estimated \$370 Billion in clean energy investments. The law also advanced the President's <u>Justice40 Initiative</u>, which committed to delivering 40% of the overall benefits of climate, clean energy, and related federal investments to communities that have been marginalized, overburdened by pollution, and underserved by infrastructure and other basic services.

The bulk of the funding for clean energy in IRA comes in the form of tax credits.



- Residential Clean Energy Credit (25D)
- Production Tax Credit (PTC, 45)
- Investment Tax Credit (ITC, 48)
 - Domestic content bonus
 - Energy community bonus
 - Low-income communities bonus
 - Eligible for direct pay or transfer

What IRA Funding Can Impact Solar Deployment?

Grants

- \$27B for EPA Greenhouse Gas Reduction Fund
 - \$14B for National Clean Investment Fund, \$6B Clean Communities Investment Accelerator
 - \$7B for Solar for All exclusively for low-income, disadvantaged communities
- \$3B for EPA Environmental and Climate Justice Block Grants
- \$1.7B for USDA Rural Energy for America Program (REAP)
- \$760M for DOE grants to facilitate siting high voltage interstate transmission
- \$145M for Tribal Electrification through the Bureau of Indian Affairs

Loans

- \$40B for DOE Loan Program Office
- \$18B for DOE Tribal Energy Loan Guarantee Program
- \$9.7B for USDA loans for Rural Electric Co-ops to purchase RE or RE systems
- \$4B in loans for affordable housing energy efficiency (which could include solar) through HUD
- \$2B in loans for electric transmission through DOE
- \$1B in electric loans for rural RE through USDA

What is Community Solar?

DOE defines community solar as any solar project or purchasing program, within a geographic area, in which the benefits of a solar project flow to multiple customers such as individuals, businesses, nonprofits, and other groups.

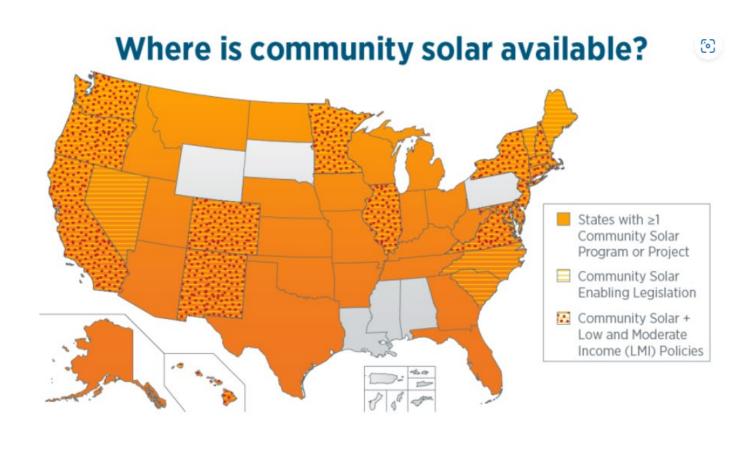
Community solar...

- Allows households who cannot access rooftop solar to access the benefits of solar energy (which can be due to barriers such as rooftop suitability, cost, or tenancy).
- Creates subscriptions, benefits, and/or ownership opportunities that participants can access for a portion of electricity produced.
- Typically provides participants with an electric bill credit for electricity generated by their share of the system.
- Can provide meaningful benefits such as low-income access, electric bill savings, resilience, community wealth building, and workforce opportunities.



Where is there Community Solar?

- 43 states + DC have at least one community solar project
- 22 states + DC have passed enabling legislation that encourages or mandates community solar
- States continue to add and grow carveouts for low-tomoderate income households



The National Community Solar Partnership



Our <u>technical assistance program</u>, led by the Lawrence Berkeley National Laboratory, ensures that our partners have access to resources and direct technical assistance from DOE, National Labs, and third-party subject-matter experts to support local challenges.

National Community Solar Partnership Target







Represents an increase from **3 GW to 20 GW** of community solar capacity



\$1 billion in savings reflects an average bill reduction of 20%

National Community Solar Partnership (NCSP)

Pathway to **Success Priorities**

TECHNICAL EXPERTISE AND CAPACITY BUILDING



STATE **ENGAGEMENT**



ACCESS TO CAPITAL



CUSTOMER



EDUCATION AND OUTREACH

Resulting in...

