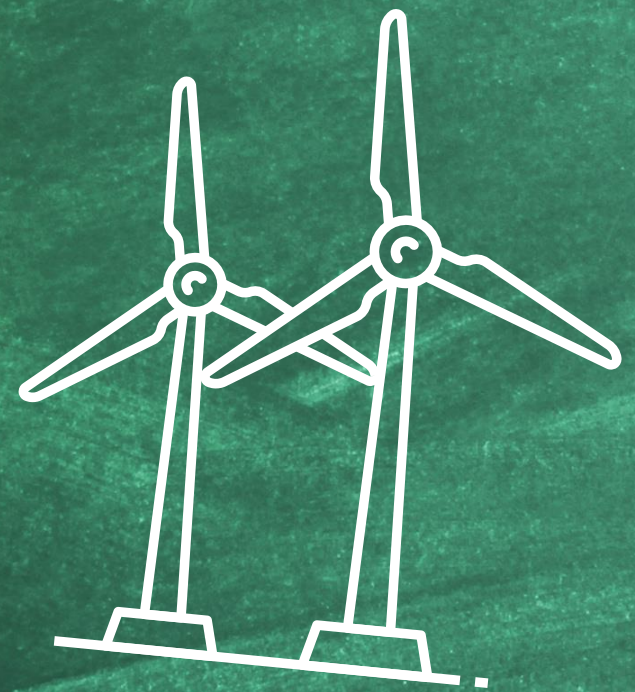


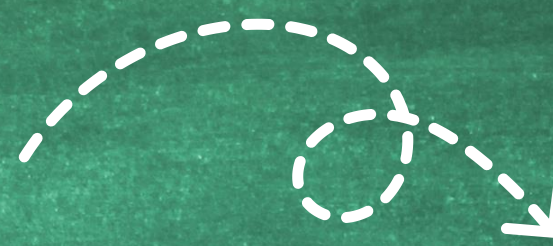
# IPA's Clean Energy Dashboard & Progress Toward State Clean Energy Goals



Session 4

IPA's Summer School Virtual Series  
for Legislators & Staff

9/19/24



## **IPA Summer School for Legislators & Staff** **2024 Schedule**

### **Today**

**Session 4: IPA's Clean Energy Dashboard & Progress Toward State Clean Energy Goals**

Date: Thursday, September 19, 2024, at 12:15 - 1 p.m.

### **Previous**

**Session 1: Understanding the IPA's Solar Incentive Programs**

Date: Thursday, July 18, 2024, at 12:15 - 1 p.m.

[\*\*Watch the Recording & View the Deck Here\*\*](#)

**Session 2: How Consumer Protections Work for the IPA's Solar Incentive Programs**

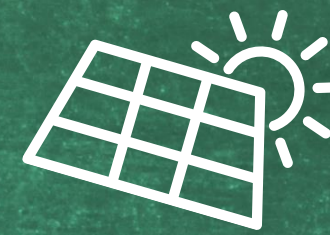
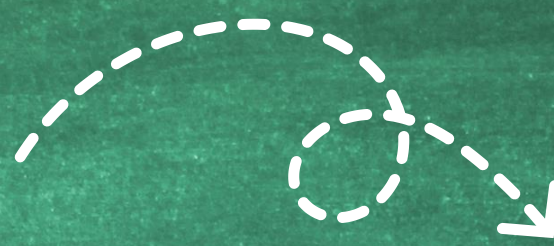
Date: Thursday, August 15, 2024, at 12:15 - 1 p.m.

[\*\*Watch the Recording & View the Deck Here\*\*](#)

**Session 3: Advancing IPA's Equity Initiatives in the Clean Energy Transition**

Date: Thursday, September 5, 2024, at 12:15 - 1 p.m.

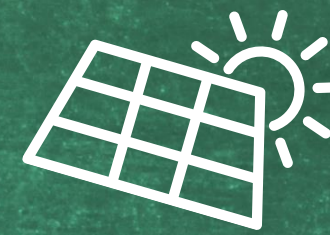
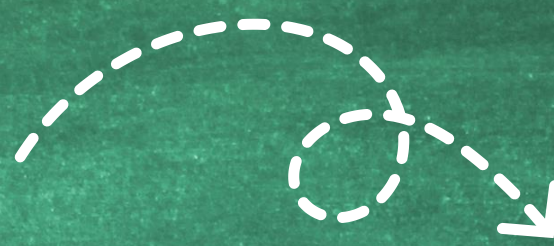
[\*\*Watch the Recording & View the Deck Here\*\*](#)



## **Session 4: IPA's Clean Energy Dashboard & Progress Toward State Clean Energy Goals**

### Today's Agenda

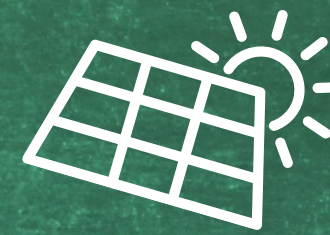
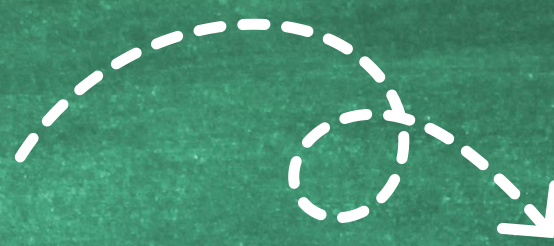
- The IPA's role in the clean energy transition
- What is the Illinois Clean Energy Dashboard website and its goals?
- Scope of the Illinois Clean Energy Dashboard website project
- Phase I & II of the Illinois Clean Energy Dashboard website
- Clean energy development and progress through visualizations
- Q&A



## What is the IPA's role in the clean energy transition?

- **Brief History and Responsibilities of the IPA**
- **IPA's Clean Energy Responsibilities**
  - Renewable Portfolio Standard, est. 2007
  - Expanded thanks to FEJA (2016) and CEJA (2021)
- **Deregulated Market Legislative Landscape IPA Operates in**
- **Why the Clean Energy Dashboard?**





## **More on the Renewable Portfolio Standard (RPS)**

### **What is it? And what isn't it?**

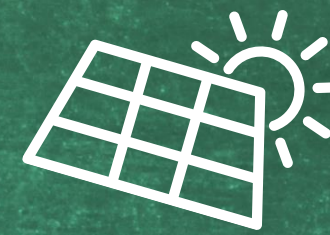
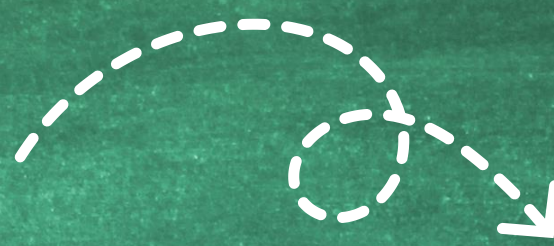
- State policy that a certain percentage of retail electric sales is met via renewable energy

### **Purchase of RECs by utilities through IPA-administered programs/procurements**

- Renewable Energy Credits (RECs) represent the environmental attributes associated with 1 MWh of generation from a renewable energy resource
- RECs' value can provide project developers financial certainty that market alone may not

### **Implementing the Renewable Portfolio Standard**

- Development of Long-Term Renewable Resources Procurement Plan
- Conduct competitive procurements for utility-scale projects
- Manage programs for community solar and distributed solar for homes and businesses

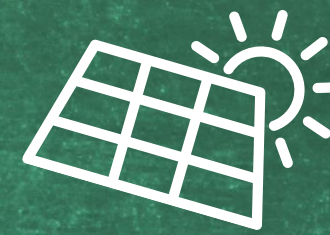
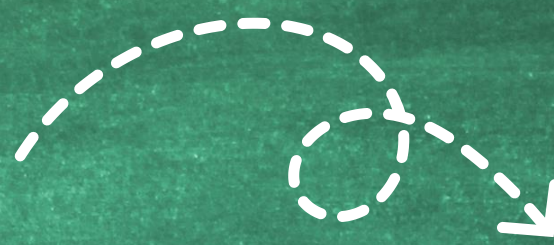


## **Deeper dive into the Renewable Portfolio Standard (RPS)**

**Significant changes from FEJA (2016):** Incented the development of over 25,000 projects between all programs, competitive procurements, etc.

### **Further changes from CEJA (2021):**

- 25% by 2025 goal increased to 40% by 2030 with further target of 50% by 2040 (based on procurement of RECs rather than a generation goal)
- Customer load in Illinois is ~120mil MWh annually
  - 25% would be 30mil MWh (or 30mil RECs/annually)
  - 40% would be 48mil MWh (or 48mil RECs/annually)
- Rate cap increased



## Today's Speakers



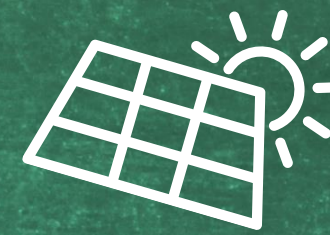
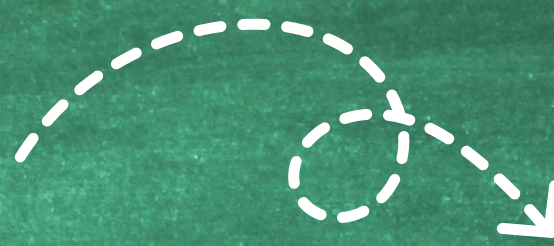
**Megha Hamal**

Chief Strategy & Communications Officer,  
Illinois Power Agency  
*Project Lead/Narrative Lead*



**Abigail Ramirez**

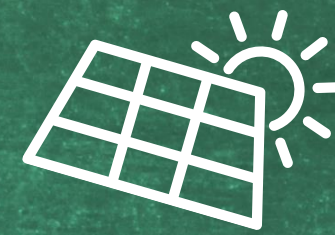
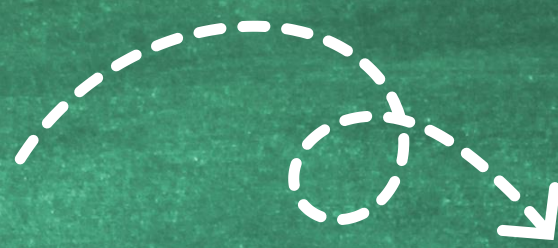
Data Analytics Manager,  
Illinois Power Agency  
*Data Lead/Developer*



## Scope of the Illinois Clean Energy Dashboard Website

- Showcases the renewable energy development **within and outside of RPS.**
  - **Conveys the progress of renewable energy development** with data visualizations.
- Serves as an **educational tool to provide easier-to-access answers** to questions that arise most frequently.
- **Educates stakeholders on the IPA's role** in the clean energy transition.





