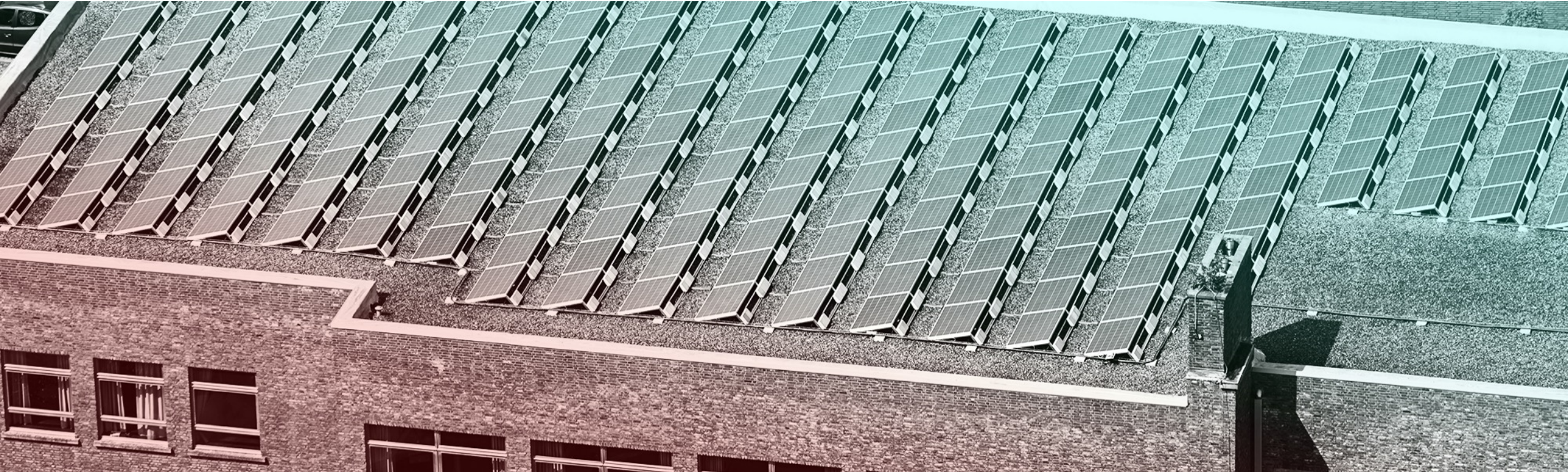


ILLUME



Illinois Solar for All

PY4 Results Webinar

ILLUME
VERDANT IEC

July 18, 2024

Agenda

Webinar Overview

PY4 Approach

PY4 Results

Energy, Bill and Environmental Impacts

Jobs and Economic Impacts

Social Impacts

Process Evaluation

PY5 and PY6 Data Collection

Q&A and Wrap Up



Webinar Overview

Project Introduction

ILLUME team will be researching program impacts and performance for the 2021–2022 (PY4), 2022–2023 (PY5), and 2023–2024 (PY6) program years.

IPA must “select an **independent evaluator** to review and report on the **Illinois Solar for All Program** and the performance of the third-party **program administrator**”

“The evaluation shall be based on **objective criteria** developed through a **public stakeholder process**”

–Illinois Power Agency Act

Stakeholder Objective Criteria:

- Number of projects installed
- Total installed capacity in kilowatts
- Average cost per kilowatt of installed capacity
- Number of jobs or job opportunities created
- Economic, social, and environmental benefits created
- Total administrative costs

Webinar Objectives

Share results from the **2021-2022 program year (PY4)** evaluation

- Answer questions on results and methodology

Preview the research plan for the **2022-2023 program year (PY5)** and the **2023-2024 program year (PY6)**

- Is there anything from PY5 or PY6 our team should keep in mind or research more in-depth?
- What questions or issues are top of mind for the study overall?
- How do you intend to use the evaluation?

Ways to Provide Input

- Enter questions or comments into the chat
- We will have a 20-minute Q&A period at the end of our call
- In addition to the webinar, stakeholders can submit comments on the Evaluation Plan to ILSFAEvaluation@illumeadvising.com, comments must be submitted by July 26, 2024 at 5:00 pm CST. Comment submissions should include “ILSFA PY4 Results Webinar Response to Comments – [Commenters Name]” in the email subject line.



Speakers



Mallika Jayaraman

Project Manager
Sr. Managing Consultant
ILLUME Advising



Kurt Scheuermann

Energy, Bill, and Environmental
Impacts Interim Lead
Senior Consultant
Verdant



Derek Ehrnschwender

Jobs and Economic Impacts Lead
Senior Associate
Industrial Economics

A photograph of a house with solar panels on the roof. The image is split horizontally by a teal banner. The top half shows a close-up of the solar panels and a chimney. The bottom half shows a wider view of the roof and the side of the house. The teal banner contains the text 'PY4 Approach' in white, sans-serif font.

