



**ENERGY STAR®**  
**Higher Education Benchmarking Initiative**  
Scorecard

Montclair State University





## Thank you for participating in the inaugural ENERGY STAR Higher Education Benchmarking Initiative!



The HEBI was launched with the goal of providing institutions a sense of how their campus energy and water performance compares with that of peer institutions, moving beyond sector challenges to deliver actionable insights, all at no cost.

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### ENERGY STAR Definitions

- Source Energy Use Intensity (EUI): The total amount of all the raw fuel per year required to operate your property, including losses that take place during generation, transmission, and distribution of the energy, divided by the property square foot.
  - Water Use Intensity (WUI): The total amount of water used from all water sources per year divided by the building square foot (not including parking or irrigated area).
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### Data Analysis and Peer Group Establishment

Participants self-reported campus-wide energy and (optionally) water consumption data for calendar year 2019 via ENERGY STAR® Portfolio Manager® and completed a separate questionnaire to provide additional campus characteristics for analysis. Metrics submitted by participants were analyzed to create peer groups based on participation distribution, industry interests, and trends in median energy and water use intensities. Portfolio Manager and questionnaire data was reviewed for potential inaccuracies, and data elements were confirmed with participants when needed to assure data quality. To avoid substantially skewed results, campuses with source EUI values below 30 kBtu/ft<sup>2</sup> and above 600 kBtu/ft<sup>2</sup> were classified as outliers for energy charts, and campuses with WUI values below 3 gal/ft<sup>2</sup> and above 175 gal/ft<sup>2</sup> were classified as outliers for water charts. Outliers were excluded when determining median values for peer groups, and are differentiated as gray patterned bars on charts.

# PARTICIPANT SUMMARY



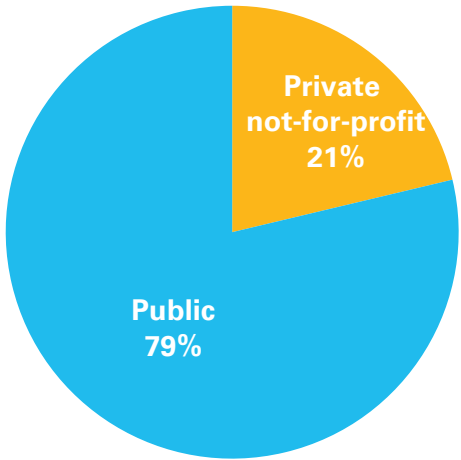
## Your Campus Information:

Institutional Control:	<b>Public</b>
Carnegie Classification:	<b>Doctoral University</b>
IECC Climate Zone*:	<b>Climate Zone 4: Mixed</b>
Campus Source Energy Use Intensity (kBtu/ft <sup>2</sup> ):	<b>219.4</b>
Campus Water Use Intensity (gal/ft <sup>2</sup> ):	<b>32.0</b>

\*See the following page for more information on IECC Climate Zones

## Participant Overview

### Type of Campus (Public/Private)



**101** Participating Institutions

**187** Unique Campuses

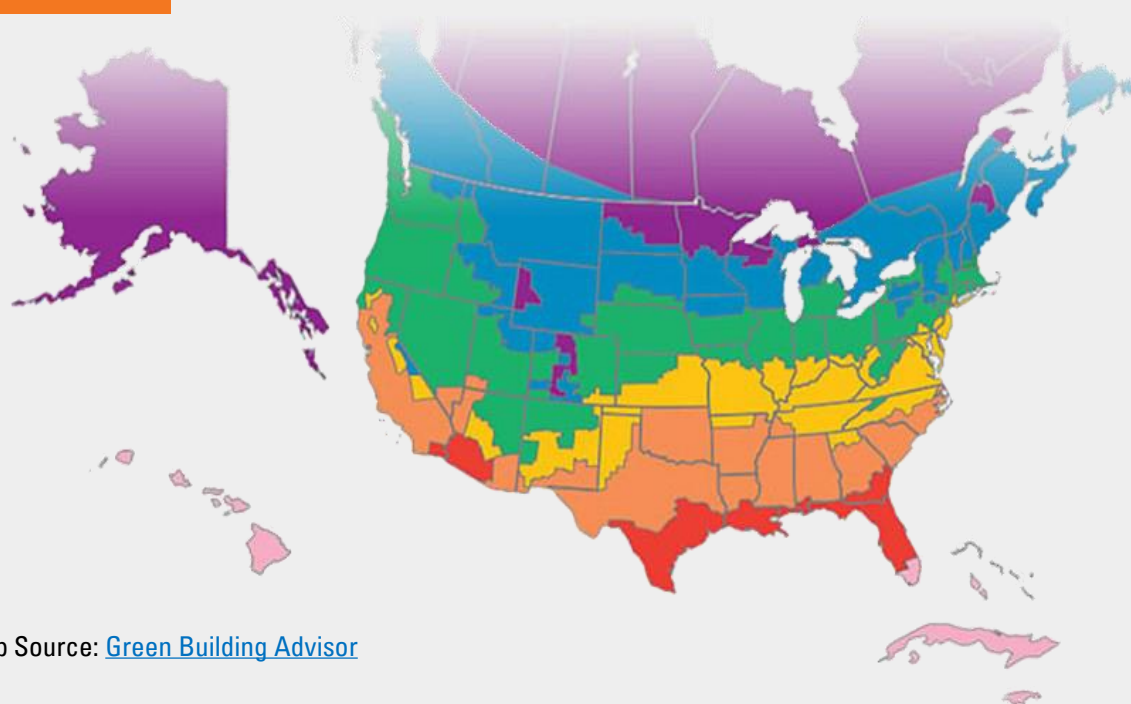
### Type of Campus (Carnegie Classification)

	Carnegie Classification	Carnegie Classification Subcategories	Subcategory Count
25%	Doctoral University	R1: Doctoral Universities- Very high research activity	22
		R2: Doctoral Universities- High research activity	21
		D/PU: Doctoral/Professional Universities	4
14%	Master's College or University	M1: Master's Colleges and Universities- Larger programs	21
		Master's Colleges or Universities	6
8%	Baccalaureate College	Baccalaureate College	14
9%	Baccalaureate/Associate's College	Associate's Dominant Institutions	16
44%	Associate's College/Special Focus Institution	High Transfer - High Nontraditional Institutions	8
		Mixed Transfer/Career & Technical-Mixed Traditional/Nontraditional	55
		Mixed Transfer/Career & Technical - High Nontraditional	4
		High Career & Technical - Mixed Traditional/Nontraditional Institutions	5
		Associate's College/Special Focus Institutions	11





