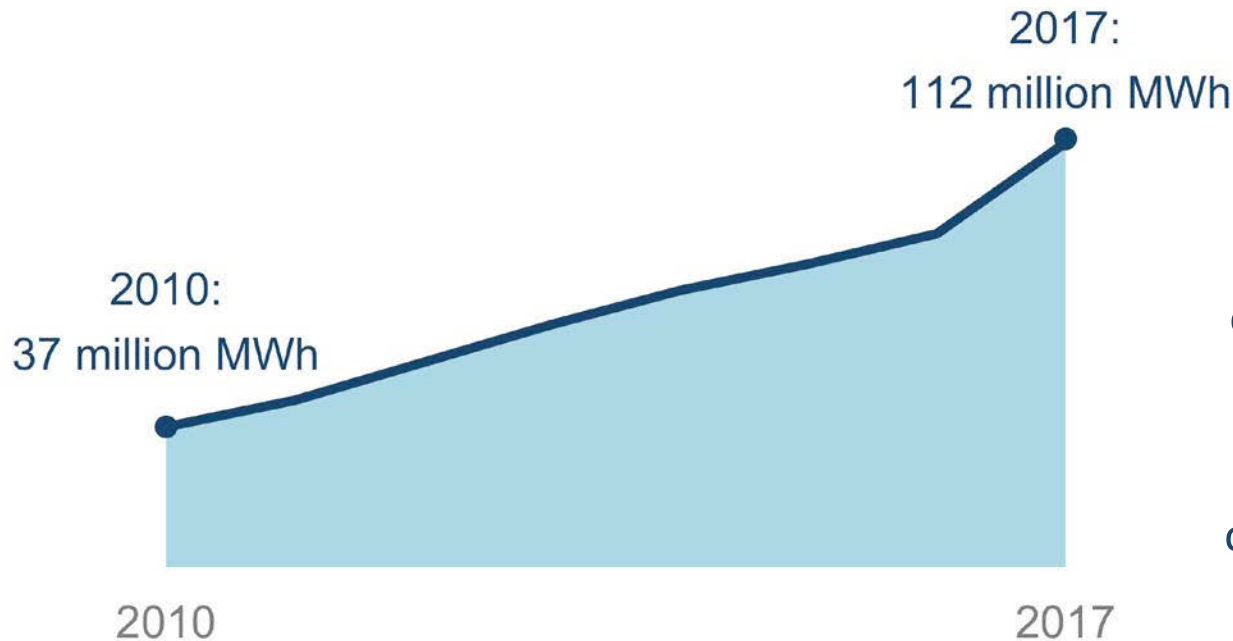




# State of the Voluntary Green Power Market

Eric O'Shaughnessy  
Renewable Energy Markets 2018  
Houston, Texas  
October 9-11, 2018

In 2017, about **5.5 million customers** procured about **112 million MWh** of renewable energy through green power markets.



Voluntary green power sales 2010-2017

That represents about:

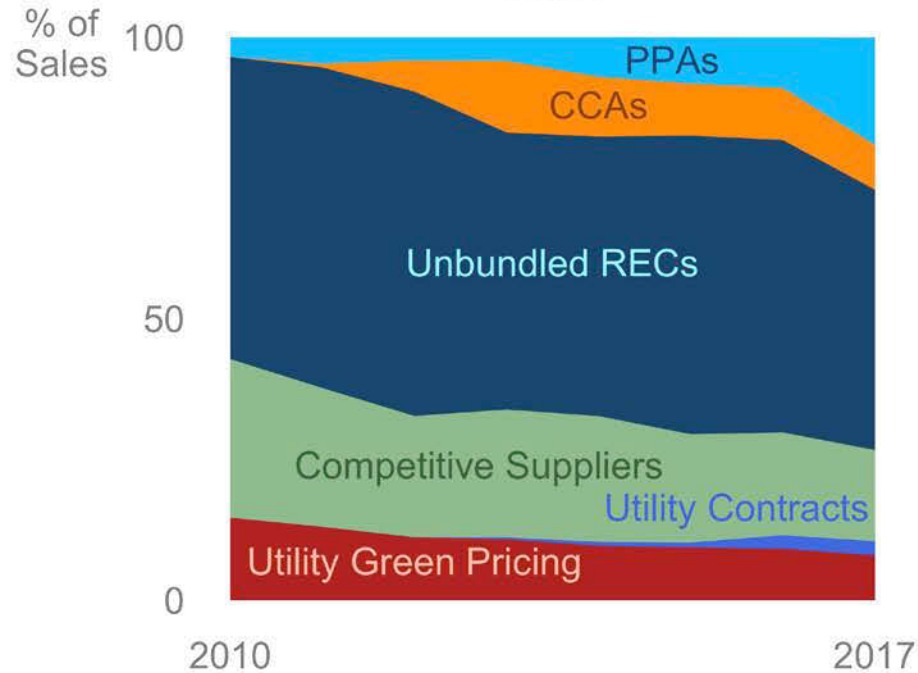
**3%**

of U.S. retail electricity sales

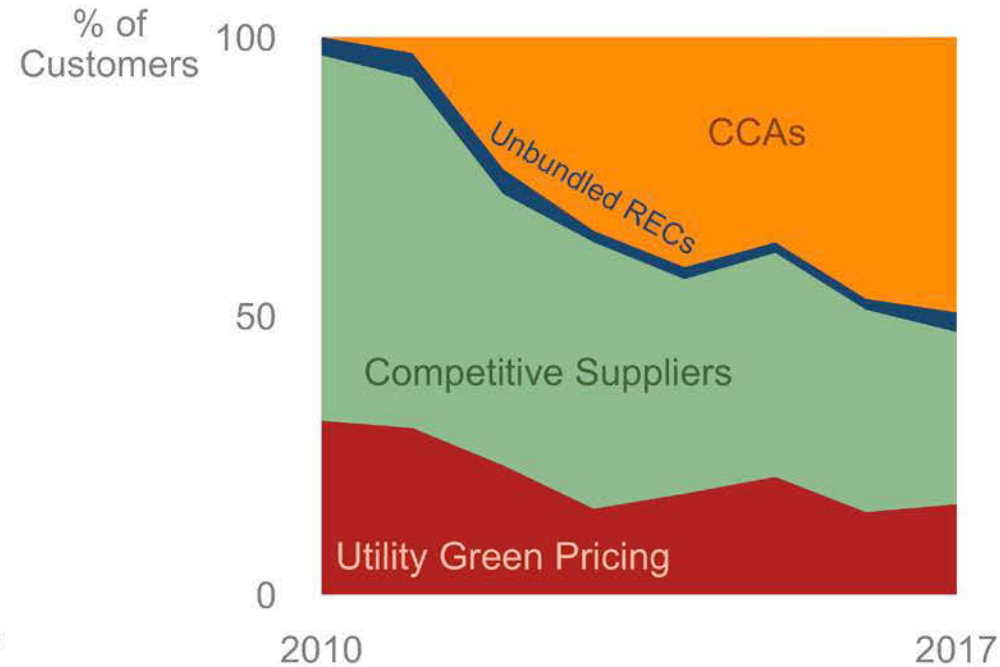
**26%**

of U.S. non-hydro renewable energy generation

### Sales



### Participation



The Green Power Market is Diversifying

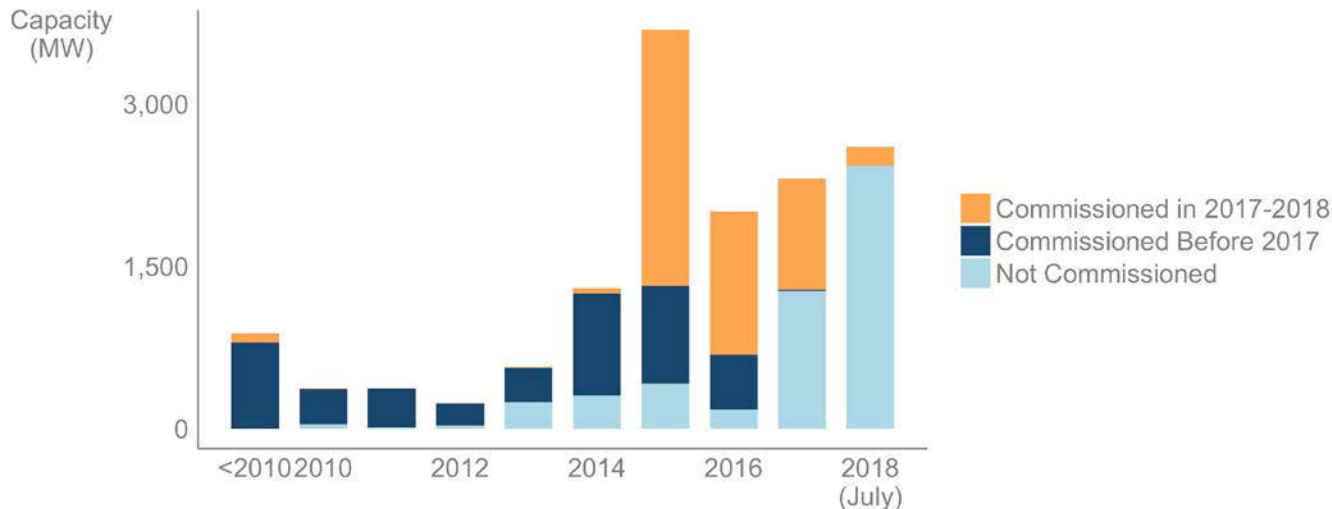
Unbundled RECs still account for about half of green power sales, but new products like PPAs, CCAs, and utility renewable contracts are rapidly gaining market share