# Project Team

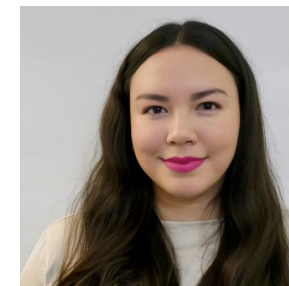
## Project Management



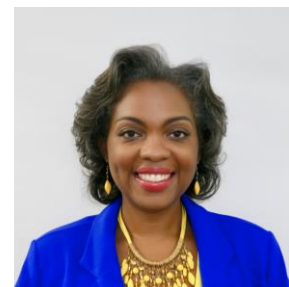
## Data Team

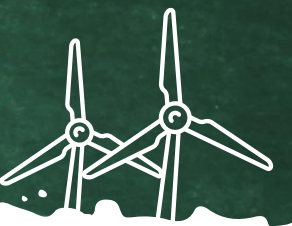
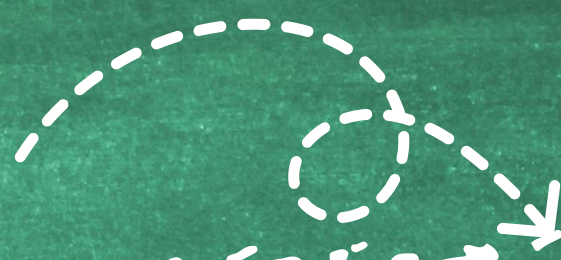


## Narrative Team

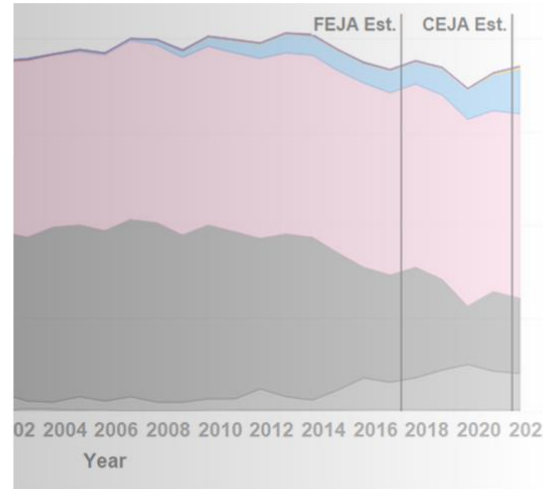


## Website Team

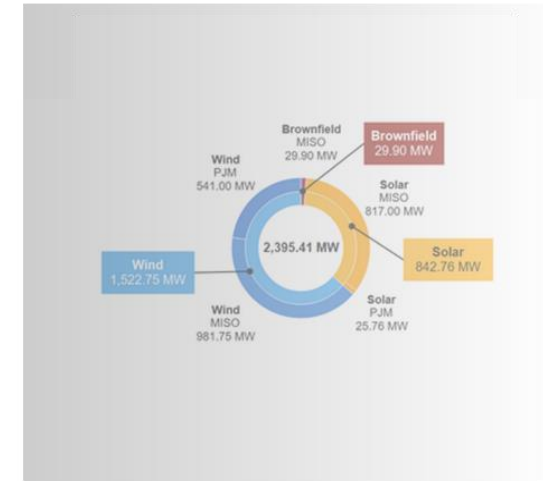




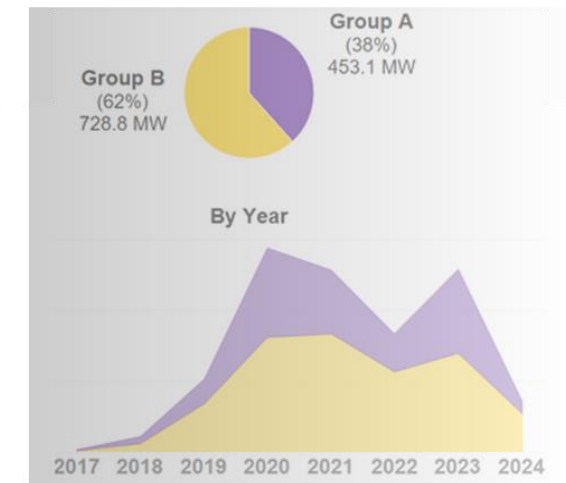
# Phase I



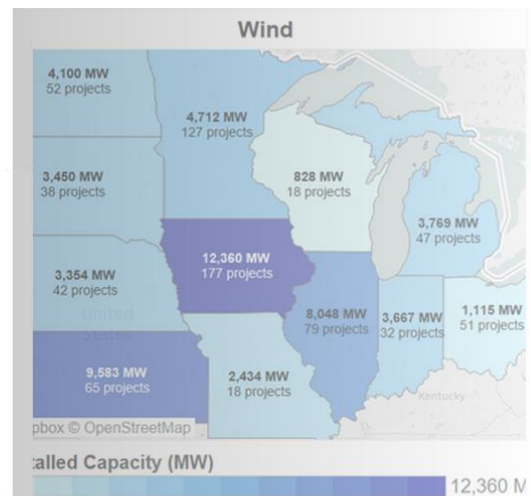
**Electricity Generation Mix**



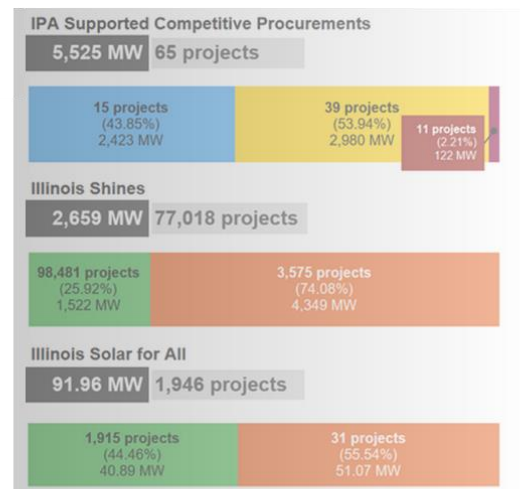
**Competitive Procurements**



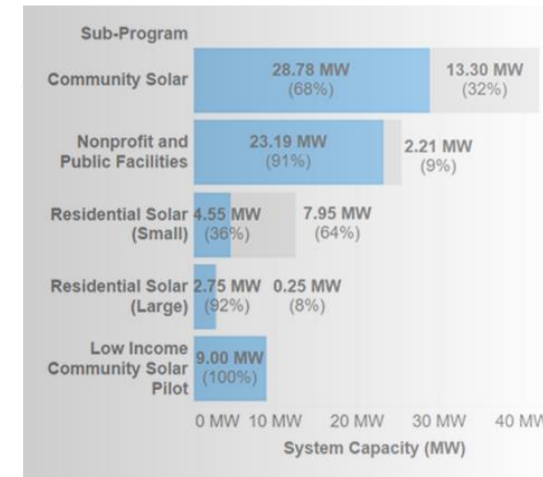
**Illinois Shines**



**Midwest Solar and Wind Capacity**



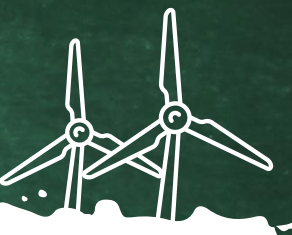
**IPA Initiatives**



**Illinois Solar for All**



**Equity**



# Clean Energy Dashboard

## Phase I

### Welcome to the Illinois Clean Energy Dashboard

The Illinois Clean Energy Dashboard is a data website for residents, businesses, and other stakeholders to explore the progress made in the state's renewable energy development. By presenting complex metrics through innovative visualizations, the Dashboard website allows interested parties to view key trends in renewable energy generation, geographical energy capacities, and more. With a focus on equity, the Dashboard website is designed to convey the story of Illinois' renewable energy development through intuitive data visualizations.

Phase I of the Dashboard website includes static visualizations that track the progress of renewable energy development in Illinois. Phase II of the Dashboard website will include interactive dashboards, which are currently under development.

Providing accessible data on renewable energy development is crucial for key stakeholders and the public to answer questions about the growth of renewable energy in Illinois. Through this Dashboard website, the IPA hopes to empower stakeholders and policymakers with the data and insights they need to make effective policy decisions to enable an equitable clean energy future for all Illinoisans.

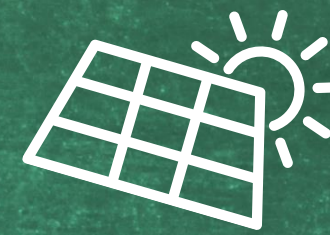
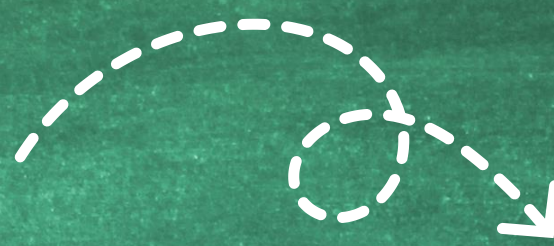
### Resources

- To download data from the dashboard, visit the [Download Data](#) page.
- For a glossary of terms, please visit the [Clean Energy Dashboard Glossary](#).
- Having trouble with this dashboard? Please [Contact Us](#).
- To learn about the Illinois Power Agency, please visit the [IPA website](#).
- To learn about the IPA's solar incentive programs, please visit the [Illinois Shines](#) website or the [Illinois Solar for All](#) website.
- To learn the about the IPA's Competitive Procurements, please visit the [Energy Procurement](#) website.
- To learn about the IPA's Energy Workforce Equity Portal, please visit [Energy Equity Illinois](#).