PY4 Approach

PY 2021-2022 (PY4) Timeline

CEJA signed into law
September 15, 2021

Future Energy Jobs Act (FEJA) in effect

Climate and Equitable Jobs Act (CEJA) in effect

June 2021

- **June 7–18:** Project submission windows open for the low-income distributed generation and the non-profit/public facilities subprograms
- **June 21:** A rolling submission window was opened for the low-income distributed generation program

August 2021

- **August 11:** Non-profit/public facilities final list of selected projects is announced
- **August 23–September 3:** Community solar subprogram project submission window opens

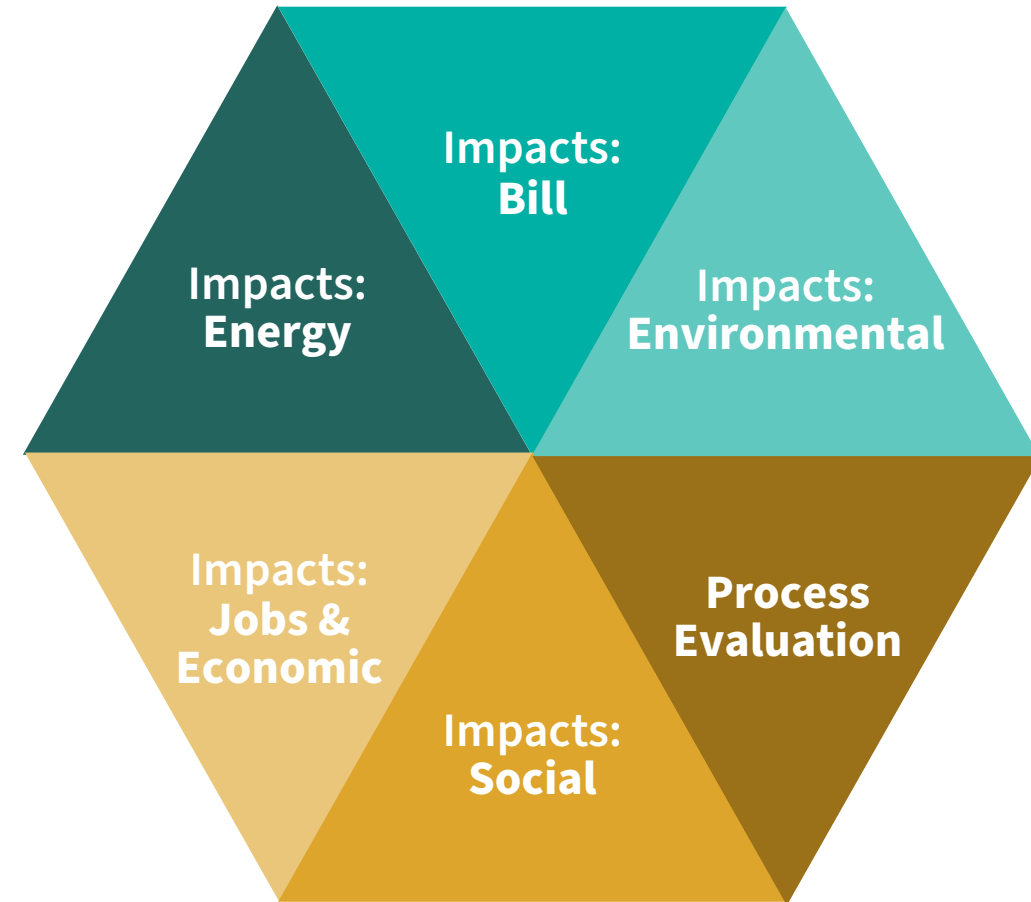
October 2021

- **October 27:** Program administrator announces final list of selected projects for the community solar subprogram

March 2022

- Program administrator approves projects on the non-profit/ public facility and community solar subprogram waitlists using additional funds from CEJA
- **March 21:** Program administrator opens a rolling submission window for non-profit and public facilities projects

Project Overview



Impacts: Energy

Assess quantity of projects, capacity, average system cost, capacity factor, energy produced, and peak load reduced for approved and energized projects.

Impacts: Jobs & Economic

Evaluating workforce and economic impacts, including jobs created, economic impacts to employee compensation and GDP, tax impacts, and household spending impacts.

Impacts: Bill

Evaluating participants' annual bill savings in dollars compared to the cost to acquire solar.

Impacts: Social

Assess extent to which communities are directly benefitting from investments.

Impacts: Environmental

Evaluating reduced pollutants, including greenhouse gases, NO_x, and SO₂.

