AIA 2030 COMMITMENT

Project Performance Data for 2021

The updated Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report finds that our existing and planned fossil fuel infrastructure will emit more carbon than we have room for if we are to limit warming to a maximum of 1.5 degrees C. Although our project EUI reductions are improving year over year, the data continues to show that we need to act more quickly, and we need to use our work to eliminate carbon emissions and move us toward a carbon fee future.

HDR signed the 2030 commitment in April 2009. As a signatory, HDR commits to design projects that are carbon neutral by 2030, and we commit to reporting the predicted energy performance for all of our projects that are under design each year. This Commitment also allows us to understand how our projects perform relative to the rest of the industry, to identify ways that we can improve our work, and to provide better service to our clients.

HDR has provided detailed reporting to the AIA since 2014. Our reporting for the past 8 years has shown that we continue to move our practice forward and improve our project energy performance year over year; 2021 pushed our improvement to 57%, our second consecutive year greater than 50%, These efforts continue to reflect the commitment and hard work put in across the firm.

As we look towards 2030, we are confident we will achieve the performance targets outlined in the 2030 commitment. As a firm, we know we can deliver the high performance, regenerative projects that are needed to make a difference, but we need to do more to meet goals across our entire portfolio.

Thank you for all that you do.

COLIN ROHLFING
Vice President
Director of Sustainable Development

AIA 2030 COMMITMENT

Confidential Museum,
Canada

BC Affordable Housing Sooke,
Vancouver, BC, Canada

Summary

Our firm-wide predicted energy use reduction was 57.0%. We continue to improve year over year, and for the second time reported an energy reduction greater than 50%. However, this reduction is elevated by our high-performance data center work, and the reductions we see across our other market sectors is lagging and needs to improve.

Energy modeling continues to be part of our practice. We reported that almost 84% of our portfolio would have an energy model, which exceeds the industry average and continues to put us in reach of our 100% energy modeling goal. The on-goingnext step will be to implement energy modeling earlier into the design process for all projects.

None of our projects reported embodied carbon data. As we move forward, it is imperative that we utilize Life Cycle Assessments to estimate and reduce the embodied carbon associated with the design and construction of our work.