# A Big Year for PPAs

PPA green power sales increased by **13.4 million MWh** (170%) from 2016 to 2017. Most of that increase is due to contracts that were signed in 2015 that came online for the first time in 2017.



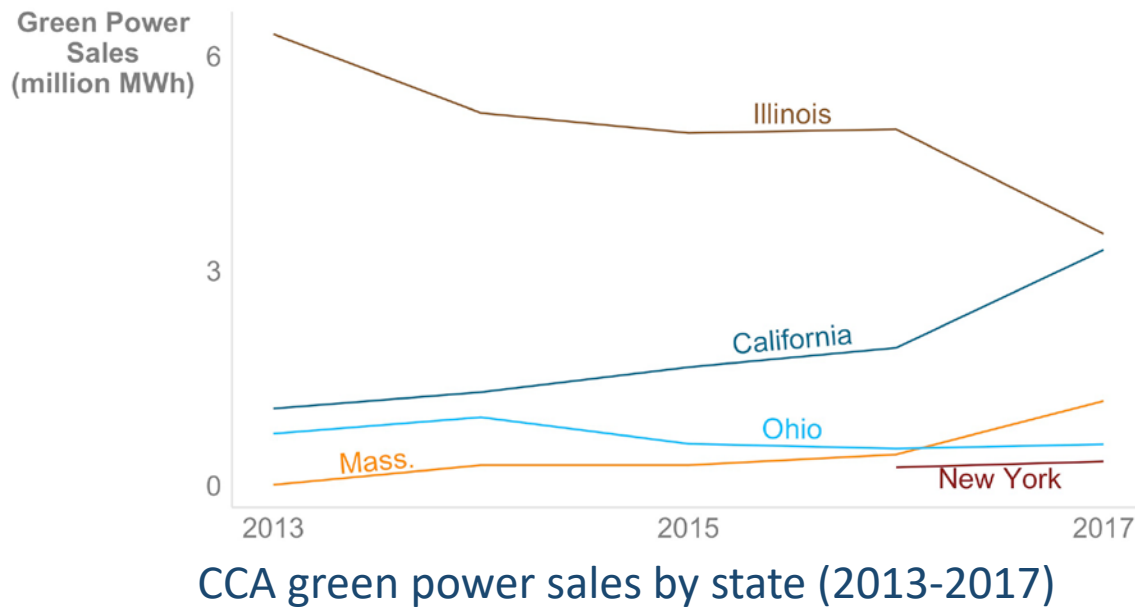
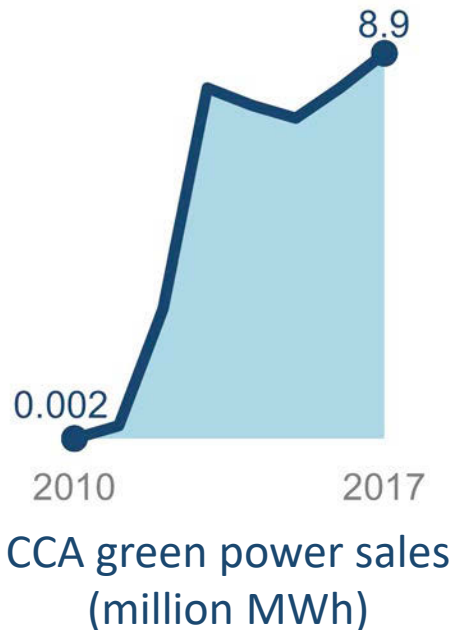
PPA green power sales  
(million MWh)