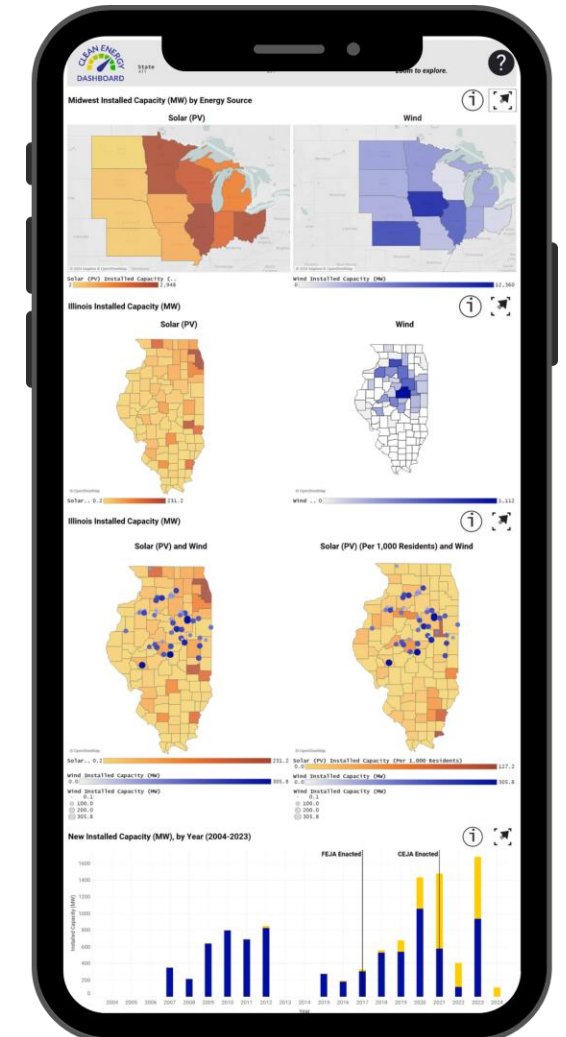
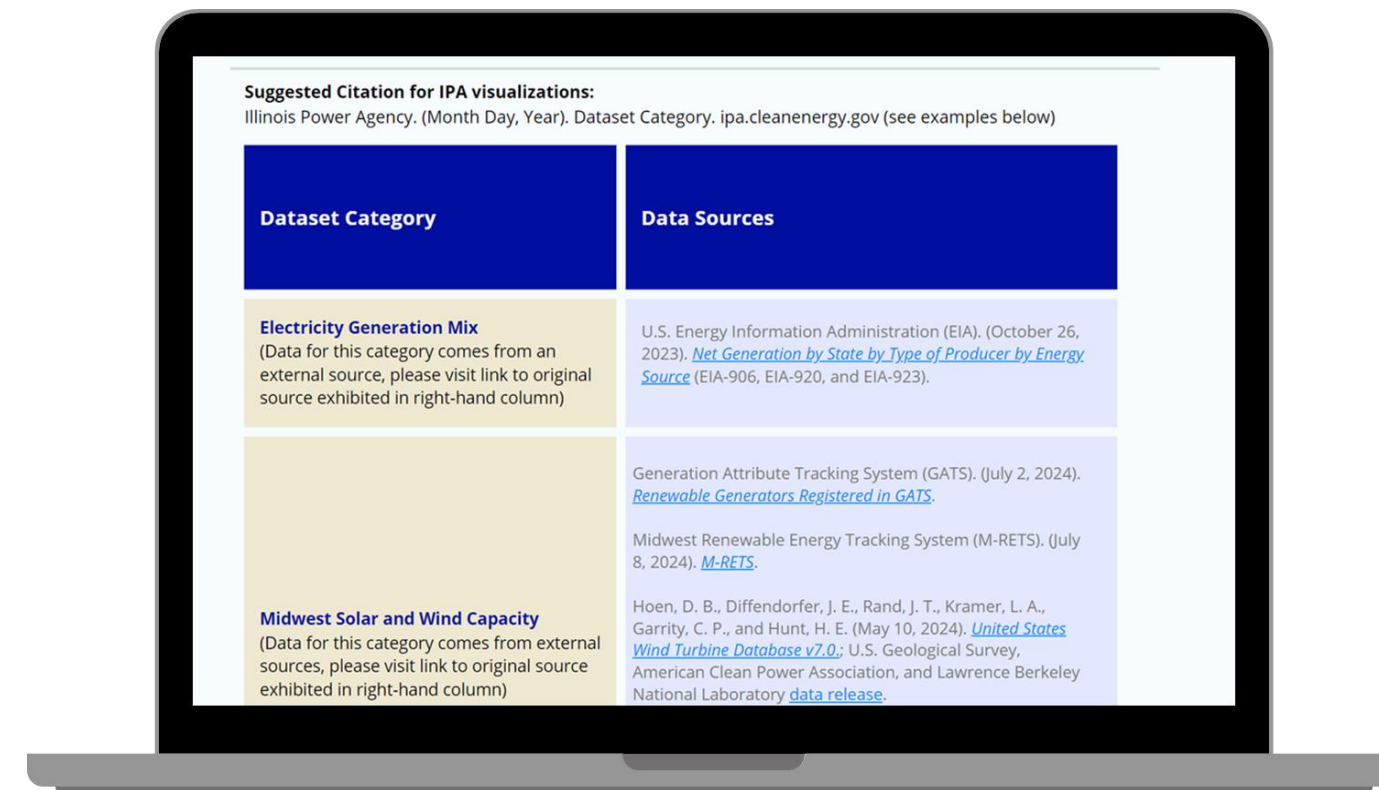


The screenshot shows the 'Download Data' page of the Illinois Clean Energy Dashboard. The page includes a navigation bar with links for 'About', 'Tracking Illinois' Progress', 'Download Data', 'Updates', and 'Contact Us'. Below the navigation bar, there is a search bar and a breadcrumb trail: 'IPA Clean Energy Dashb... > Download Data'. The main heading is 'Download Data'. The text explains that the page is a repository of datasets and provides instructions on how to use the data. A 'DISCLAIMER AGREEMENT' section follows, detailing the obligations of users. At the bottom, there is a table with two columns: 'DATASET CATEGORY' and 'DATA SOURCES'.

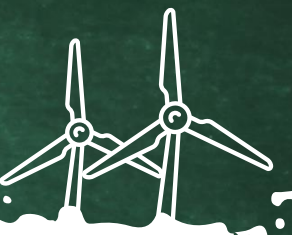
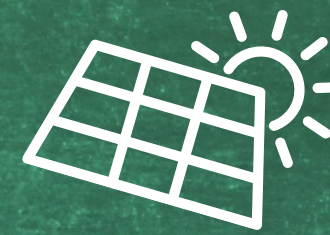
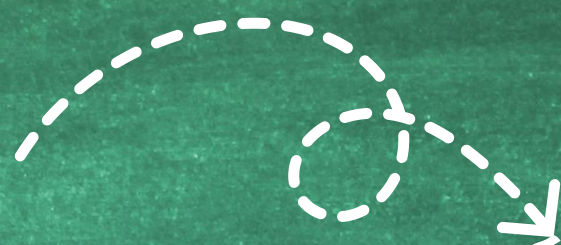
DATASET CATEGORY	DATA SOURCES
Electricity Generation Mix (Data for this category comes from an external source, please visit link to original source exhibited in right-hand column)	U.S. Energy Information Administration (EIA), (October 26, 2023). <a href="#">Net Generation by State by Type of Producer by Energy Source</a> (EIA-906, EIA-920, and EIA-923).
Midwest Solar and Wind Capacity (Data for this category comes from an external source, please visit link to original source exhibited in right-hand column)	Generation Attribute Tracking System (GATS), (July 2, 2024). <a href="#">Renewable Generators Registered in GATS</a> Midwest Renewable Energy Tracking System (M-RETS), (July 8, 2024). <a href="#">M-RETS</a> . Hoen, D. B., Diffendorfer, J. E., Rand, J. T., Kramer, L. A., Garrity, C. P., and Hunt, H. E. (May 10, 2024). <a href="#">United States Wind</a>



## Phase II



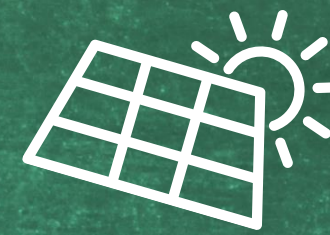
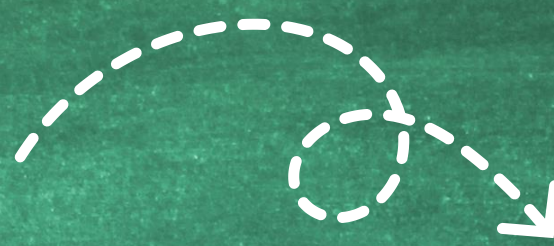
- Seven interactive dashboards
- Mobile interactive dashboards
- Targeted resources



