

OCTOBER 24, 2017



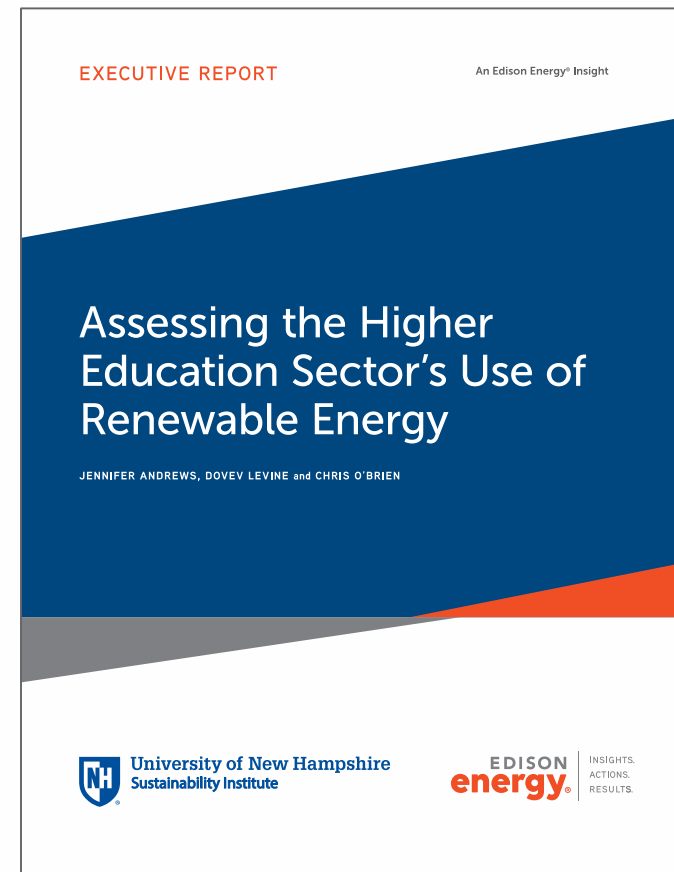
# Higher Education Renewable Energy Trends

REM, New York City

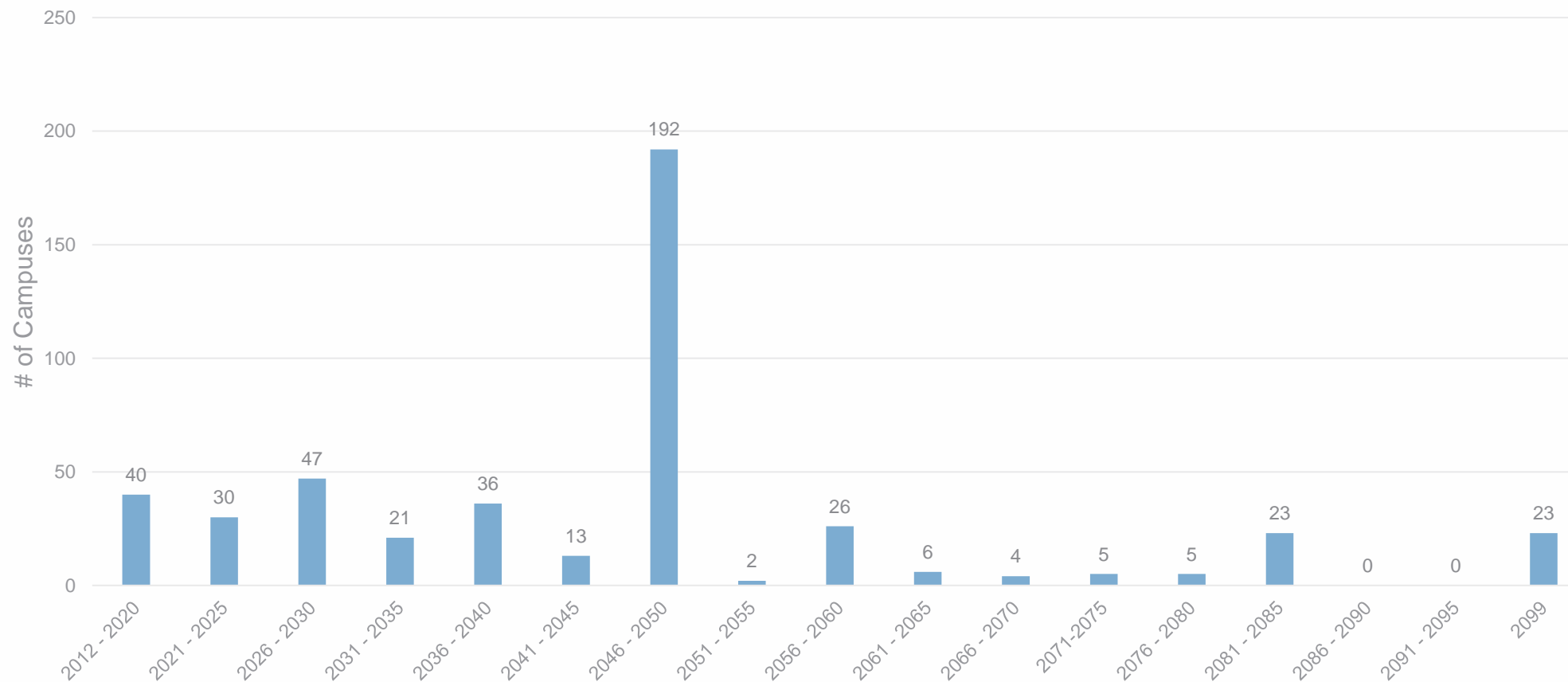
# UNH / Edison Energy Higher Ed Renewables Report