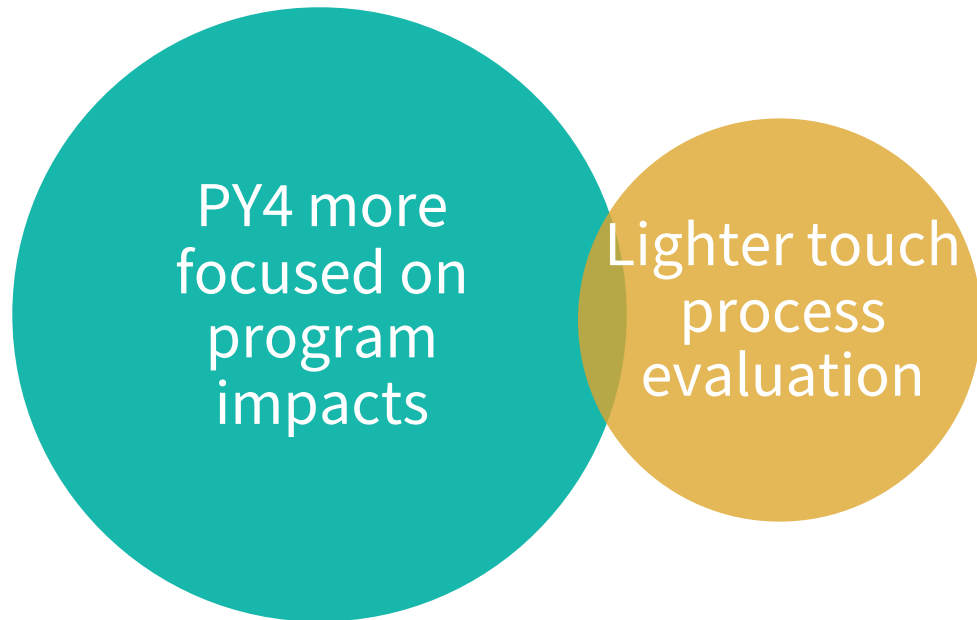
Process Evaluation

Evaluating the overall program operations and participants' experiences.

