



STATE OF THE U.S. VOLUNTARY GREEN POWER MARKET

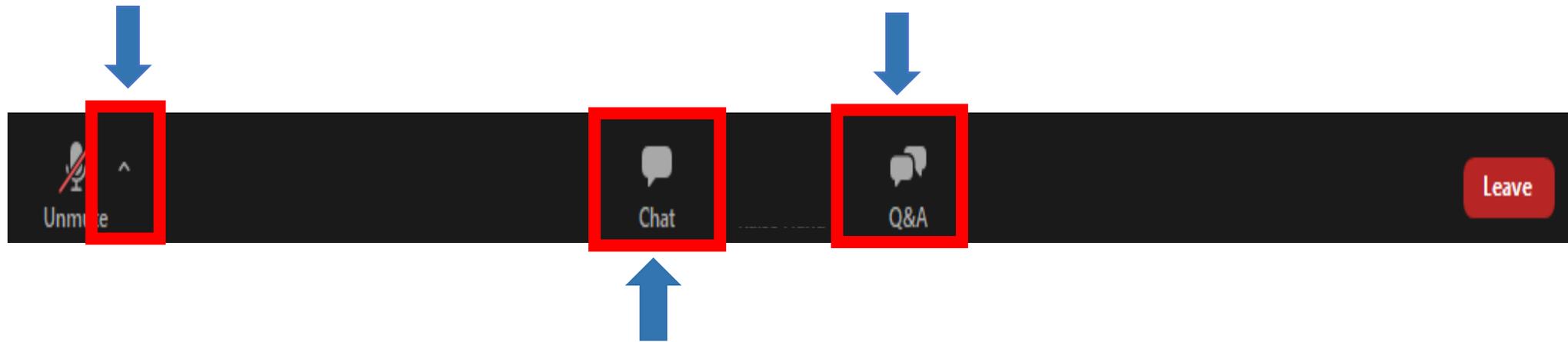
February 23, 2023

Webinar Logistics

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

Webinar ID: 161 024 1861

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



Chat Box: Resources from Presenters

If you experience technical difficulties, please contact Zachary Armand: Zachary.armand@erg.com

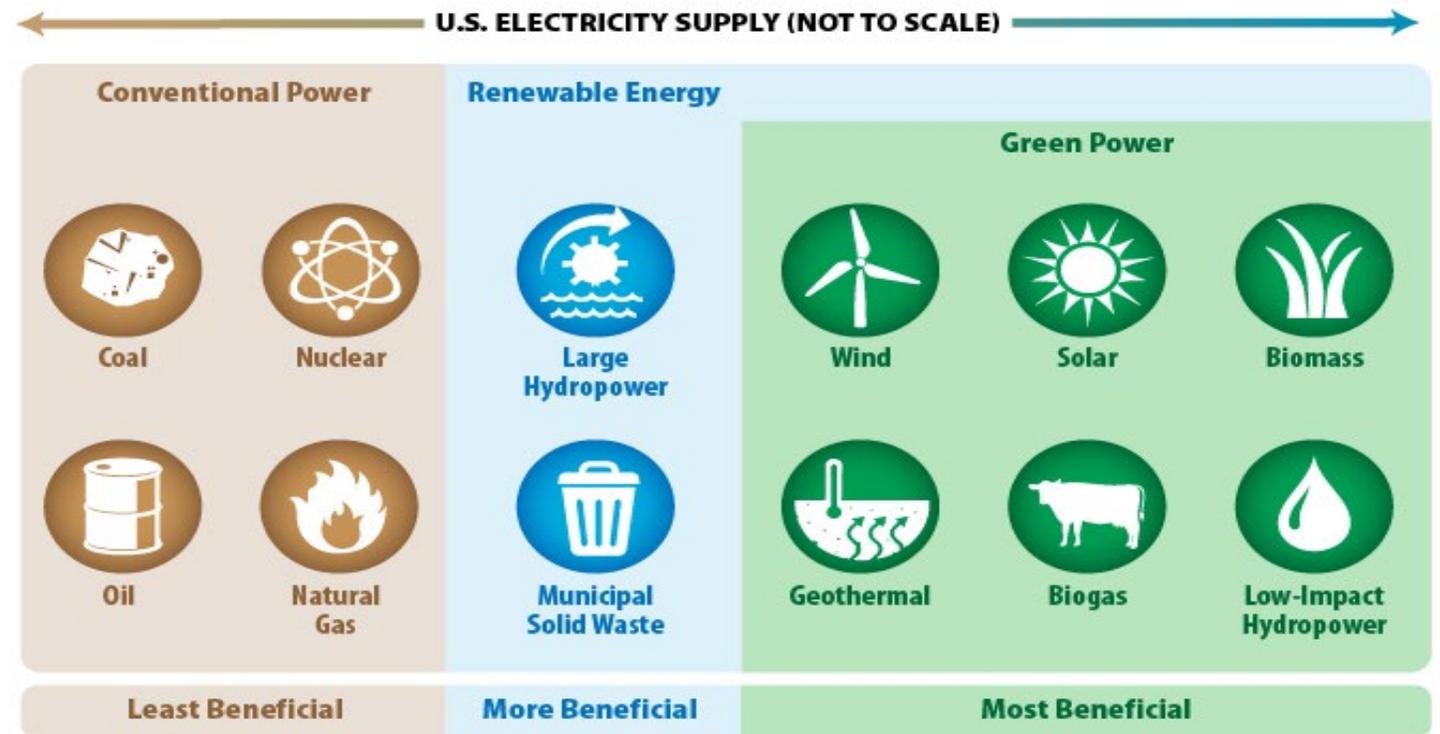
Speakers and Agenda

- Speakers:
 - **Eric O'Shaughnessy**, an independent renewable energy research consultant, Clean Kilowatts LLC
 - **Christopher Kent**, Program Manager, U.S. EPA's Green Power Partnership
- Agenda:
 - Basics of Green Power
 - Status and Trends in U.S. Voluntary Green Power Market
 - Green Power Partnership Overview & GPP Program Data
 - Question & Answer Session



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 PPAs



GREEN POWER PARTNERSHIP OVERVIEW AND DATA VISUALIZATION TOOLS



What is the Green Power Partnership?

- **Summary**
 - The U.S. EPA's Green Power Partnership is a voluntary 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 agree to procure green power and provide an annual update.
- 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

	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

Who are Green Power Partners?

Uber



Qualcomm



Bank of America



LOCKHEED MARTIN



IOWA



IOWA



FIFTH THIRD BANK



Bloomberg



KOHLER



SAMSUNG



JPMORGAN CHASE & Co.



EPA's Top Partner Lists

Green Power Partnership National Top 100



As of January 23, 2023, the combined annual green power use of EPA's Top 100 Partners amounts to nearly 85 billion kilowatt-hours, which is equivalent to the annual electricity use of nearly 8 million average American homes.