NCSP

TARGET

5 million households

and **\$1 billion in**

savings by 2025

- ★ An average 20% energy bill reduction
- ★ 700% increase in community solar capacity

Meaningful benefits:

Greater household savings; LMI household access; Resilience and grid benefits; Community ownership; Workforce development and entrepreneurship



The Meaningful Benefits of Solar



EQUITABLE ACCESS & CONSUMER PROTECTIONS

- Contract terms that support strong consumer protections
- Inclusive outreach and engagement
- Financial products that are accessible to all households

Justice 40 Priority 3: Increase Clean Energy Parity



MEANINGFUL HOUSEHOLD SAVINGS

- Guaranteed bill and/or household savings
- Wealth building opportunities
- Indirect multifamily affordable housing tenant benefits

Justice 40 Priority 1: Reduce Energy Burden



RESILIENCE, STORAGE, AND GRID BENEFITS

- Household and community level resilience strategies
- Grid strengthening strategies
- Improved health outcomes through reduced or shortened power outages

Justice 40 Priority 7: Increase Energy Resiliency



COMMUNITY-LED ECONOMIC DEVELOPMENT

- Opportunities for community ownership
- Community benefits agreements
- Support for entrepreneurship and local and minority and women-owned businesses

Justice 40 Priority 8: Increase Energy Democracy



SOLAR WORKFORCE DEVELOPMENT

- Strategies that ensure jobs are accessible to workers of all backgrounds, offer competitive wages and union membership
- Training and apprenticeship programs

Justice 40 Priority 6: Increase Clean Energy Jobs

National Community Solar Partnership (NCSP)

Pathway to Success Initiatives



Recognition, Resources, & Peer Networking

- Sunny Awards for Equitable Community Solar
- Sharing the Sun Database and Analysis Products
- NCSP Online Community
- Events

Low-Income Clean Energy Connector

- Stakeholder engagement & tool development
- Pilot with District of Columbia, Illinois, and New Mexico launching March 2024

Community Power Accelerator

- Community Power Accelerator Platform
- Credit Ready Checklist & Technical Assistance
- Learning Lab & Low-Income Community Solar Developer Workbook
- Community Power Accelerator Prize

States Collaborative

- Monthly peer-networking
- Low-income and Inflation Reduction Act working groups
- State policy tracker & policy analysis reports

Direct Technical Assistance Program

- Rolling technical assistance
- Technical assistance engagement summaries
- Municipal Utility & Multifamily Affordable Housing Collaborative resources

Low-Income Clean Energy Connector

NCSP is partnering with the U.S. Department of Health and Human Services (HHS) to develop and pilot a digital tool that will identify and make community solar with verified savings and consumer protections more accessible to households participating in a U.S. government-run low-income support programs (i.e., the Low-Income Home Energy Assistance Program/LIHEAP).

Main Project Partners







Additional Project Partners

















Learn more: https://www.energy.gov/communitysolar/community-solar-subscription-tool

Low-Income Clean Energy Connector User Types



State Community Solar Administrator

- Approves Subscription Managers and project submissions on Connector
- Evaluates programs



State LIHEAP Administrator

 Approves local LIHEAP admins to use Connector



Subscription Managers

- Submits available projects
- Enrolls households in projects



Local LIHEAP Administrators

- Educates households about community solar
- Uploads interested households to Connector

Links to Resources

The Internal Revenue Service has set up a website documenting all new guidance, updates, and news on the <u>Inflation Reduction Act of 2022 | Internal Revenue Service (irs.gov)</u>.

<u>CleanEnergy.gov</u> has helpful links maintained by the White House on the Inflation Reduction Act, including:

- The <u>Inflation Reduction Act Guidebook</u>
- A Summary of the Clean Energy Tax Provisions in the Inflation Reduction Act
- Information on <u>Direct Pay | Clean Energy | The White House</u>

SETO has published several resources providing overviews of the federal solar tax credits within the Inflation Reduction Act. They do not constitute professional tax advice or other professional financial guidance and may change based on additional guidance from Treasury.

- Homeowner's Guide to the Federal Tax Credit for Solar Photovoltaics | Department of Energy
- Federal Solar Tax Credits for Businesses | Department of Energy
- Federal Tax Credits for Solar Manufacturers | Department of Energy
- Summaries within several of NREL's recent **Quarterly Solar Industry Update | Department of Energy**
- Tribal Guide to Solar Energy | Department of Energy



Thank you for listening!

