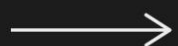


2023

Net Zero Emerging Leaders' Internship



LEVER ARCHITECTURE



ENERGY TRUST OF OREGON



Alyssa



LEVER NZEL Intern 2023

Education:

Pursuing a M.Arch at the University of Oregon
BFA in Graphic Design from the University of Minnesota

Work Background:

Career experience as a visual and UI designer

Internship Tasks:

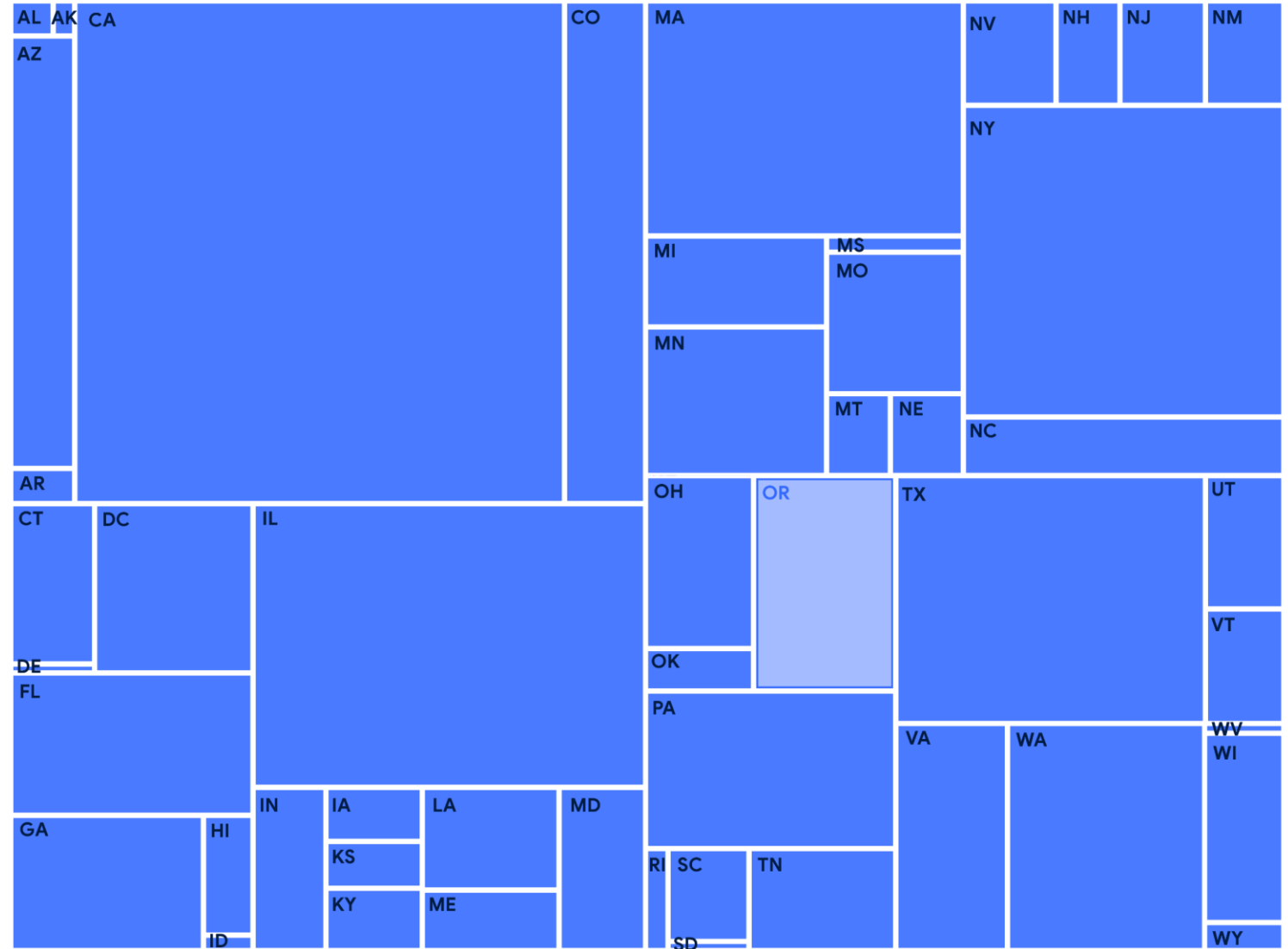
Expand the internal master project database
Collect DDX data + additional information of interest
Report 2022 DDX project information
Create additional assets for future collection

Some Context

In Oregon, LEVER Architecture is one of **forty-one** 2030 Commitment Signatory Firms.