## Executive Summary

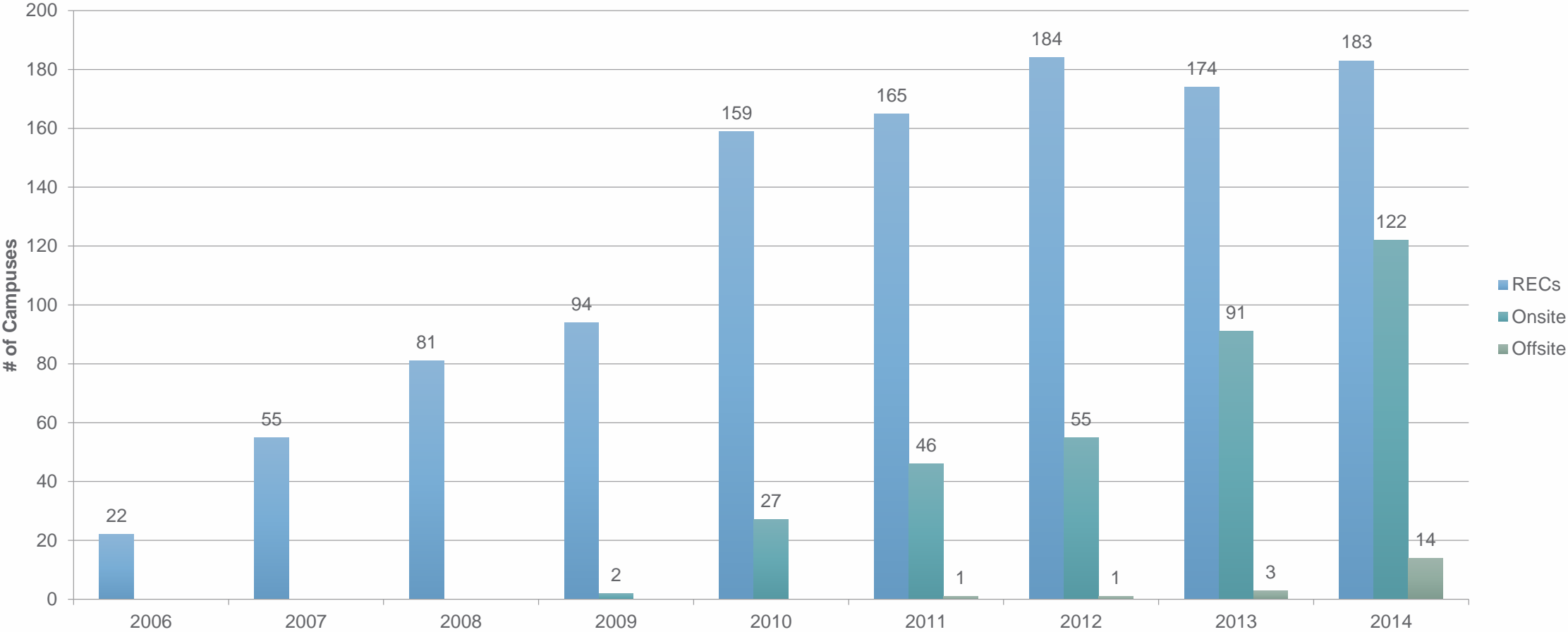
- › 5,000+ colleges and universities
- › \$6-7 B. annual sector-wide energy spend
- › Higher education sector has ambitious GHG goals
- › Rapidly adopting onsite solar
- › Offsite PPAs are gaining traction but:
  - Pace appears too slow to meet goals
  - Regulated states inhibit progress
- › Large-scale offsite PPAs are required to meet CO2 goals