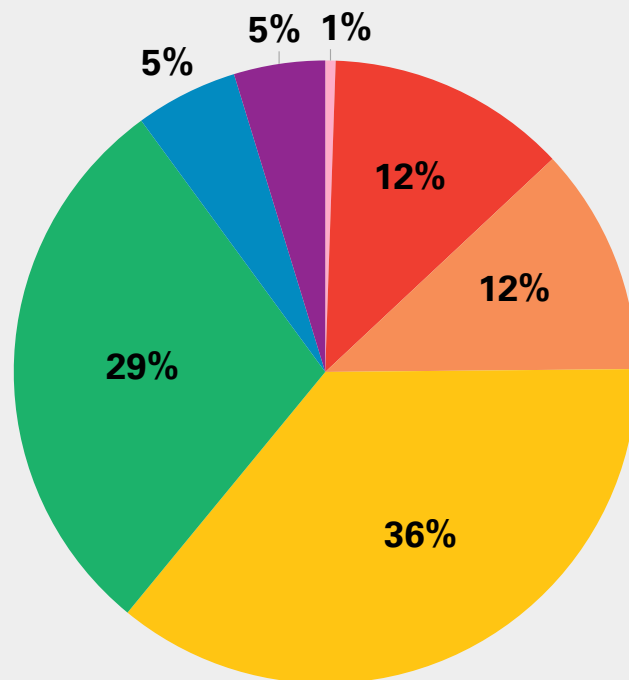
# International Energy Conservation Code (IECC) Climate Zones



Map Source: [Green Building Advisor](#)

IECC Climate Zone
1 – Very Hot
2 – Hot
3 – Warm
4 – Mixed (w/out Marine)
4 – Mixed (w/ Marine)
5 – Cool
6 – Cold
7 – Very Cold
8 – Subarctic

Campuses in Climate Zones 1 & 2 have been combined into a single peer group due to sample size



**% HEBI Participants**

\*Canadian campuses are included in these figures based on extrapolated climate zone data from [Green Building Advisor](#).

For more information on IECC Climate Zones, see the [U.S. Department of Energy's Building America Best Practice Series Volume 7.3: Guide to Determining Climate Regions by County](#).

# How to Read Your Scorecard

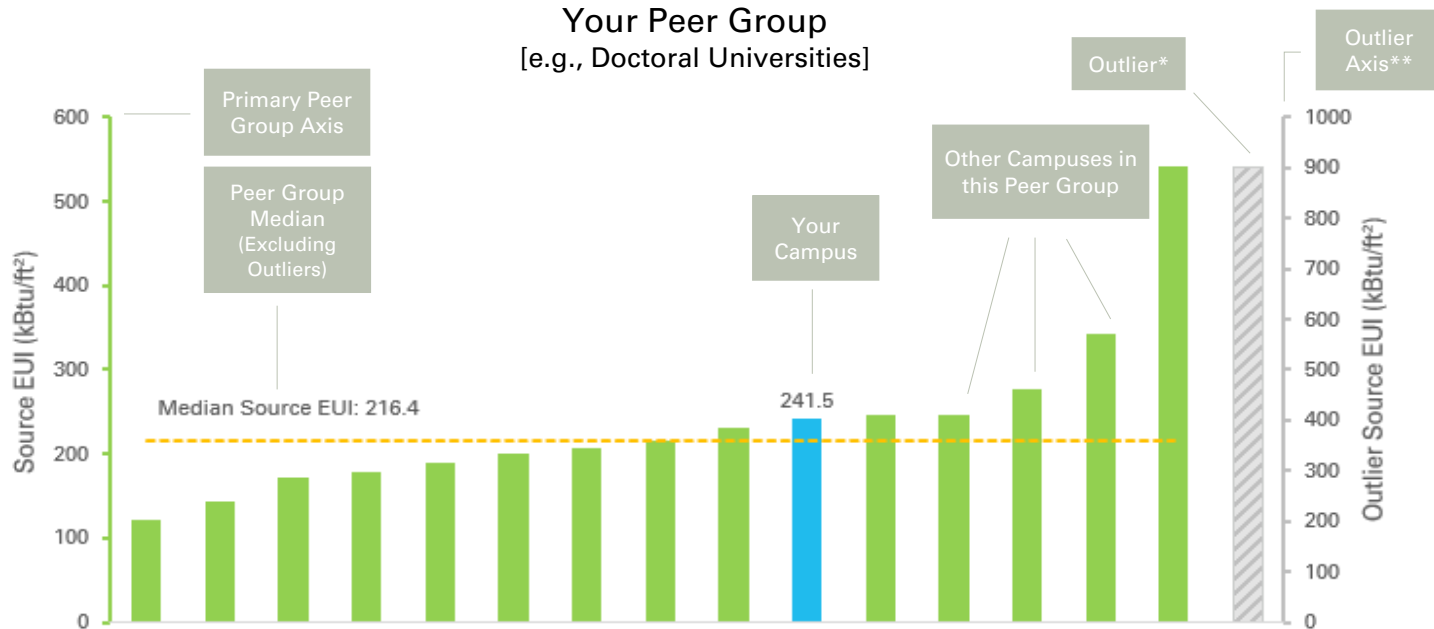
Category  
[e.g., Carnegie Classification]

[ Your Ranking ]



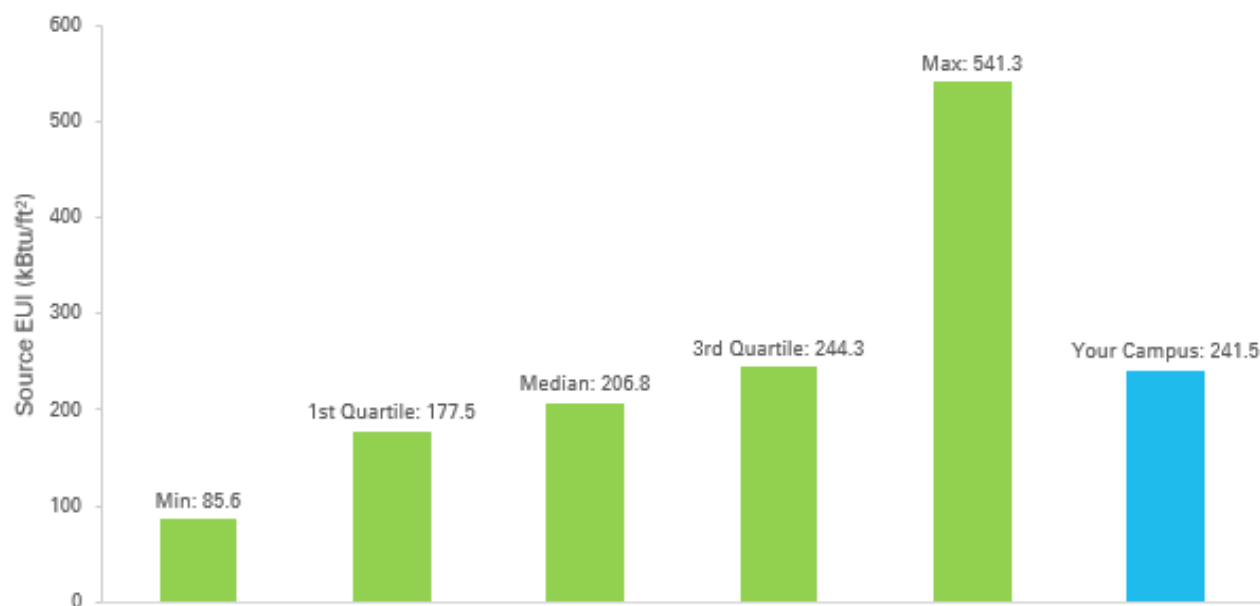
[ Total # of Campuses in Peer Group ]

Your Peer Group  
[e.g., Doctoral Universities]



\*If your institution is an outlier within a peer group, it will be represented as a blue patterned column.