Over 1,000 AIA 2030 Commitment Signatory Firms in the United States



Information sourced from The American Institute of Architects 2030 Directory

LEVER

LEVER Architecture

LEVER's aspirational goal is for all buildings to be regenerative by 2030; that requires effort to target Net Positive Energy, Net Zero Carbon through Sequestration, and Net Zero Water.



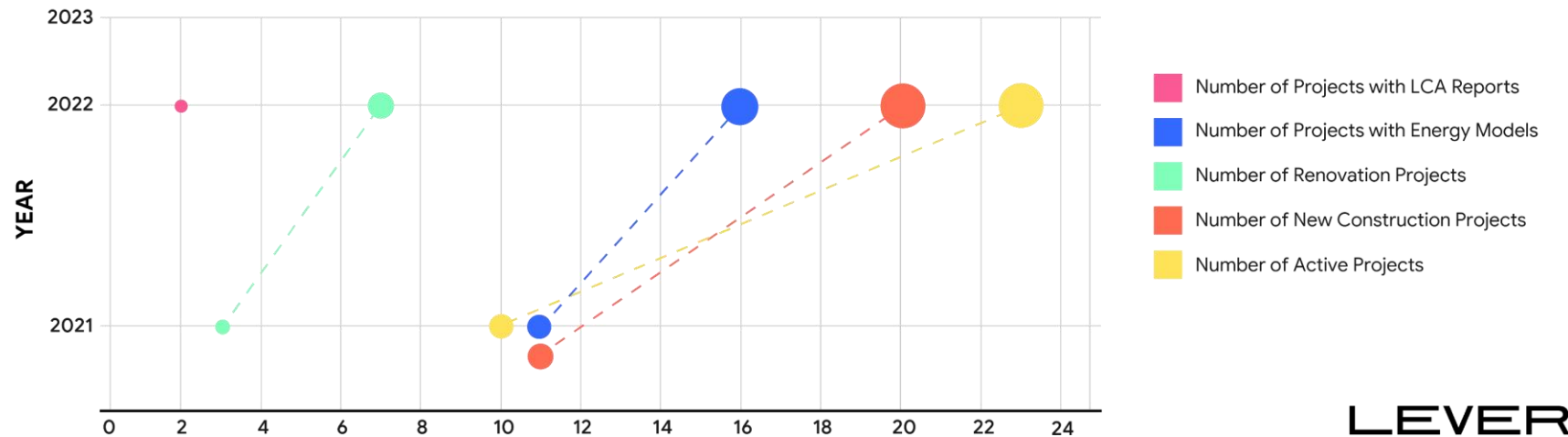
2023

First NZEI Intern

2021

Became a signatory for the 2030 Challenge

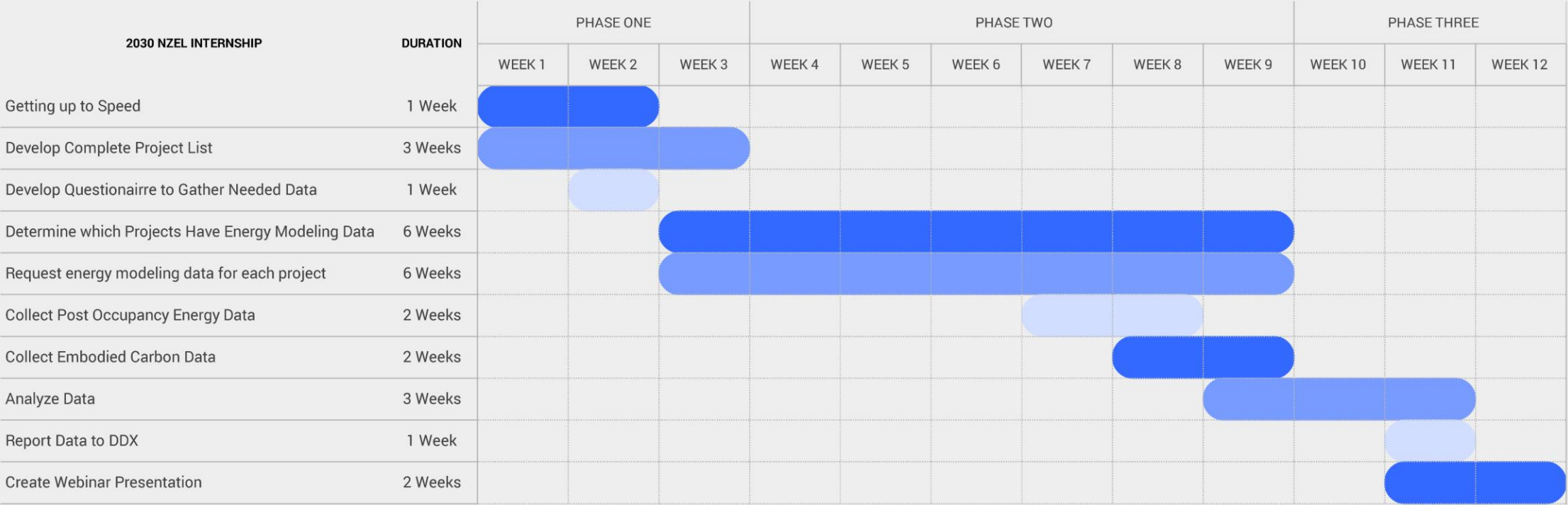
A Look at Two Years Reporting for AIA 2030 Challenge