SETO Newsletter – Stay in Touch!



SIGN UP NOW: energy.gov/solar-newsletter



The SETO newsletter highlights the key activities, events, funding opportunities, and publications that the solar program has funded.



Objectives

By the end of this session, you will be able to:

- ✓ Identify the solar pathways in the Weatherization Assistance Program (WAP) and the Low-Income Home Energy Assistance Program (LIHEAP)
- ✓ Describe the state of solar activity in WAP and LIHEAP
- ✓ Navigate the suite of available solar implementation resources.



2022

2022-2023

2022-2023

Workshops

2022

Results

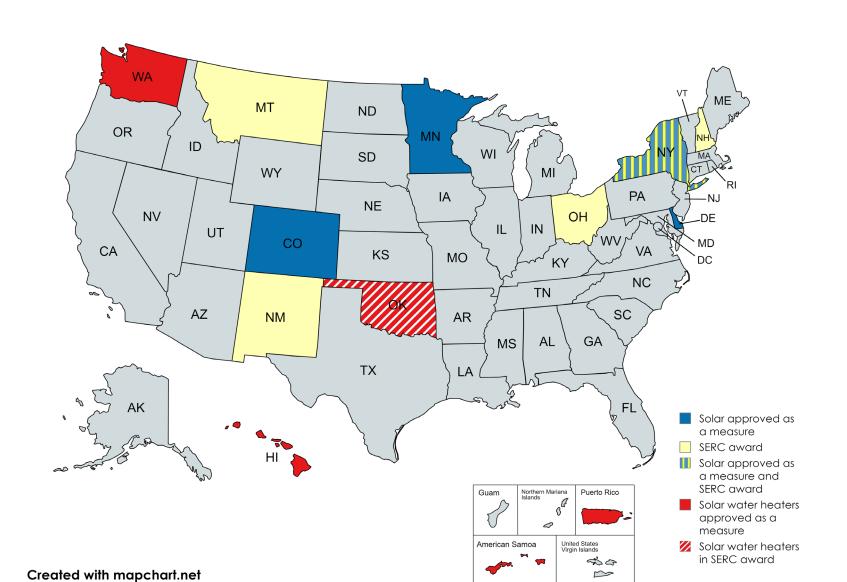
2024

21

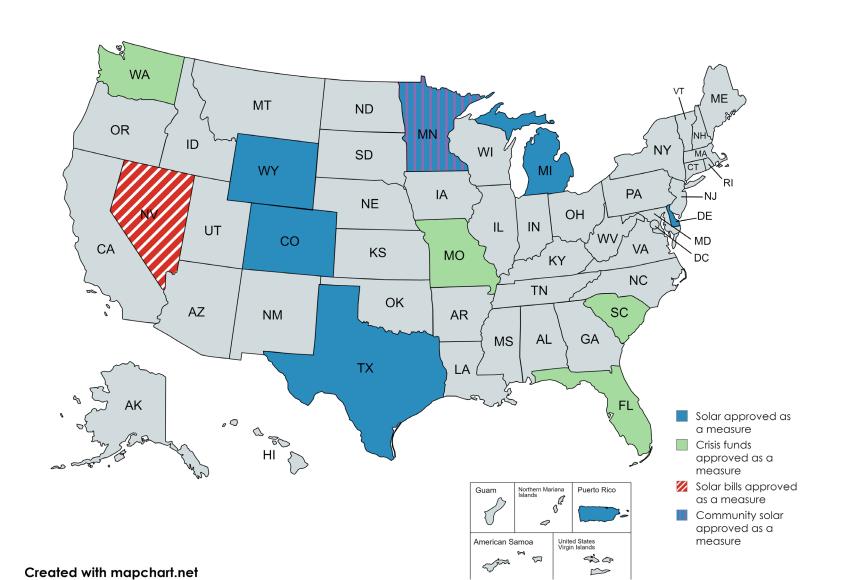
Solar Pathways in WAP and LIHEAP

- 1. Rooftop solar photovoltaics (PV) 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 to pay for community solar subscriptions
- 5. LIHEAP funds to pay for client solar bills
- 6. Use of WAP or LIHEAP infrastructure for external solar programs (e.g., verifying income eligibility or referrals)