2021 PROJECTS REPORTED

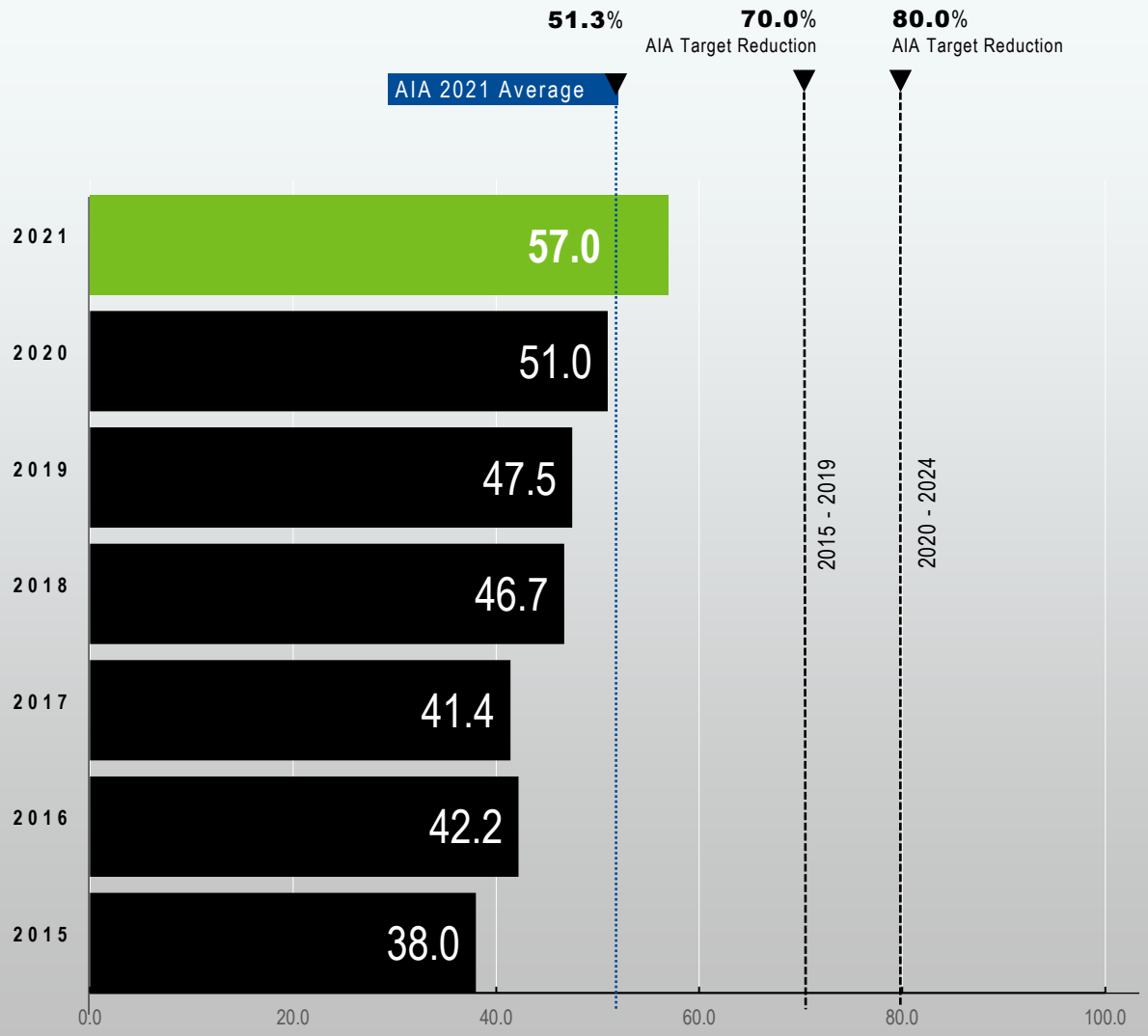
241

45.0 million GSF

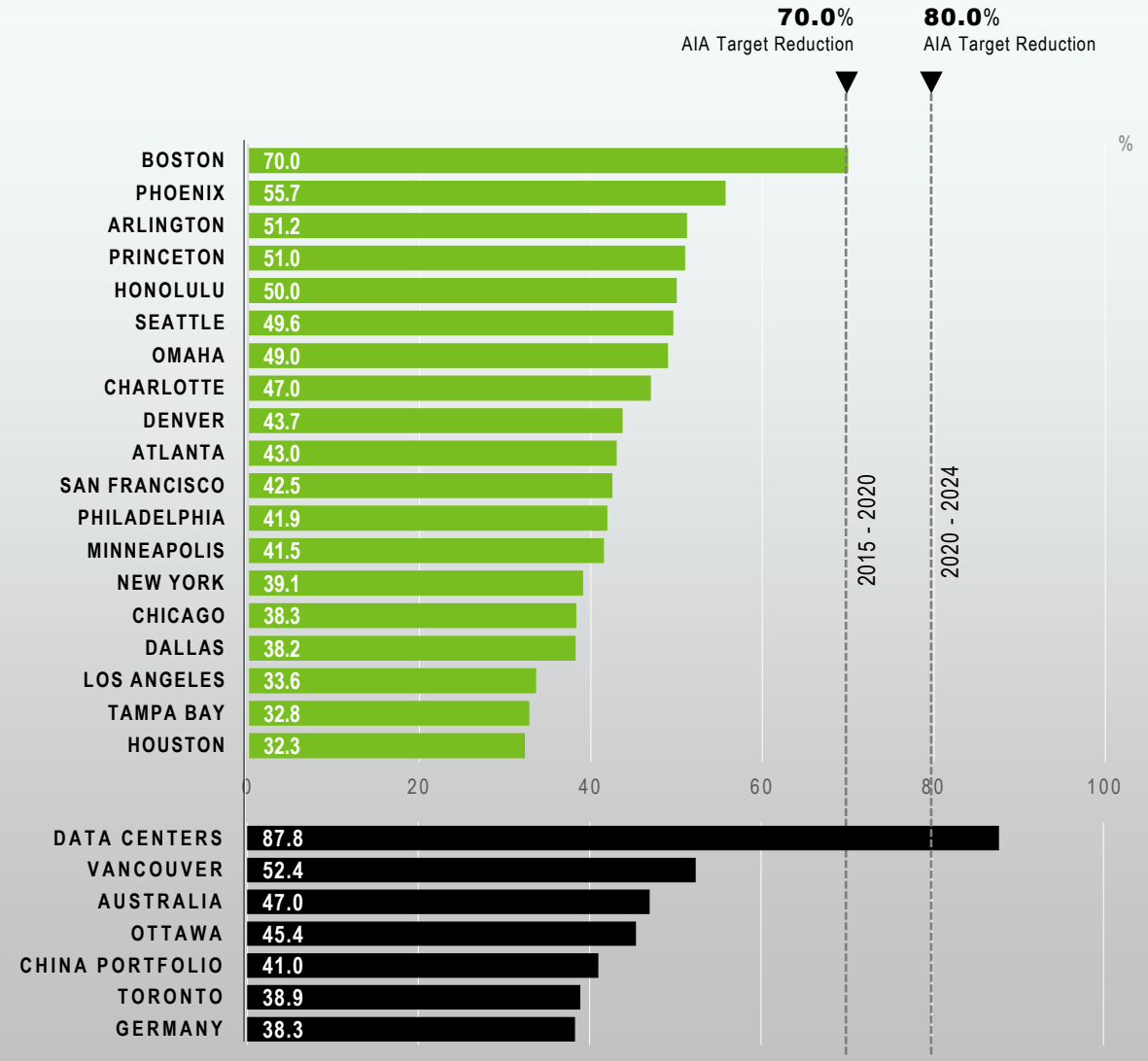
166	42.8	75	2.2
Projects New Construction	Million GSF	Projects Interior Only	Million GSF

2017	2018	2019	2020
278	**331**	**289**	**293**
38.1 Million SF	44.2 Million SF	47.8 Million SF	52.4 Million SF

