



STATE OF THE VOLUNTARY GREEN POWER MARKET

February 21, 2024

Speakers and Agenda

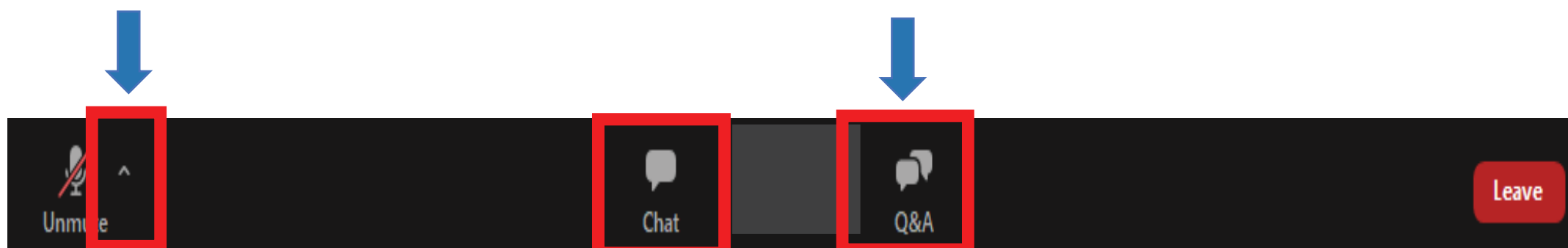
- Speakers:
 - **Sushmita Jena**, Renewable Energy Researcher, NREL
 - **Bailey Rosen**, Program Manager, U.S. EPA's Green Power Partnership
- Agenda:
 - Webinar Logistics
 - Basics of Green Power
 - Status and Trends in U.S. Voluntary Green Power Market
 - Green Power Partnership Overview & Program Data
 - Question & Answer Session

Webinar Logistics

Audio is available your computer's microphone and speakers or by telephone. Select "Switch to Phone Audio".

Webinar ID: 161 489 5744

Q&A Box: Questions and Comments for Presenters / Technical Difficulties

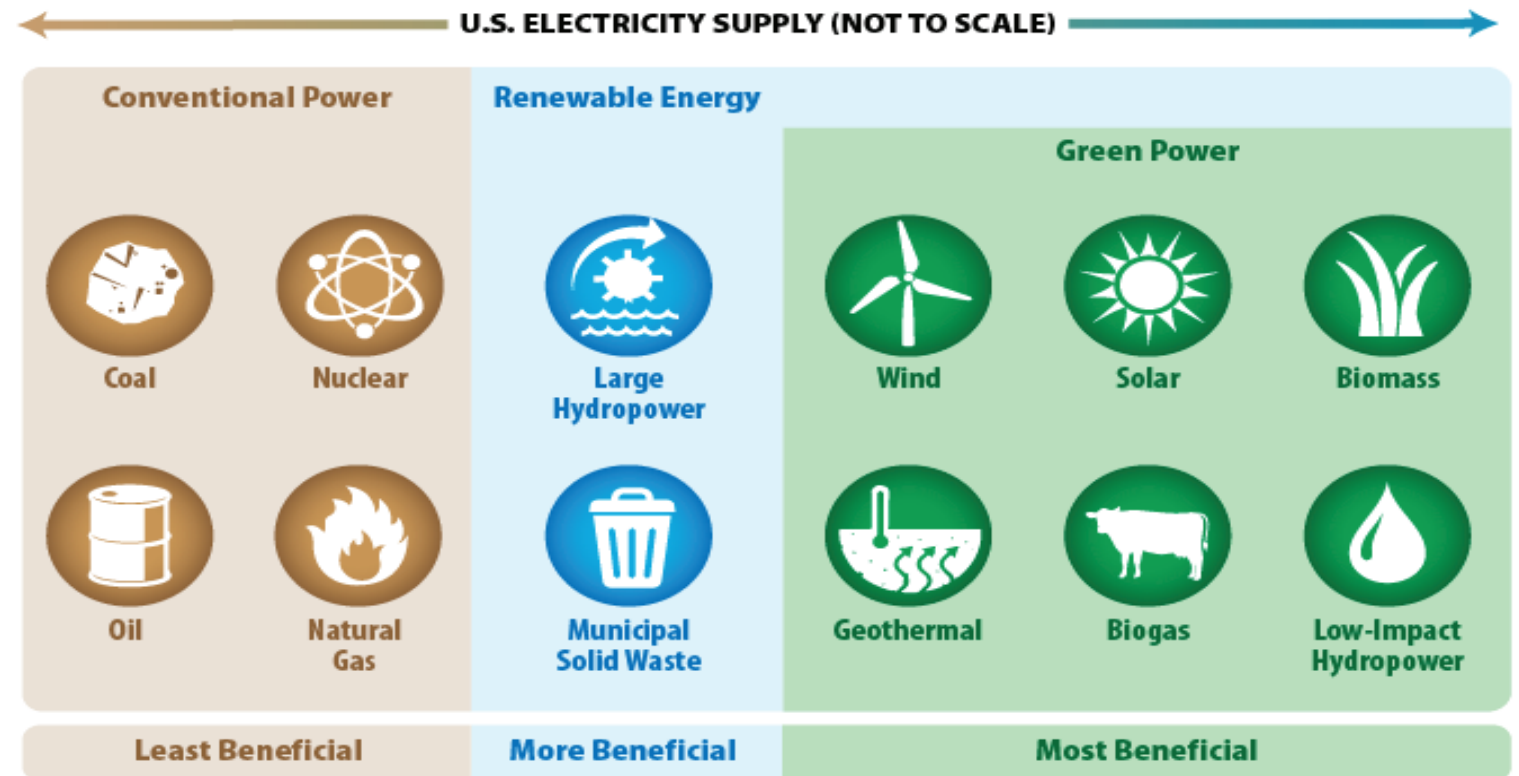


Chat Box: Resources from Presenters

If you experience technical difficulties, please contact Julia Keane: julia.keane@erg.com

What is Green Power?

- **Green power** is a subset of renewable electricity and represents those renewable energy resources and technologies that provide the highest environmental benefit.
 - Meets national standards for product quality and content
 - Green Power is specific to the “voluntary market” and is driven by consumer preference rather than by policy mandate
 - Is generation that is incremental to what is required by mandate
- **Renewable Electricity** is a broader category and includes some resources and technologies that have significant impact on the environment.





Green Power Supply Options

Retail Options

Unbundled Renewable Energy Certificates (RECs)

Competitive Green Power Products

Utility Green Power Products or Programs

Community Choice Aggregations (CCAs)

Project-Specific

Self-Supply

Physical PPAs

Shared Renewables

Utility Green Tariffs

Financial/Virtual PPAs



GREEN POWER PARTNERSHIP OVERVIEW, TRENDS, AND DATA VISUALIZATION TOOLS





What is U.S. EPA's Green Power Partnership?