Solar Activity in WAP



Solar Activity in LIHEAP



Solar in WAP and LIHEAP Resources



Technical Report



Case Studies



Decision Guide



Frequently Asked Questions (FAQs)



Implementation Toolkit



Solar Savings-to-Investment Ratio (SIR) Calculator and Energy Burden Calculator (forthcoming)

Decision Guide

- Designed to help WAP and LIHEAP implementers assess which solar implementation pathways for rooftop solar PV, community solar, or solar water heating to pursue
 - Overview of relevant enabling policies and processes
 - Descriptions of each pathway
 - High-level program design factors
 - Scale and client impact considerations.

Implementation Toolkit

- Compiles guides, templates, and other resources that support rooftop solar installation in WAP and LIHEAP, related to:
 - Procuring solar equipment or contractors
 - Determining suitability of solar on client homes
 - Client selection and implementation
 - Contractor requirements.

• [ADD Screenshot when available]

FAQs for Solar Deployment in WAP and LIHEAP

Examples of answered questions included in the FAQs:

- What sources of funding can be used to support solar in LIHEAP and WAP?
 - WAP Formula Grant (Colorado, Delaware, Minnesota, Puerto Rico)
 - WAP Sustainable Energy Resources for Consumers (SERC) awards (rooftop solar: Montana, New York, New Mexico, Ohio; solar water heater: Oklahoma)
 - LIHEAP weatherization allocations
 - And more detailed in the FAQs!

What monitoring requirements apply to solar?

- The U.S. Department of Energy issued WAP Memorandum 122, which includes inspection checklists for technologies installed via SERC grants, including solar PV.
- The technology-specific inspection checklists were developed to support Grantees in meeting SERC oversight requirements.

What training or certifications are recommended for implementing solar in WAP?

- Each Grantee is responsible for creating rules and guidelines on specific training and certifications required for solar.
- The North American Board of Certified Energy Practitioners offers multiple solar-related certifications, including PV Installation Professional, PV Commissioning and Maintenance Specialist, PV Installer Specialist, and PV System Inspector.

Case Studies

 Case studies include descriptions of solar program design, the partners and funding sources involved, and lessons learned from early WAP and LIHEAP solar activity.

- Case studies from:
 - Colorado
 - Illinois
 - Minnesota
 - Puerto Rico
 - Washington, D.C.

Select Your State or Jurisdiction

Colorado

System Details

System Details	
Expected annual production for a <u>1 kW</u> system (kWh)	1594
System Size DC (kW)	4
Expected system annual production (kWh)	6376
System Cost (\$)	\$10,000
System Life (yrs)	20
System Cost per Watt (\$/W)	\$2.50

Input Definitions, Instructions, and Notes

Definition: The total amount of energy (kilowatt hours) a solar array with a system size of 1 kW is expected to during a year, based on latitude, climate, orientation, and other factors. This is a useful metric to compare different project designs or locations.

Input 2 Instructions:

Step 1. Go to https://pvwatts.nrel.gov/

Step 2. Enter the client address into the "Get Started" field at the top and click "Go"

Step 3. Click the "Go To System Info" arrow on the right.

Step 4. On the System Info page, set the "DC System Size (kW)" to 1. If you have site-specific details, such as the Tilt and Azimuth, enter those details. Otherwise, use the default inputs. The PVWatts defaults reflect a 20° tilt and 180 degree (i.e. south-facing) azimuth.

Step 5. Select the appropriate Array Type (Fixed (open rack) for ground-mounted systems, and Fixed (roof mount) for roof-mounted systems)

Step 6. Click the "Go to PVWatts results" arrow on the right.

Step 7. Enter the bold total kWh/Year production estimate as Input 2. This reflects the production per kW of rated system capacity.

Definition: The nameplate direct current generating capacity of a solar array in kilowatt-hours. In other words, this is the maximum amount of electricity a given system could produce at one time. This value will be determined by the solar design professional based on budget, roof size and orientation, and other design

Definition: The total amount of energy (kilowatt hours) the solar array is expected to during a year, based on latitude, climate, orientation, and other factors.