\*\*Outlier axis will appear even if there are no outliers in a given peer group. Due to the wide range in outlier EUI/WUI values and scale sizing, some low outliers may appear as gaps or be difficult to discern.



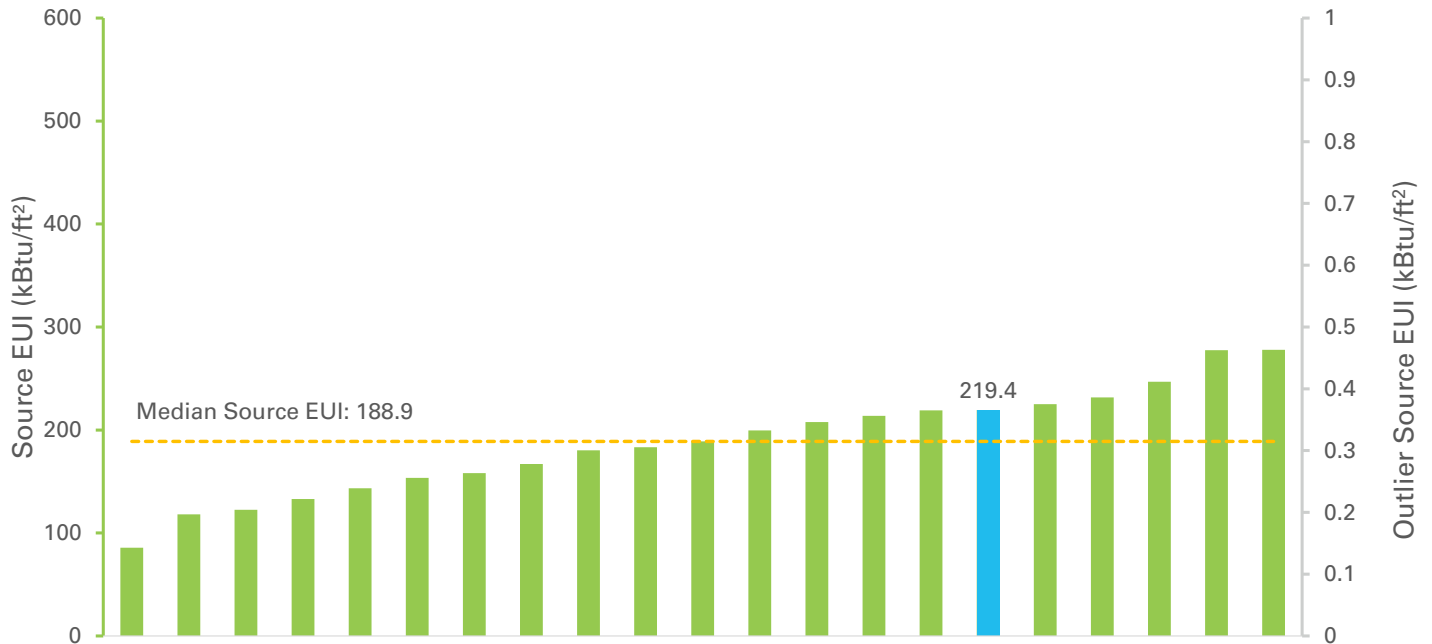
In instances where any peer group within a category has 70 or more campuses, the chart displayed will include columns representing the minimum, 1st quartile, median, 3rd quartile, and maximum source EUI values within the peer group (excluding outliers), and a column indicating your campus EUI. For example, the data for the "2019 Fall Term Headcount of On-Campus Residents" category included a peer group with 22 campuses with 1-19% of residents living on-campus and another peer group with 108 campuses with 0% of residents living on-campus. Since at least one peer group in this category consisted of 70 or more campuses, the minimum/maximum/quartiles chart will appear for all peer groups within this category. All other categories in which the number of campuses within peer groups is less than 70 will receive a standard column chart with a column representing each campus within the peer group, as seen above.



## Carnegie Classification

**16 / 21**

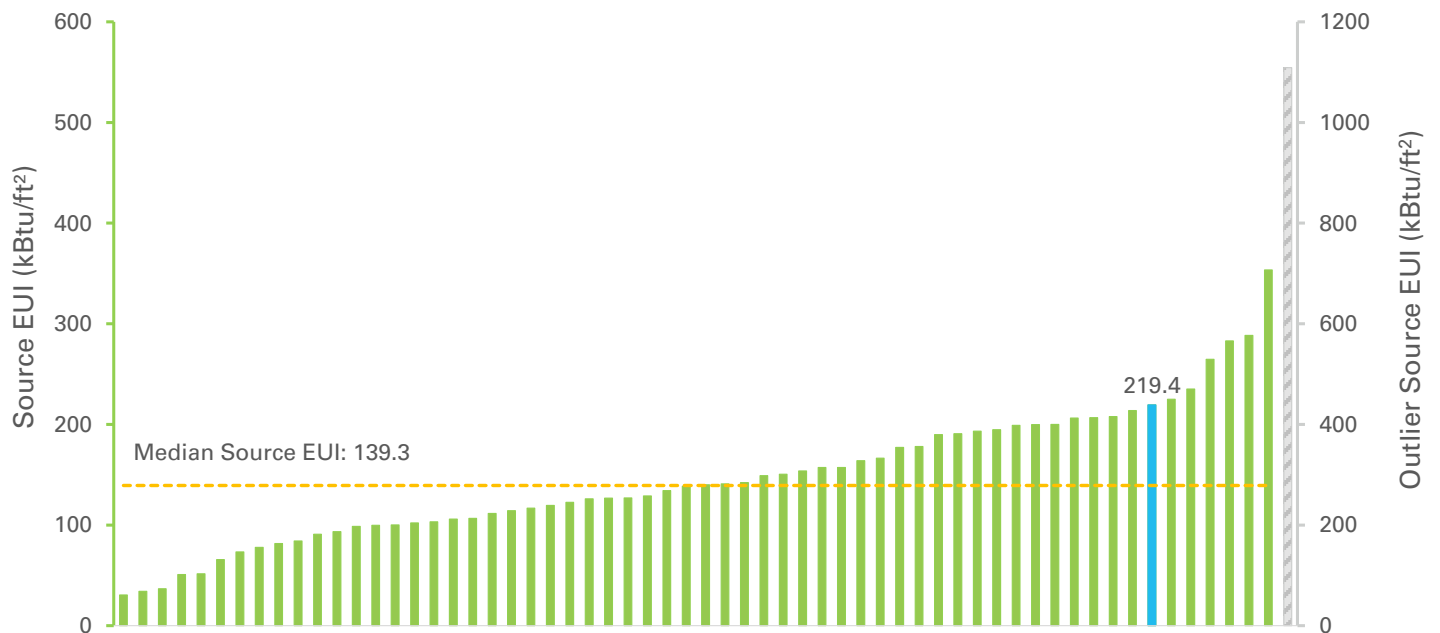
R2: Doctoral Universities- High research activity