- **Summary**
 - A voluntary leadership program that recognizes organizational use of green power.
- **Objectives**
 - Reduce U.S. greenhouse gas emissions
 - Expand the voluntary green power market
 - Standardize green power procurement as part of best practice environmental management
- **Program Activities**
 - Provide technical assistance and tools on procuring green power
 - Provide recognition platform for organizations using green power in the hope that others follow their lead

Partnership Requirements

- EPA supports Partners' procurement of green power by offering advice, technical support, tools and resources, and recognition.
- Partners procure green power and provide an annual update.

	Partnership Benchmark
If your annual electricity use is:	You must, at minimum, use this much green power:
Over 100,000,000 kWh	7% of your use
10,000,001 - 100,000,000 kWh	10% of your use
1,000,001 - 10,000,000 kWh	25% of your use
100,000 - 1,000,000 kWh	50% of your use

- In return, EPA commits to:
 - Provide public recognition
 - Provide procurement and communications assistance, as requested
 - Provide a brief description of the Partner's green power use on EPA's website

Who are Green Power Partners?

Uber



Qualcomm



Bank of America



IOWA



MIAMI



FIFTH THIRD BANK



Unilever



THE J.M. SMUCKER CO



Bloomberg



SAMSUNG



JPMORGAN CHASE & CO.



EPA's Top Partner Lists

Green Power Partnership National Top 100



As of January 23, 2024, the combined annual green power use of EPA's Top 100 Partners amounts to more than 93.5 billion kilowatt-hours, which is equivalent to the annual electricity use of nearly 8.7 million average American homes.

- [National Top 100](#)
- [Top 30 College & University](#)
- [Top 30 Local Government](#)
- [Top 30 On-site Generation](#)
- [Top 30 Retail](#)
- [Top 30 Tech & Telecom](#)
- [100% Green Power Users](#)
- [Fortune 500® Partners List](#)

Partner Name	Annual Green Power Usage (kWh)	GP % of Total Electricity Use*	Industry	Green Power Resources
1. Microsoft Corporation	10,684,212,203	100%	Technology & Telecom	Low-impact Hydro, Solar, Wind
2. Google LLC	10,108,533,000	107%	Technology & Telecom	Various
3. T-Mobile	8,379,445,000	100%	Technology & Telecom	Various
4. Walmart Inc.	5,322,549,000	29%	Retail	Various
5. AT&T	2,753,313,045	22%	Technology & Telecom	Solar, Wind
6. The Procter & Gamble Company	2,606,456,242	100%	Consumer Products	Biomass, Solar, Wind
7. Equinix, Inc.	2,599,446,110	100%	Technology & Telecom	Biomass, Geothermal, Low-impact Hydro, Solar, Wind
8. Digital Realty	2,442,843,256	35%	Technology & Telecom	Solar, Wind
9. PepsiCo	1,873,340,758	98%	Food & Beverage	Solar, Wind
10. Target Corporation	1,686,812,869	42%	Retail	Solar, Wind