PPA commissioned and un-commissioned capacity  
through July 2018

# Rise of the CCAs

CCAs now account for about half of all green power customers. Increasing CCA green power sales in California, Massachusetts, and New York are now offsetting declining sales in Illinois.

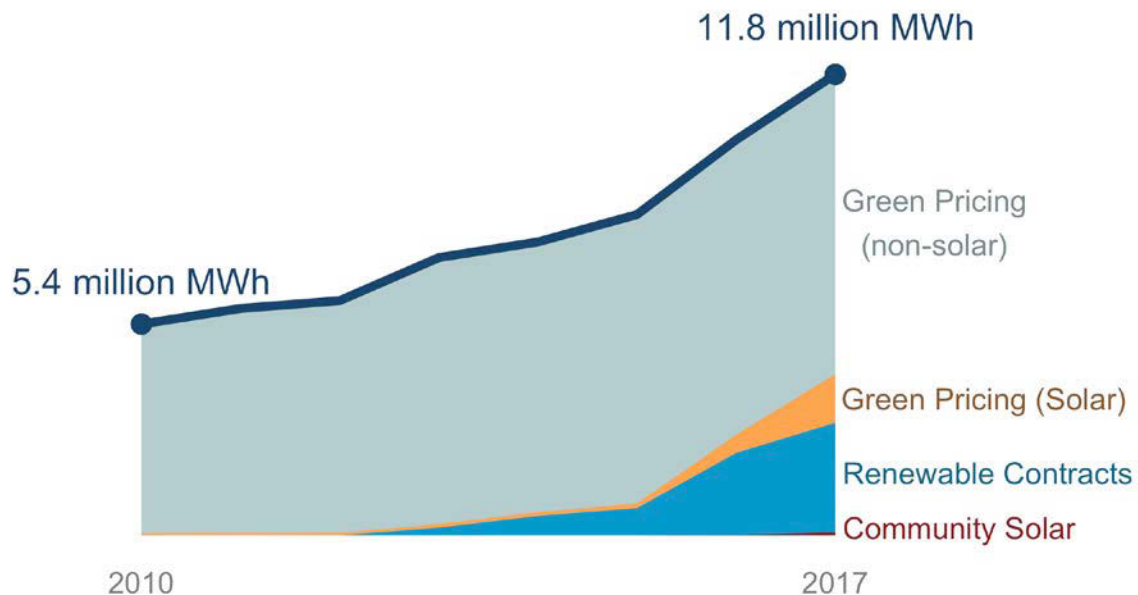


# New Roles for Utilities

Utilities sold around **12 million MWh** of green power in 2017.

Several utilities are innovating by increasing the solar content in their green pricing portfolios, and at least three utilities now offer **green power community solar**.

Utilities are increasingly meeting the green power needs of large buyers through **utility green tariffs** and **bilateral contracts**.



Utility green power sales (2010-2017)

# More Resources

Full 2017 Report:

<https://www.nrel.gov/docs/fy19osti/72204.pdf>

2017 Data:

<https://data.nrel.gov/submissions/98>

Other NREL green power resources:

<https://www.nrel.gov/analysis/green-power.html>

Eric O'Shaughnessy  
Market Research Analyst  
303-274-4878  
eric.oshaughnessy@nrel.gov

---

**www.nrel.gov**  
NREL/PR-6A20-72411

NREL is a national laboratory of the U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, operated by the Alliance for Sustainable Energy, LLC.