## IECC Climate Zone

**54 / 61**

Climate Zone 4: Mixed

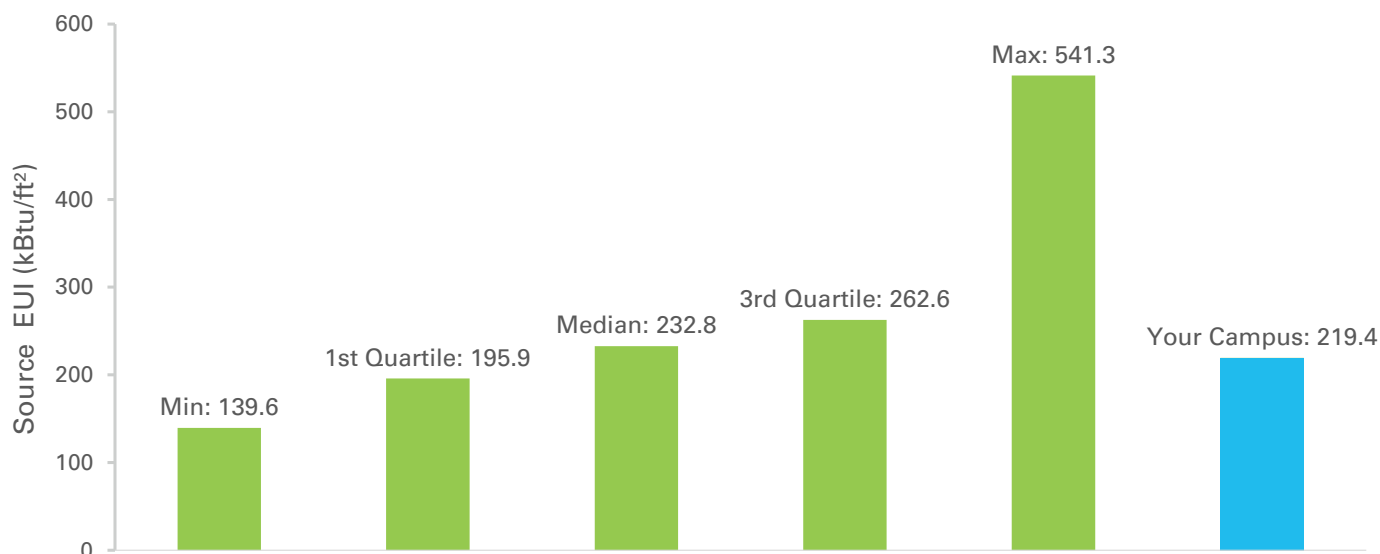




## 2019 Fall Term Headcount of On-Campus Residents

# 8 / 19

Campuses With 20 to 29% of Residents Living On-Campus

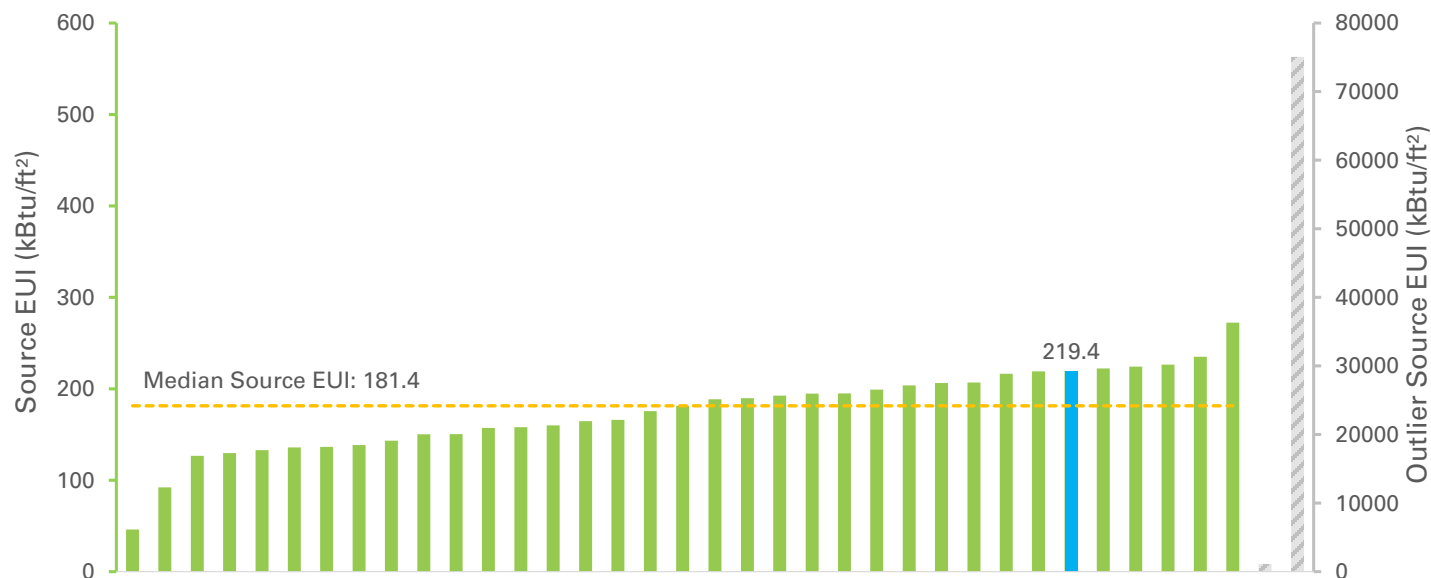


Note: Accounts for residents (students, employees, other individuals) living in university-owned housing included within your campus boundary, including housing buildings that your institution fully leases.

## Endowment Size (U.S. Dollars)

# 30 / 37

Campuses with Endowments of \$500,000 to \$250,000,000



Note: Institution-wide endowment figures may be allocated between one or more distinct campuses.