Definition: The total system cost (i.e. materials, labor, etc.) paid for the solar installation before accounting for incentives. This value will be determined by the solar design professional based on system size and other site parameters.

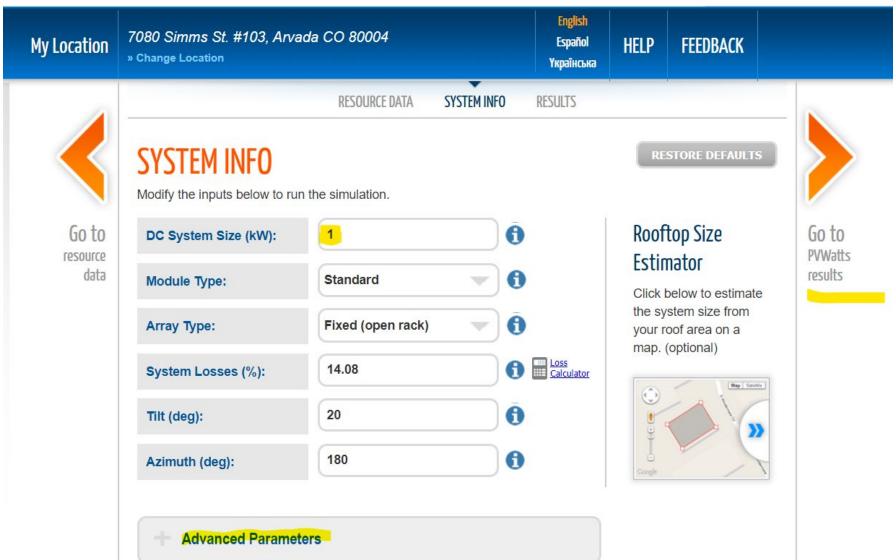
Definition: How long a solar array is expected to perform, based on equipment quality and environmental conditions. Most solar panel manufacturers offer product warranties guaranteeing the integrity of the equipment for a certain period. Product warranties typically range from 10 to 30 years.

Note on Input 5: The minimum expected measure life is 20 years. If the manufacturer-specified product warranty is longer than 20 years, the measure life time may match that up to 30 years or as approved by DOE for use in your Grantee's area.

Definition: A metric of the total cost to install a solar array by system size. This is a useful metric to compare different project designs, bids, or locations.

PVWatts[®] Calculator







Go to system info

RESOURCE DATA SYSTEM INFO RESULTS

RESULTS



1,519 kWh/Year[>]

System output may range from 1,411 to 1,564 kWh per year near this location.

Click **HERE** for more information.

Month	Solar Radiation (kWh / m ² / day)	AC Energy (kWh)		
January	3.72	98		
February	4.70	109		
March	5.53	137		
April	6.07	144		
May	6.48	153 151		
June	6.83			
July	6.61	149		
August	6.05	138		
September	5.74	130		
October	4.88	119		
November	4.05	99		
December	3.57	93		
Annual	5.35	1,520		

Financial Incentives

Leveraged Funds, if any (\$)	\$0.00
Upfront incentives, if any (\$)	\$0.00
Production incentives, if any (\$/kWh)	\$0.00000
Years of production incentive (years)	0

Market Assumptions

% electricity exported to grid (per year)	0%
Utility Electric Rate (\$/kWh)	\$0.1433
Net metering rate (\$/kWh)	\$0.1433
Discount Bata	Ç0.1405
Discount Rate	3.0%

Financial incentives may be offered by federal, state, and local government entities or utilities to encourage the installation of solar. Incentives may not be available to all customers or in all locations.

Definition: Leveraged funds may come from non-WAP funding sources and help to buy-down the upfront cost of solar array installation.

Input 6 instructions:

For all available leveraged funds, calculate the total dollar amount and enter it as Input 6.

Definition: Upfront incentives may be structured as a fixed dollar amount per project, a percentage of the installation cost, a dollar amount per Watt of system size, or other structure, typically paid upon complete installation of the project. Upfront incentives may include rebates, tax credits, or cash payments.

Input 7 instructions:

For all available upfront incentives, calculate the total dollar amount and enter it as Input 7.

Definition: Financial incentives that compensate solar owners a fixed dollar amount for each kWh of energy produced. Residential production incentives may be calculated and paid upfront based on the years of production incentive and expected performance. If production incentives are paid upfront, enter them as part of Input 7.