## Sneak Preview

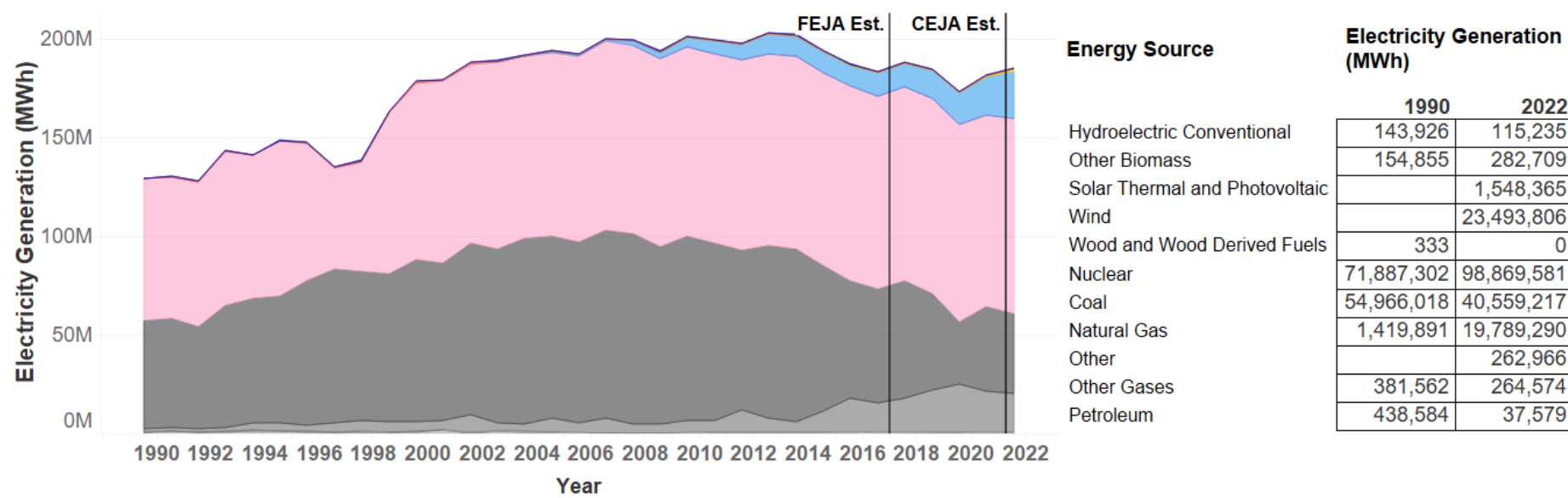
- Electricity Generation Mix
- Midwest Solar and Wind Capacity
  - IPA Initiatives
  - Illinois Shines
  - Illinois Solar for All
- Competitive Procurements
  - Equity





# Electricity Generation Mix

**Electricity Generation Mix**  
Illinois Electricity Generation Over Time, by Energy Source (1990-2022)

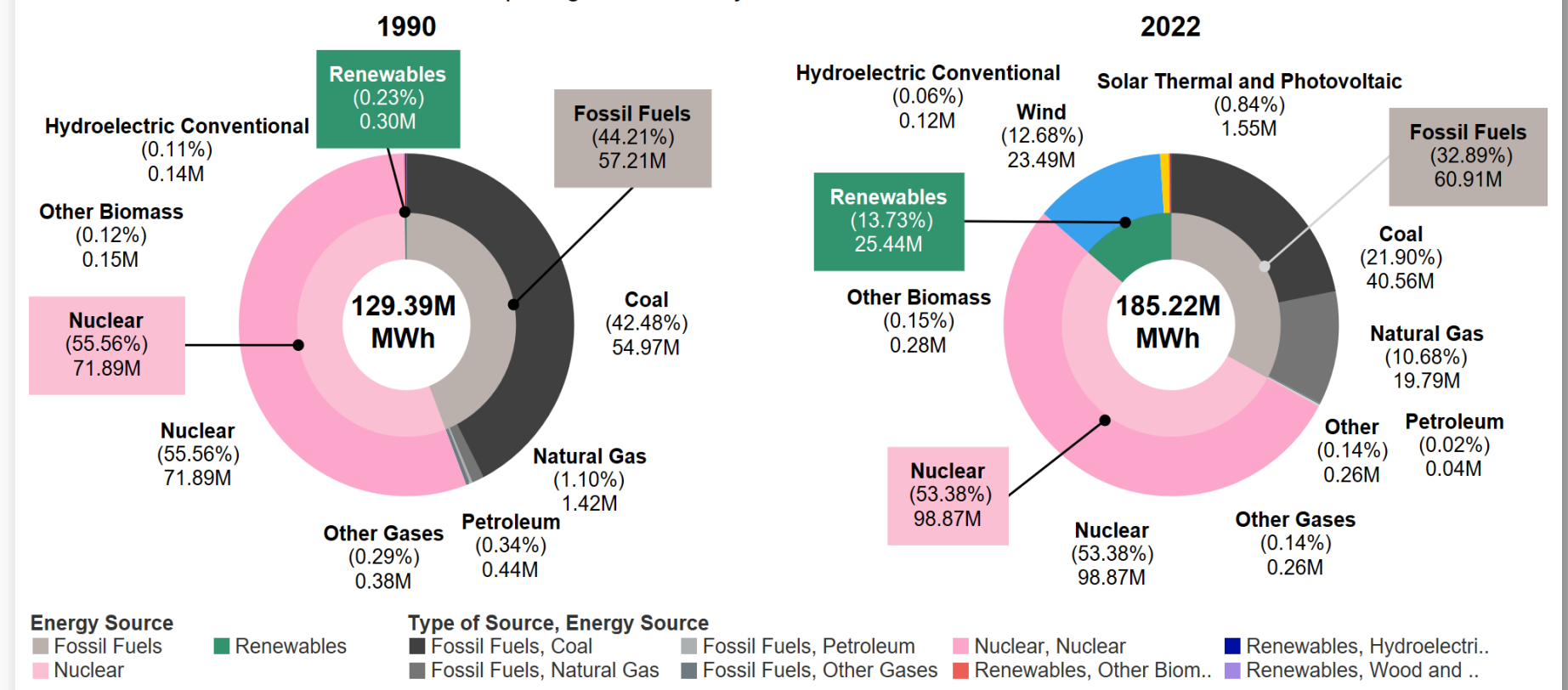


**Legend**

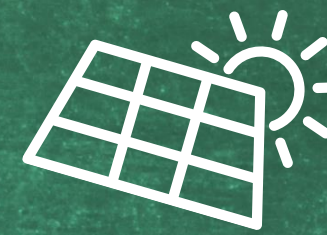
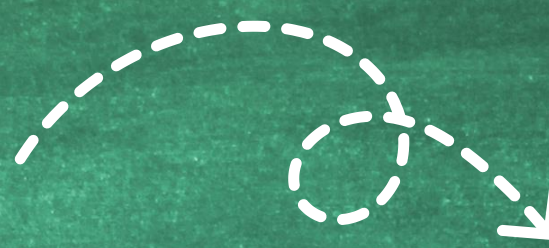
- Renewables, Hydroelectric Conventional
- Renewables, Other Biomass
- Renewables, Solar Thermal and Photovo..
- Renewables, Wind
- Renewables, Wood and Wood Derived F..
- Nuclear, Nuclear
- Fossil Fuels, Coal
- Fossil Fuels, Natural Gas
- Fossil Fuels, Other
- Fossil Fuels, Other Gases
- Fossil Fuels, Petroleum

**Source:** U.S. Energy Information Administration (EIA). (October 26, 2023). *Net Generation by State by Type of Producer by Energy Source (EIA-906, EIA-920, and EIA-923)*.  
**Note:** Nuclear has remained a major source of electricity generation in Illinois. The development of renewables has grown considerably from 1990 to 2022, in particular wind. The proportion of electricity generated from coal has decreased, while the proportion from natural gas has increased.

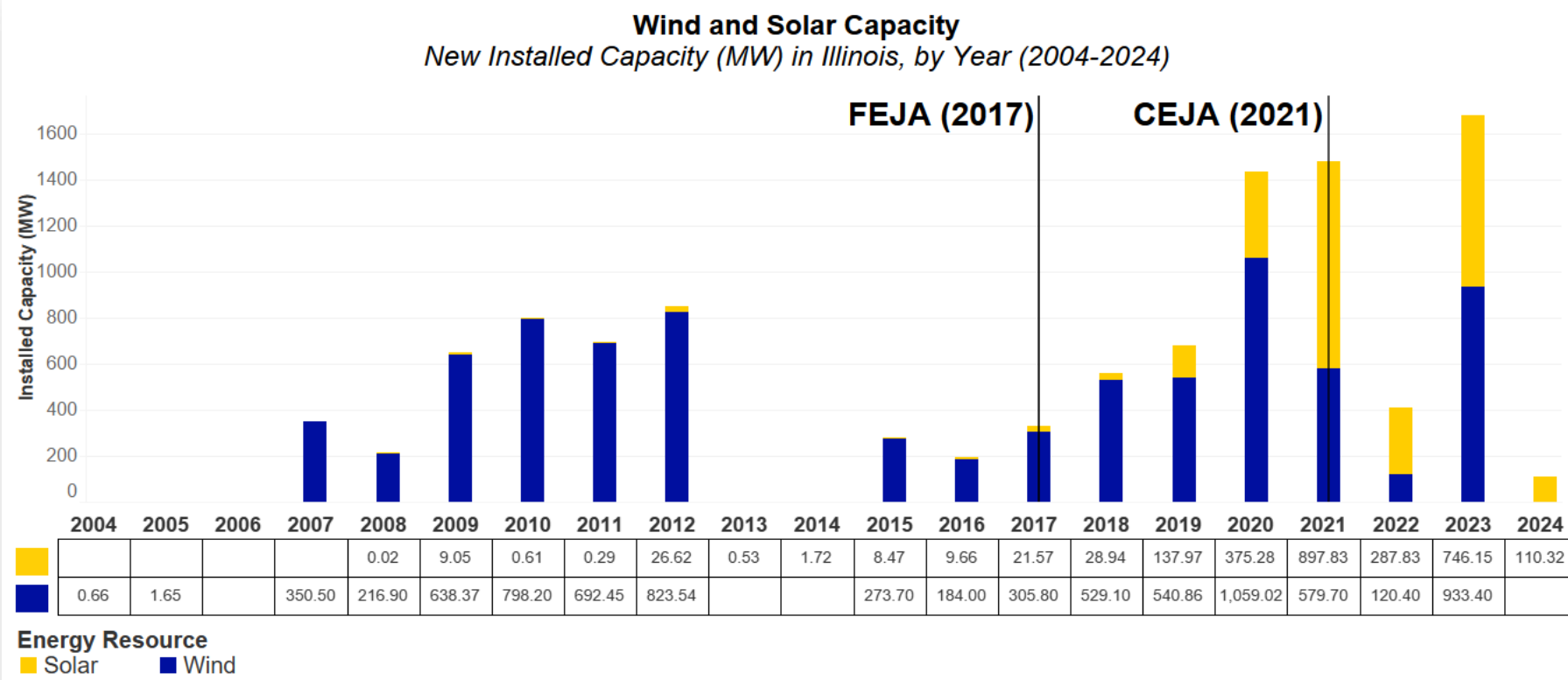
**Electricity Generation Mix**  
Comparing the electricity mix in Illinois in 1990 and 2022