 = Impacts assessed for PY4 Approved Projects

 = Impacts assessed for PY4 Energized Projects

PY4 Focus

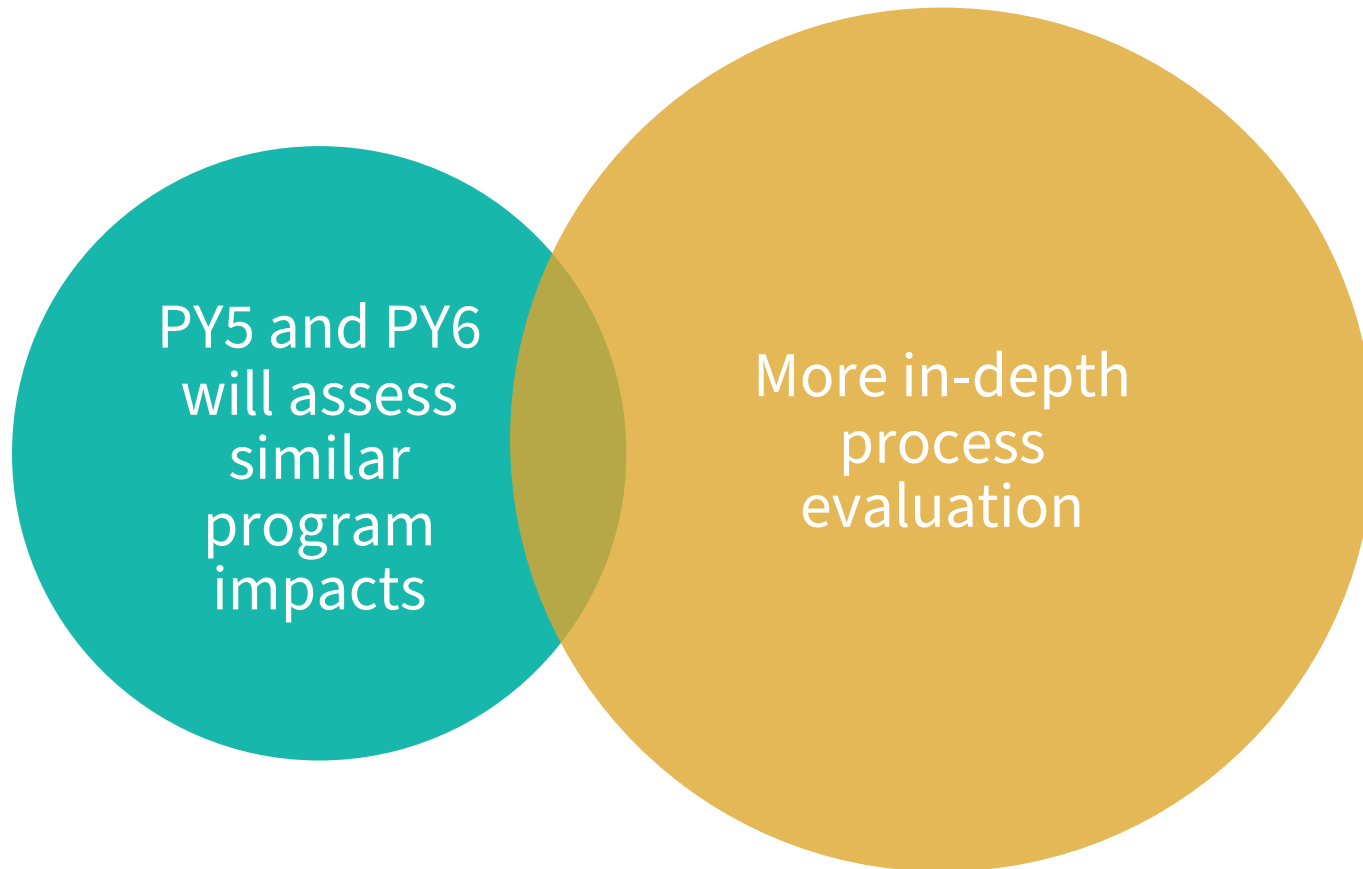


The PY4 evaluation focused more heavily assessing the impacts of the program on energy produced, bill savings, avoided emissions, jobs, the economy, and on environmental justice communities

The PY4 evaluation focused less on program experiences due to:

- Changes to the program due to CEJA, which were largely implemented in PY5 and PY6
- Participant recall of 2021-2022 program year

PY5 and PY6 Focus

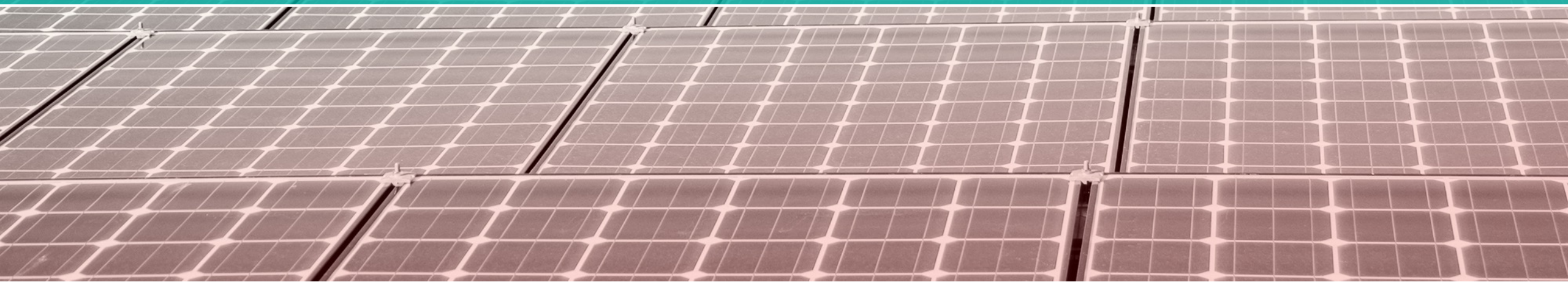


The PY5 and PY6 evaluation will assess similar impacts, but will focus more heavily on the process evaluation, which will assess the experiences of:

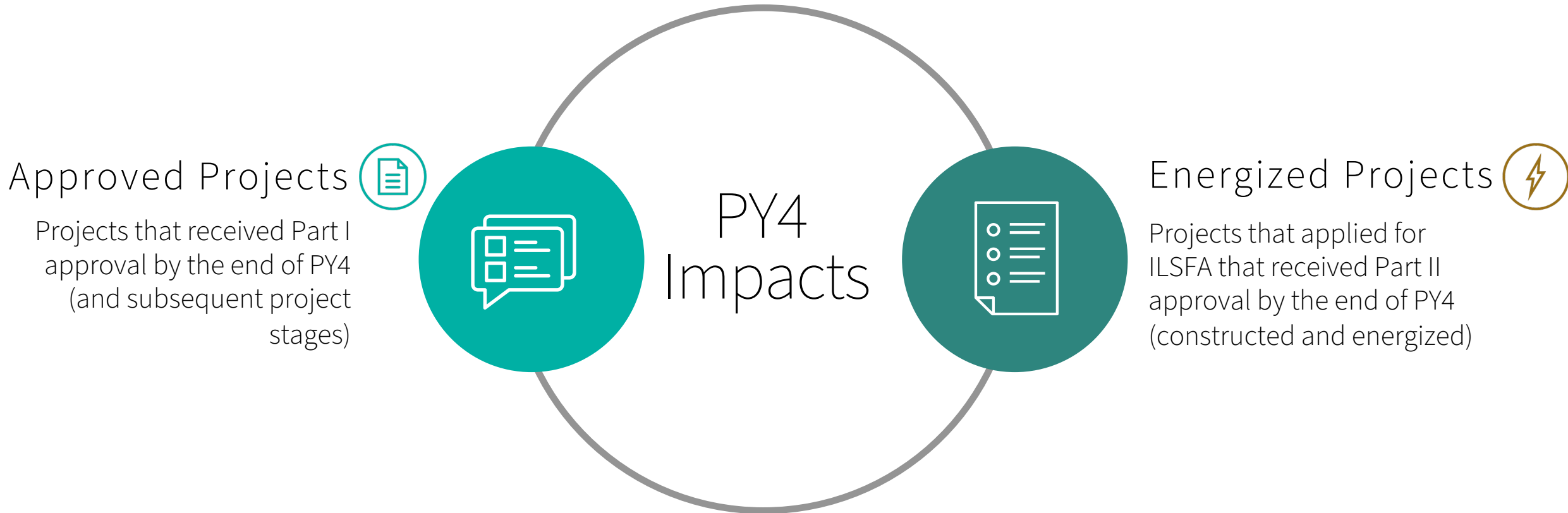
- Participants
- Approved vendors
- Grassroots Educators
- Job Trainers and Job Trainees
- Other interested parties (CBOs, CAAs, advocacy groups)