- [[National Top 100](#)]
- [Top 30 Retail](#)
- [Top 30 College & University](#)
- [Top 30 Tech & Telecom](#)
- [Top 30 K-12 Schools](#)
- [100% Green Power Users](#)
- [Top 30 Local Government](#)
- [Fortune 500® Partners List](#)
- [Top 30 On-site Generation](#)
- [Long-term Contracts](#)

Partner Name	Annual Green Power Usage (kWh)	GP % of Total Electricity Use*	Industry	Green Power Resources
1. Google LLC	9,100,267,846	105%	Technology & Telecom	Solar, Wind
2. Microsoft Corporation	8,324,914,969	100%	Technology & Telecom	Various
3. T-Mobile	7,806,076,868	100%	Technology & Telecom	Various
4. Walmart Inc.	5,023,096,337	28%	Retail	Various
5. The Procter & Gamble Company	2,594,266,946	100%	Consumer Products	Various
6. AT&T	2,543,439,555	19%	Technology & Telecom	Solar, Wind
7. Apple Inc.	2,477,186,342	104%	Technology & Telecom	Biogas, Small-hydro, Solar, Wind
8. Equinix, Inc.	2,458,915,894	100%	Technology & Telecom	Various
9. PepsiCo	1,887,793,706	103%	Food & Beverage	Solar, Wind
10. Kimberly-Clark Corporation	1,645,259,000	55%	Consumer Products	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 provide 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.

 No selections applied  Selections

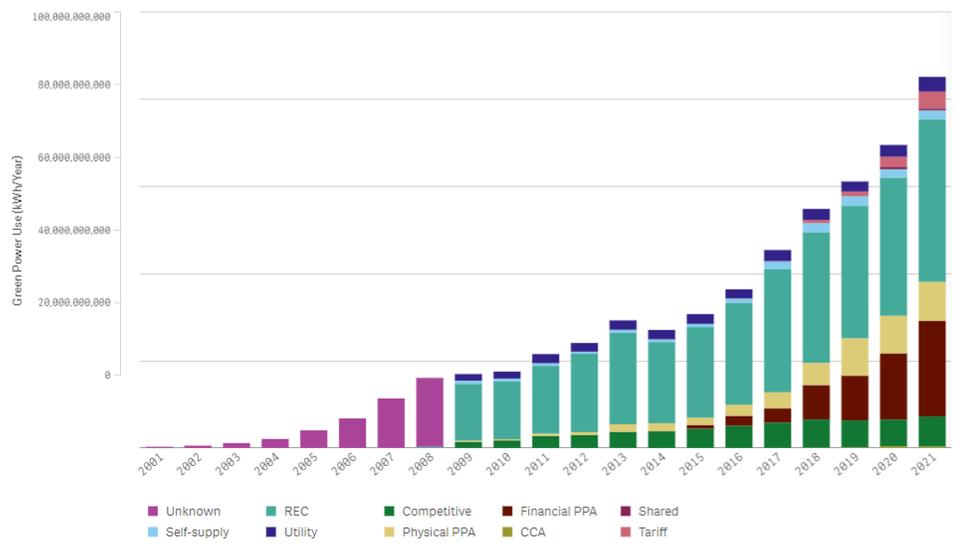
Green Power Partnership

[Tour This Dashboard](#) [Information](#)

- Industry
- Partner Size
- Supply Option
- Renewable Resource
- Provider
- Third-Party Certified

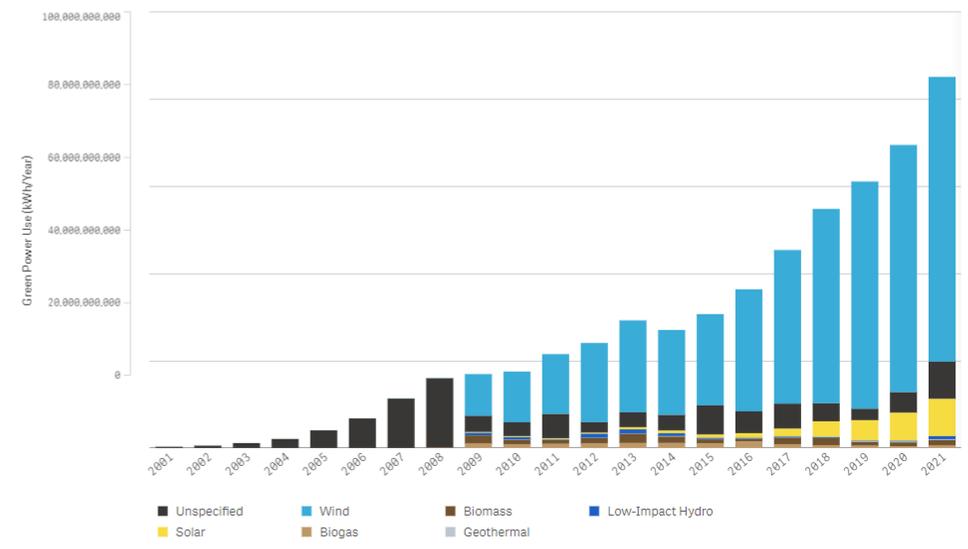
Cumulative Green Power Use (kWh) - 2001 to 2021
562,534,386,345

Green Power Use by Supply Option by Collection Year



[Download Supply Option Summary](#)

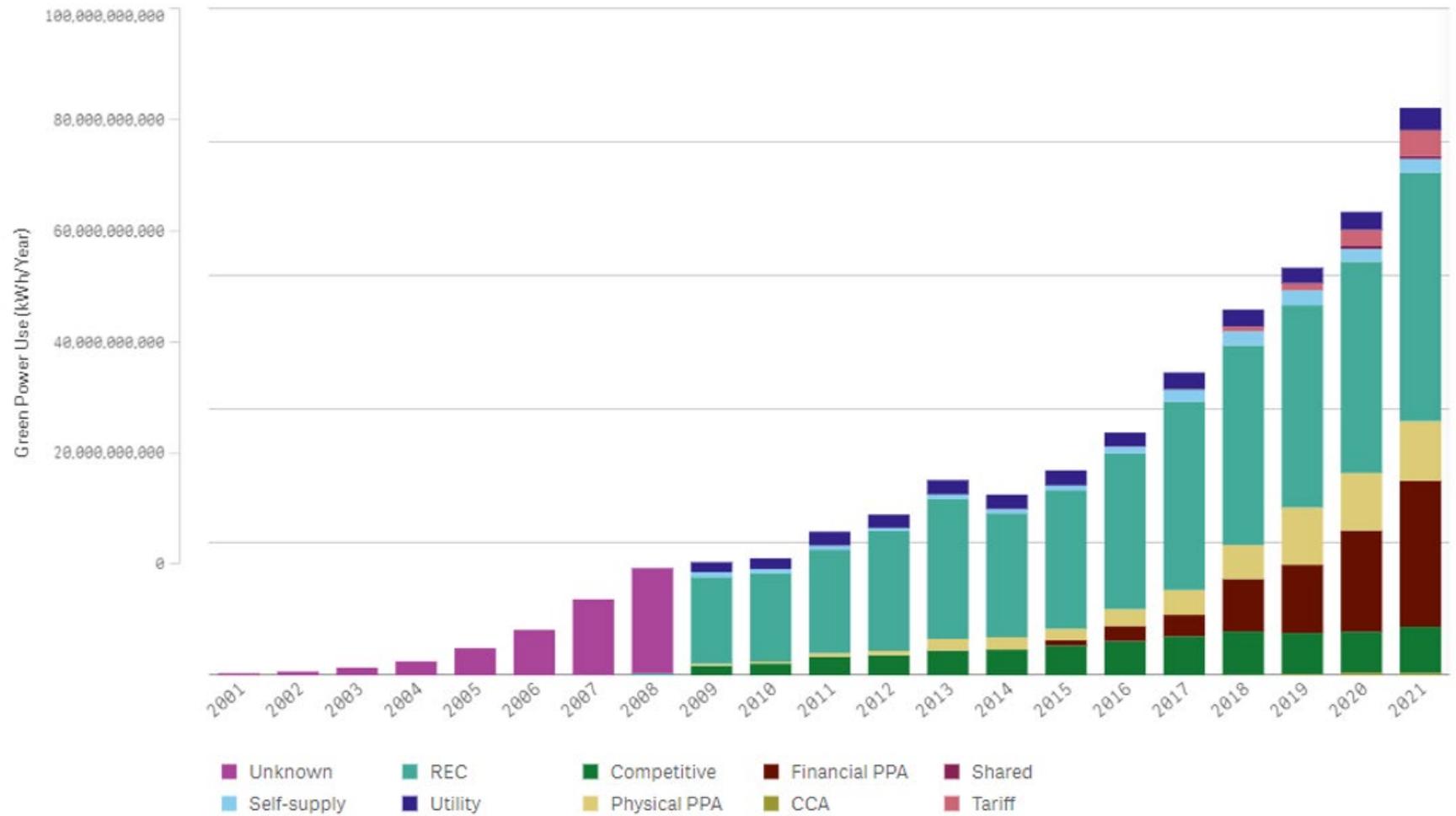
Green Power Use by Renewable Resource by Collection Year