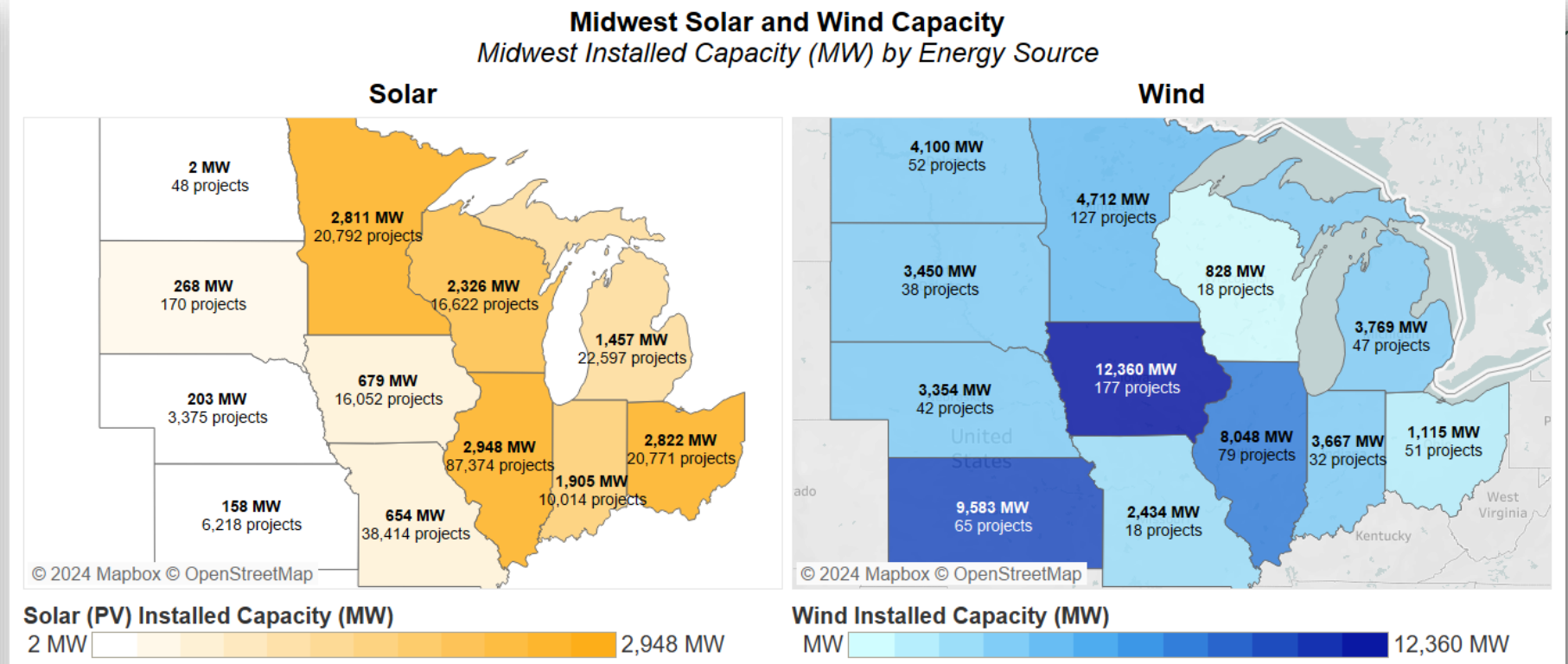
**Source:** U.S. Energy Information Administration (EIA). (October 26, 2023). *Net Generation by State by Type of Producer by Energy Source (EIA-906, EIA-920, and EIA-923)*.  
**Note:** Renewables only represented 0.23% of the electricity mix in 1990. By 2022, this proportion grew to 13.73%. Nuclear has accounted for approximately half of electricity generation in Illinois throughout the 32 year period.



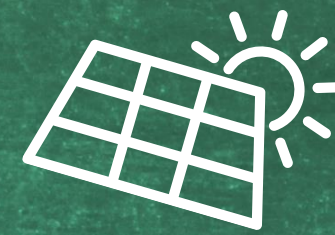
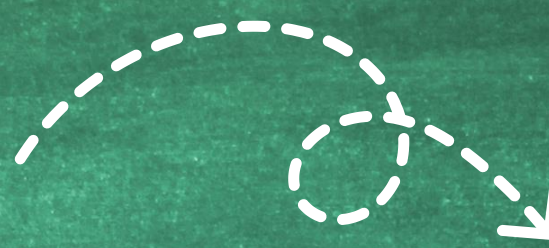
# Midwest Solar and Wind Capacity



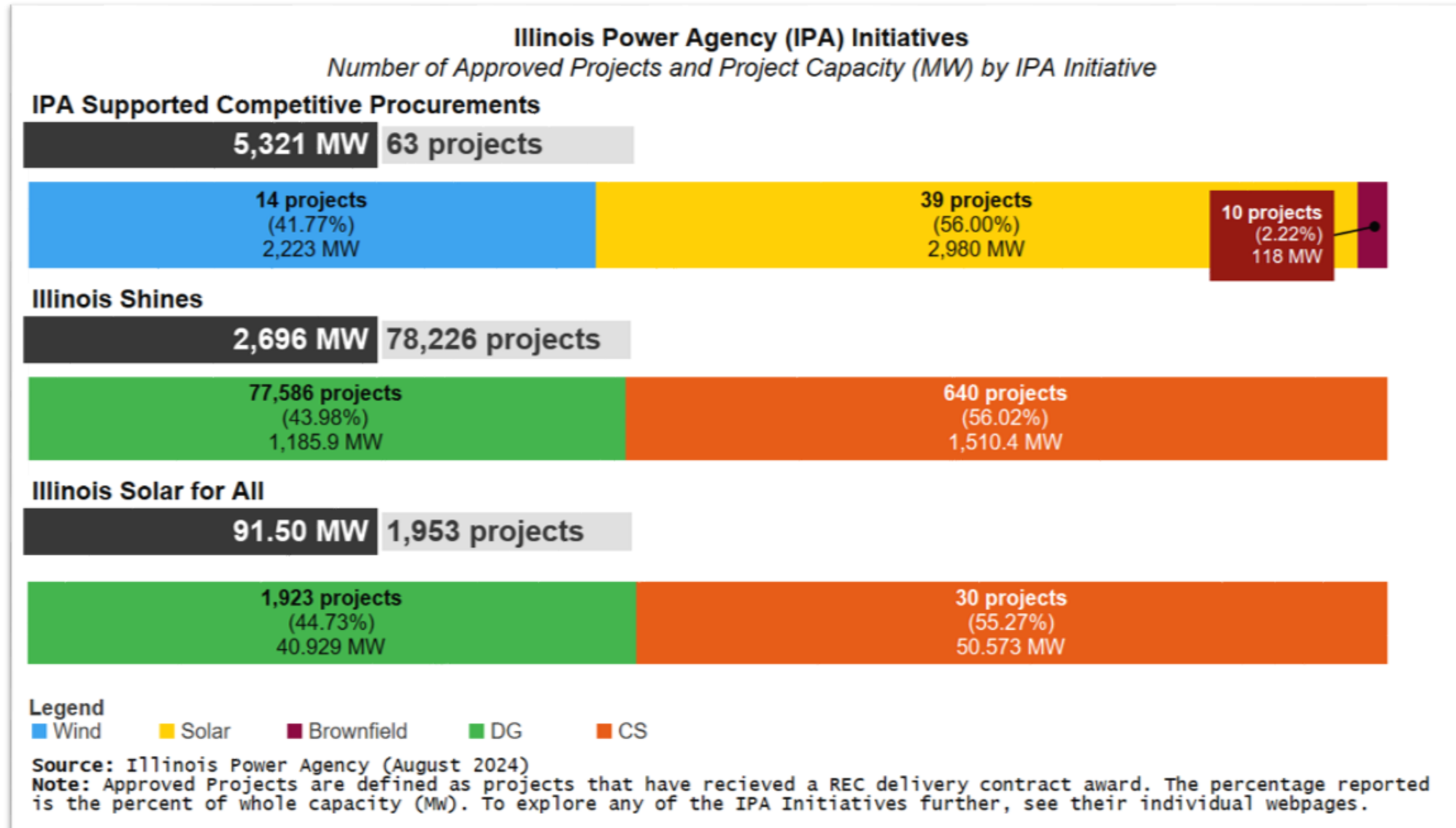
**Source:** Generation Attribute Tracking System (GATS). (July 2, 2024). *Renewable Generators Registered in GATS*. Midwest Renewable Energy Tracking System (M-RETS). (July 8, 2024). *M-RETS*.  
 Hoen, D. B., Diffendorfer, J. E., Rand, J. T., Kramer, L. A., Garrity, C. P., and Hunt, H. E. (May 10, 2024). *United States Wind Turbine Database v7.0*.  
 U.S. Geological Survey, American Clean Power Association, and Lawrence Berkeley National Laboratory data release.  
**Note:** Solar development has increased significantly beginning in 2019. Although wind development has decreased in recent years, it still constitutes a significant portion of installed capacity from renewables in the state.



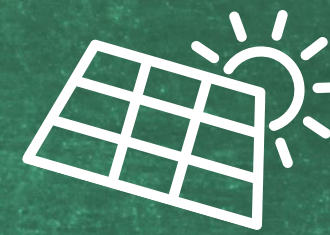
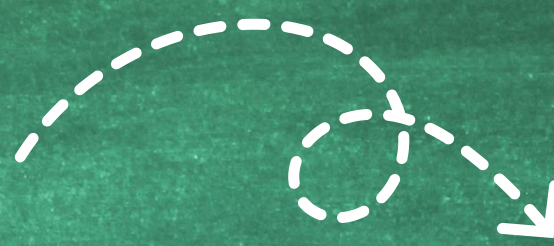
**Source:** Solar Energy Industries Association (SEIA). (Q12024). *State-By-State Map*. SEIA. Hoen, D. B., Diffendorfer, J. E., Rand, J. T., Kramer, L. A., Garrity, C. P., and Hunt, H. E. (May 10, 2024). *United States Wind Turbine Database v7.0*.  
 U.S. Geological Survey, American Clean Power Association, and Lawrence Berkeley National Laboratory data release.  
**Note:** Illinois leads in the Midwest in solar installed capacity and occupies third place in wind development after Iowa and Kansas.