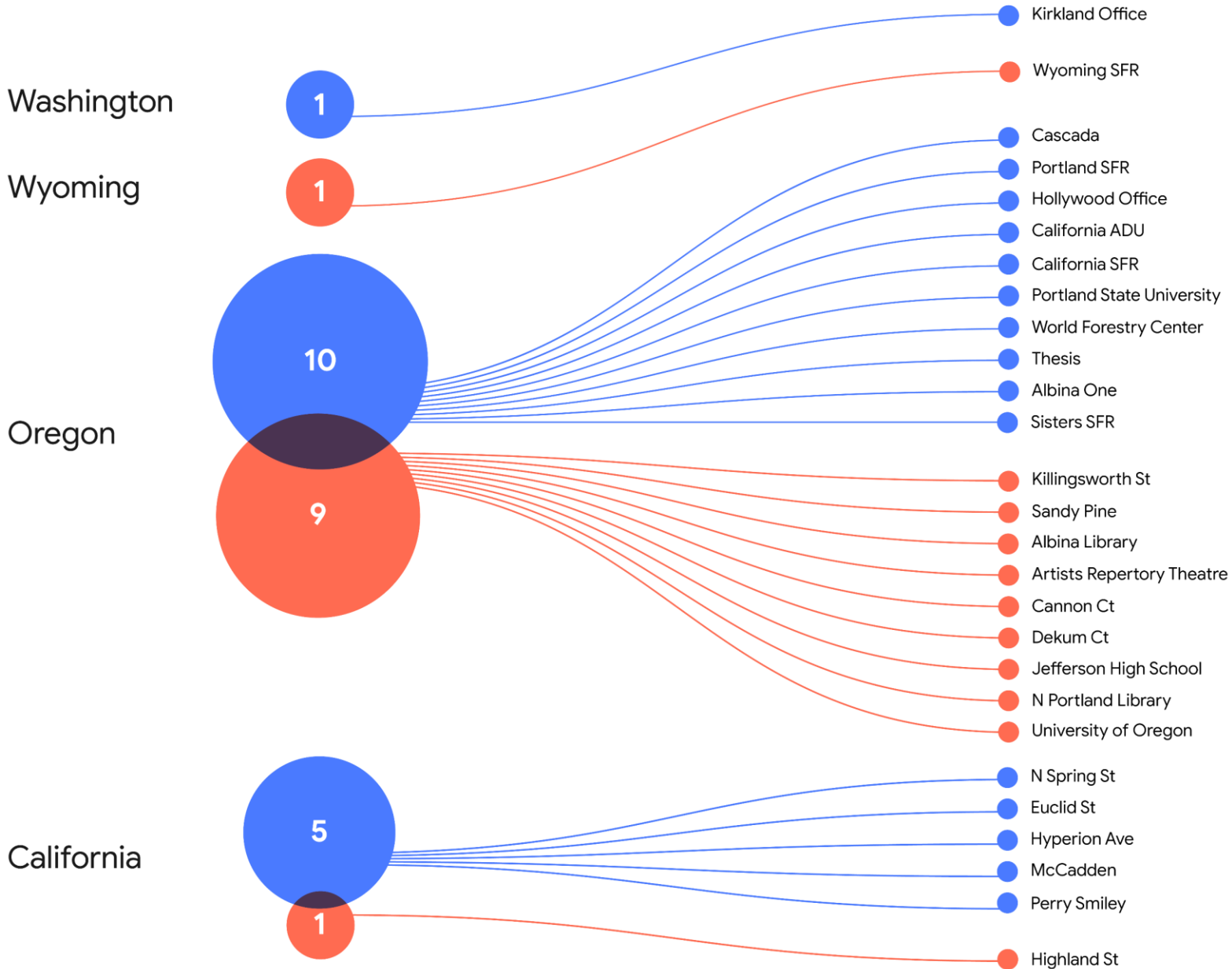
LEVER

Process

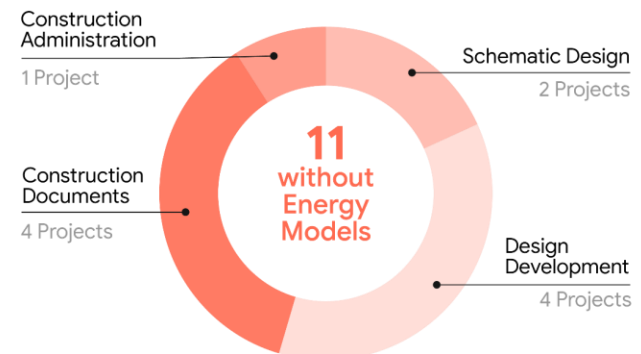
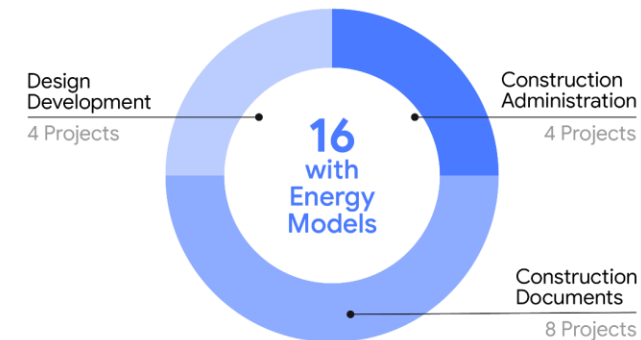
Tools Used:
Google Sheets
Zero Tool
Tableau (for data visualization)
Rscript (for data visualization)
Adobe Illustrator



