RePowerPVD Participant Weather Normalized Site EUI (kBtu/sf) Reduction by Building



Participant	2015 EUI (kBtu/sf)	2017 EUI (kBtu/sf)	2018 EUI (kBtu/sf)	2019 EUI (kBtu/sf)	2020 EUI (kBtu/sf)	Target EUI	% Reduction (vs. benchmark year
Branch Avenue Fire Station	84.4	75.6	89.7	88.4	93.5	67.52	-10.8%
Dept. of Communications	141.3	128.7	126.4	126.5	113.7	113.04	19.5%
Dr. Martin Luther King ES	61.2	55.2	56.7	58.2	59.9	48.96	2.1%
George J. West ES	74.5	66.1	73.8	65.3	70	59.6	6.0%
Mary E. Fogarty ES	86.4	64	63.6	60.8	63.6	69.12	26.4%
Mount Pleasant HS	71.6	62.8	65	71.4	63.9	57.28	10.8%
Nathan Bishop MS	78.5	65.9	89.7	91.7	69.4	62.8	11.6%
Reservoir Avenue ES	79.4	67.1	62.9	67	71.5	63.52	9.9%
The Leviton Complex	51.3	43.5	46.8	48.4	46.3	41.04	9.7%
Joseph A Doorley, Jr. Bldg	96	91.4	85.2	82.1	78.8	76.8	17.9%
Kilmartin Plaza	68.2	64.3	67.9	64.3	59.7	54.56	12.5%
Rising Sun Mills - 188 Valley St				111.7	109.3	93.68	7%
The Steel Yard Studio					29.1	23.28	
Providence Marriott	79.6	76.1	77.9	73.7	53.3	63.68	33.0%
Johnson & Wales Uni - Yena Ctr	60.4			58.6	43.8	48.32	27.5%
Johnson & Wales Uni - Friedman Ctr	49.8			50.4	41	39.84	17.7%
Johnson & Wales Uni - Academic Ctr	80.8			50.4	44.8	64.64	44.6%
				BENCHMARK YEAR			

> 20% SAVINGS OVER BENCHMARK YEAR

CHALLENGE WINNER

Energy Reduction by Building

42,111 MMBtu \$ 1,275,933.52

Reduction of 2,855 Metric Tons CO2e



Taking 621 cars off the road

anaanaanaanaanaanaanaa

Electricity use in 344 homes for one year



Summary Report

Creating Buildings of the Future



2020 Summary Report

By the Numbers

- 2,105,730 Gross Square Feet have enrolled and reported for the RePowerPVD 20% by 2025 energy reduction challenge
- Total energy savings of **34,050** MMBtu in 2020 compared to the baseline year
- 10 Total cost savings of **\$972,038** compared to the baseline year
- Total reduction of 2,131 Metric Tons of CO₂e in 2020 compared to the baseline, which is equivalent to taking 463 cars off the road for one year

2020 Highlights

20% by 2025

- WINNER! The Johnson & Wales University Academic Center joins Reservoir Avenue Elementary school and Mary E. Fogarty Elementary school as our third RePowerPVD challenge winner, with a 44.6% energy reduction since 2015.
- The 40+ year old **Providence Marriott Downtown** is completing a retrofit of its HVAC system including a new a highly efficient Variable Refrigerant Flow (VRF) system that is expected to significantly reduce energy costs, along with efficient water heating and ventilation system retrofits. Additionally, the Marriott installed a new Building Management System that will allow the hotel to adjust the operations of their rooftop units based on occupancy, as well as new LED lighting. The Marriott also plans to install new efficient condenser/evaporator for a walk-in cooler that would prove to be more efficient than the 40-year-old system currently in use, as well as additional guest room renovations.
- Providence Housing Authority completed the installation of a Combined Heat and Power (CHP) system at their Kilmarten Plaza facility and anticipates that it will be operational by early 2022. PHA is also working with the Public Housing Association of Rhode Island on a Virtual Net Metering project, which has been preliminarily approved.
- In 2020 we welcomed four new participants to the 20% by 2025 Savings Challenge! Congratulations to the Steel Yard, Johnson & Wales University, Rising Sun Mills, and Cornish Associates for joining the RePowerPVD community! Cornish Associates is in the process of completing its benchmarking for its six participating buildings, and as a result is not included in the 2020 report.

Race to Zero

One Neighborhood Builders' Sheridan Small Homes will complete construction in October 2021 (see photo on the right for an update on the project). One house is occupied, and three more have signed purchase and sales agreements. It is anticipated that all five homes will be occupied before the end of 2021.



Sheridan Small Homes by ONE Neighborhood Builders

About RePowerPVD

RepowerPVD is the City of Providence's voluntary energy challenge program, designed to help large buildings in the city conserve energy, save money, and gain recognition for their leadership and contributions to Mayor Elorza's goal to make Providence carbon neutral by 2050. The program is comprised of two tracks:

1. 20% reduction by 2025

In two reporting years, compared to a building's baseline year performance. Property owners may enter any building over 10,000 square feet by committing to reduce energy consumption - as measured by weather normalized Energy Use Intensity (EUI) - 20 percent by 2025.

2. Race to Zero

Property owners may also enter their buildings into the "race" to become the first Zero Energy Building (ZEB) in Providence.

20% by 2025

Providence Marriott Downtown Providence Housing Authority Cornish Associates City of Providence The Steel Yard Cornish Associates Johnson & Wales University Rising Sun Mills

Participants

Race to Zero

Truth Box, Inc Sheridan Small Homes by ONE Neighborhood builders RWP Zoo Education Center

Glossary

CO₂e: Carbon dioxide equivalent or CO_2e means the number of metric tons of Carbon dioxide (CO_2) emissions with the same global warming potential as one metric ton of another greenhouse gas.

Energy Use Intensity (EUI): Measures the energy use per square foot of a building. It is calculated by dividing the total energy consumed by the building in one year by the total gross floor area of the building.

MMBtu: MMBtu stands for one million British Thermal Units (BTU). A BTU is a measure of the energy content in fuel.

Weather Normalized EUI: Weather Normalized energy is the energy your property would have used if you had experienced 30 year average temperatures. The weather in a given year may be much hotter or colder than a building's normal climate; weather normalized energy accounts for this difference.

Zero Energy Buildings: Buildings that produce at least as much energy as they consume over the course of a year.

For additional information on why and how to join the challenge, please visit **REPOWERPVD.COM**.











national**grid**