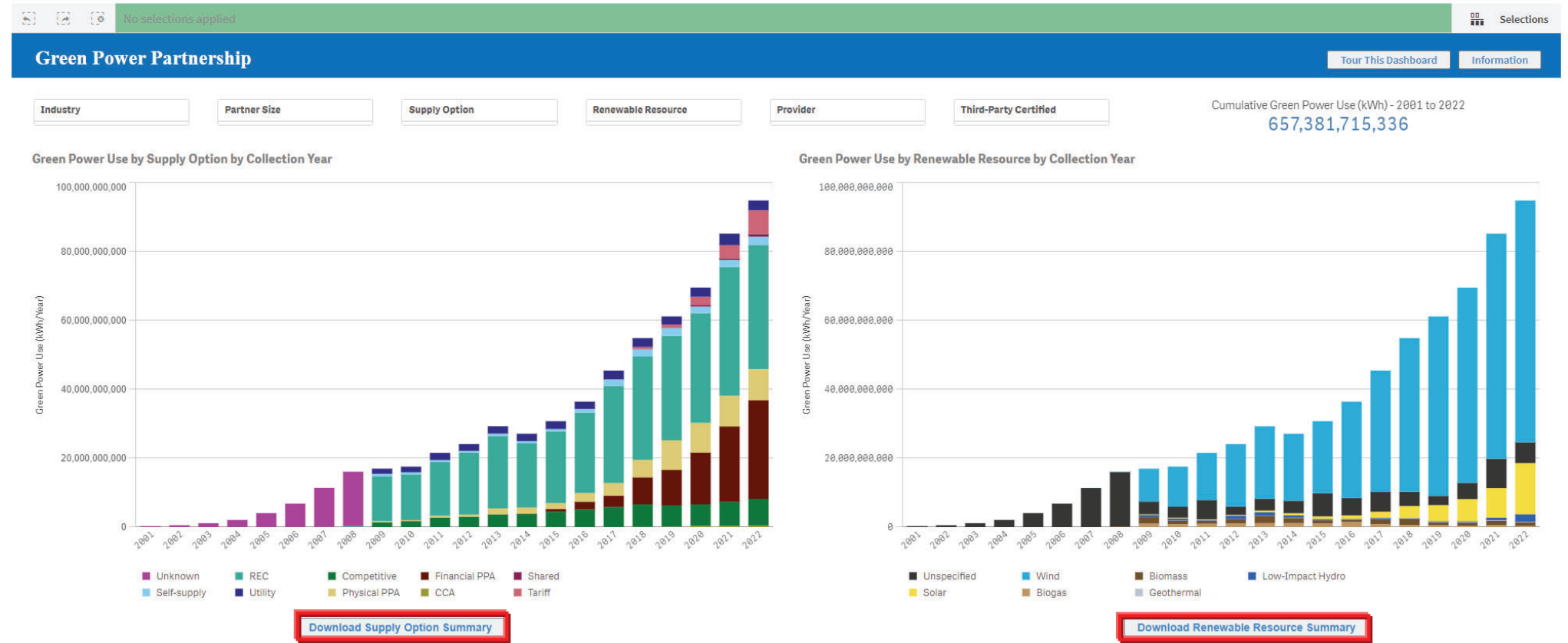
Program Data Viewer

Green Power Partnership

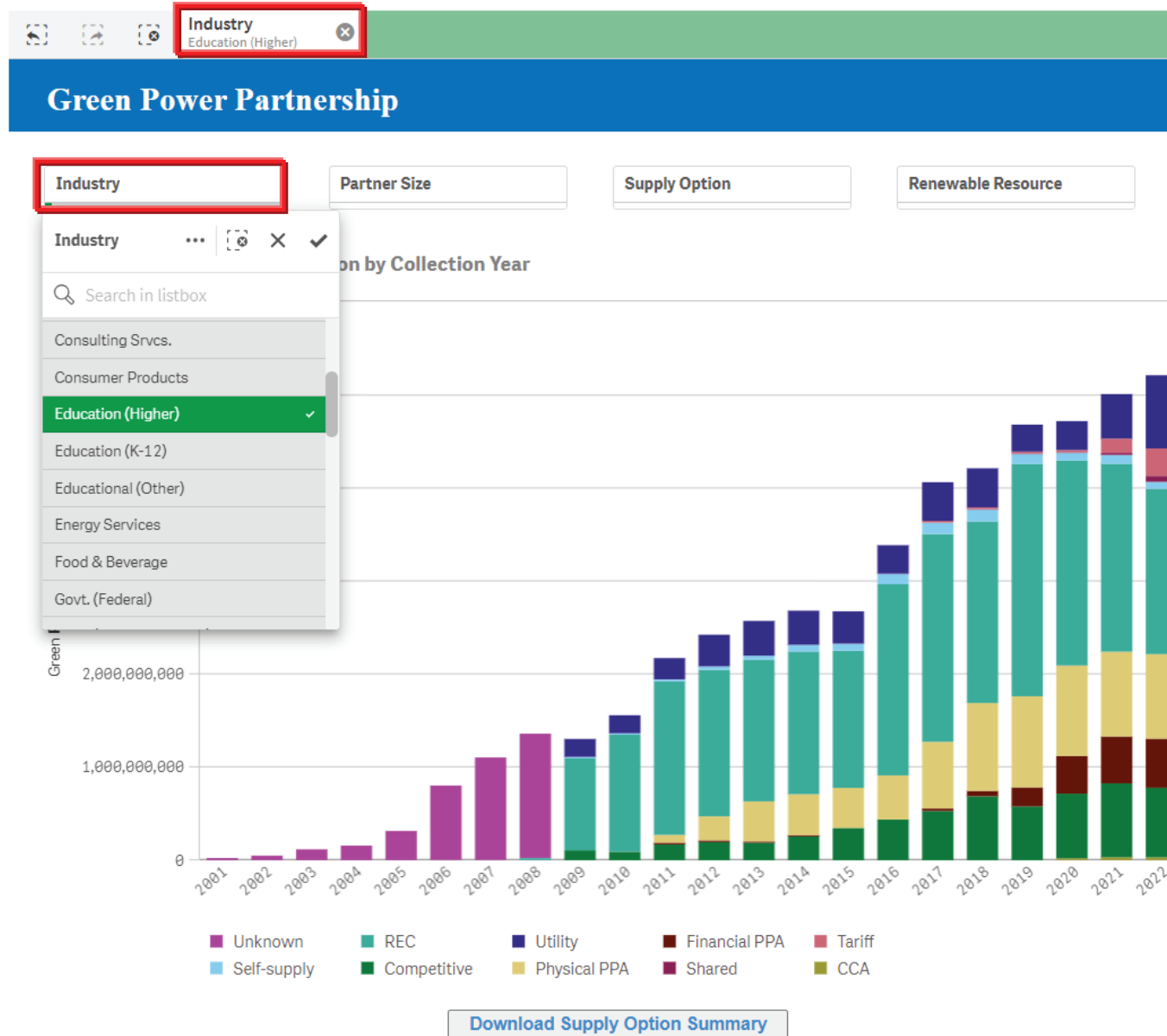
CONTACT US

Program Data Viewer

The Program Data Viewer graphically presents green power use by EPA Green Power Partners gathered through their annual green power data submittals. The graphs allow users to view the aggregated green power usage and resource trends collected from organizational Partners at the Partnership-wide level, as well as view green power use by subsets of Partners or green power supply options by utilizing filters. The Viewer also provides users an easy-to-interpret overview of the status and trends in the voluntary green power use by EPA Green Power Partners, which are likely reflective of trends in the larger voluntary green power market. The graphs below are based on collection year data. For more information on collection years and how EPA collects and presents information from Partners refer to the Reference Documentation.



Annual Green Power Use by Industry



Green Power Use Multi-Filter Example

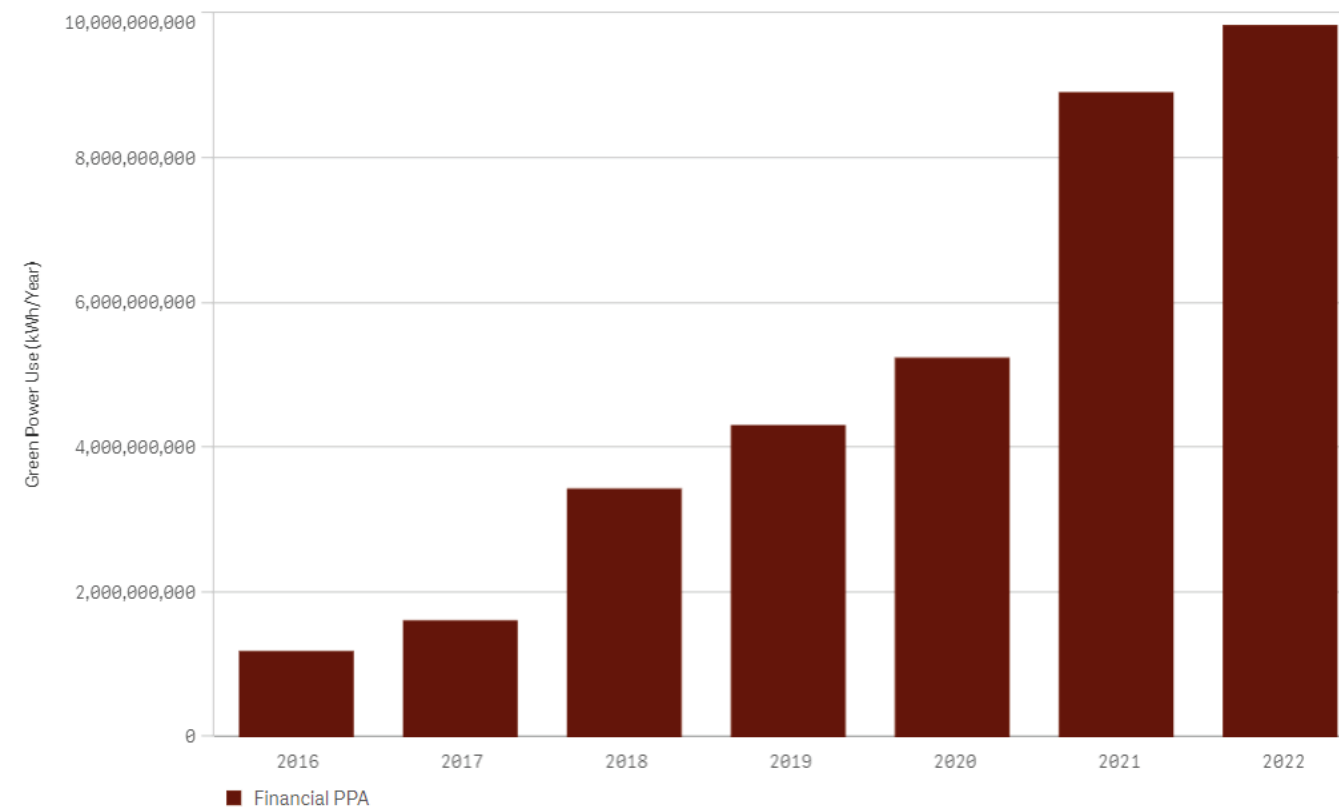
Industry: Technology & Telecom
Supply Option: Financial PPA
Resource: Wind

Green Power Partnership

Industry: Partner Size: Supply Option: Renewable Resource:

Filters selected:
Industry = Tech & Telecom
Supply Option = Financial PPA
Resource = Wind

Green Power Use by Supply Option by Collection Year



[Download Supply Option Summary](#)

Partner Profile Viewer

Partner Profile Viewer

Download Tour This Dashboard Information

Selection Bar - Click here to select a Partner's profile.