[Download Renewable Resource Summary](#)

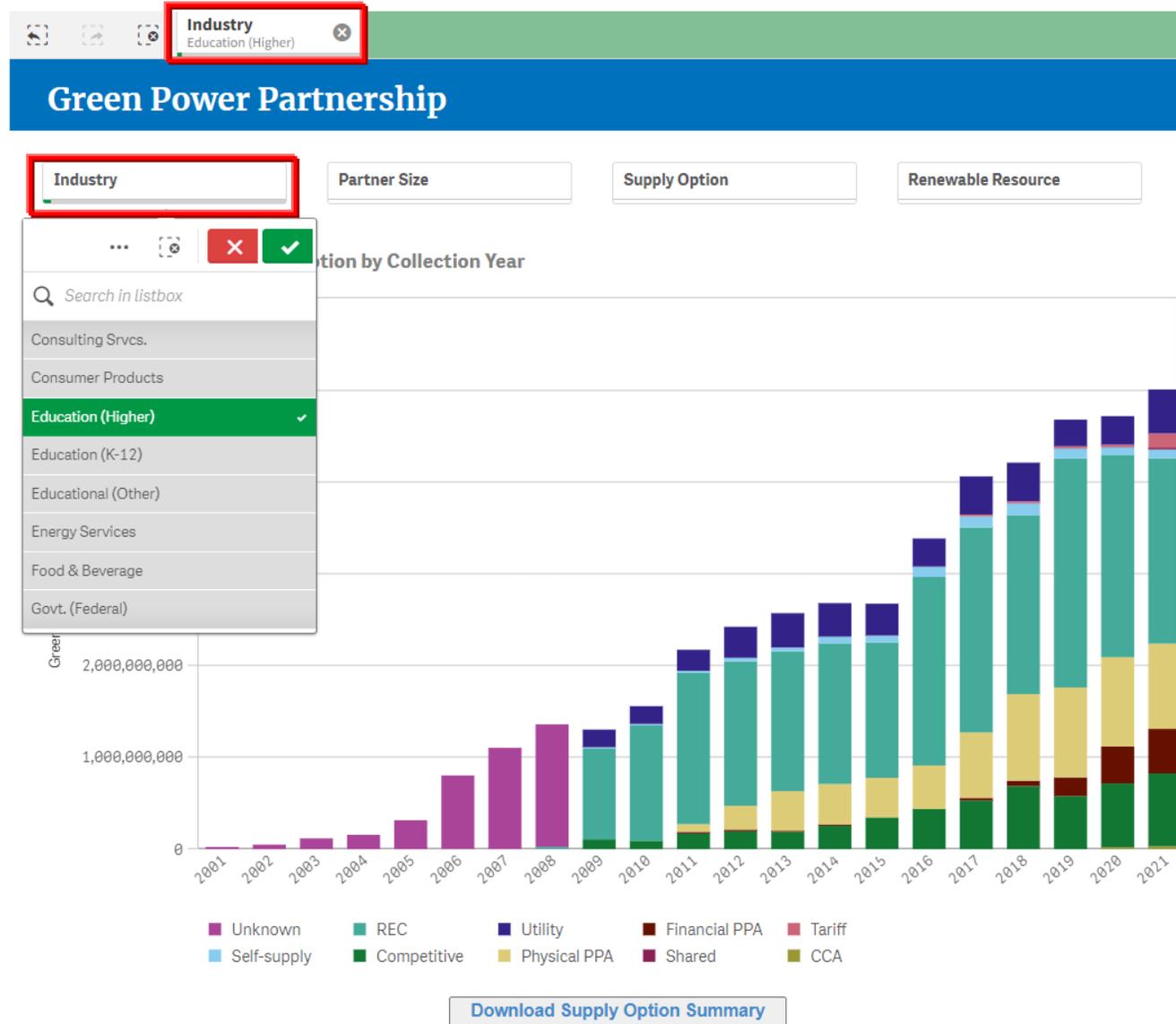
Downloading Data

Green Power Use by Supply Option by Collection Year



[Download Supply Option Summary](#)