Definition: The number of years a production incentive is available.

Definition: The amount of the energy generated by a solar array that exceeds household usage at any given time and sent back to the grid divided by the total amount of solar energy generation.

Note on Input 10: Use the default value of zero unless you have location-specific information from a solar professional. This value only affects the SIR if the exported energy is priced at a net metering rate (see below) different from the utility electricity rate.

Definition: The dollar per kWh rate that utilities charge residential customers for energy. This calculator uses statewide average utility electric rates.

Definition: The dollar per kWh rate that utilities pay customers for excess solar generation that is sent back to the grid. Net metering rates are typically either equal to the Utility Electric Rate or the utility's avoided cost per kWh of energy, which is substantially lower. This calculator uses estimated statewide average net metering rates.

Definition: A discount factor used to adjust future cash flows to present dollar values which accounts for expected inflation and opportunity costs had the money been used for a different investment. DOE uses a 3% discount rate when calculating measure lifetime cost effectiveness in WAP.

Other Values

Other values	
Expected capacity factor (%)	18.2%
Degradation rate (% per year)	1.0%

Definition: The ratio of the electrical energy produced by solar array during a year compared to the electrical energy that could have been produced at continuous full power operation during a year. In other words, the expected capacity factor is the percentage of the total possible energy that could have been generated that is expected be generated, given variations in time of day, seasons, and weather.

Definition: The rate at which solar power production degrades each year. Industry-wide degradation rates typically range between 0.5% and 1% per year, which means that after 20 years of operation, a typical solar array can be expected to generate 80% of its nameplate generating capacity.

Note: The default is set to 1% degradation as a default. Consult with a solar design professional or manufacturer-specific documentation to determine if the annual degradation for the system(s) installed on site are different than 1%.

Model Outputs

Bill Savings	\$15,024.10
Social Cost of Carbon (SCC) Savings	\$6,503.24

SIR without SCC	1.50
SIR with SCC	2.15

Definition: The total expected electric bill savings of solar generated over the life of the system.

Definition: The total expected Social Cost of Carbon savings over the life of the system. Grantee must have preapproval from DOE to use the Social Cost of Carbon in the SIR.

Note: Grantee must have preapproval from DOE to use the Social Cost of Carbon in the SIR.

Grantee SIR Estimates

This tab calculates the average expected SIR for residential solar projects in 50 states and the District of Columbia based on similar inputs as the Site-Specific User Interface. The inputs on this tab are simplified to reflect average utility rates, and solar production. Users can adjust the Green Input cells to see the effect of various parameters on the average Grantee SIR estimate. Please see the instructions on the Site-Specific User Interface Tab for details on each input. These calculations are intended to provide context for Grantees considering including solar as an eligible WAP measure.

Select Your State or Jurisdiction	
Colorado	
System Size DC (kW)	4.00
Cost per Watt DC (\$/W):	\$3.00
Total System Purchase Price	\$12,000
System Life (yrs)	20
System Life (yrs)	20
Degradation rate (per year)	1.0%
Discount Rate	2.0%
% electricity exported to grid (per year)	0%
Leveraged Funds (\$)	\$0.00
Upfront Incentive value (\$)	\$0.00
Production Incentive (\$/kWh)	\$0.00
Years of production incentive (years)	0
SIR without SCC	1.25
SIR with SCC	1.79

Expecte	Expected average SIR without SCC by state, assuming a system cost of \$3/W and an analysis period of 20 years											
Number of states with positive SIR = 34												
AK	1.10	HI	3.76	MI	1.28	NV	1.30	UT	0.95			
AL	1.19	IA	1.00	MN	1.05	NY	1.84	VA	1.07			
AR	0.98	ID	0.80	MO	0.93	ОН	1.01	VT	1.59			
AZ	1.27	IL	1.19	MS	1.03	OK	1.12	WA	0.71			
CA	2.35	IN	1.10	MT	0.84	OR	0.87	WI	1.14			
CO	1.25	KS	1.25	NC	0.96	PA	1.34	WV	0.99			
CT	2.15	KY	0.99	ND	0.82	RI	2.02	WY	0.90			
DC	1.10	LA	1.05	NE	0.92	SC	1.14					
DE	1.10	MA	1.94	NH	2.11	SD	1.00					
FL	1.19	MD	1.01	NJ	1.46	TN	0.96					
GA	1.16	ME	1.86	NM	1.35	TX	1.24					