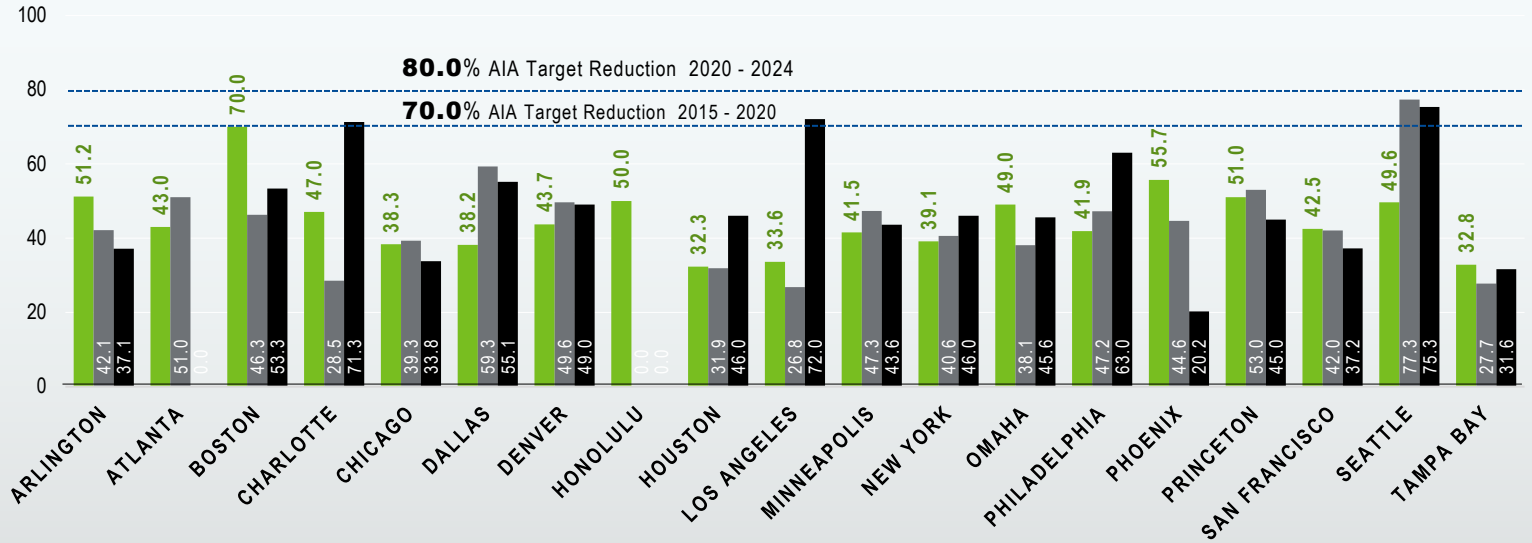
HDR PREDICTED ENERGY USE INTENSITY (pEUI) REDUCTION

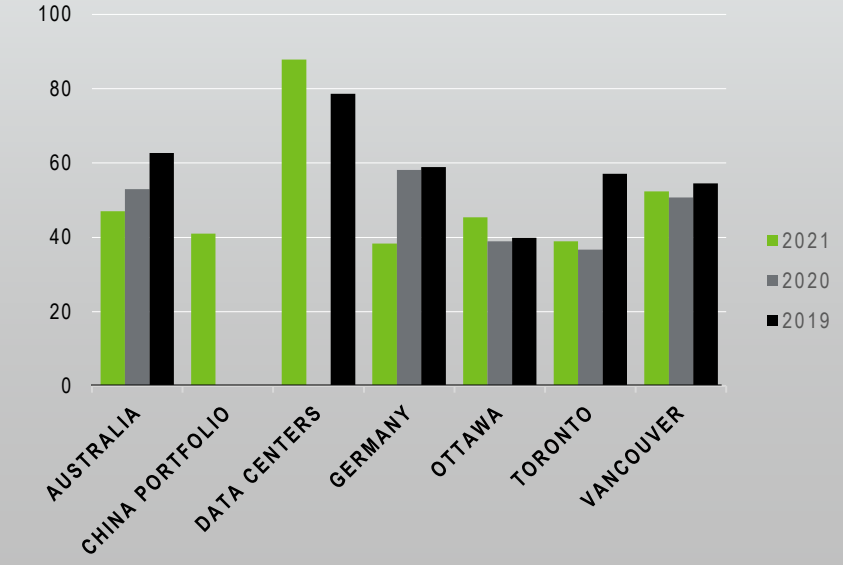


PREDICTED EUI REDUCTION BY OFFICE 2021

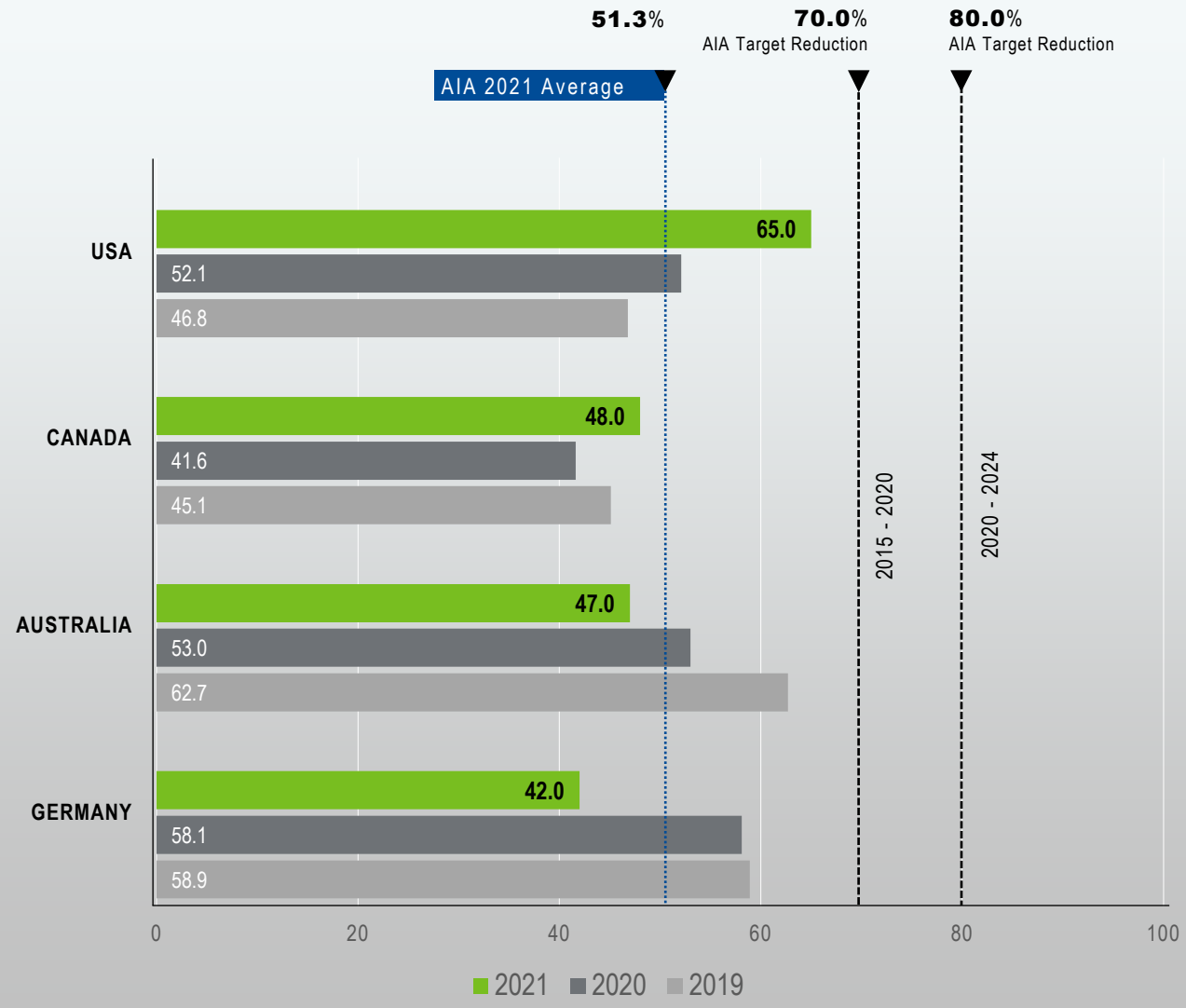


PREDICTED EUI REDUCTION BY OFFICE 2019-2021





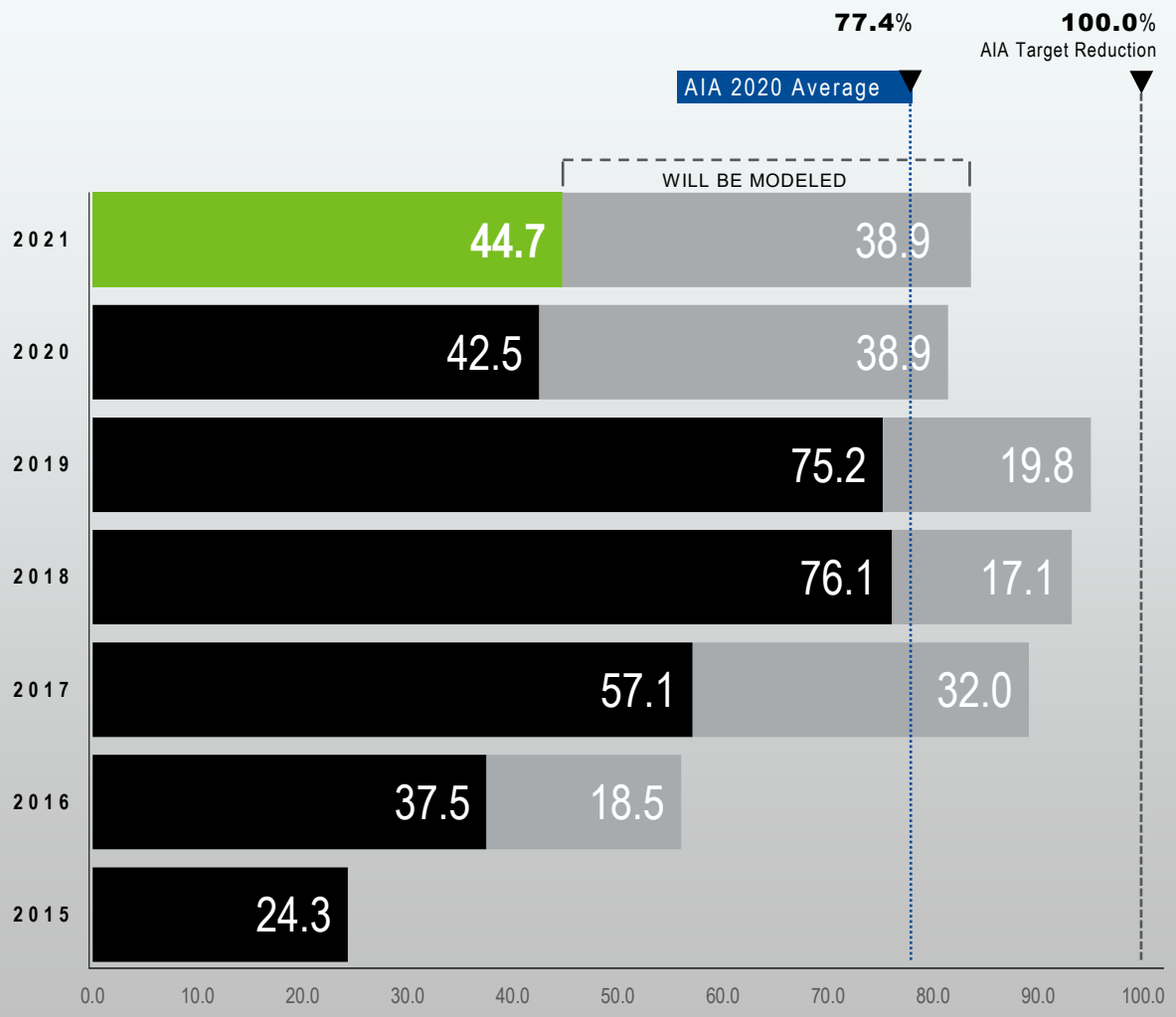
PREDICTED EUI REDUCTION BY LOCATION