# Campus Carbon Neutral Dates



# Campuses Buying Green Power by Type



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# Campuses with Onsite Solar

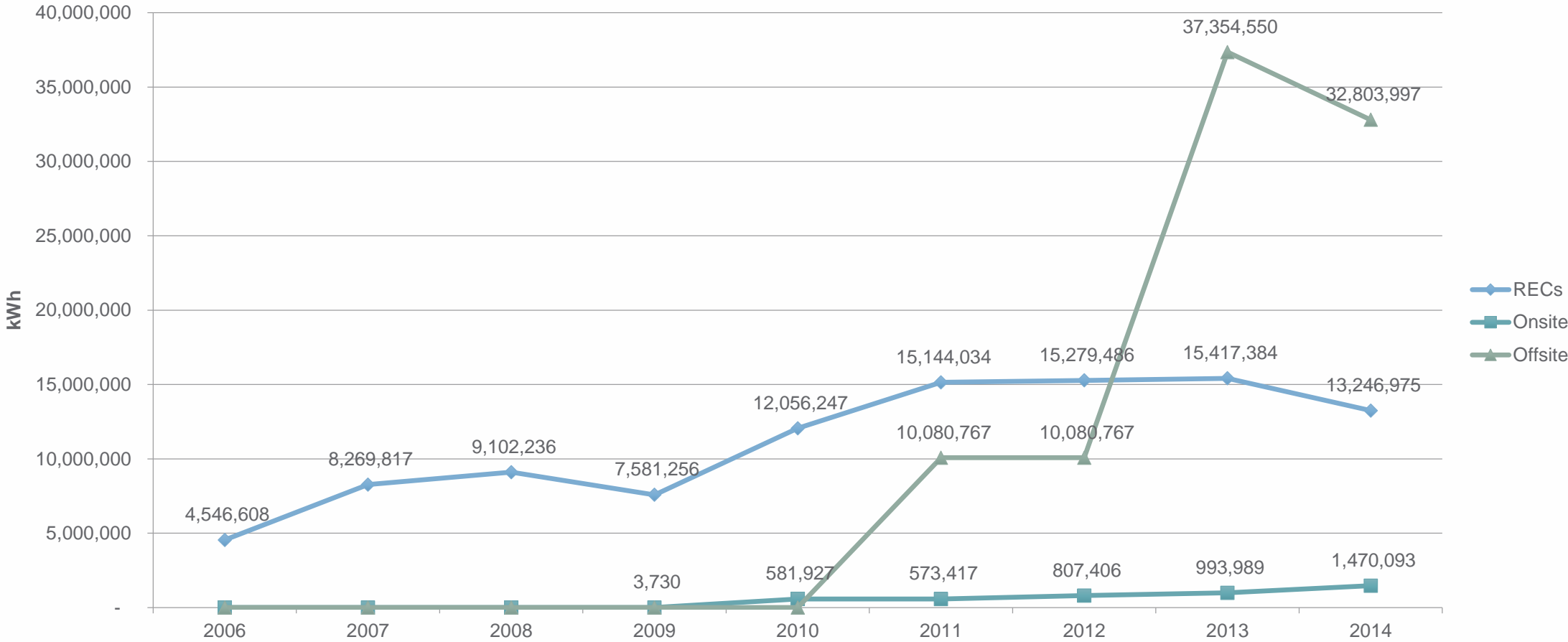
Adelphi University  
 American University  
 Appalachian State University  
 Assumption College  
 Auburn University  
 Bryn Mawr College  
 Bucknell University  
 Butte College  
 California State University - Fullerton  
 California State University-Bakersfield  
 California State University-Monterey Bay  
 California State University-Northridge  
 California State University, Sacramento / Library  
 and The WELL  
 California State University, San Bernardino  
 Calvin College  
 Carleton College  
 Carnegie Mellon University  
 Chesapeake College  
 Clemson University / Ravenel District  
 Colby College  
 Colby-Sawyer College  
 Colorado College  
 Colorado State University  
 Cornell University  
 DePaul University  
 Dickinson College  
 Eastern Connecticut State University  
 Florida Gulf Coast University  
 Florida State University  
 Furman University  
 George Washington University