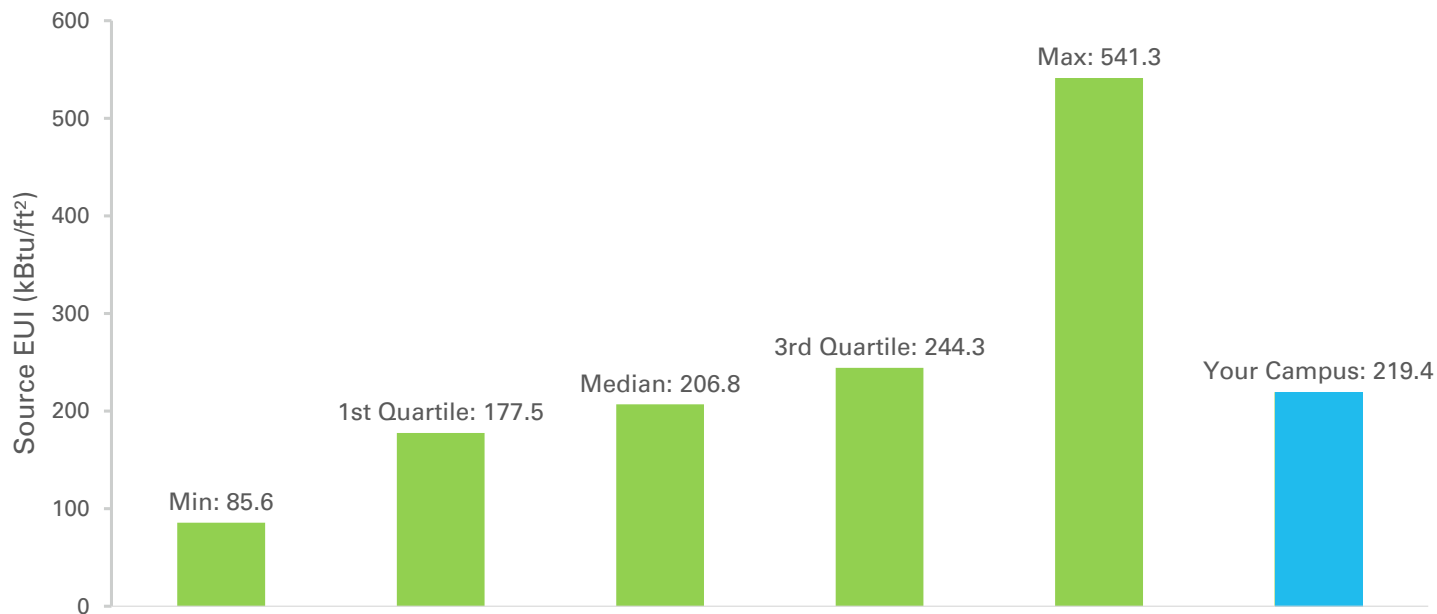
## ENERGY



### Central Utility Plant

**44 / 77**

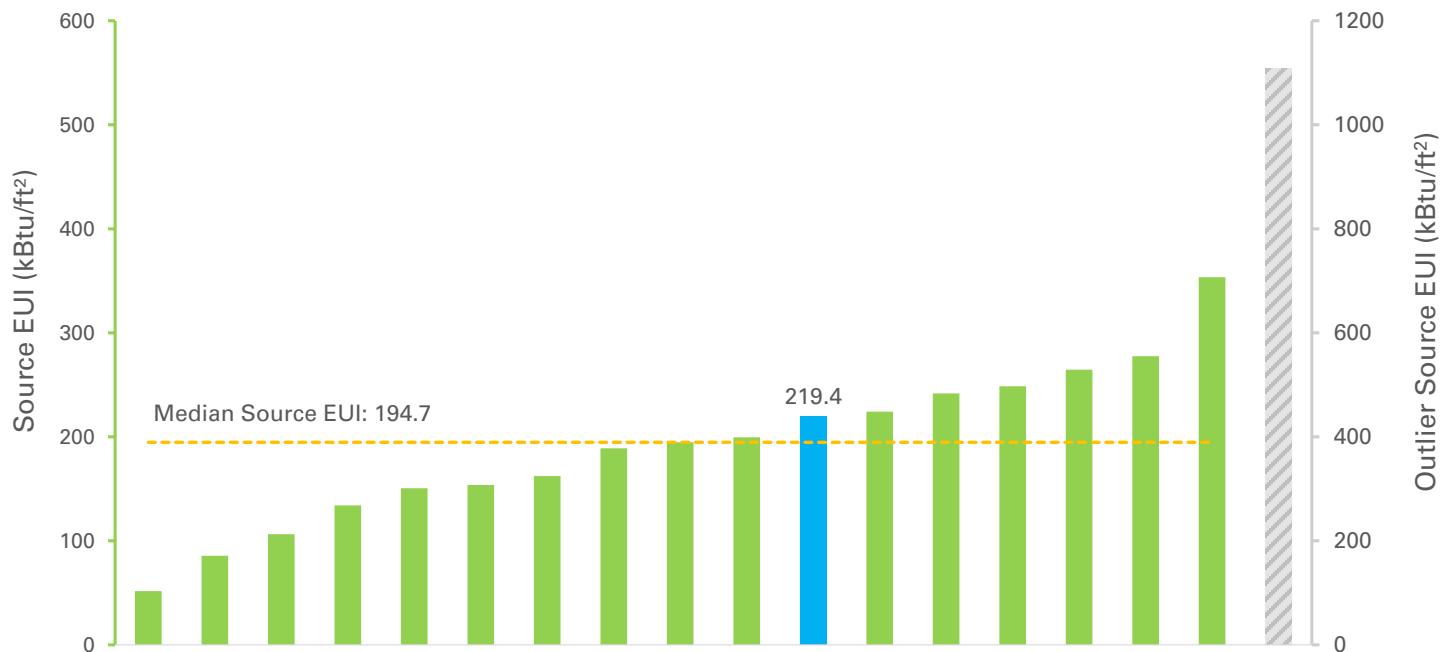
Campuses With An On-Campus Central Utility Plant