Maximum system cost to yield SIR>1 assuming no SCC savings, a system size of 4 kW, and an analysis period of 20 years. (Note: values include \$0 in incentives for the state of Colorado)												
AK	\$13,252	HI	\$45,061	MI	\$15,323	NV	\$15,658	UT	\$11,363			
AL	\$14,248	IA	\$11,967	MN	\$12,647	NY	\$22,088	VA	\$12,799			
AR	\$11,743	ID	\$ 9,649	MO	\$11,140	OH	\$12,103	VT	\$19,074			
AZ	\$15,265	IL	\$14,283	MS	\$12,350	OK	\$13,445	WA	\$ 8,479			
CA	\$28,194	IN	\$13,170	MT	\$10,046	OR	\$10,408	WI	\$13,730			
CO	\$14,980	KS	\$15,017	NC	\$11,477	PA	\$16,066	WV	\$11,844			
СТ	\$25,759	KY	\$11,904	ND	\$ 9,843	RI	\$24,273	WY	\$10,817			
DC	\$13,215	LA	\$12,651	NE	\$10,998	SC	\$13,712					
DE	\$13,173	MA	\$23,315	NH	\$25,302	SD	\$11,971					
FL	\$14,225	MD	\$12,133	NJ	\$17,556	TN	\$11,538					
GA	\$13,935	MF	\$22 283	NM	\$16 177	TX	\$14 922					

Expected average SIR with SCC by state, assuming a system cost of \$3/W and an analysis period of 20 years												
Number of states with positive SIR = 49												
AK	1.52	HI	4.98	MI	2.24	NV	1.82	UT	1.61			
AL	2.18	IA	1.40	MN	1.40	NY	2.05	VA	1.63			
AR	1.82	ID	1.38	MO	1.49	OH	1.94	VT	1.94			
AZ	1.88	IL	1.90	MS	2.06	OK	1.67	WA	0.83			
CA	2.52	IN	2.06	MT	1.39	OR	1.13	WI	1.82			
CO	1.79	KS	1.73	NC	1.40	PA	2.26	WV	1.94			
CT	2.92	KY	2.05	ND	1.22	RI	2.31	WY	1.53			
DC	1.80	LA	2.03	NE	1.38	SC	1.95					
DE	2.09	MA	2.48	NH	2.99	SD	1.47					
FL	1.87	MD	1.70	NJ	2.21	TN	2.05					
GA	2.15	ME	2.27	NM	1.76	TX	1.59					

	Maximum system cost-per-watt (\$/W) to yield SIR>1 assuming no SCC savings, a system size of 4 kW, and an analysis period of 20 years. (Note: values include \$0 in incentives for the state of Colorado)													
AK	\$	3.31	HI	\$	11.27	MI	\$	3.83	NV	\$	3.91	UT	\$	2.84
AL	\$	3.56	IA	\$	2.99	MN	\$	3.16	NY	\$	5.52	VA	\$	3.20
AR	\$	2.94	ID	\$	2.41	MO	\$	2.79	OH	\$	3.03	VT	\$	4.77
AZ	\$	3.82	IL	\$	3.57	MS	\$	3.09	OK	\$	3.36	WA	\$	2.12
CA	\$	7.05	IN	\$	3.29	MT	\$	2.51	OR	\$	2.60	WI	\$	3.43
CO	\$	3.74	KS	\$	3.75	NC	\$	2.87	PA	\$	4.02	WV	\$	2.96
CT	\$	6.44	KY	\$	2.98	ND	\$	2.46	RI	\$	6.07	WY	\$	2.70
DC	\$	3.30	LA	\$	3.16	NE	\$	2.75	SC	\$	3.43			
DE	\$	3.29	MA	\$	5.83	NH	\$	6.33	SD	\$	2.99			
FL	\$	3.56	MD	\$	3.03	NJ	\$	4.39	TN	\$	2.88			
GA	\$	3.48	ME	\$	5.57	NM	\$	4.04	TX	\$	3.73			

Questions?