# IPA Initiatives







# Illinois Shines

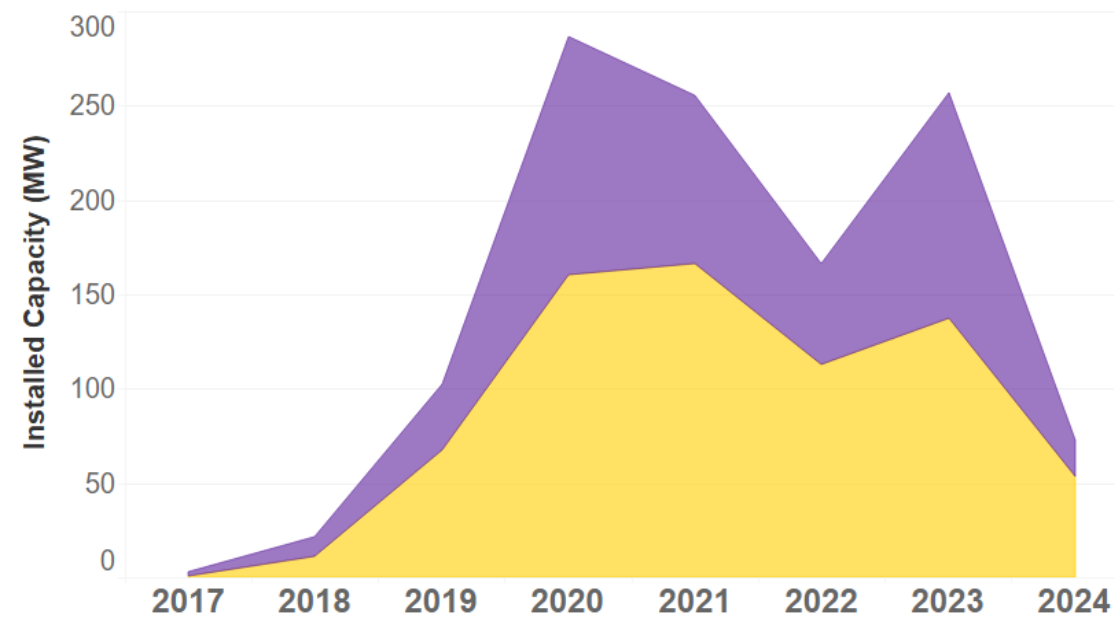
**Illinois Shines**  
Energized Installed Capacity (MW) by Geographical Group

Cumulative

By Year

**Group A**  
(38%)  
455.2 MW

**Group B**  
(62%)  
727.8 MW



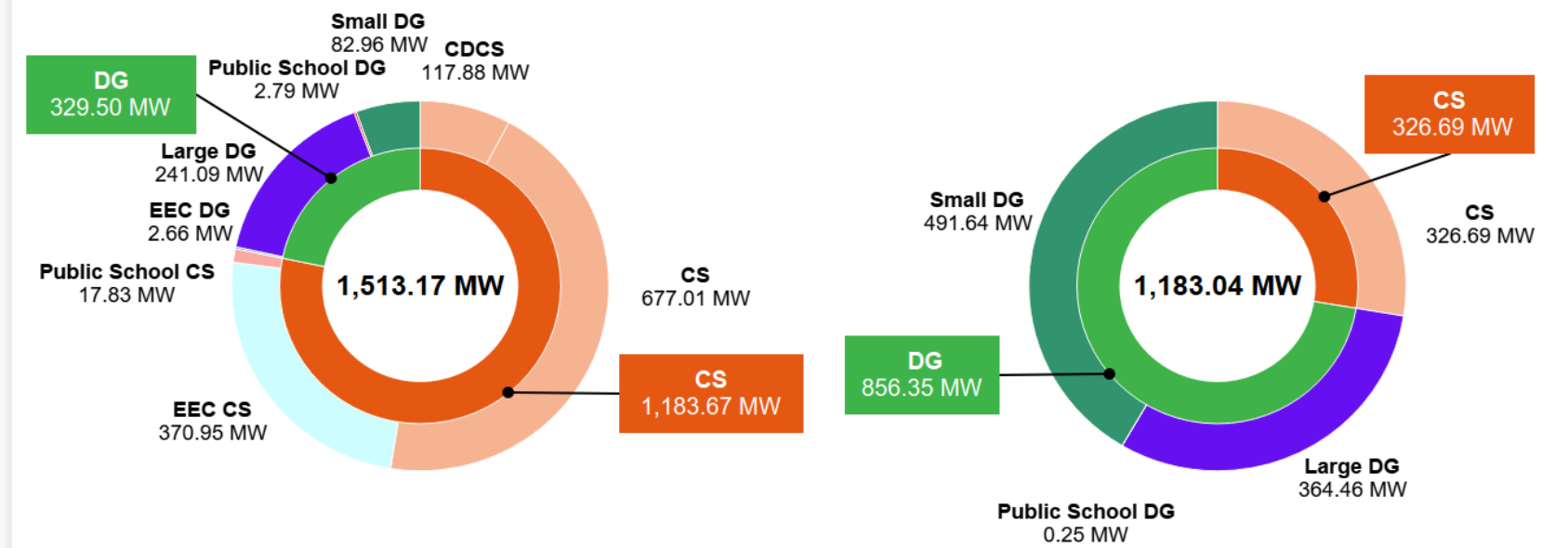
	2017	2018	2019	2020	2021	2022	2023	2024
Group A	1.87	10.73	34.96	125.77	89.22	52.88	119.64	19.33
Group B	0.91	10.94	67.79	160.57	166.28	113.04	136.98	53.59

**Source:** Illinois Shines, Illinois Power Agency (August 2024)  
**Note:** "Energized" refers to completed projects currently producing RECs. The date of the project's energization is used to determine the year for which a project is categorized. Group A represents projects located in the service territories of Ameren Illinois, MidAmerican, Mt. Carmel Public Utility, and rural electric cooperatives and municipal utilities located in MISO. Group B represents projects located in the service territories of ComEd, and rural electric cooperatives and municipal utilities located in PJM.

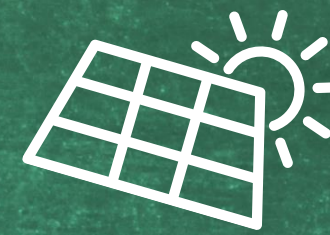
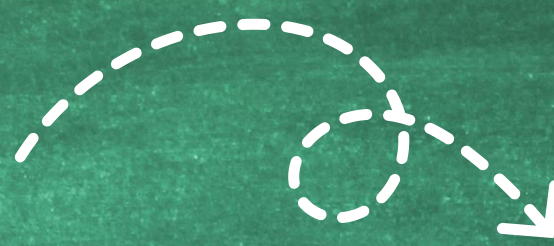
**Illinois Shines**  
Comparing Under Development versus Energized Installed Capacity by Illinois Shines Category

Under Development

Energized

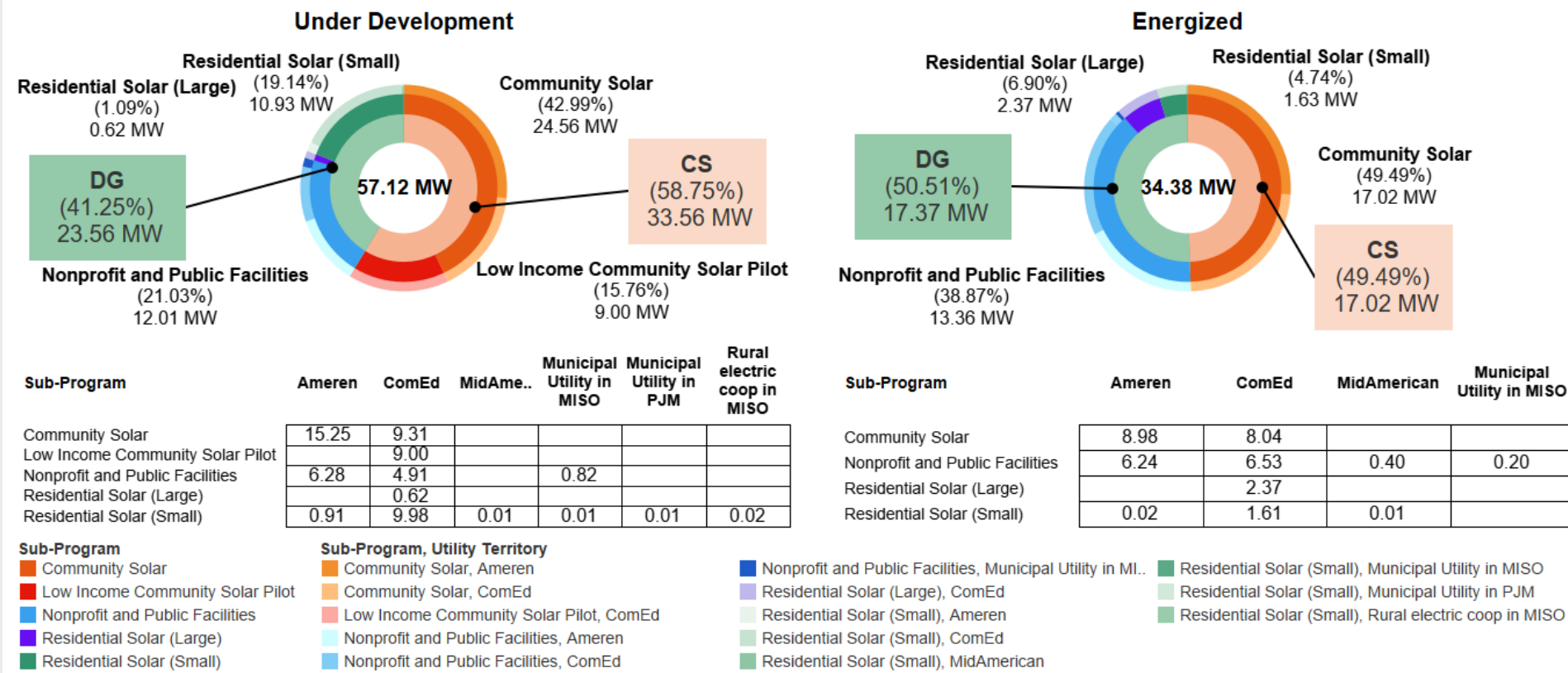


**Source:** Illinois Shines, Illinois Power Agency (August 2024)  
**Note:** Energized refers to completed projects currently producing RECs. Under Development refers to projects that have been awarded REC contracts but are not yet energized. It is important to note this is a screenshot of under development projects as of the most recent update, and do not account for future program years. As new contracts are awarded, the Under Development pipeline will change. Similarly, as projects shift from Under Development to Energized, visualizations will be updated accordingly.