### Number of Buildings

**11 / 18**

Campuses With 50 to 99 Buildings





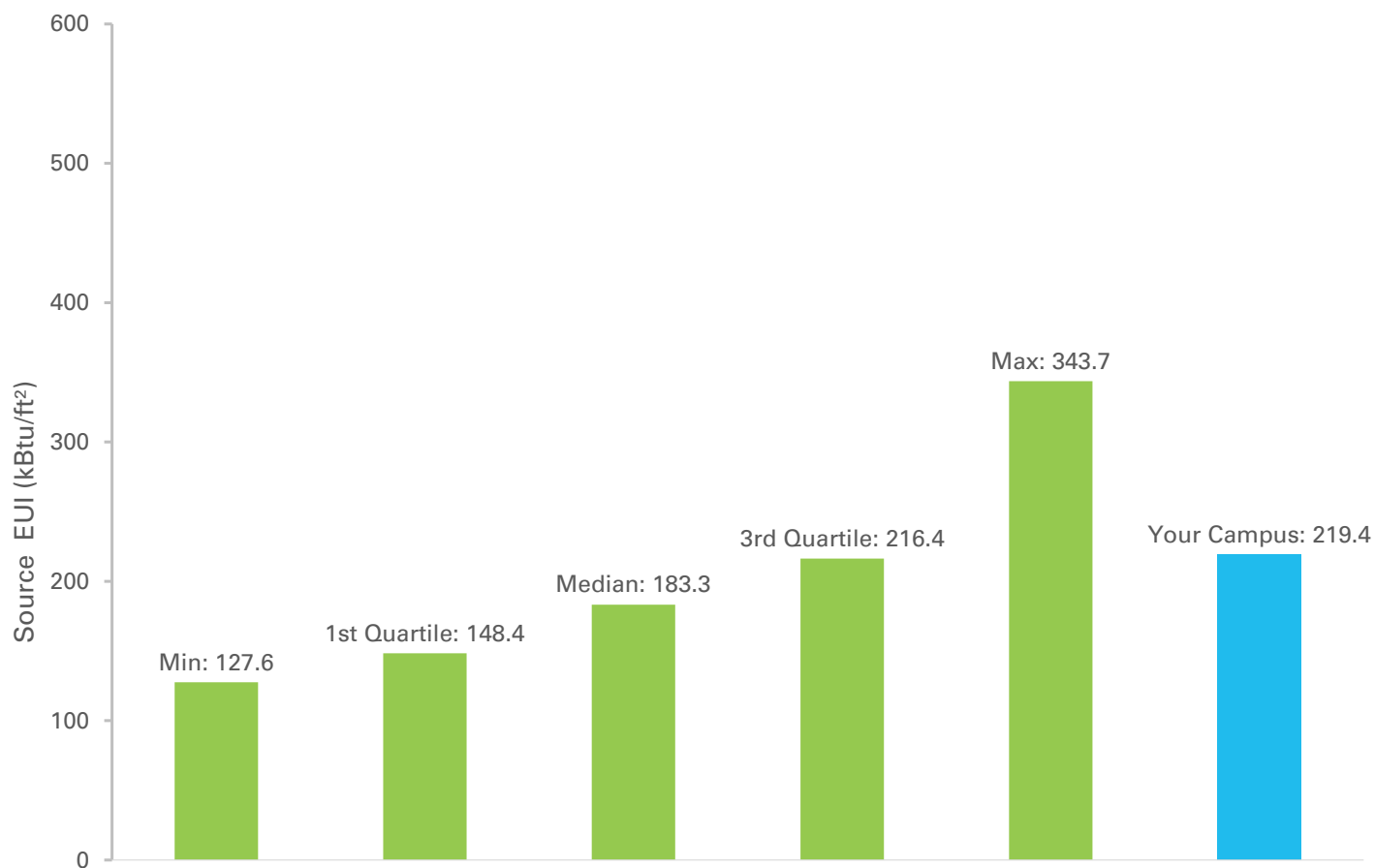
# ENERGY



## Percent Energy Intensive Floor Area

**19 / 25**

7.5% to 11.9% Energy Intensive Floor Area



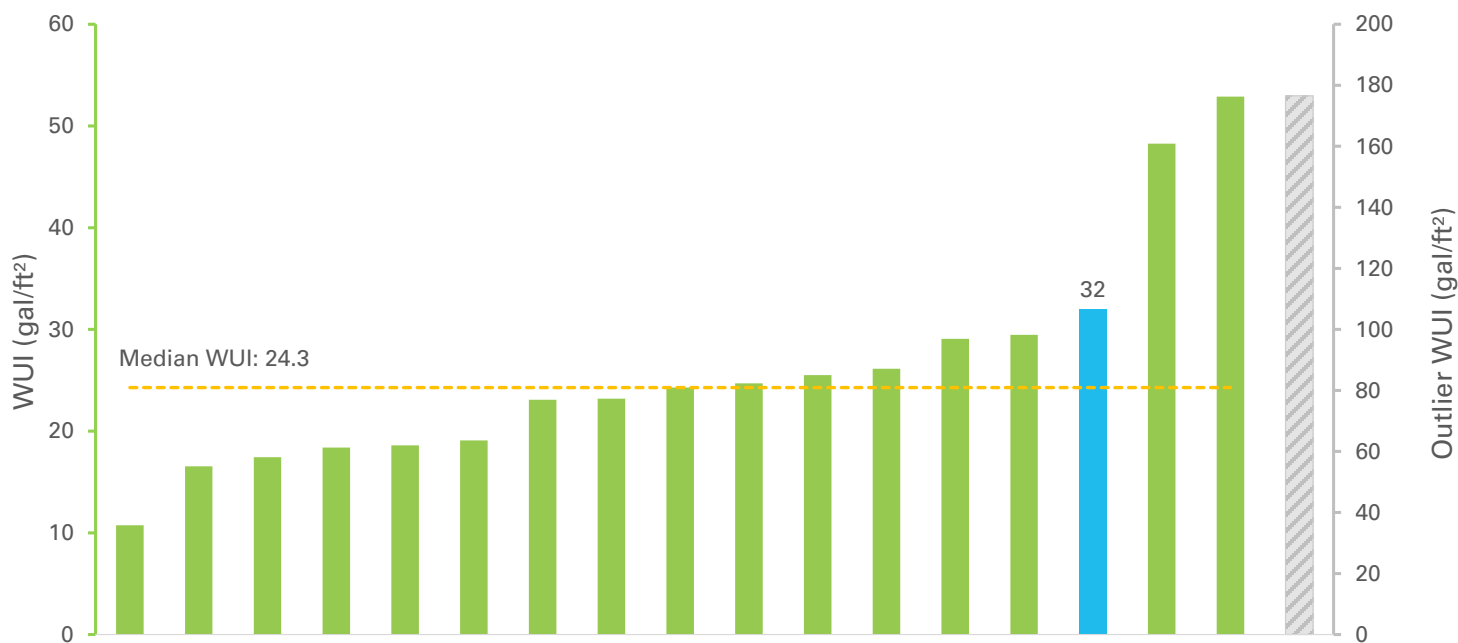
# WATER



## Carnegie Classification

**15 / 18**

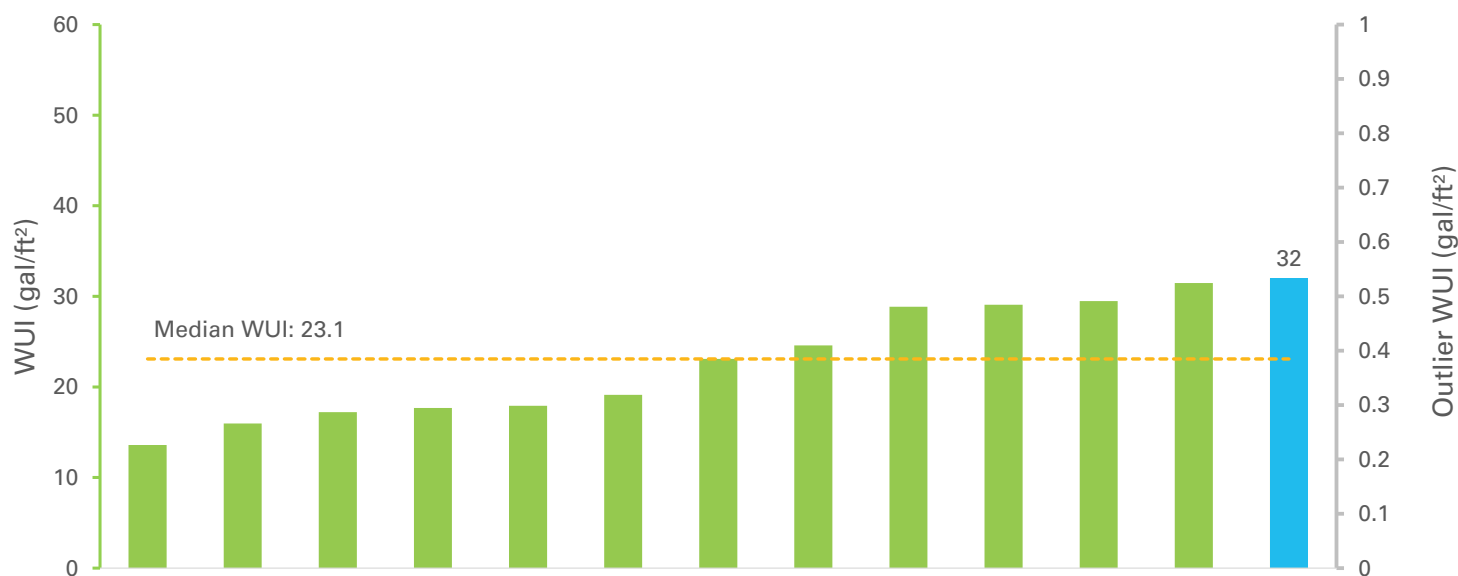
R2: Doctoral Universities- High research activity