2022 Energy Modeling Efforts



Reporting Design Phase



Project Has Energy Modeling

- Yes
- No

2022 Portfolio Predicted EUI Reduction

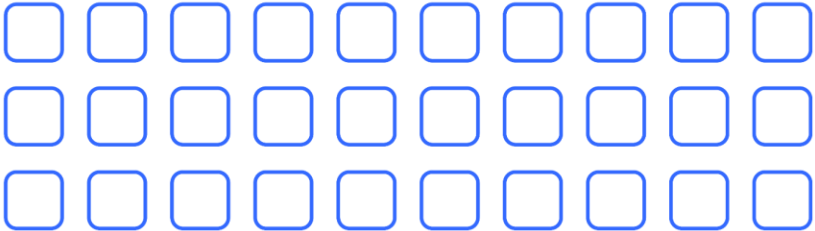
100%

2030 AIA Challenge



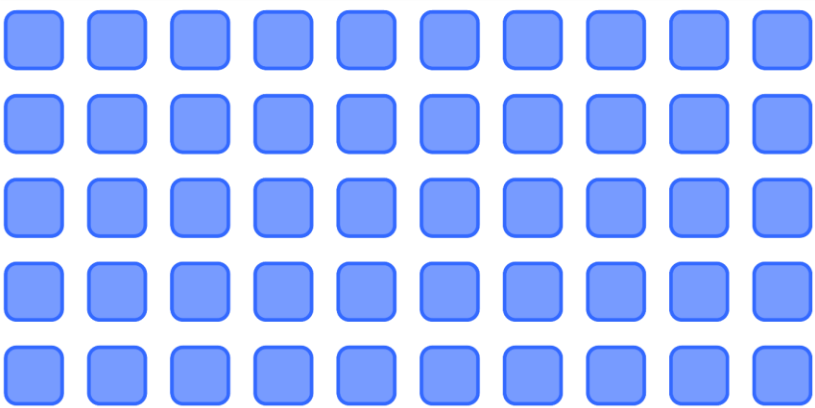
80%

2022 AIA Challenge Benchmark