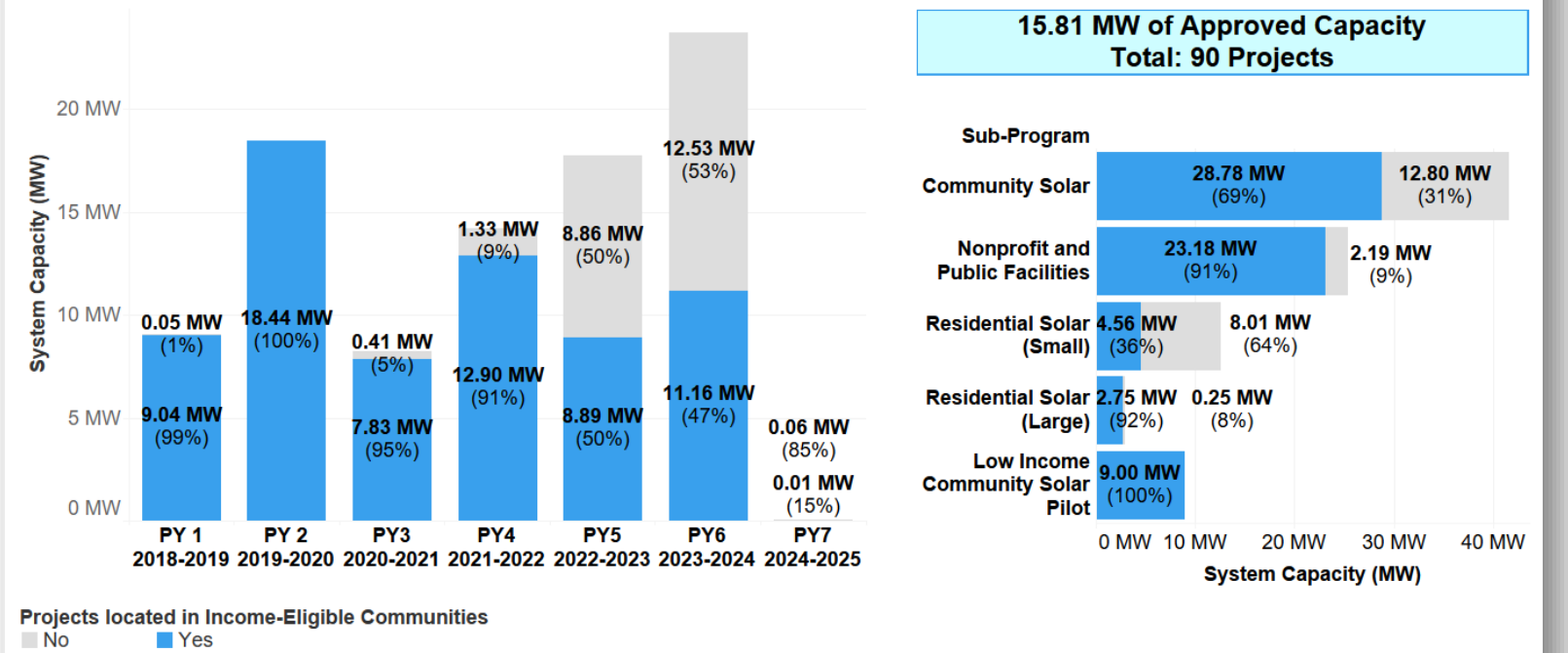
# Illinois Solar for All

**Illinois Solar for All**  
Comparing Approved Project Capacity (MW) by Energization Status, Project Type, Sub-Program and Utility Territory

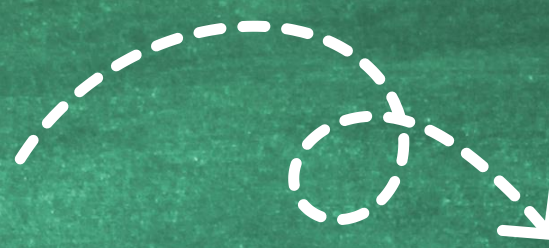


**Source:** Illinois Solar for All, Illinois Power Agency (August 2024)  
**Note:** "Energized" refers to completed projects currently producing RECs. "Under Development" refers to projects that have been awarded REC contracts but are not yet energized.

**Illinois Solar for All**  
Approved Project Capacity (MW) for Projects Located in Income-Eligible Communities (IEC) by Program Year and by Sub-Program

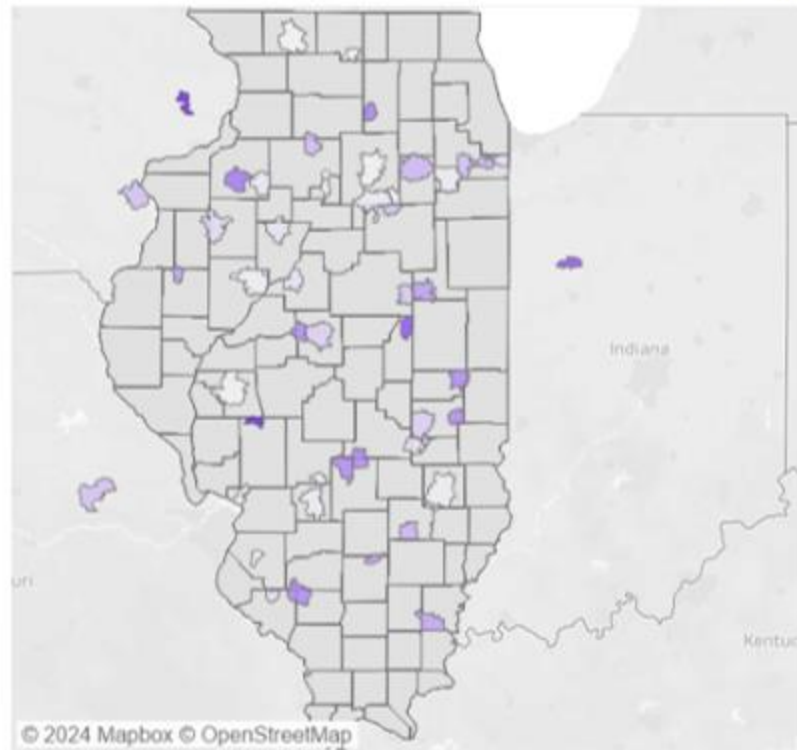


**Source:** Illinois Solar for All, Illinois Power Agency (August 2024)  
**Note:** IEC is defined in the Illinois Solar for All program as census tracts having a majority (50% or greater) of households at 80% or less of Area Median Income (AMI).



# Competitive Procurements

**IPA Supported Competitive Procurements**  
Projects Map by Zip Code and Size (MW)



Zip Code	Size (MW)	Zip Code	Size (MW)
47929	298.65 MW	61559	35.00 MW
52653	100.00 MW	61770	85.00 MW
52751	400.00 MW	61854	300.00 MW
60417	50.00 MW	61912	200.00 MW
60442	100.00 MW	61938	75.00 MW
60449	125.00 MW	61942	200.00 MW
60450	116.00 MW	62002	5.00 MW
60470	12.00 MW	62017	17.00 MW
60481	19.90 MW	62080	198.00 MW
60550	217.50 MW	62217	45.80 MW
60936	165.00 MW	62220	9.90 MW
61032	2.70 MW	62237	200.00 MW
61109	3.00 MW	62246	20.00 MW
61238	232.10 MW	62431	200.00 MW
61313	102.00 MW	62447	37.50 MW
61322	20.00 MW	62448	15.00 MW
61327	20.00 MW	62469	75.00 MW
61349	109.50 MW	62650	7.25 MW
61350	4.95 MW	62656	70.00 MW
61364	22.76 MW	62667	400.00 MW
61401	49.70 MW	62671	201.00 MW
61443	24.75 MW	62839	125.00 MW
61475	150.00 MW	62869	149.00 MW
61520	16.50 MW	62889	150.00 MW
61554	38.70 MW	63361	100.00 MW

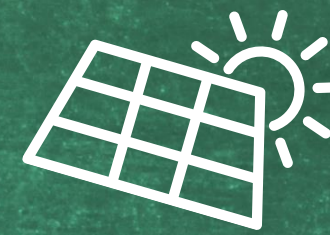
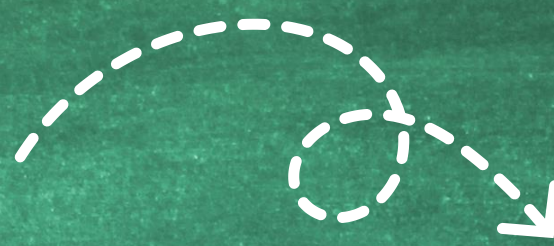


Source: Planning and Procurement Bureau, Illinois Power Agency (August 2024)  
Note: This map shows Competitive Procurement projects by zip code.