Clear

The Home Depot Inc.

[Info on Awards](#)

Location	Industry	Awards
Atlanta, GA	Retail	2023
Partnership Agreement Signed	Period of Reported Green Power Use	Collection Year: Last Data Report
12/20/2022	2/1/2022 - 1/31/2023	4/26/2023

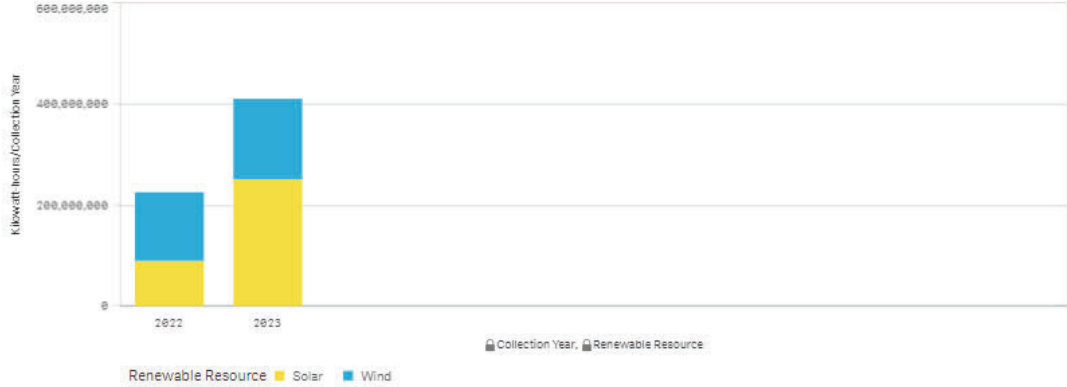
Sustainability Website

<https://corporate.homedepot.com/responsibility>

Profile

The Home Depot, the world's largest home improvement retailer, reduced Scope 1 emissions to 642,000 metric tons and Scope 2 emissions to 1,007,000 metric tons in 2021 — a 47 percent reduction in carbon intensity since 2009 — while at the same time growing the business (we will report the 2022 data once it is available in July). The company announced a goal to produce or procure 100 percent renewable electricity equivalent to the needs for all of its facilities worldwide by 2030, further extending its efforts to improve the environment through green energy. In addition to The Home Depot's Enel Green Power solar energy purchase in 2020 and a wind energy purchase with EDP Renewables North America in 2017, the company also signed three new projects - a wind project in Nebraska and a solar project with Invenegy and another solar project with National Grid Renewables, all of which are currently operational. THD has already exceeded its goal of acquiring 335 MW of renewable and alternative energy by 2025.