PY4 Results



Types of Impacts Assessed



6 projects fell in both the PY4 Approved and Energized project categories (4 small residential, 2 non-profit/public facility)

PY4 Approved Projects



1-4 Units



5+ Units



**Non-Profit
/Public**



Community Solar



158

Small
residential
projects

2

Large
residential
projects

41

Non-profit/
public facility
projects

6

Community
Solar projects
2,535 subscribers

PY4 Energized Projects



1-4 Units



5+ Units



**Non-Profit
/Public**



Community Solar



63

Small
residential
projects

1

Large
residential
projects

41

Non-profit/
public facility
projects

2

Community
Solar projects
8 subscribers

Energy, Bill, and Environmental Impacts





Energy Impacts



PY4 approved projects will result in an estimated **14,631.8 kW_{AC} of new capacity, 27.1 GWh of estimated solar energy produced, and 8.96 MWs of demand savings** in the first year of production

Program Recommendation:

To improve the accuracy of energy impacts, collect project costs for community solar as early as possible and provide REC production data to be used as a proxy for metered PV production

Energy Impacts
by Subprogram

PROJECT TYPE		NUMBER OF PROJECTS	TOTAL PV CAPACITY (kW _{AC})	ESTIMATED FIRST-YEAR ENERGY SAVINGS (MWH)
Distributed Generation	1-4 Units	158	954.2	1,456.9
	5+ Units	2	370.8	539.5
	Non-Profit/Public Facilities	41	5,631.8	9,280.3
	Total	201	6,956.8	11,276.8
Community Solar	Total	6	7,405.0	15,855.2
All Approved Projects		207	14,361.8	27,132.0



Environmental



Environmental Impacts

First year avoided emissions of PY4 approved projects have the potential to reduce **CO₂ emissions by 12 million pounds, NO_x emissions by six thousand pounds, and SO₂ emissions by 13 thousand pounds**

Avoided CO₂ impacts are **equivalent to powering 3,278 homes or taking 770 cars off the road**

First Year
Avoided
Emissions by
Subprogram
(in lbs)

PROJECT TYPE		CO ₂ E	NO _x	SO ₂
Distributed Generation	1-4 Units	638,642	341	707
	5+ Units	239,053	126	262
	Non-Profit/Public Facilities	4,086,657	2,169	4,506
	Total	4,964,352	2,636	5,475
Community Solar	Total	7,101,742	3,706	7,698
All Approved Projects		12,066,095	6,342	13,174



Bill

Bill Impacts



Customer bill savings could range between 84% and 89% of total monthly bill, or between \$71.08 and \$90.94

Non-Profit/Public Facilities customers save \$1,290.78 per month

Net present value (NPV) of **lifetime bill savings of energized projects is \$26M**, **NPV of lifetime customer costs is \$5M**

**Evaluation
Next Steps:**

*To improve the accuracy of bill savings estimates, the evaluation team will review implementer data about **customer energy consumption** prior to installation and determine if it is sufficient to include in future analysis*

Bill Impacts by
Subprogram

	PROJECT TYPE	NUMBER OF PROJECTS	AVERAGE MONTHLY ESTIMATED BILL SAVINGS PER CUSTOMER	AVERAGE SAVINGS PERCENTAGE
Distributed Generation	1-4 Units	63	\$90.94	87.9%
	5+ Units	1	\$71.08	89.3%
	Non-Profit/Public Facilities	41	\$1,290.78	83.5%
Community Solar		2	\$82.08	84.4%

Job and Economic Impacts





Jobs

Job Impacts



Construction and maintenance of solar projects, need for components for projects, and ripple effects of project spending **increased demand for labor by 260 full-time-equivalent jobs worth of employment across the year**

Evaluation next step:

The team will further investigate job training programs and outcomes in the PY5 evaluation.