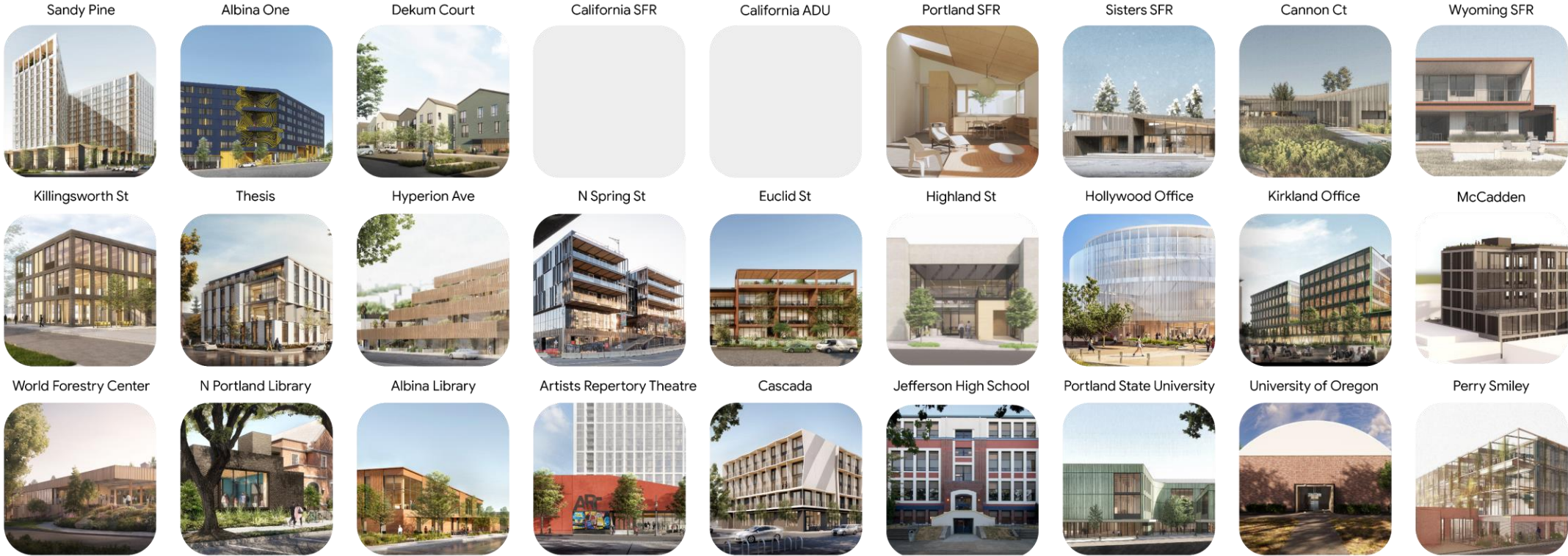
49.7%

LEVER's 2022 Average

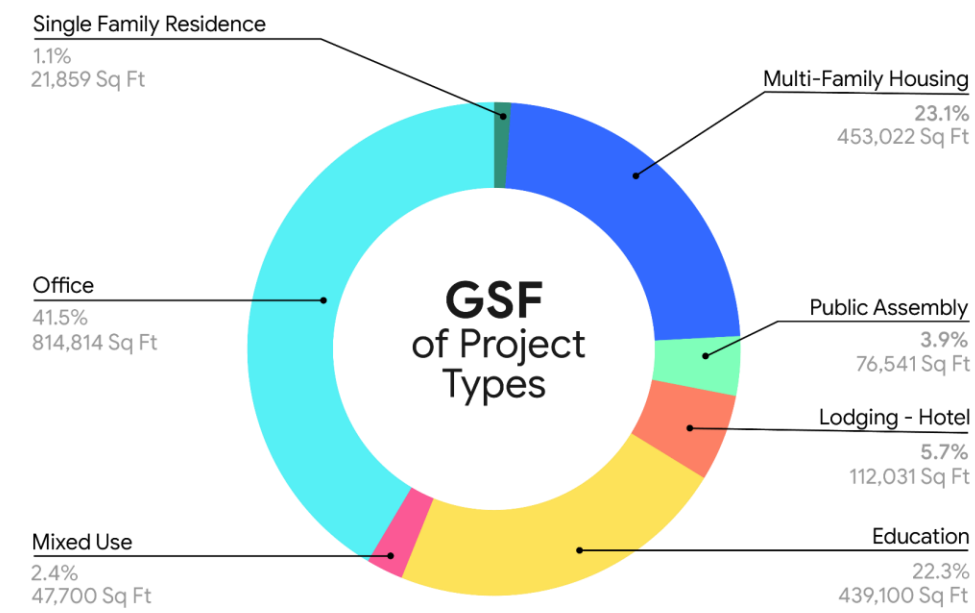
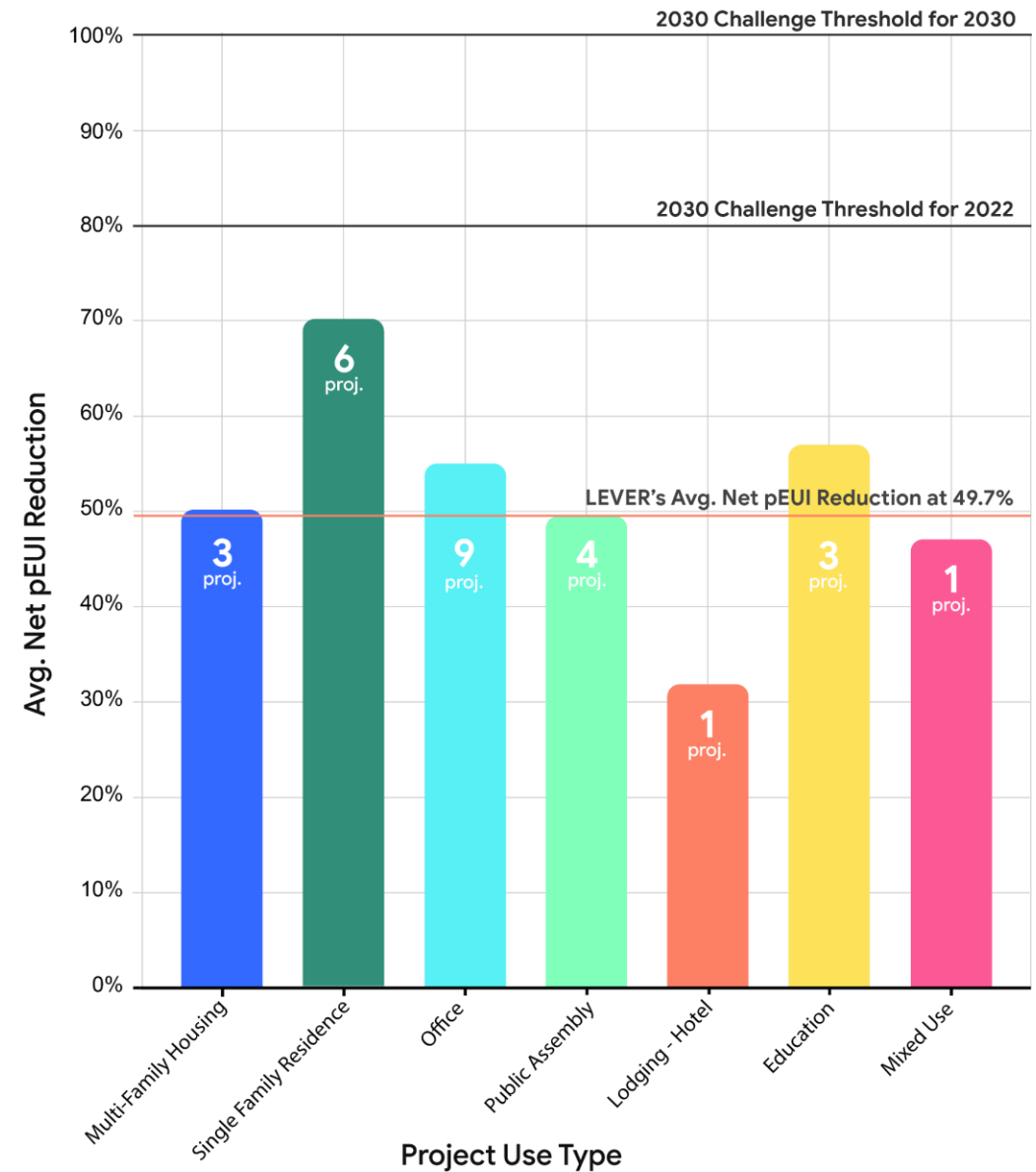