Annual Green Power Use by Industry



Green Power Use Multi-Filter Example

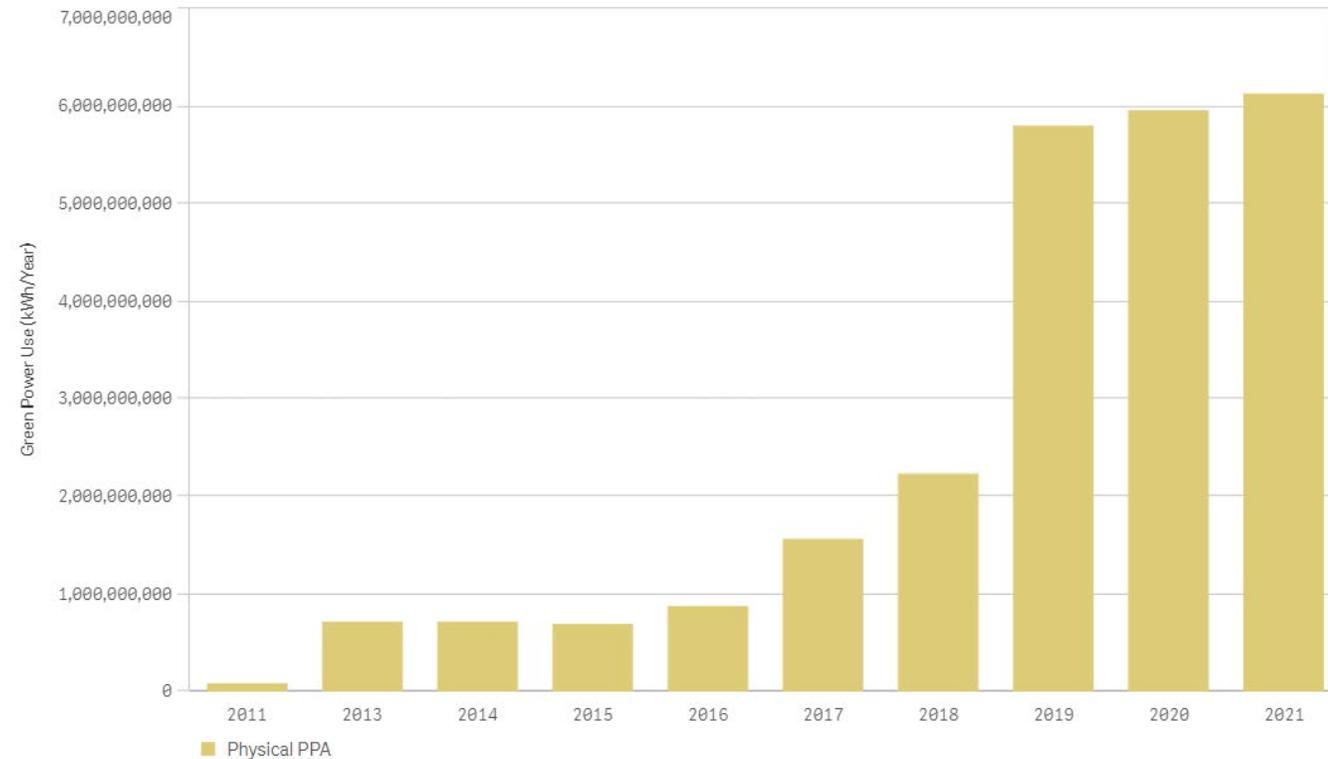
Industry: Technology & Telecom
Supply Option: Physical PPA
Resource: Wind

Green Power Partnership

Industry: Partner Size: Supply Option: Renewable Resource:

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

Green Power Use by Supply Option by Collection Year



[Download Supply Option Summary](#)

Partner Profile Viewer

Partner Profile Viewer

[Tour This Dashboard](#)
[Information](#)

Bimbo Bakeries USA, Inc.

[Info on Awards](#)

Location	Industry	Awards
Horsham, PA	Food & Beverage	2022
Partnership Agreement Signed	Period of Reported Green Po...	Collection Year: Last Data Re...
9/30/2021	1/1/2022 - 12/31/2022	2/21/2023

Sustainability Website

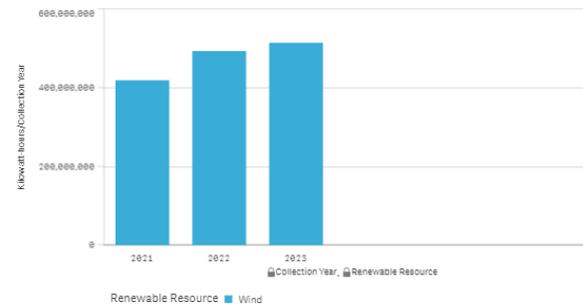
<https://bimbobakeriesusa.com/baked-for-nature>

Profile

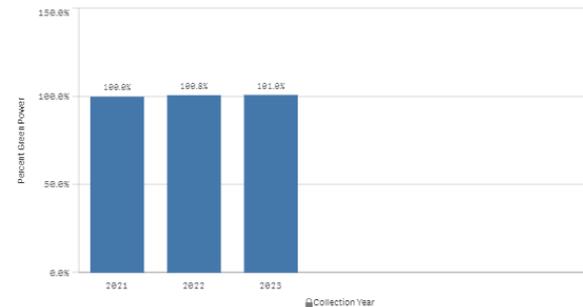
Bimbo Bakeries USA is known for its category leading brands, innovative products, freshness and quality. Its brands include Arnold, Artesano, Bimbo, Brownberry, Entenmann's, Oroweat, Sara Lee and Thomas'. Bimbo Bakeries USA is part of Mexico's Grupo Bimbo, S.A.B de C.V., the world's largest baking company with operations in 33 countries.

At Bimbo Bakeries USA, we live Our Purpose every day – Nourishing a Better World—recognizing our obligation to protect and preserve our planet for generations to come. Through our parent company, Grupo Bimbo, we are RE100 partners and all our U.S. operations are powered with renewable wind energy. We are also committed to achieving Net Zero Carbon emissions by 2050 by strengthening measures to prevent, reduce, or eliminate at least 90% of the carbon emissions in our value chain by leading the way for our value chain to transition to 100% renewable energy, moving to lower carbon logistics and vehicles and implementing energy efficiency strategies across all operations. We currently operate 400+ alternative fueled vehicles, divert 95%+ of our manufacturing waste from landfills and have been recognized as an EPA ENERGY STAR Partner of the Year – Sustained Excellence, for five consecutive years.

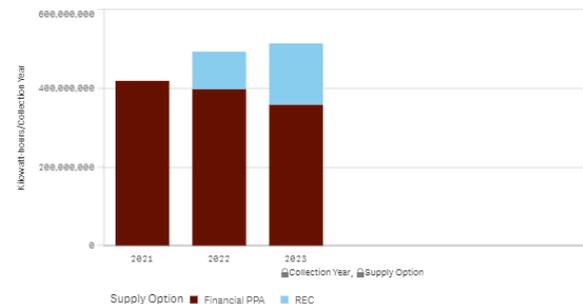
Green Power Use by Renewable Resource



Green Power Percentage of Electricity Use

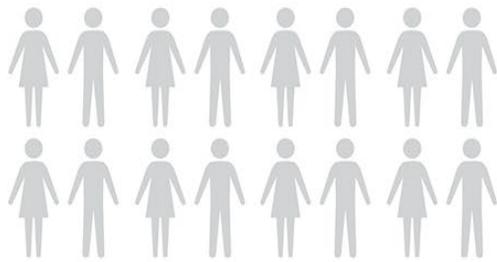


Green Power Use by Supply Option



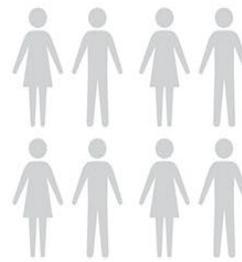


2021 Year in Review



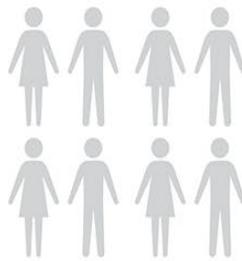
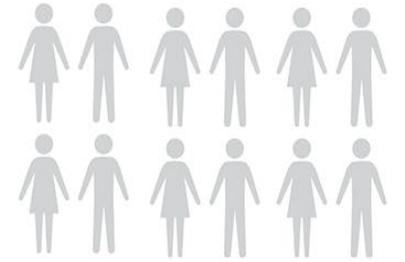
705