Green Power Use by Renewable Resource

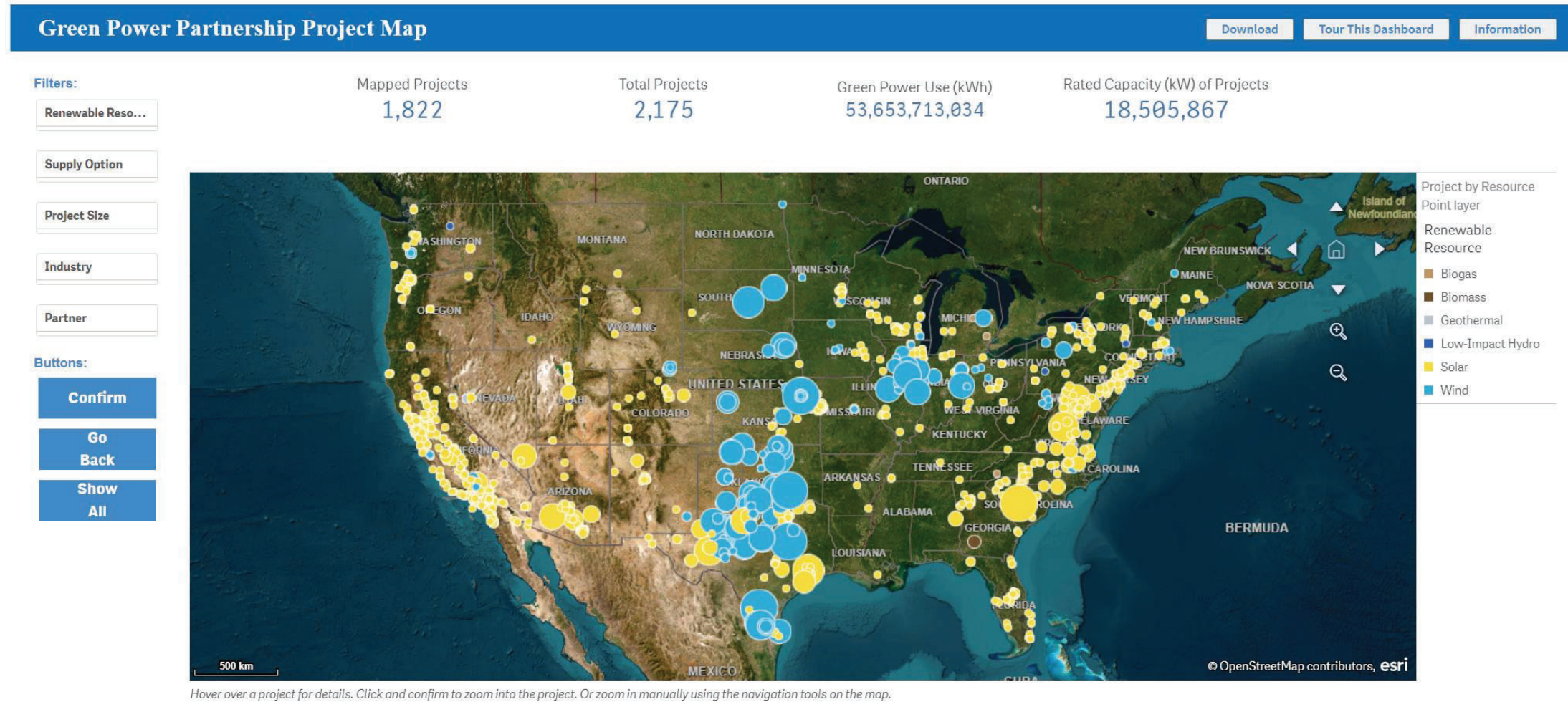


Green Power Percentage of Electricity Use



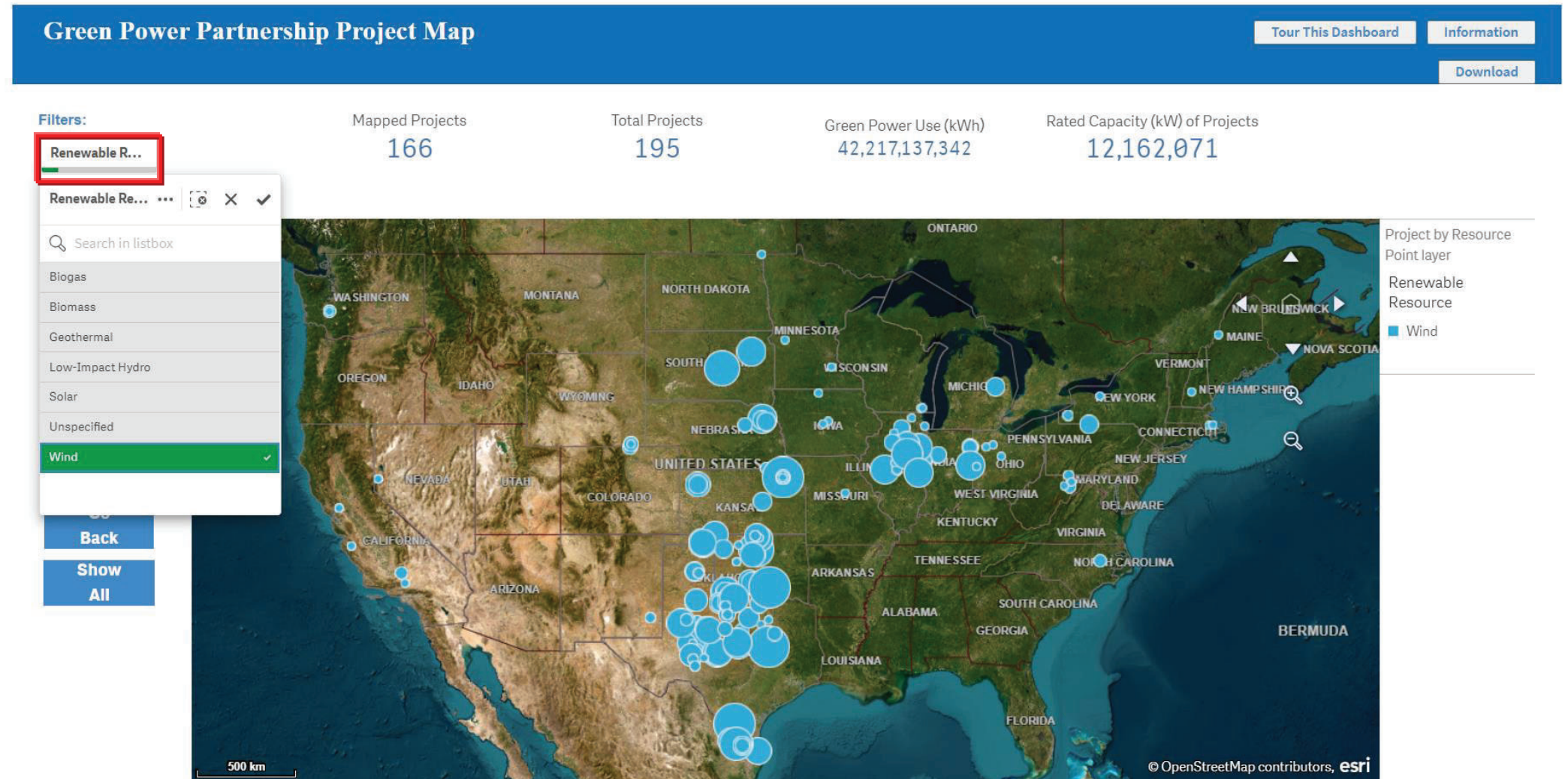
Project Map (New in 2023)

Project Map



Project Map Example: Wind

Project Map



Hover over a project for details. Click and confirm to zoom into the project. Or zoom in manually using the navigation tools on the map.

Partner Example: Walmart Inc.

Project Map

Green Power Partnership Project Map

Tour This Dashboard Information Download

Filters: Mapped Projects 23 Total Projects 30 Green Power Use (kWh) 5,176,308,000 Rated Capacity (kW) of Projects 3,243,050

Renewable R...

Supply Option

Project Size

Industry

Partner

Buttons:

Confirm

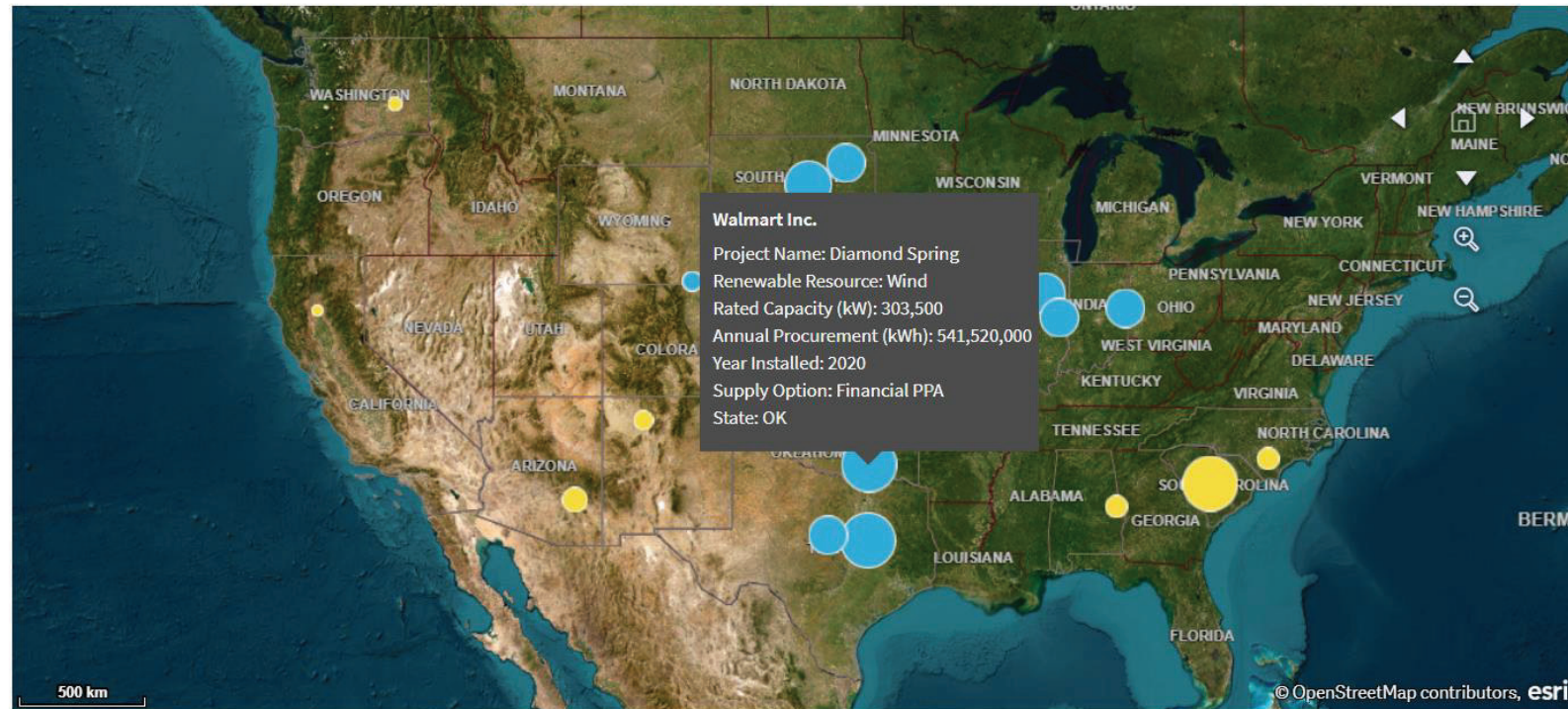
Go

Back

Show

All

Projects for Walmart Inc.