All resources can be accessed on the Weatherization Assistance Program Resource Hub:

https://www.energy.gov/scep/wap/weatherization-assistance-program-resource-hub

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Thank you!

www.nrel.gov

This work was authored by the National Renewable Energy Laboratory, operated by Alliance for Sustainable Energy, LLC, for the U.S. Department of Energy (DOE) under Contract No. DE-AC36-08GO28308. Funding provided by U.S. Department of Energy Office of Energy Efficiency and Renewable Energy Solar Energy Technologies Office. The views expressed in the article do not necessarily represent the views of the DOE or the U.S. Government. The U.S. Government retains and the publisher, by accepting the article for publication, acknowledges that the U.S. Government retains a nonexclusive, paid-up, irrevocable, worldwide license to publish or reproduce the published form of this work, or allow others to do so, for U.S. Government purposes.



References

WAP Solar Policy Guidance

WPN 23-06, issued March 3, 2023, outlines the process Grantees must follow to gain approval for solar PV.

Grantees must submit:

- A request to include solar PV as an approved measure for specific housing types in the Grantee Plan
- A special materials request, including maximum PV system size and installation location
- Grantee policies on solar PV energy modeling, installation, inspections, and monitoring, including:
 - The process for including leveraged funds in the SIR calculations
 - Compliance with Historic Preservation requirements
 - Requirements for Grantee, Subgrantee, and/or contractor training, qualifications, or certification
- D. A sample analysis of a solar PV measure in energy modeling and cost-effectiveness calculations
- A declaration of eligibility for the WAP National Environmental Policy Act (NEPA) categorical exclusion, or a written process for NEPA impact assessment.

LIHEAP Solar Guidance

Low Income Home Energy Assistance Program 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 <u>except for low-cost</u> <u>residential weatherization</u> and energy-related home repairs.

Energy Policy Act of 2005:

Authorizes LIHEAP funds to be used to "purchase renewable fuels."

Assurance 16:

Allows grant recipients to use up to 5% of LIHEAP funds to provide services that
encourage and enable households to reduce their home energy needs, including
need assessments, counseling, and assistance with energy vendors.

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 U.S. Department of Health and Human Services (HHS) waiver.
 - Funds may be used for 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, WAP, or a hybrid of both regulations
 - The specific weatherization measures, which may include solar.

ESTIMATE only (reseasonability check)		
ooftop PV Workbook		
ob Number	HH	
ssessed System Size (W DC)	0	System
ssessed System Production (kWh/Year)	0	
lectricity Rate (\$/kWh)	\$0.115	
lectric Bill Amount (\$/year)		
lectical Usage per year (in tot)		
avings from System (\$/year)	\$0.00	
lectricity Cost Saved per Year (%)		OK
nit System Cost (\$/W)	\$0.00	
otal System Cost	\$0.00	
Xcel upfront Discount (\$2.00 per installed watt)	5 -	
USDOE WAP avg. solar unit cost	\$ 3,699.00	
emaining Upfront Install Cost	\$0	
resent Value of 10 years' PBI at \$.07 per kwh generated	\$0.00	
VA generated SIR (15 year life)		Stop
<u>Criteria List</u>		
roperty is occupier by owner, or		
roperty is single-family rental,or		

roperty is occupier by owner, or	Γ
roperty is single-family rental,or	
roperty is 2-4 unit rental with Landlord willing to contribute at least 15% of discounted cost?	
lient is choosing to have rooftop PV installed on his/her home.	
nit has not been weatherized since October 1, 1994.	Γ
he roof is structurally sound for rooftop PV installation	Ī
	-

he electrical system requires no improvement for rooftop PV installation. he unit is eligible to be modified per SHPO agreement.

tructions

. Complete yellow cells using subcontractor solar assessment and cost estimate.

Complete the Electric Bill tab with at least six months of electric bill information.

Ensure the validation boxes in cells C3, C4, and C10 all display "OK".

Complete the Criteria List ensuring that all criteria are met.

Print this page and include in client file.

NASCSP Resources

Solar- NASCSP Member Portal

- NASCSP Training Materials
 - Integrating Solar into Weatherization
- MN shared its Solar Resources
 - Solar Client File Checklists
 - Solar Suitability Template
 - Solar Lessons Learned



Session Evaluation Feedback

- Please join me in giving a warm THANK YOU to our speakers!
- Take a moment to provide evaluation feedback on this session.