AIA: 2021 National Average at 50.3%

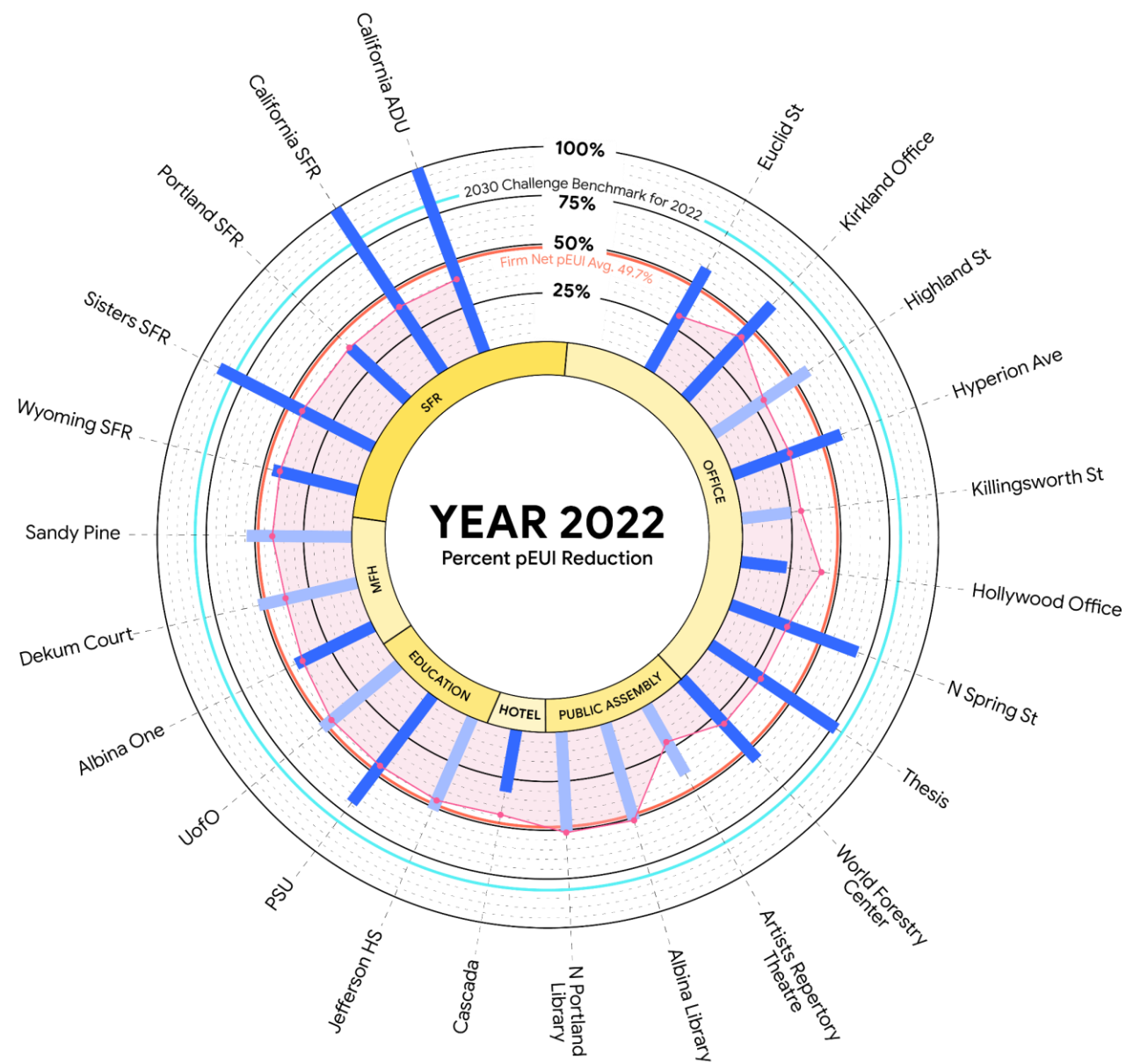
2022 Portfolio Reported Projects