Hover over a project for details. Click and confirm to zoom into the project. Or zoom in manually using the navigation tools on the map.

Partner Example: Samsung Electronics

Green Power Partnership Project Map Information Download Tour This Dashboard

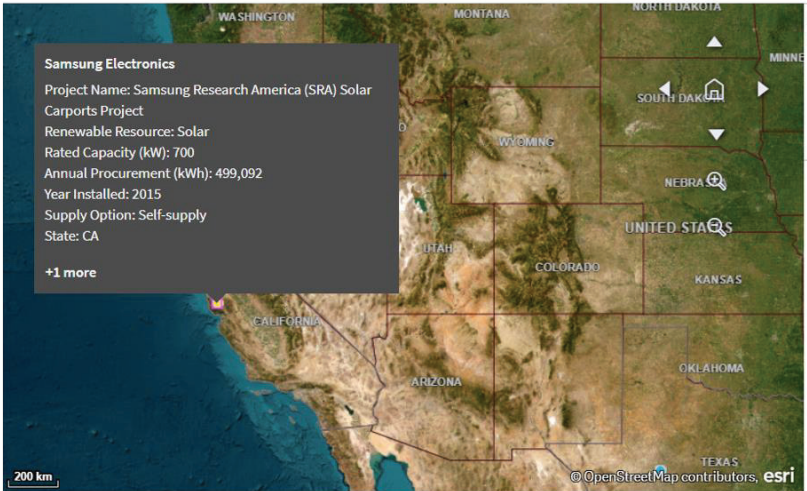
Filters: Renew... Supply... Project... Industry Partner

Buttons: **Confirm** Go Back Show All

Mapped Projects: 1 Total Projects: 1 Green Power Use (kWh): 499,092 Rated Capacity (kW) of Proj...: 700

Projects for Samsung Electronics

If the map did not zoom into your project, click the Confirm button to confirm your selection.



Samsung Electronics
Project Name: Samsung Research America (SRA) Solar Carports Project
Renewable Resource: Solar
Rated Capacity (kW): 700
Annual Procurement (kWh): 499,092
Year Installed: 2015
Supply Option: Self-supply
State: CA
+1 more

Project by Resource
Point layer
Renewable Resource
Solar
Wind

200 km
© OpenStreetMap contributors, esri

Hover over the selected project for details.

Green Power Partnership Project Map Information Download Tour This Dashboard


Filters: Renew... Supply... Project... Industry Partner

Buttons: **Confirm** Go Back Show All

Mapped Projects: 1 Total Projects: 1 Green Power Use (kWh): 499,092 Rated Capacity (kW) of Proj...: 700

Projects for Samsung Electronics

If the map did not zoom into your project, click the Confirm button to confirm your selection.



Project by Resource
Point layer
Renewable Resource
Solar

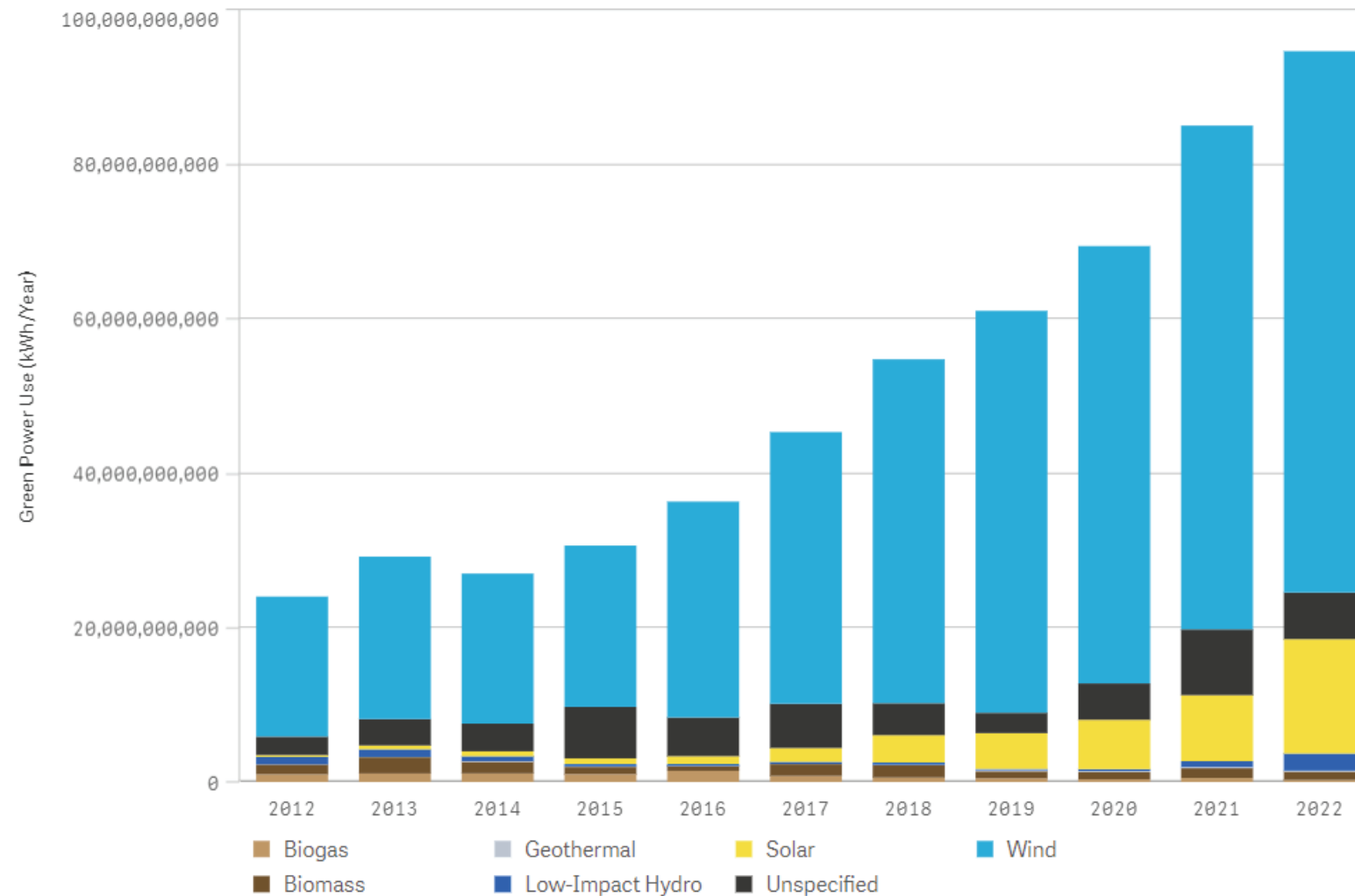
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© OpenStreetMap contributors, esri

Hover over the selected project for details.