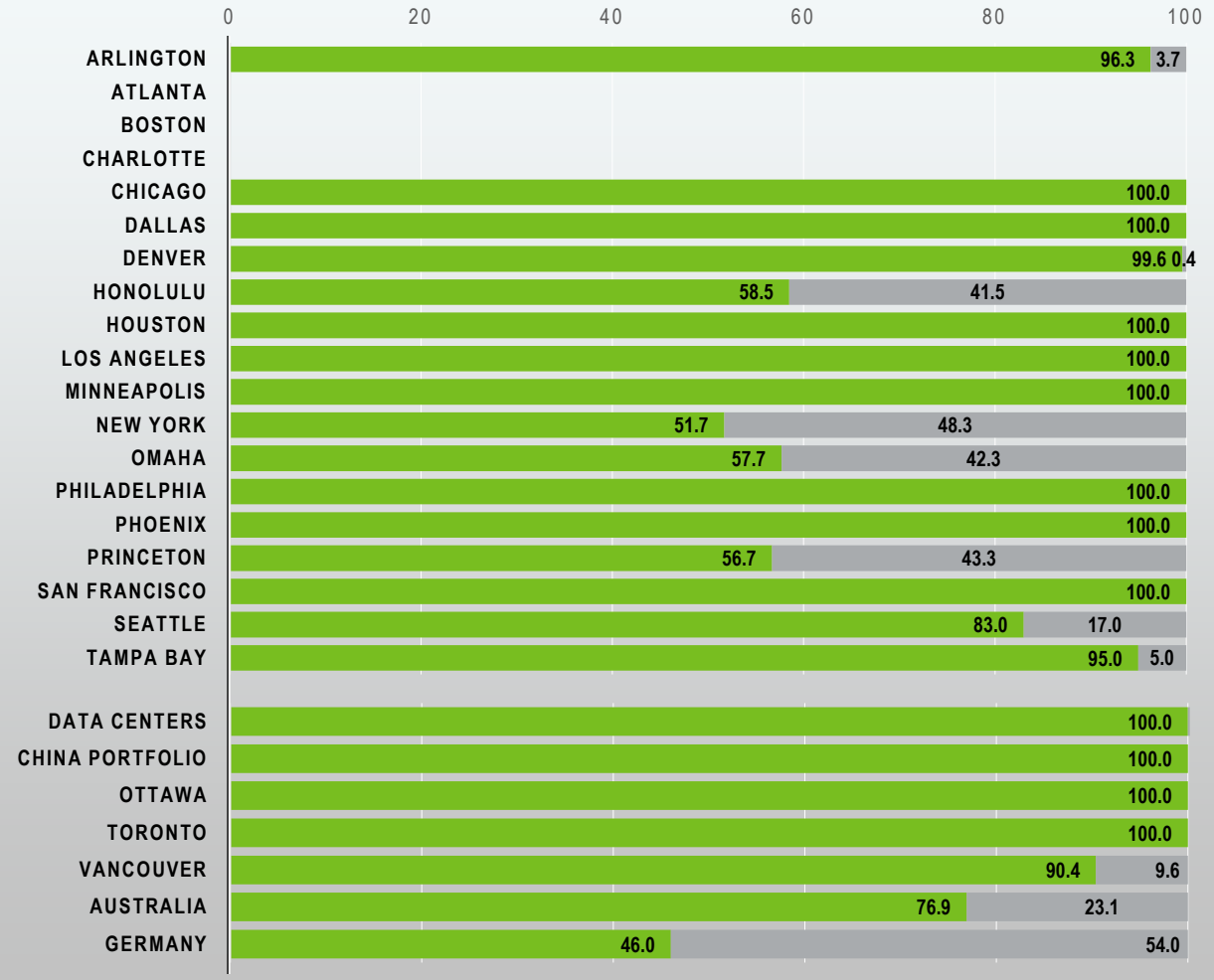
HDR (GSF) ENERGY MODELING

The lower percentage of projects utilizing energy models during the design process stems from delays in energy modeling for large health care projects in China which comprised almost 20% of HDR's design projects by area.

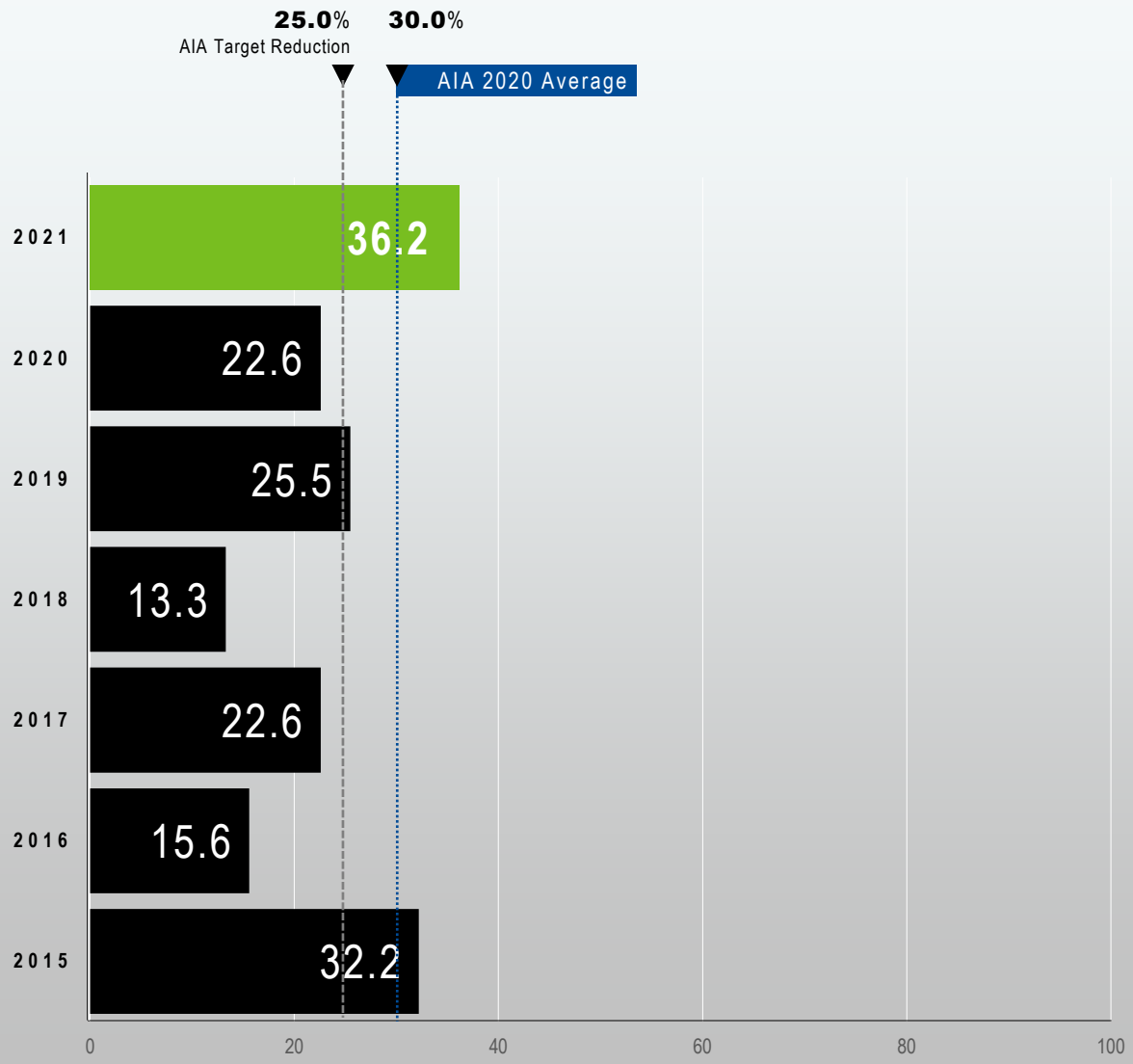
Now that design teams have had several years of learning what practical energy modeling entails and have a better understanding of how to leverage energy modeling, we fully expect the percentage of projects having an energy model to increase again, while finding purpose for each model to help achieve high-performing design solutions.