NUMBER OF
PARTNERS



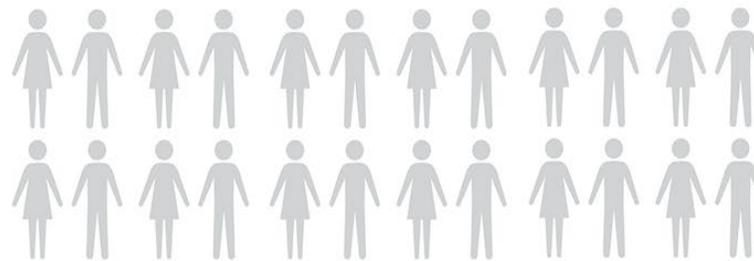
125

COLLEGES &
UNIVERSITIES



109

LOCAL
GOVERNMENTS

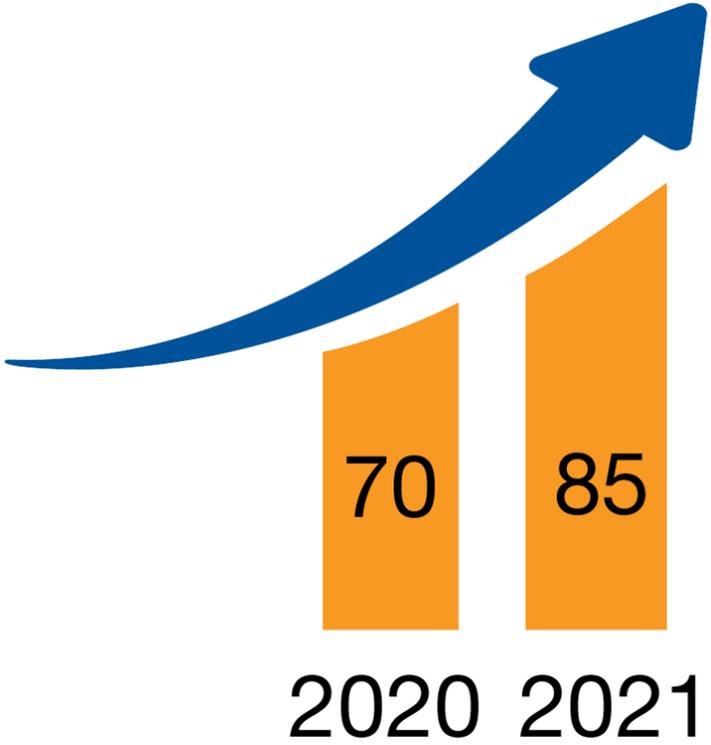


73

FORTUNE 500®
COMPANIES



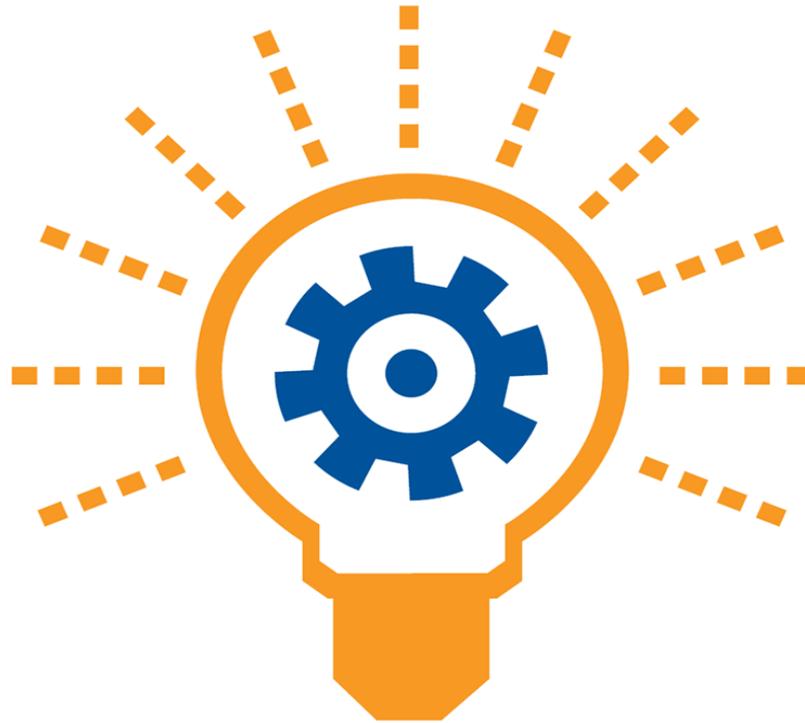
2021 Program Growth



**MORE THAN
15**

BILLION kWh IN GROWTH
OVER PREVIOUS YEAR

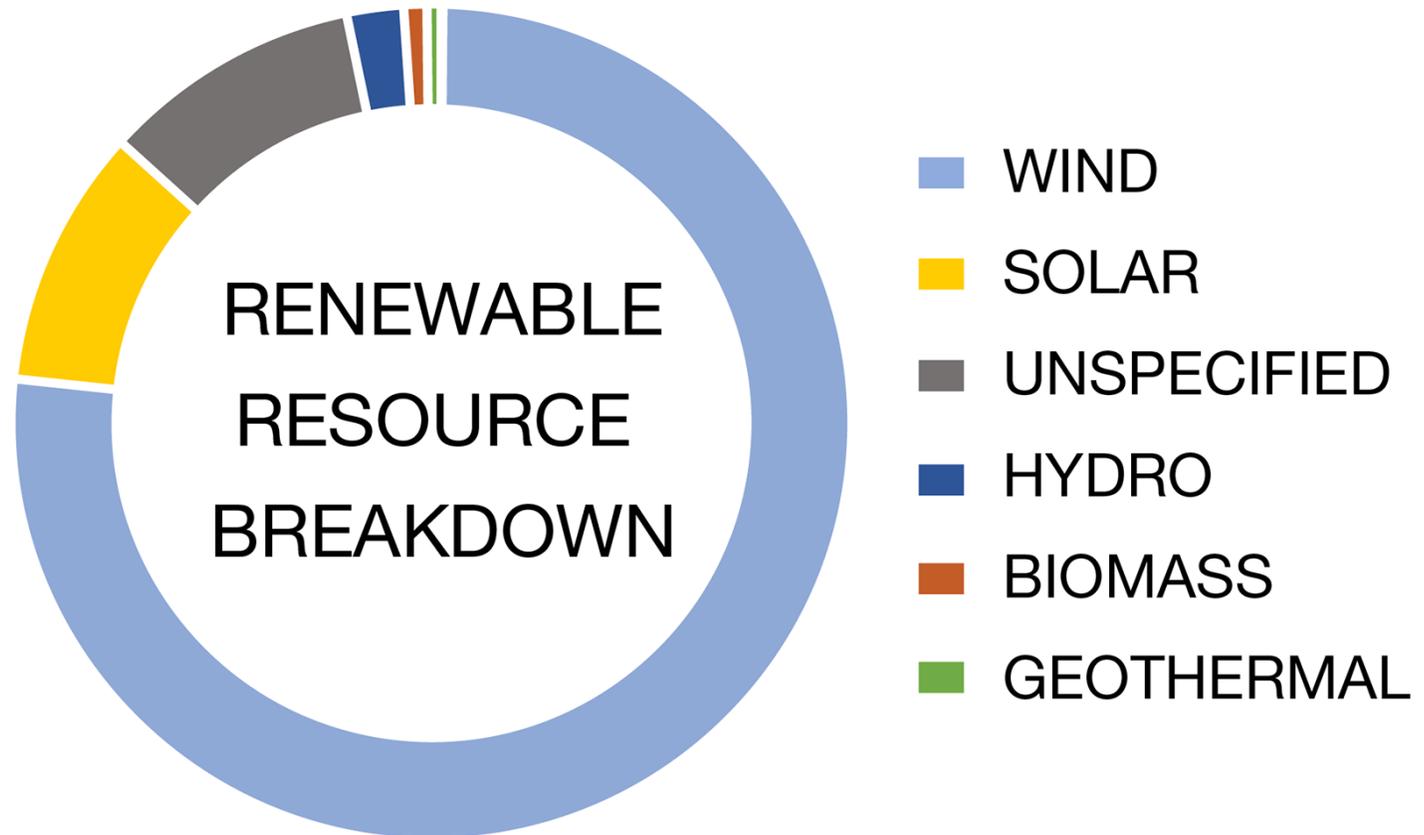
Green Power Partners using 100% GP



52%

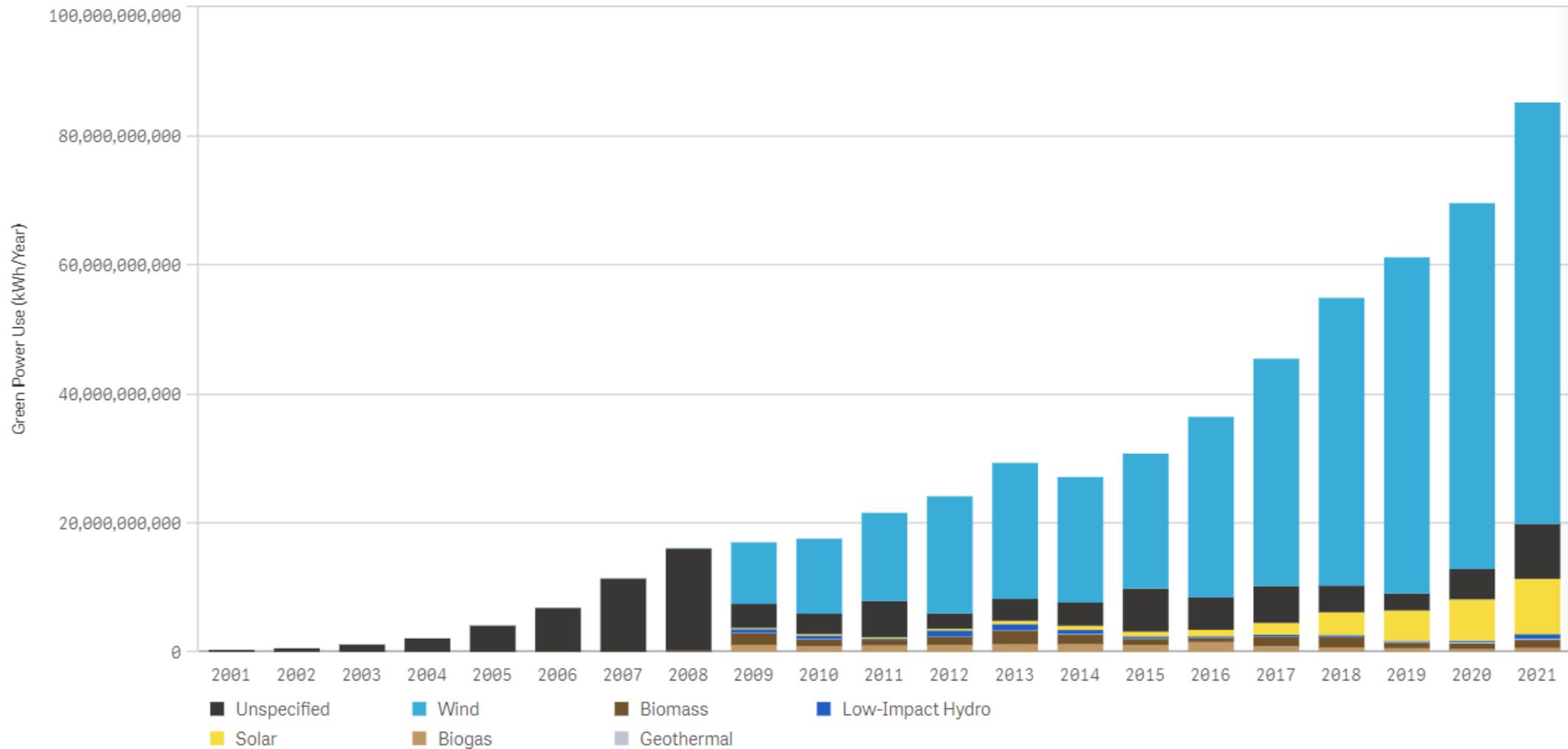
SHARE OF PARTNERS USING
100% RENEWABLE