**IPA Supported Competitive Procurements**  
By Three Periods (Above) and by Events within Those Periods (below)

<b>CEJA Indexed REC Procurement (2022-2025)</b> 3,403.65 MW		<b>FEJA Forward Procurement (2017-2019)</b> 2,251.75 MW		<b>LTPPA (2010)</b> 865.41 MW	
<b>2023 Fall Indexed REC RFP</b> 1,089.75 MW	<b>2023 Summer Indexed REC</b> 577.75 MW	<b>2024 Summer Indexed REC RFP</b> 573.40 MW	<b>2017 Wind and Solar RFP</b> 450.00 MW	<b>Fall 2018 Wind</b> 286.75 MW	<b>2018 Fall</b>
			<b>Fall 2018 Brownfield &amp; Utility-Scale Solar RFP</b> 415.00 MW		
<b>2022 Spring Indexed REC RFP</b> 698.85 MW	<b>2022 Fall Indexed REC RFP</b> 463.90 MW	<b>2018 Fall Wind</b> 333.10 MW	<b>2018 Spring New Solar RFP - Event 1</b> 248.00 MW	<b>2019 Summer Brownfield RFP</b> 29.90 MW	
			<b>2018 Spring New Solar RFP - Event 2</b> 220.00 MW		

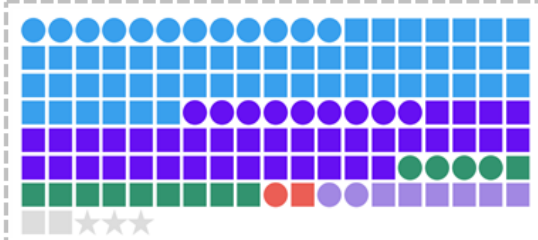
Source: Planning and Procurement Bureau, Illinois Power Agency (August 2024)  
Note: Utility-scale projects must be at least 5 MW in size, be located in Illinois (or meet a set of public interest criteria if located in an adjacent state), and fulfill additional qualifications.



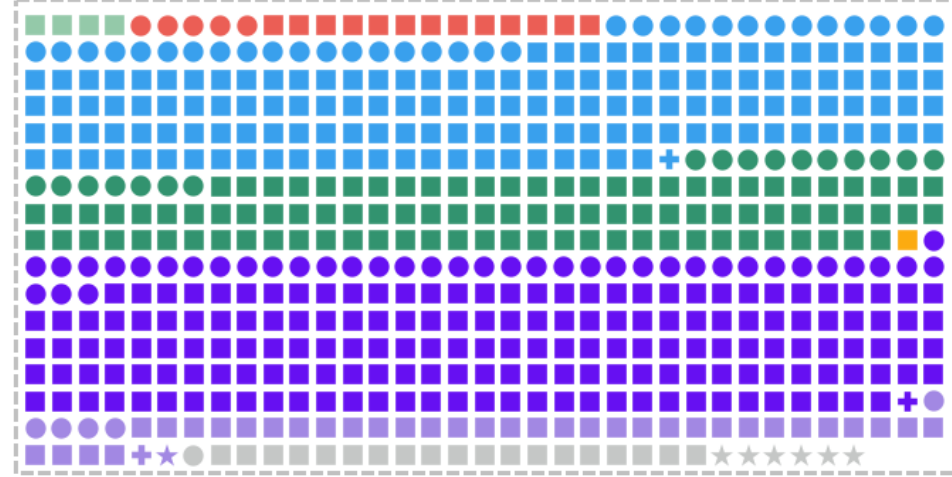
# Equity

**Equity Eligible Persons (EEPs) Registered in the Energy Workforce Equity Portal**  
Comparing Gender, Race and/or Ethnicities Reported in Registration from 2023 versus To Date

January 2023 to December 2023



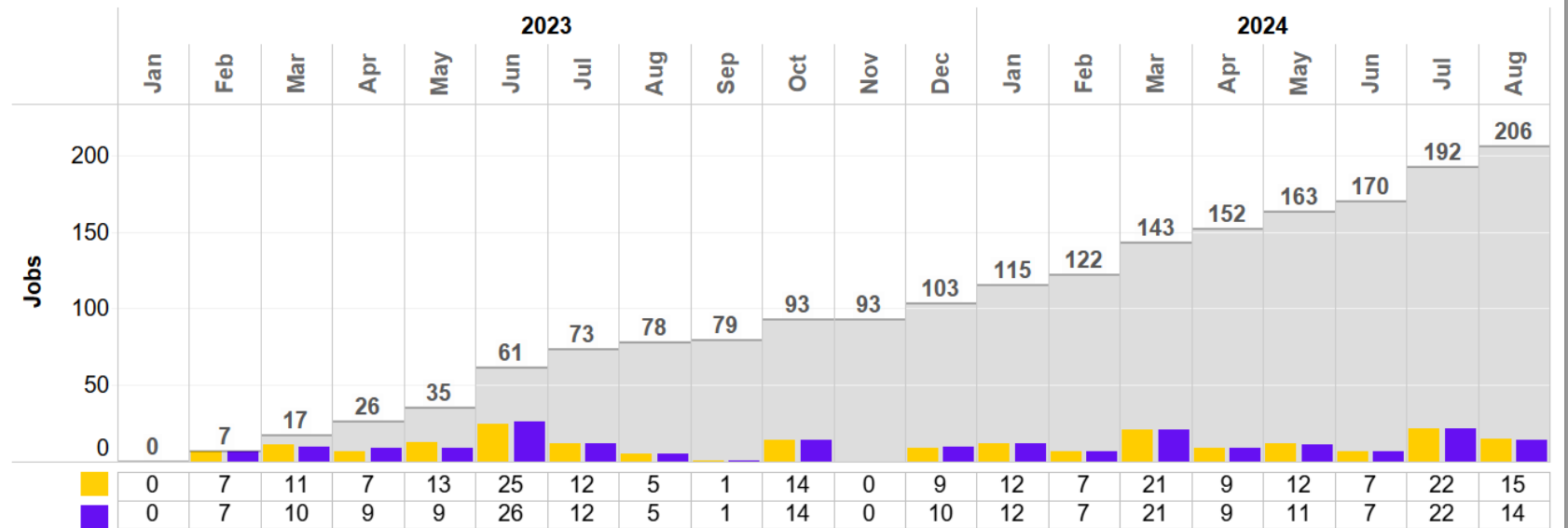
January 2023 to August 2024



- Gender**
- Female
  - Male
  - + Non-Binary
  - ★ Did not self-identify/Not disclosure
- Race/Ethnicity**
- American Indian or Alaska Native
  - Asian
  - Black or African-American
  - Hispanic or Latinx
  - Native Hawaiian or Other Pacific Islander
  - White or Caucasian
  - Two or more races
  - Did not self-identify/Not disclosed

**Source:** Diversity, Equity and Inclusion Bureau, Illinois Power Agency (August 2024)  
**Note:** The gender, race and/or ethnicity reflected is collected during the EEP registration process on the Portal. The option of *Two or more races* is available as its own option. For the purpose of this visualization when two or more races were reported, they are reported as under the *Two or more races* option.

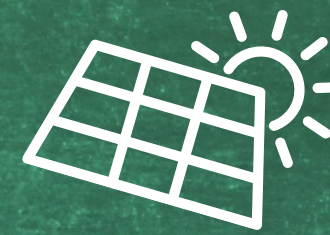
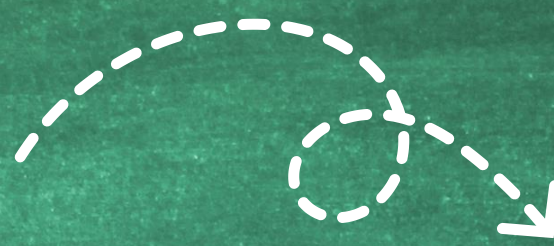
**External Jobs Listed in the Energy Workforce Equity Portal**  
Jobs Submitted, Jobs Approved and Total Jobs Approved by Month



**Legend**

- Jobs Submitted
- Jobs Approved

**Source:** Diversity, Equity and Inclusion Bureau, Illinois Power Agency (August 2024)  
**Note:** The jobs displayed in this chart represent job openings submitted by external companies to the Energy Workforce Equity Portal. These jobs are then approved or disapproved. Jobseekers can apply to approved job openings on the portal. The reference line and shading demonstrate the total approved jobs. In the month of June 2023, there were more Jobs Approved than Jobs Submitted due to an approval from the previous months submission.



## Q&A

We welcome you to ask general questions related to today's program.

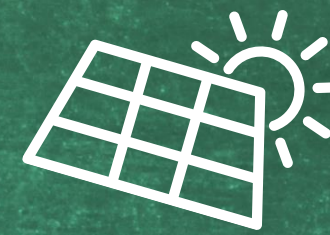
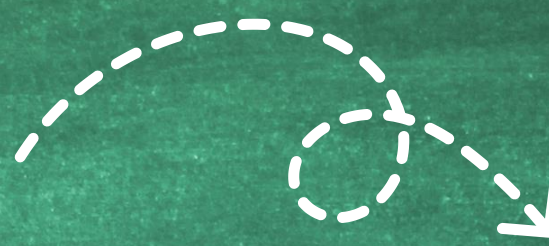
**Contact us with more specific questions:**

Whitney Richardson

*IPA Legislative Affairs Manager*

[Whitney.Richardson@Illinois.gov](mailto:Whitney.Richardson@Illinois.gov)

312-639-9486



## **IPA Summer School for Legislators & Staff** **2024 Schedule**

### **Today**

**Session 4: IPA's Clean Energy Dashboard & Progress Toward State Clean Energy Goals**

Date: Thursday, September 19, 2024, at 12:15 - 1 p.m.

### **Previous**

**Session 1: Understanding the IPA's Solar Incentive Programs**

Date: Thursday, July 18, 2024, at 12:15 - 1 p.m.

[\*\*Watch the Recording & View the Deck Here\*\*](#)

**Session 2: How Consumer Protections Work for the IPA's Solar Incentive Programs**

Date: Thursday, August 15, 2024, at 12:15 - 1 p.m.

[\*\*Watch the Recording & View the Deck Here\*\*](#)

**Session 3: Advancing IPA's Equity Initiatives in the Clean Energy Transition**

Date: Thursday, September 5, 2024, at 12:15 - 1 p.m.

[\*\*Watch the Recording & View the Deck Here\*\*](#)