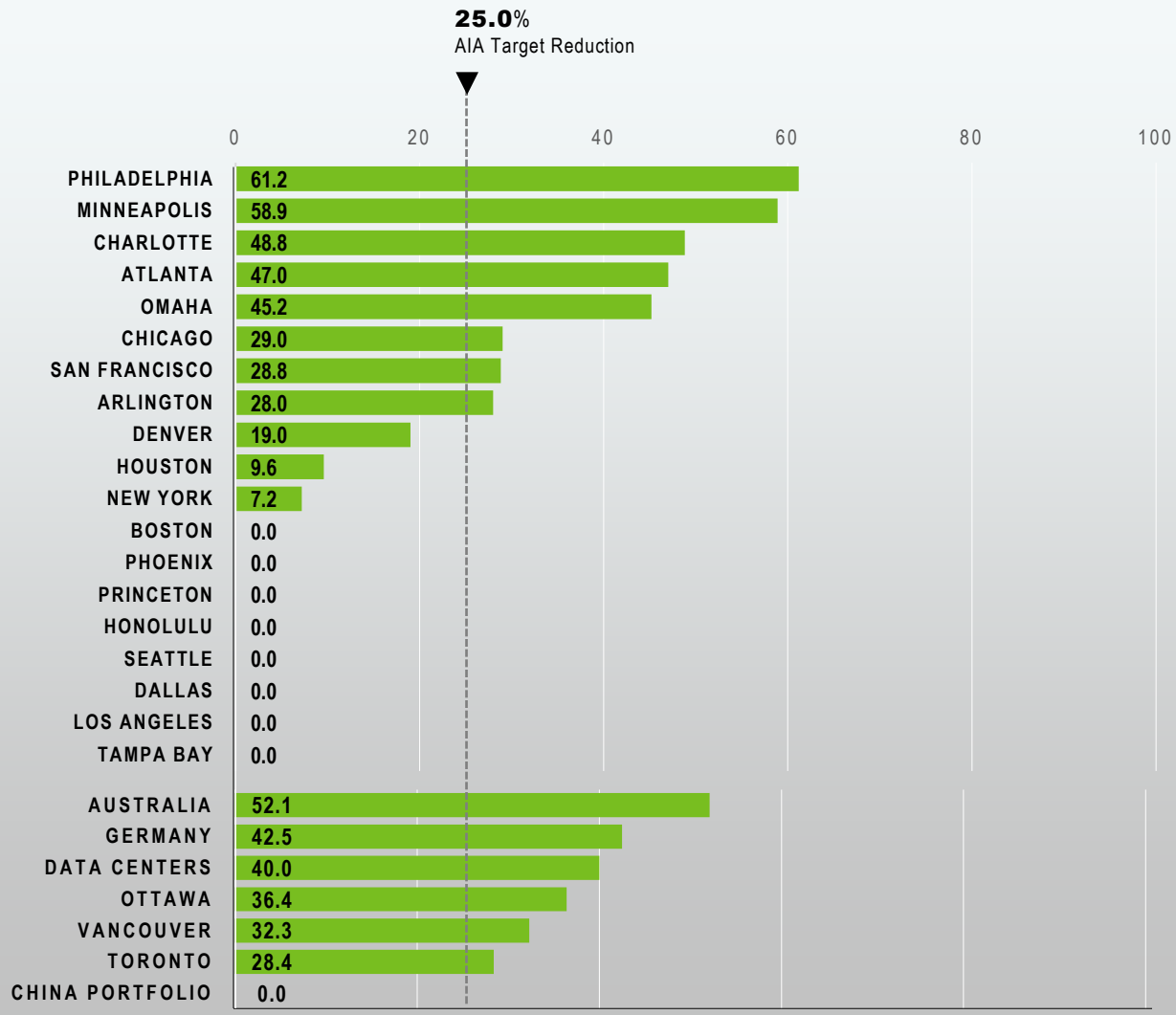
ENERGY MODELING BY OFFICE 2021



AVERAGE LIGHTING DENSITY REDUCTION



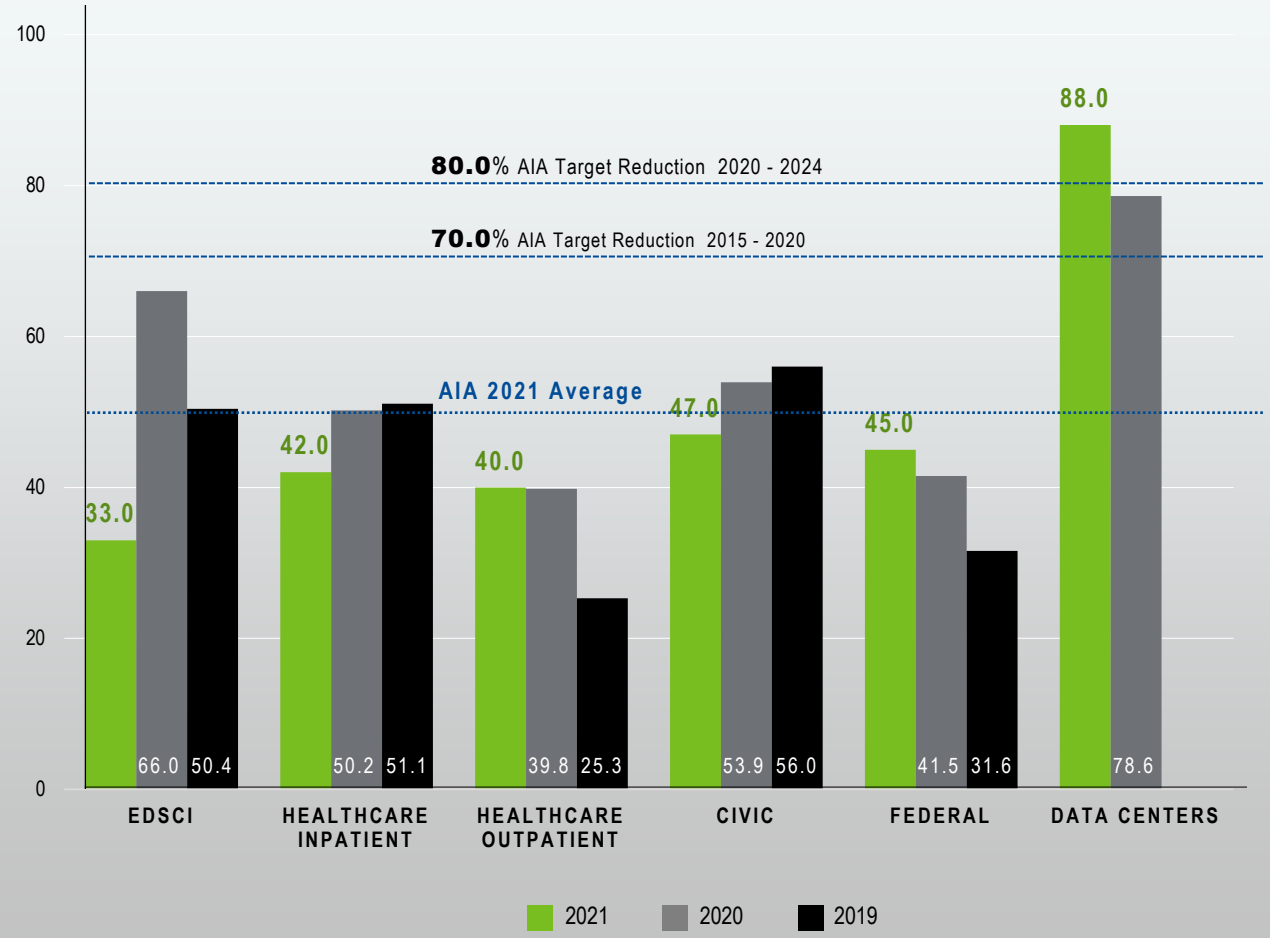
LIGHTING DENSITY REDUCTION BY OFFICE 2021