ELECTRICITY

2021 Green Power Resources



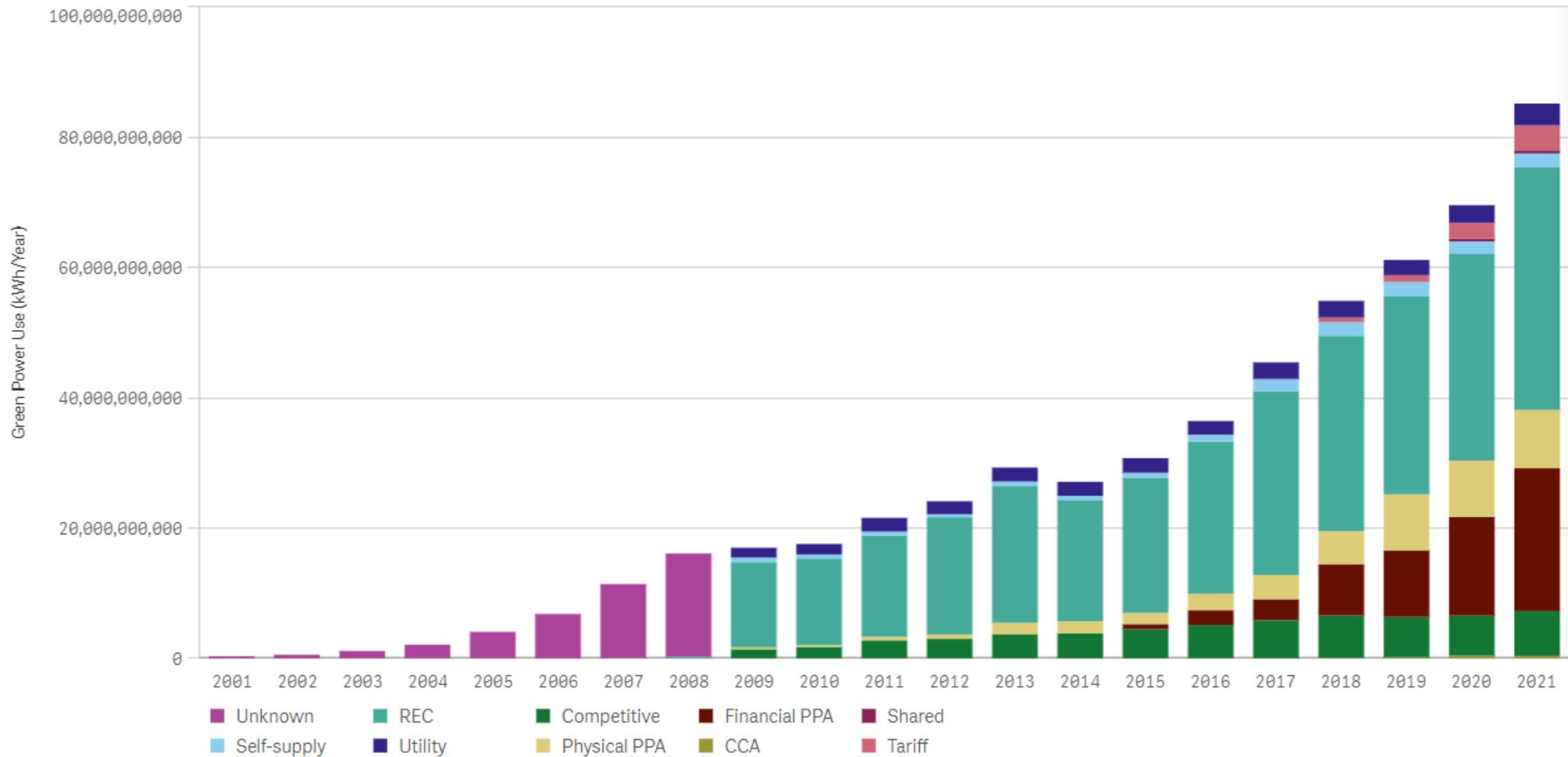
Annual Green Power Use by Resource Type

Green Power Use by Renewable Resource by Collection Year

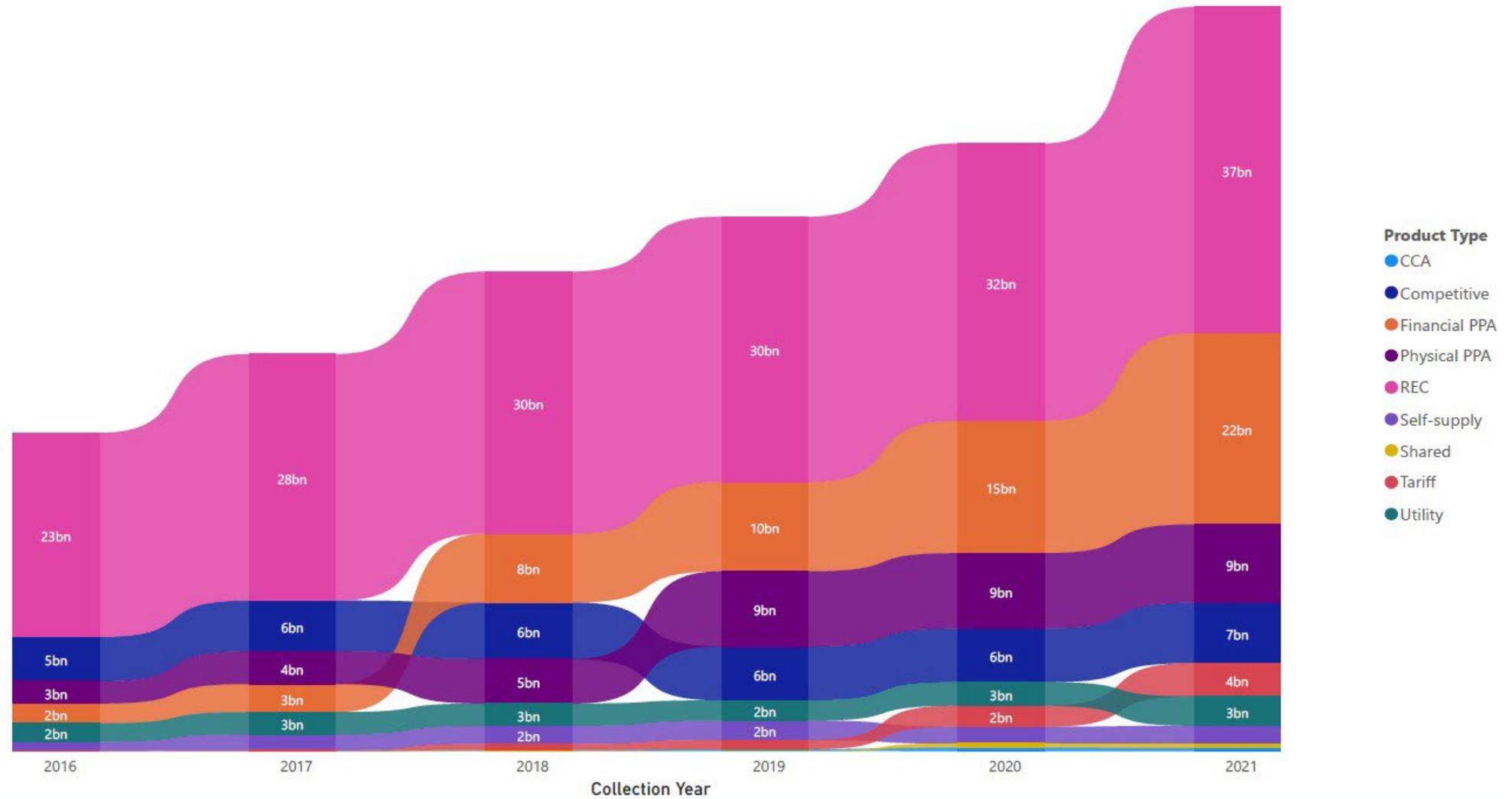


Annual Green Power Use by Supply Option

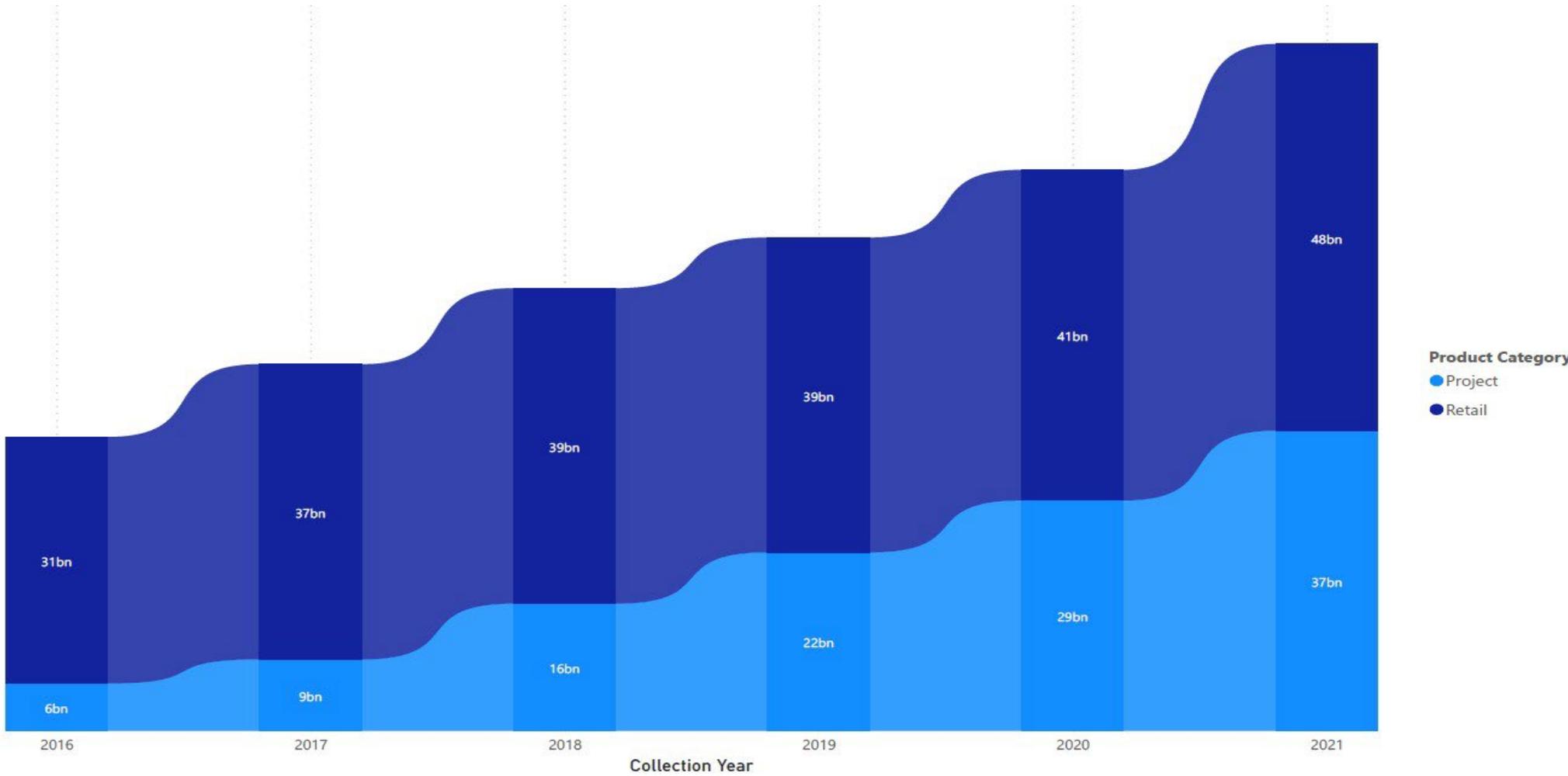
Green Power Use by Supply Option by Collection Year



Green Power (kWh) by Year and Product Type

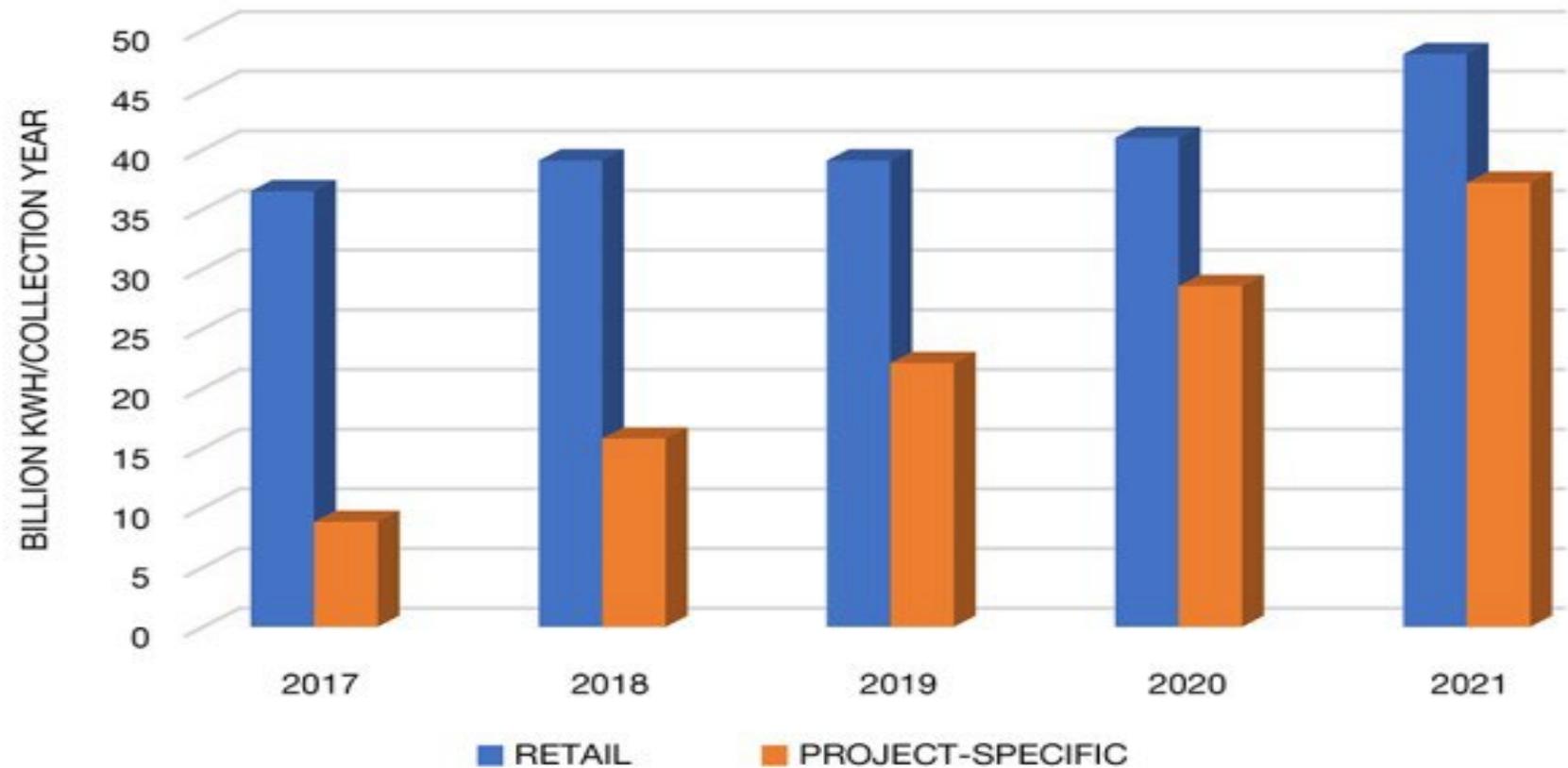


Green Power (kWh) by Year and Product Category



Green Power (kWh) by Year and Supply Type

PARTNER GREEN POWER USE BY SUPPLY TYPE



2021 Onsite Generation

**2.5
BILLION**

kWh OF ONSITE
GENERATION



Based on data collected in 2021

Questions?

- Christopher Kent, EPA,
kent.christopher@epa.gov
- Eric O'Shaughnessy, Clean Kilowatts LLC,
eric.oshaughnessy@cleankws.com

Resources:

About the Green Power Partnership

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

Status and Trends in the Voluntary Green Power Market (2021 Data)

- <https://www.nrel.gov/docs/fy23osti/84419.pdf>

Green Power Partnership



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](#)
- [Program Results](#)
- [FAQ](#)

Join



- [Join the Green Power Partnership](#)
- [Benefits](#)
- [Requirements](#)
- [Join as Organization](#)
- [Join as a Community](#)

Data



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

For more information, visit

www.epa.gov/greenpower

www.epa.gov/green-power-markets