REGION	POPULATION	NUMBER OF PROJECTS (ENERGIZED AND APPROVED)	TOTAL EMPLOYMENT IMPACT
Cook County, IL	5,275,541	165	70
Northeast	3,462,229	70	60
Northwest	1,496,983	29	60
East Central	808,510	23	40
West Central	1,240,089	11	20
South	529,156	10	20
Total	12,812,508	308*	260

*Note: Total number of projects does not equal the sum of energized and approved projects as 6 projects were both energized and approved during PY4.



Economic Impacts



308 total projects approved and energized through PY4 are projected to create an estimated **\$48.4 million in new contributions to GDP in Illinois from project spending and \$14.5 million in employee compensation**

Direct, indirect, and induced modeled **economic impacts follow roughly the same distribution as program spending across the six main program regions**

- Spending was greatest in Cook County, so a large portion of economic impacts were felt in Cook County

Program Recommendation: *Focus spending in areas with DACs and other demographics of interest, as spending leads to other economic benefits in these communities*

Region	Population	Total Modeled Employee Compensation	Project Cost Modeled Impacts to GDP
Cook County, IL	5,275,541	\$4,210,000	\$13,180,000
Northeast	3,462,229	\$4,070,000	\$13,120,000
Northwest	1,496,983	\$3,180,000	\$10,890,000
East Central	808,510	\$1,520,000	\$5,690,000
West Central	1,240,089	\$930,000	\$3,500,000
South	529,156	\$660,000	\$2,670,000
Total	12,812,508	\$14,460,000	\$48,400,000

*Note: Total number of projects does not equal the sum of energized and approved projects as 6 projects were both energized and approved during PY4.



Economic

Economic Impacts



Bill savings generated additional economic activity. Household savings totaled about \$90,000

- Customers used roughly a third of their savings on the healthcare and housing sectors, based on economic models of household spending patterns

Program Recommendation: *Increase access to solar programs to bring economic benefits to communities throughout Illinois*



CATEGORY	INDUCED IMPACT
Healthcare	\$17,000
Housing	\$15,000
Retail Shopping	\$9,000
Groceries & Dining	\$7,000
Debt Service	\$6,000
Transportation	\$6,000
Utilities	\$5,000
Insurance	\$3,000
Non-Cash Savings & Investments	\$3,000
Business Expenses	\$500
Other	\$13,000



Social Impacts





Social



Social Impacts

47% of program incentives went to environmental justice communities (EJCs), exceeding target of 25%



Distributed Generation
PY4 Approved
Projects

25%
of funding
allocated to EJCs

33%
of projects
sited in EJCs

Community
Solar PY4
Approved
Projects

53%
of funding
allocated to
EJCs

33%
of projects
sited in EJCs

56%
of subscribers
reside in EJCs

Non-profit/
Public Facilities
PY4 Approved
Projects

43%
of funding
allocated to EJCs

61%
of projects
sited in EJCs



Social Impacts: Overall Findings

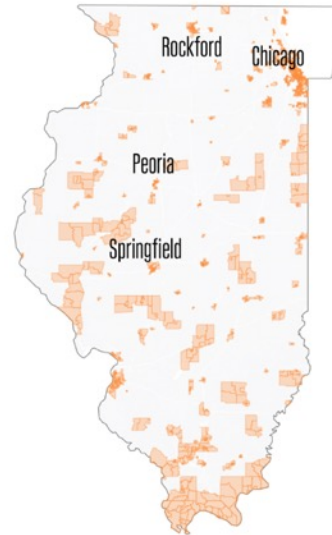
Many ways to characterize disadvantaged communities (DACs), no ideal designation

- ILSFA's EJC designation considers environmental burdens but excludes communities that may benefit from ILSFA, such as rural communities

IL Solar for All EJ Communities



Justice 40 DACs



r3 DACs



Future Considerations:

IPA is planning to consider updates to the EJC criteria and methodology. They will gather input from stakeholders later in 2024 and will release a pre-proposal for an update to the Long-Term Renewable Resource Procurement Plan in the spring of 2025 based on stakeholder feedback