## IECC Climate Zone

**13 / 13**

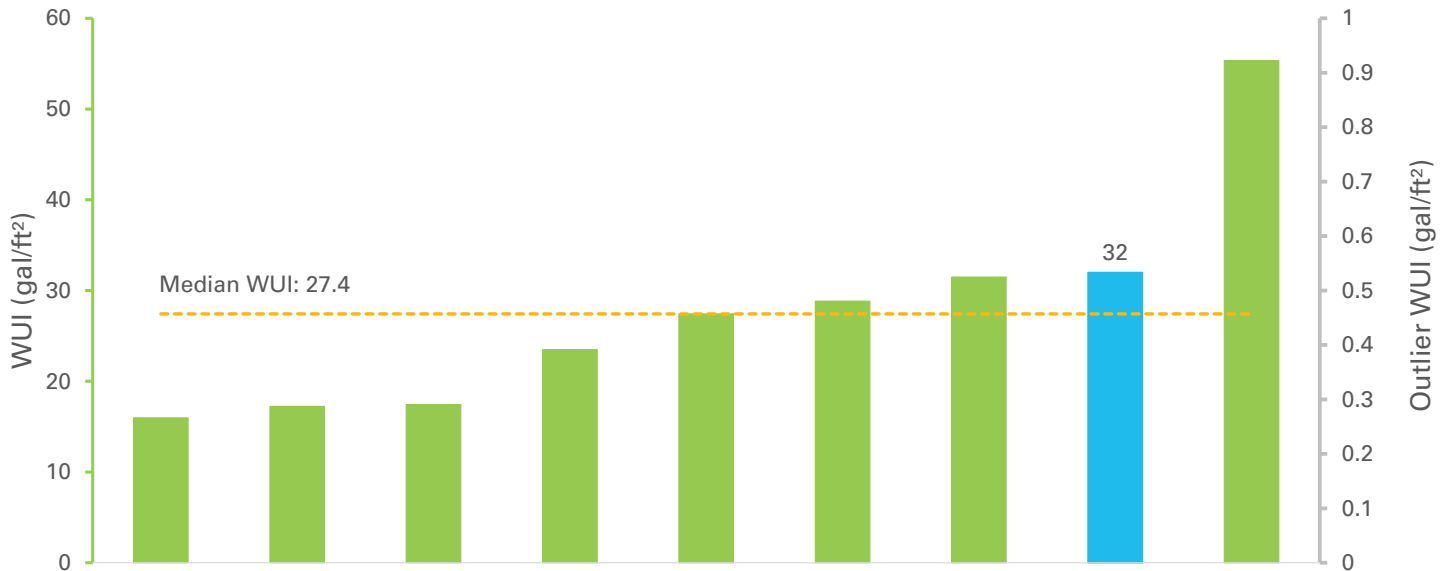
Climate Zone 4: Mixed





## 2019 Fall Term Headcount of On-Campus Residents **8 / 9**

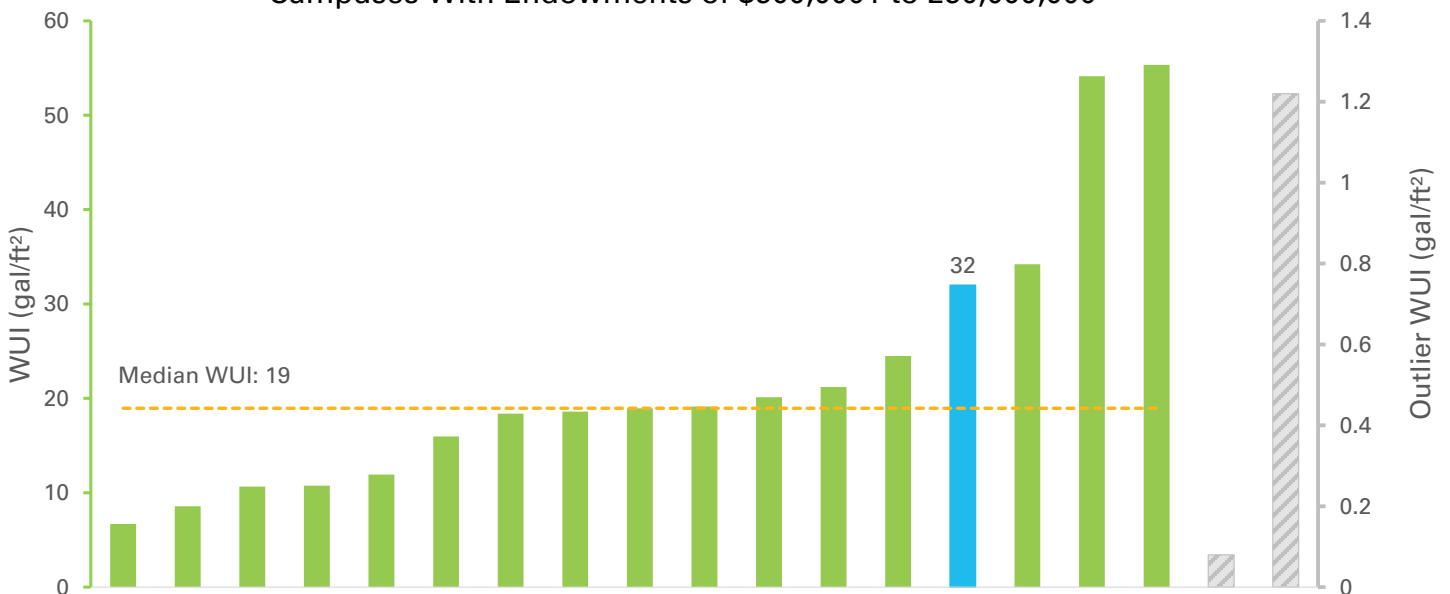
Campuses With 20 to 29% of Residents Living On-Campus



Note: Accounts for residents (students, employees, other individuals) living in university-owned housing included within your campus boundary, including housing buildings that your institution fully leases.