LIGHTING DENSITY REDUCTION BY OFFICE 2019-2021

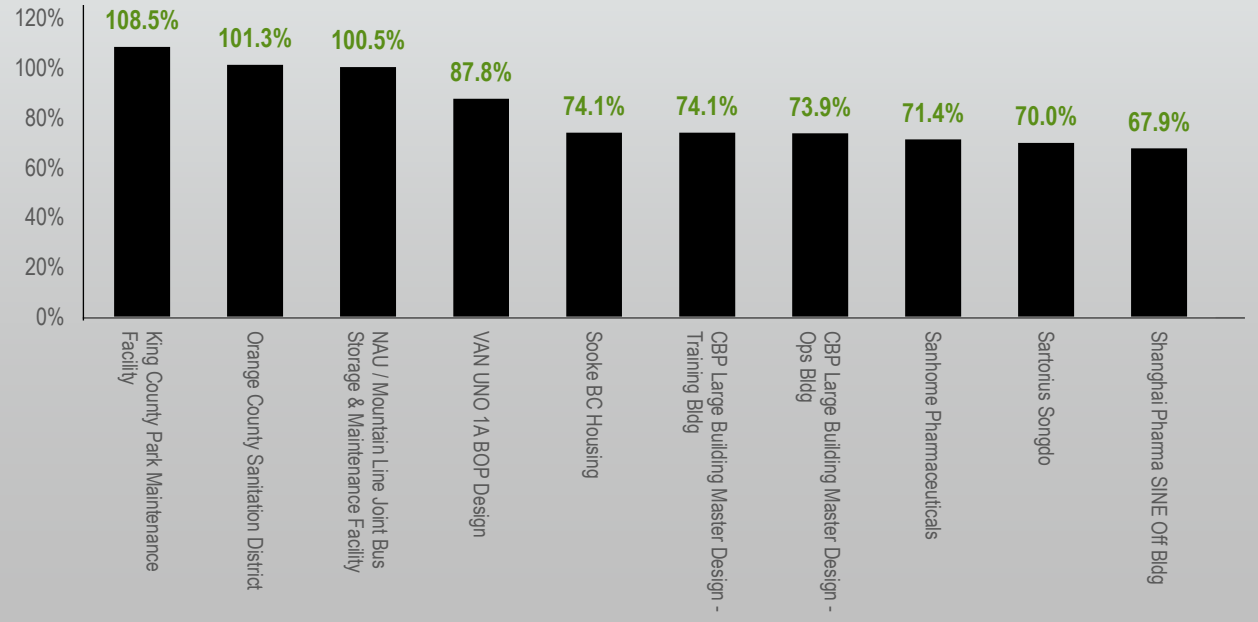
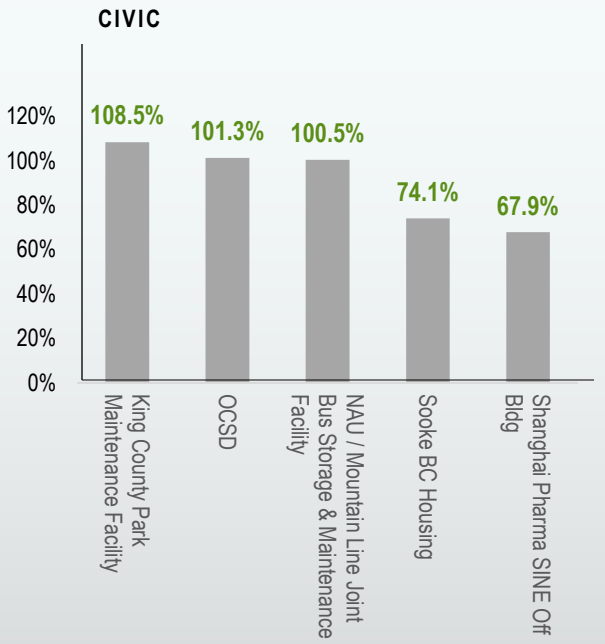
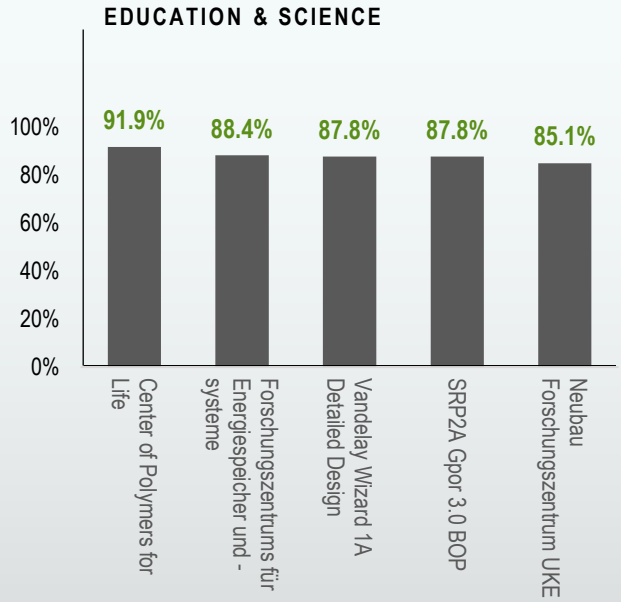
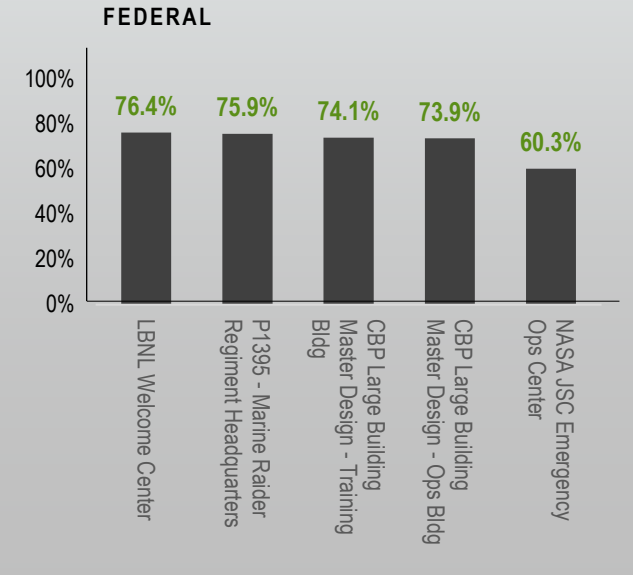
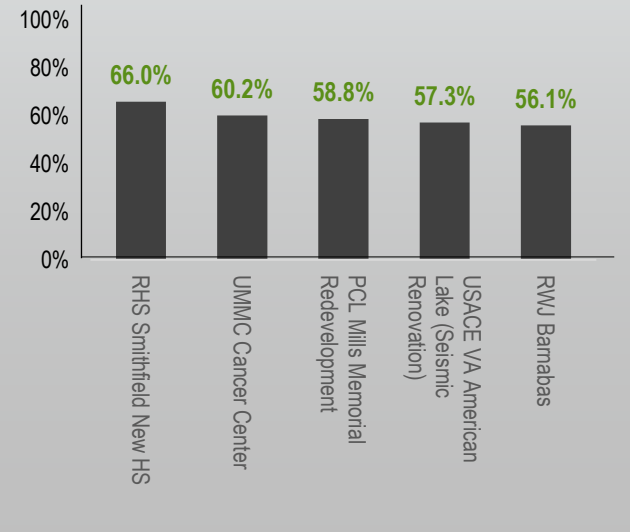
	2019	2020	2021
PHILADELPHIA	70.0	46.3	53.3
MINNEAPOLIS	55.7	44.6	20.2
CHARLOTTE	51.2	42.1	37.1
ATLANTA	51.0	53.0	45.0
OMAHA	50.0	0.0	0.0
CHICAGO	49.6	77.3	75.3
OMAHA	49.0	38.1	45.6
SAN FRANCISCO	47.0	28.5	71.3
ARLINGTON	43.7	49.6	49.0
DENVER	43.0	51.0	0.0
HOUSTON	42.5	42.0	37.2
NEW YORK	41.9	47.2	63.0
BOSTON	41.5	47.3	43.6
PHOENIX	39.1	40.6	46.0
PRINCETON	38.3	39.3	33.8
HONOLULU	38.2	59.3	55.1
SEATTLE	33.6	26.8	72.0
DALLAS			
LOS ANGELES	32.8	27.7	31.6
TAMPA BAY	32.3	31.9	46.0
AUSTRALIA	0.0	0.0	52.1
GERMANY	3.3	12.6	42.5
DATA CENTERS	0.0	0.0	40.0
OTTAWA	0.0	12.5	36.4
VANCOUVER	30.4	14.0	32.3
TORONTO	30.6	16.7	28.4
CHINA PORTFOLIO	0.0	0.0	0.0

PREDICTED EUI REDUCTION BY MARKET SECTOR 2019-2021



TOP 10 PERFORMING PROJECTS CROSS SECTOR

PROJECT	% REDUCTION
King County Park Maintenance Facility	108.5%
Orange County Sanitation District	101.3%
NAU / Mountain Line Joint Bus Storage & Maintenance Facility	100.5%
VAN UNO 1A BOP Design	87.8%
Sooke BC Housing	74.1%
CBP Large Building Master Design - Training Bldg	74.1%
CBP Large Building Master Design - Ops Bldg	73.9%
Sanhome Pharmaceuticals	71.4%
Sartorius Songdo	70.0%
Shanghai Pharma SINE Off Bldg	67.9%



TOP 5 PERFORMING PROJECTS BY SECTOR