Annual Green Power Use by Resource Type



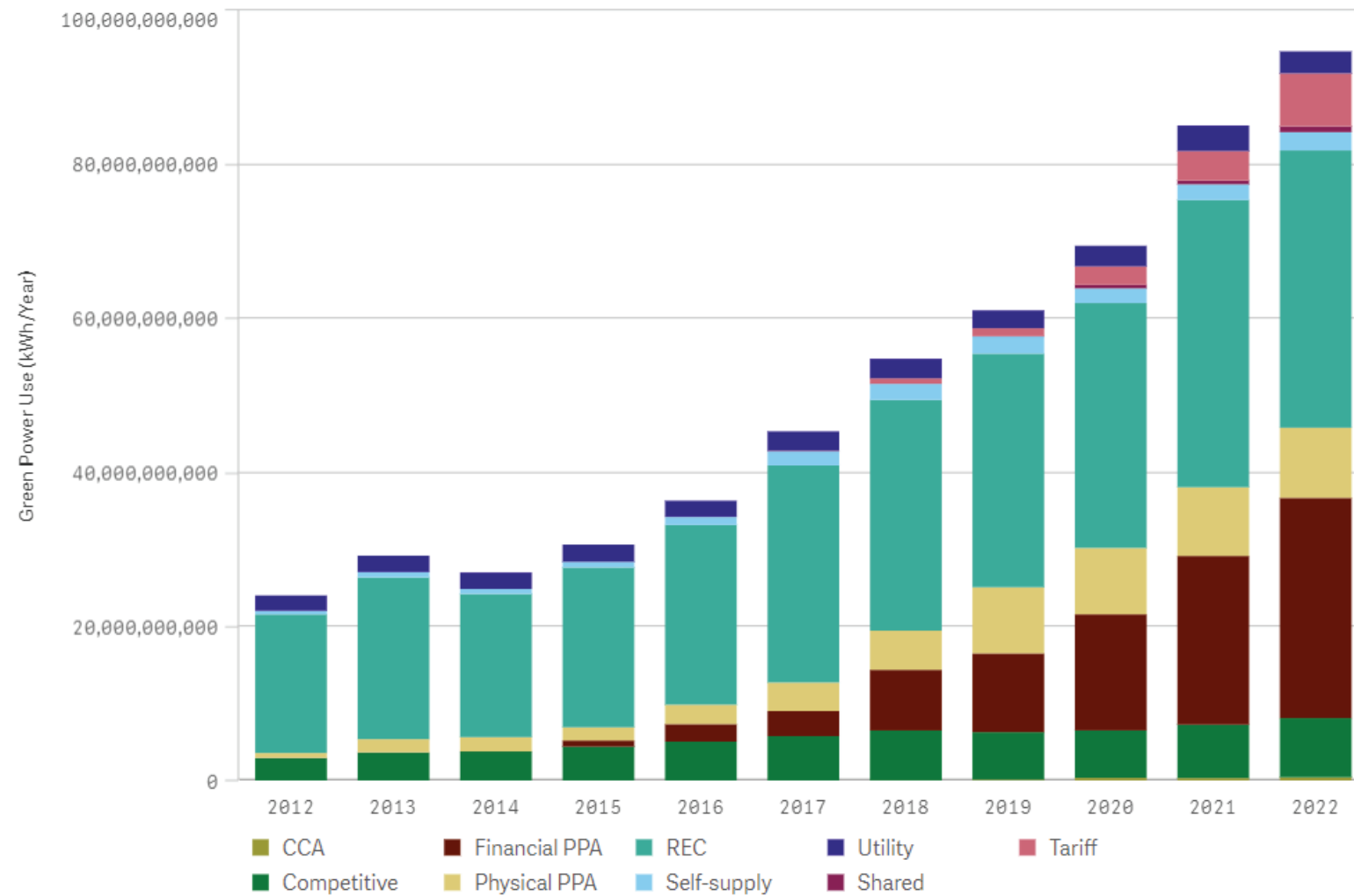
Green Power Use by Renewable Resource by Collection Year



[Download Renewable Resource Summary](#)