## Endowment Size (U.S. Dollars) **14 / 19**

Campuses With Endowments of \$500,0001 to 250,000,000



Note: Institution-wide endowment figures may be allocated between one or more distinct campuses.

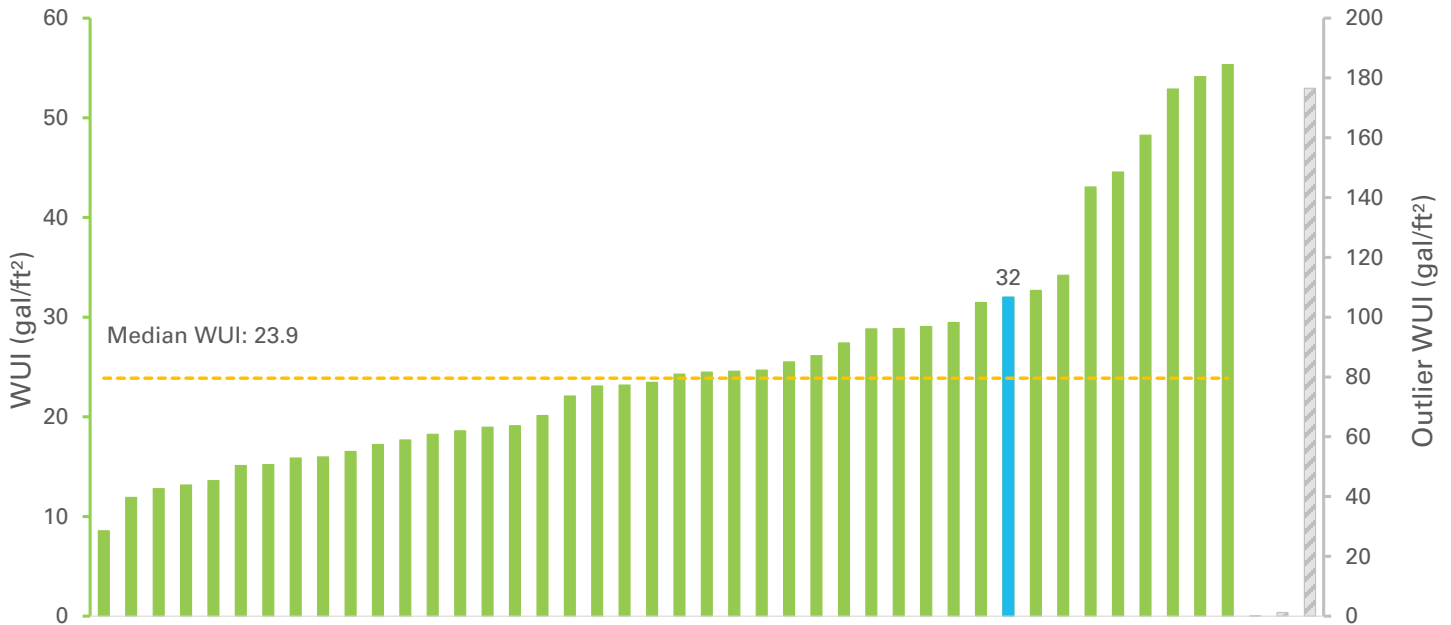
# WATER



## Central Utility Plant

**34 / 45**

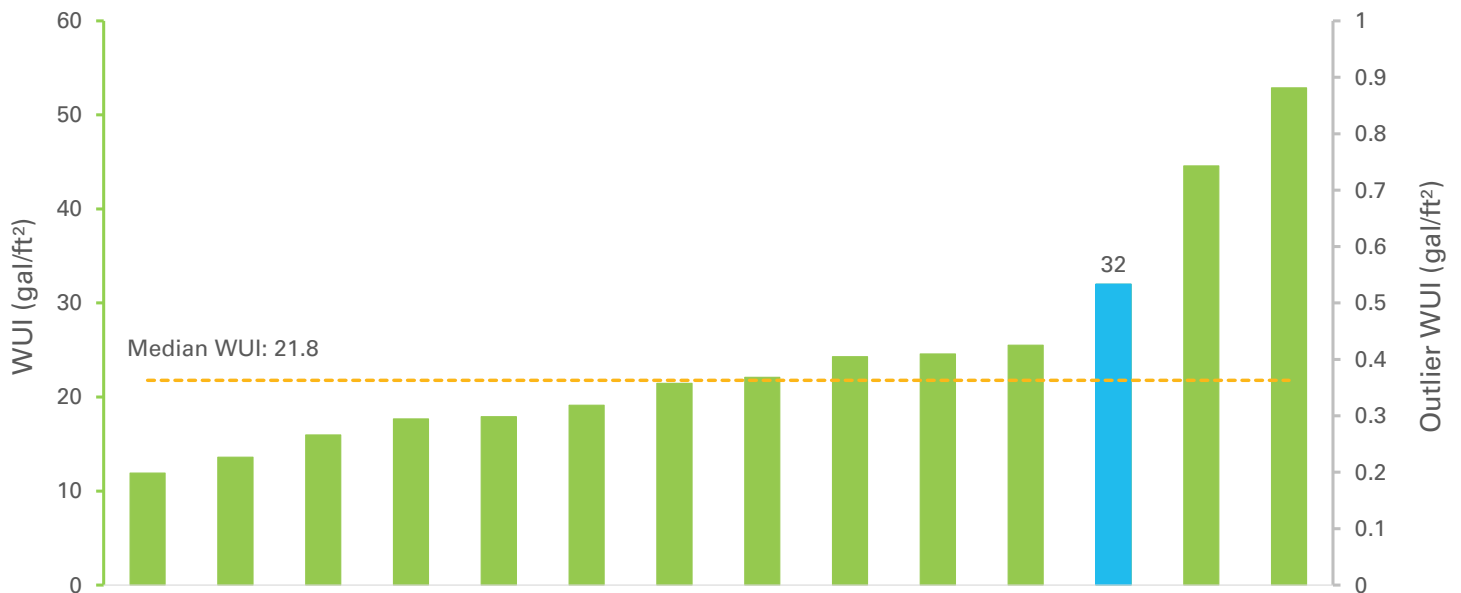
Campuses With An On-Campus Central Utility Plant



## Number of Buildings

**12 / 14**

Campuses With 50 to 99 Buildings



# THANK YOU!



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**In the next few months, keep an eye out for the following:**

1) We'll be following up with you to request your feedback on this initiative, a potential round two, and other EPA priorities such as:

- Developing profiles of HEBI participants and helping them tout their participation
- Making the case to higher education industry associations to administer a survey aimed at developing a 1-100 ENERGY STAR score for higher education campuses
- Organizing a working group for colleges and universities subject to benchmarking laws and building performance standards.

2) A summary report with interesting findings from the nearly 200 participating campuses

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Please reach out with any questions regarding your scorecard. Thank you!

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