Social Impacts

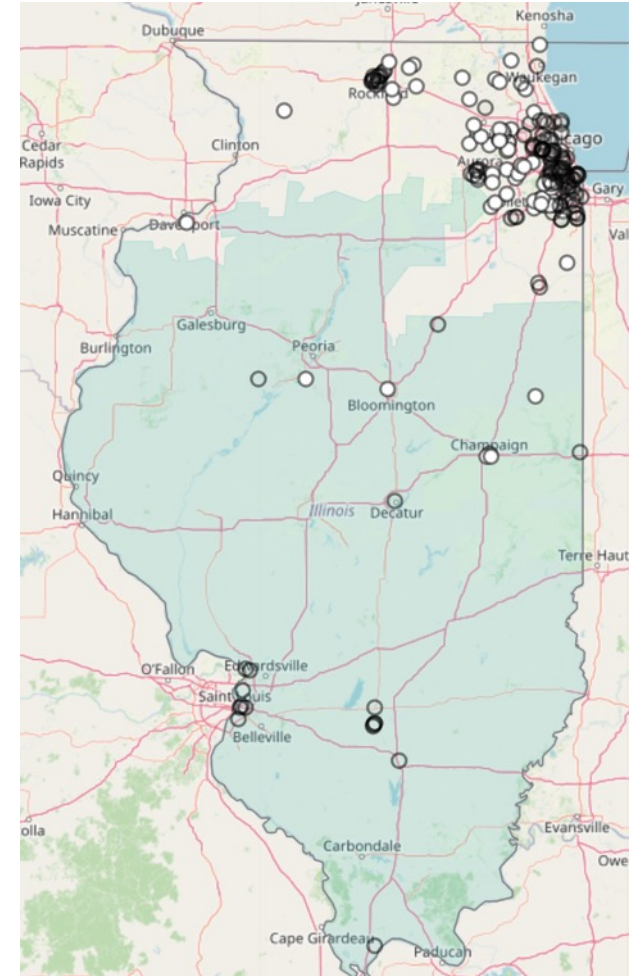


Program coverage is not proportionate to utility service

- 88% of ILSFA projects are within ComEd's service territory, but ComEd only serves 70% of population the state
- Driven by concentration of Low-Income Distributed Generation projects (97%) in ComEd's service territory
- Also related to challenges serving rural communities in downstate Illinois

Evaluation Next Steps:

In order to better serve customers in rural areas, the team will evaluate program outreach and implementation strategies in these areas. The team will also collect community input from rural territories to better understand their needs in the PY5 evaluation.



Interactive Maps:

- ILSFA PY4 Projects and DACs Map: <https://illumeadvising.com/2024/ilsfa-py4-projects-and-dacs-map/>
- ILSFA PY4 Projects and DACs Heatmap, including Ameren and ComEd service territories: <https://illumeadvising.com/2024/ilsfa-py4-projects-and-dacs-heatmap/>

A photograph of a modern house with solar panels on the roof. The house has grey horizontal siding, white window frames, and a white balcony railing. A teal semi-transparent banner is overlaid across the middle of the image, containing the text "Process Evaluation" in white. The background shows a clear sky and a gable roof with solar panels.

Process Evaluation



Process Evaluation Findings

Elevate worked to improve and refine the ILSFA program

- Addressed inefficiencies identified by vendors and program evaluations, including improving the vendor portal
- Expanded vendor management team, added technical subcontractor for application review, rolled out new direct income verification process and referral process

Still room for improvement in the vendor portal and application processes

- Challenges with responding to program changes in middle of program cycle, uploading documentation to vendor portal, navigating workforce development criteria, and obstacles related to job training

Evaluation Next Steps: *To further investigate challenges with the vendor portal, application process, and job training requirements, the team will speak with vendors and job trainees in the PY5 evaluation*

The evaluation team created detailed process flows for each subprogram:

- [Residential Low Income Distributed Generation Customer Acquisition](#)
- [Residential Low Income Distributed Generation and Non-Profit/Public Facilities Project Application Process](#)
- [Community Solar Project Development and Application Process](#)

PY4 Program Spending

Subprogram Budgets and Allocated Incentives

Sub-program	Py4 Total Budget	PY4 CEJA Budget Infusion	PY4 Incentive Value Of Approved Projects	% Budget Allocated To Incentives
Distributed Generation	\$36,674,305	\$14,359,969	\$3,276,419	9%
Non-Profit/Public Facilities	\$15,076,529	\$10,243,988	\$13,604,870	90%
Community Solar	\$26,309,991	\$14,115,982	\$21,338,128	81%

Source: Illinois Solar for All Annual Summary: June 2021 – May 2022

- Small Distributed Generation subprogram drives low PY4 incentive allocation
- CEJA funding brought additional funds to program mid-year

Program Administrative Costs

Category	Entity	Total Spend
Program Implementation	IPA	\$354,282.98
Program Administration	Elevate	\$2,299,688.13
Evaluation	APPRISE	\$109,531.25 ^a
Grassroots Educators	All PY4 Grassroots Educators	\$417,894.09 ^b
Total Administrative Costs		\$3,149,326.09

- Administrative costs were 4% of the total program budget in PY4

^a The previous evaluation cycle concluded November 2021, so these costs are inclusive of June 1, 2021 – November 30, 2021.

^b Grassroots educator costs include two additional month of spending (June 1, 2021 – July 31, 2022) because some grassroots educators from the PY4 cohort were given additional time following the conclusion of the program year to complete their campaigns.

The background image shows two individuals wearing safety vests. One person is in the foreground, wearing a plaid shirt and a white safety vest, and is writing on a clipboard with a pen. Another person is partially visible behind them, also wearing a safety vest. The scene appears to be outdoors, possibly at a construction or industrial site. A teal horizontal band is overlaid across the middle of the image, containing the title text.