Georgia Institute of Technology  
 Hamilton College  
 Hartwick College / Pinelake Environmental  
 Campus  
 Heartland Community College  
 Hibbing Community College  
 Hobart and William Smith Colleges  
 Hofstra University  
 Illinois Institute of Technology  
 Indiana University Bloomington  
 Iowa State University  
 Johnson County Community College  
 Joliet Junior College  
 Juniata College  
 Kankakee Community College  
 Lane Community College  
 Lewis & Clark College  
 Lewis and Clark Community College  
 Loyola Marymount University  
 Luther College  
 MA Maritime Academy  
 Madisonville Community College  
 Maryville College  
 Marywood University  
 Middlebury College  
 Mills College  
 Muhlenberg College  
 Naropa University  
 Niagara University  
 Northampton Community College / Monroe  
 Campus  
 Northern Arizona University

Northwestern University  
 Oberlin College  
 Ohio University  
 Oregon State University  
 Pacific Lutheran University  
 Pittsburg State University  
 Pitzer College  
 Point Loma Nazarene University  
 Pomona College  
 Portland State University  
 Raritan Valley Community College / Main  
 Campus  
 Rochester Institute of Technology  
 Santa Clara University  
 Sewanee - The University of the South  
 Skagit Valley College  
 Southern Oregon University  
 Southwestern Illinois College  
 St. Lawrence University  
 St. Mary's College of Maryland  
 State University of New York at Albany  
 State University of New York at Buffalo  
 State University of New York at Cortland  
 Sterling College  
 Stevens Institute of Technology  
 Stony Brook University  
 Temple University  
 The Evergreen State College  
 Tufts University  
 Union College  
 Unity College  
 University of California, Merced