Annual Green Power Use by Supply Option

Green Power Use by Supply Option by Collection Year

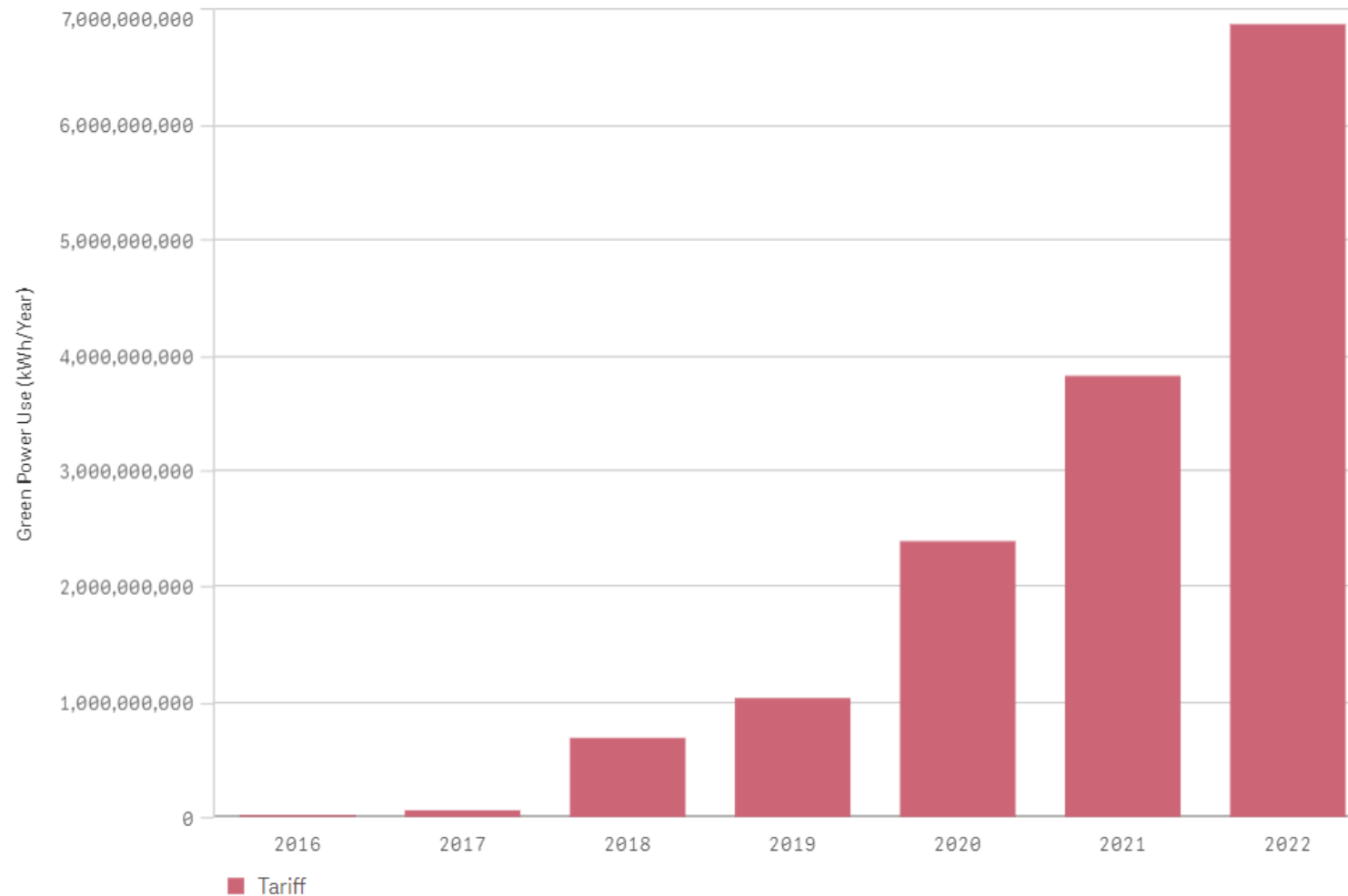


[Download Supply Option Summary](#)

Annual Green Power Use – Utility Green Tariffs



Green Power Use by Supply Option by Collection Year



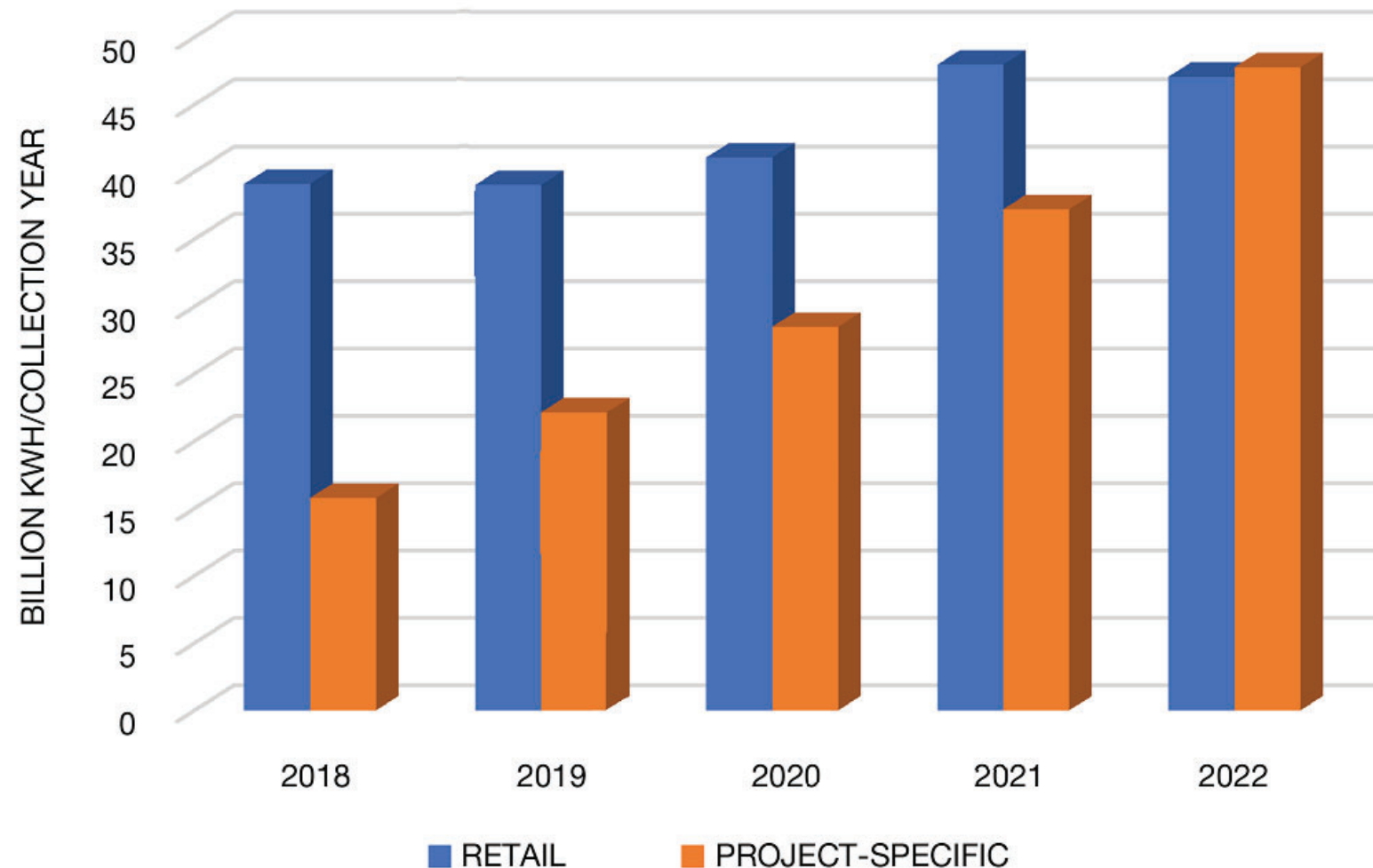
Sampling of Partners using Tariffs

- Google
- Microsoft
- Walmart
- General Motors
- Target
- Boeing

[Download Supply Option Summary](#)

Green Power (kWh) by Year and Supply Type

PARTNER GREEN POWER USE BY SUPPLY TYPE



Questions?

Presenters:

- Sushmita Jena, Sushmita.Jena@nrel.gov
- Bailey Rosen, EPA, Rosen.Bailey@epa.gov

Resources:

About the Green Power Partnership

- <https://www.epa.gov/greenpower/about-green-power-partnership>

Status and Trends in the Voluntary Green Power Market (2022 Data)

- <https://www.nrel.gov/analysis/assets/pdfs/status-and-trends-2022-data.pdf>



Green Power Partnership



Top Partner lists updated
January 23, 2024

The Green Power Partnership program has a new website, [Green Power Markets](#), which provides tools and resources to understand and engage with green power in the United States.

About



- [About the Green Power Partnership](#)
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- [FAQ](#)

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- [Requirements](#)
- [Join as Organization](#)
- [Join as a Community](#)

Data



- [Green Power Partnership Data](#)
- [Program Data](#)
- [Meet our Partners](#)
- [Project Map](#)
- [Quarterly Top Rankings](#)
- [Green Power Communities List](#)

For more information, visit

www.epa.gov/greenpower

www.epa.gov/green-power-markets