PY5 and PY6 Data Collection

Planned Data Collection Activities

PY5 Report

(December 2024)



PY6 Report

(May 2025)



Energy, environmental, and bill impacts	•	•
Social Impacts	•	•
Job and Economic Impacts	•	•
Process Evaluation	•	•

Planned Data Collection Activities

PY5 Report

(December 2024)



PY6 Report

(May 2025)



PA interviews

Up to 6

Up to 3

Grassroot Educator
Interviews

Census

Census

Job Trainer
interviews

8-10

8-10

Planned Data Collection Activities

PY5 Report

(December 2024)



PY6 Report

(May 2025)



Non-participating CBO and Agency Interviews

Up to 12

Trainee surveys

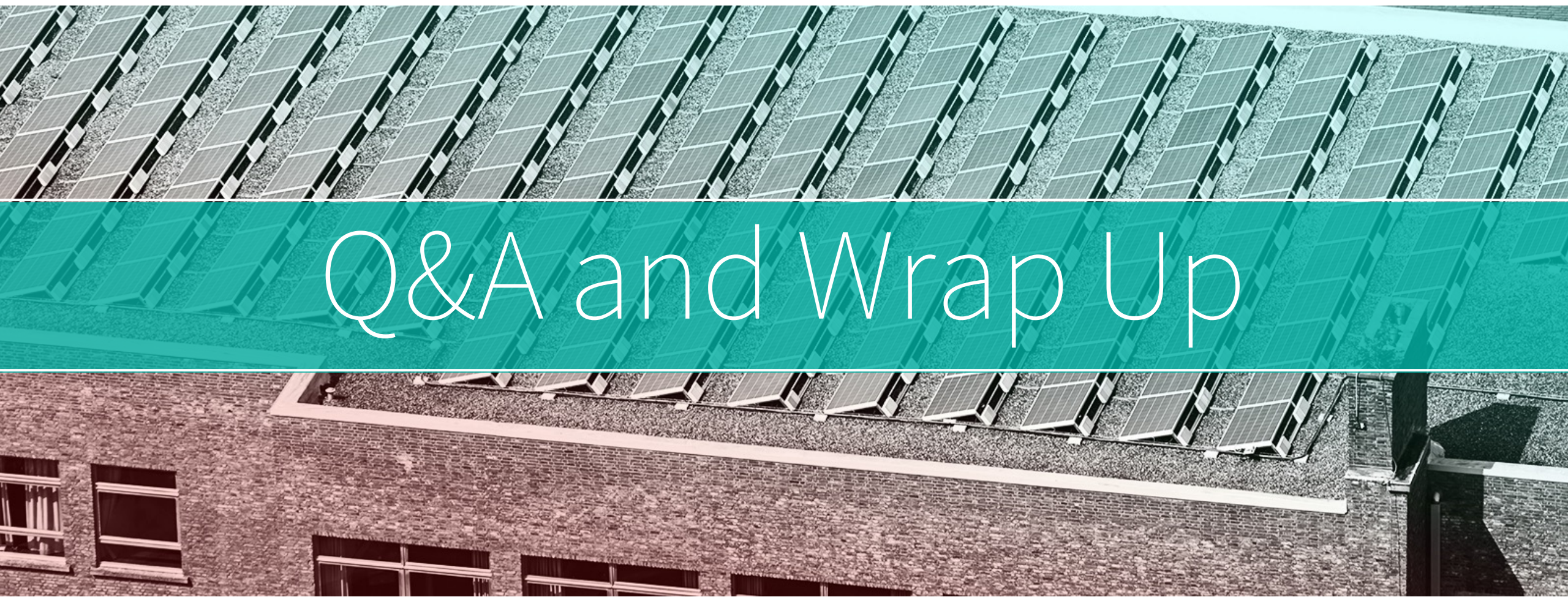
Census

Approved Vendor Surveys

Census

Participant Focus Groups
(1-3 communities per subprogram)

8 Groups



Q&A and Wrap Up

Questions to Consider

Questions we're looking for input on:

- Do you have any questions about the PY4 evaluation results?
- Is there anything you'd like to see in the PY5 or PY6 evaluations?
- What questions or issues are top of mind for the study overall?
- How do you intend to use the evaluation?
- What social impacts are meaningful to you and/or the communities you serve?

Next steps

- The webinar recording will be posted to the IPA website [Events](#) page by July 19, 2024.
- In addition to the webinar, stakeholders can submit comments on the Evaluation Plan to ILSFAevaluation@illumeadvising.com, comments must be submitted by July 26, 2024 at 5:00 pm CST. Comment submissions should include “ILSFA Evaluation Planning Webinar Response to Comments – [Commenters Name]” in the email subject line.

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