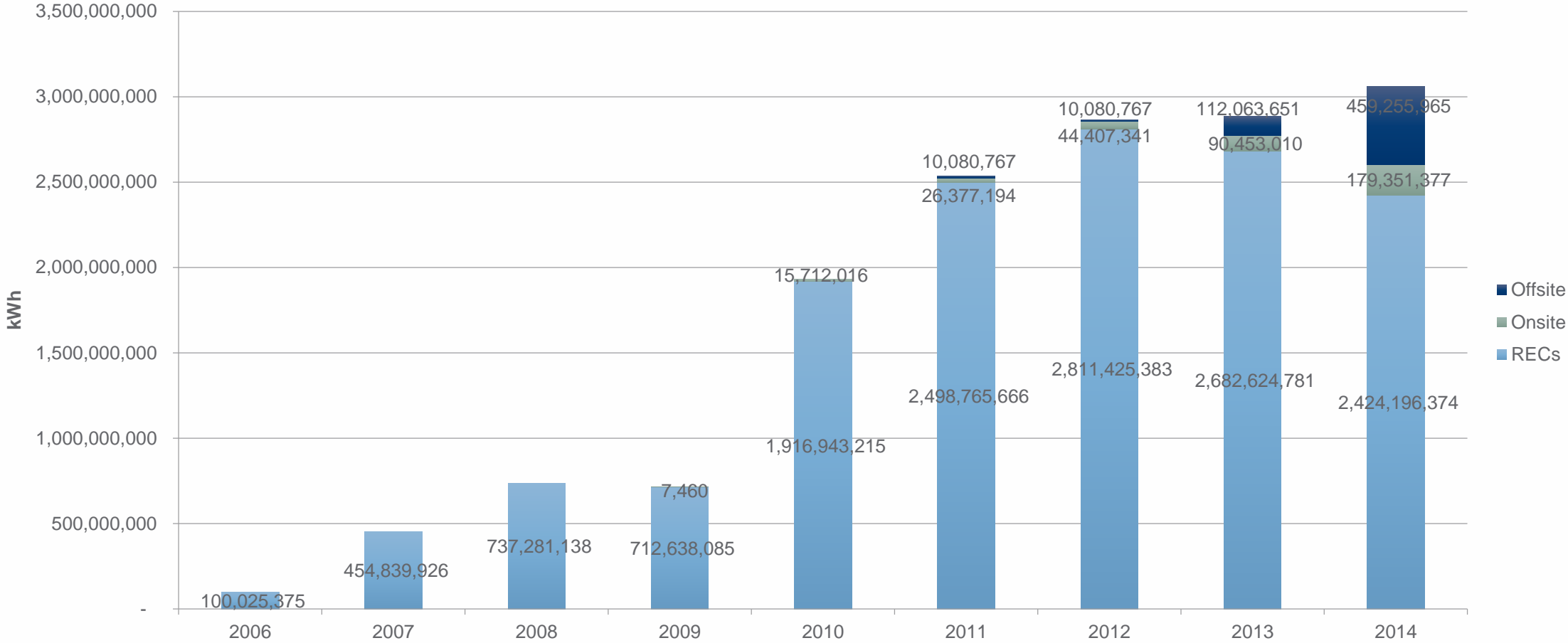
University of California, San Diego  
 University of California, Santa Cruz  
 University of Houston  
 University of Illinois at Urbana-Champaign  
 University of Iowa / Main Campus Buildings  
 University of Kentucky  
 University of Maryland College Park  
 University of Minnesota, Morris  
 University of Missouri - Columbia  
 University of North Carolina, Greensboro  
 University of Southern Maine  
 University of Tennessee, Knoxville  
 University of Texas Arlington  
 University of Texas Rio Grande Valley  
 University of Utah  
 University of Virginia  
 University of Washington  
 University of Wisconsin-Green Bay  
 University of Wisconsin-Oshkosh  
 Virginia Commonwealth University  
 Wake Forest University  
 Washington University / Tyson Research Center  
 Weber State University  
 Wellesley College  
 West Valley College  
 Western Kentucky University  
 Westminster College  
 Whitman College  
 Whitworth University  
 Williams College

# Avg. Green Power per Campus by Type



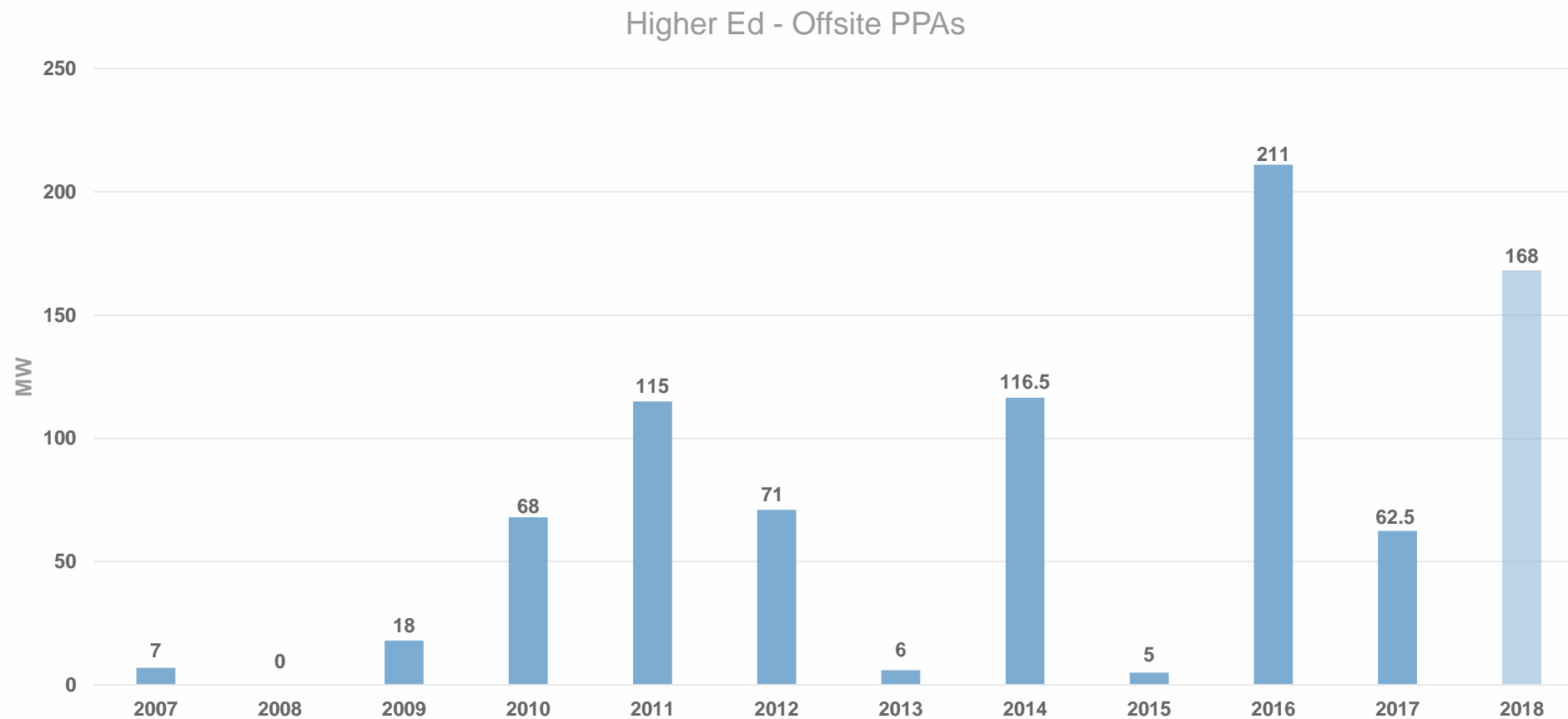
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# Green Power in Higher Ed by Type



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# Higher Ed. Offsite PPAs





# Campuses with Offsite PPAs

Campus	Year	MW		Year	MW
Southern New Hampshire University	2007	6	Skidmore College	2015	2
Wartburg College	2007	1	Skidmore College	2015	3
Harvard University	2009	12	Arizona State University	2016	28
Iowa State University	2009	6	MIT	2016	44
Southwestern University	2010	8	Stanford University	2016	67
University of Oklahoma	2010	60	University of California	2016	80
Oklahoma State University	2011	60	Georgetown	2017	32.5
University of Maryland College Park	2011	50	University of Utah	2017	10
University of Wisconsin-Oshkosh	2011	5	University of Utah	2017	20
University of Maryland	2012	55	Undisclosed university	2018	18
University of Maryland, Eastern Shore	2012	16	Undisclosed university	2018	50
Drexel University, Eastern University, Franklin & Marshall College, Juniata College, Marywood University, Millersville University	2013	6	Undisclosed university	2018	100
American University	2014	14	Undisclosed university	2018	~20
George Washington University	2014	38	Undisclosed university	2018	~20
Ohio State University	2014	50	Undisclosed university	2018	~20
State University of New York at Buffalo	2014	4.5			
University of Missouri - Columbia	2014	10			

# Key Takeaways From the Report

- › The number of colleges and universities buying renewable energy grew 2,000% between 2006 and 2015.
- › Renewable energy purchases in higher ed grew more than 30 fold from 2006 to 2015, increasing from 100,000 MWh to 3.286 million MWh.
- › Unbundled RECs are declining in popularity.
- › Onsite solar is increasingly common but produces a small amount of energy.
- › Offsite renewables purchases are twice as large as any other renewables source, on average.

<sup>1</sup> 2015 data set is incomplete.

# Download the Report

<http://www.edisonenergy.com/blog/white-papers-research/assessing-higher-education-sectors-use-renewable-energy/>

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ACTIONS.  
RESULTS.





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