2022 Portfolio Predicted EUI Reduction

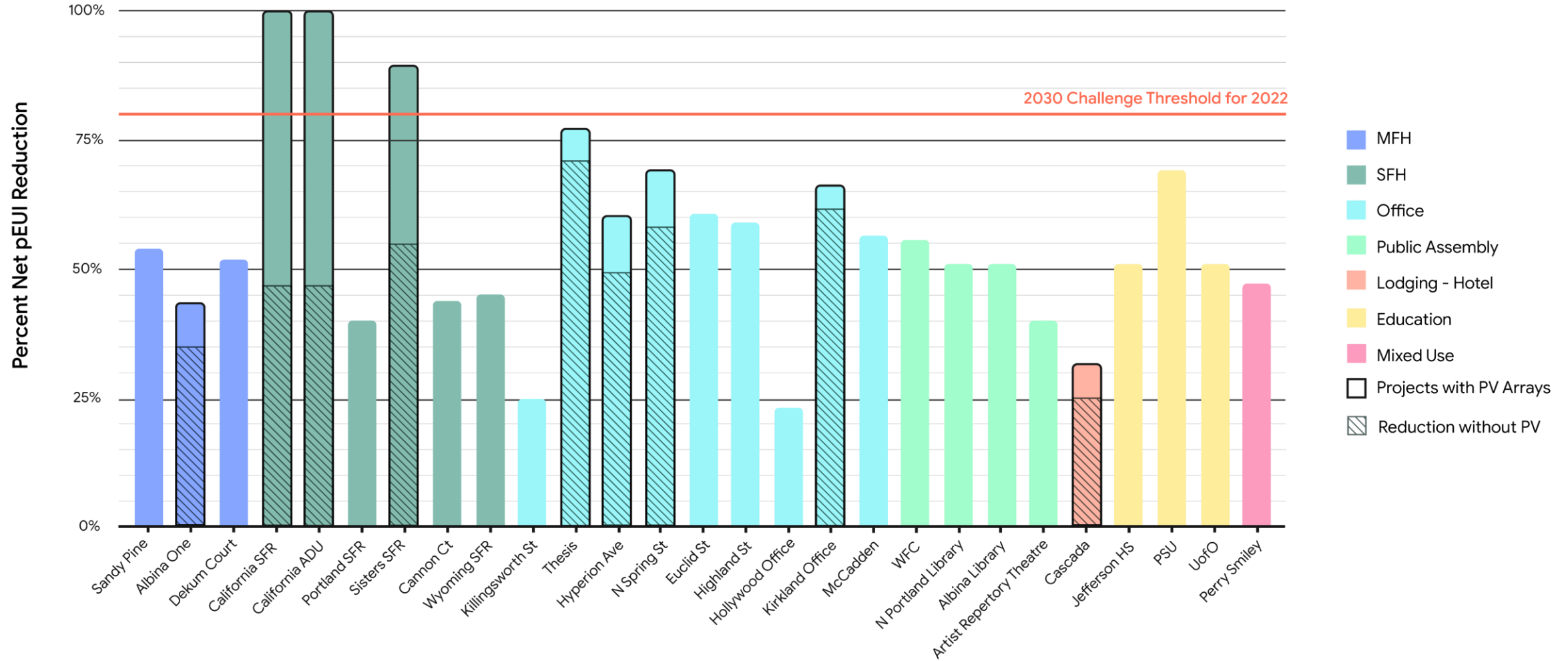


2022 Portfolio Predicted EUI Reduction

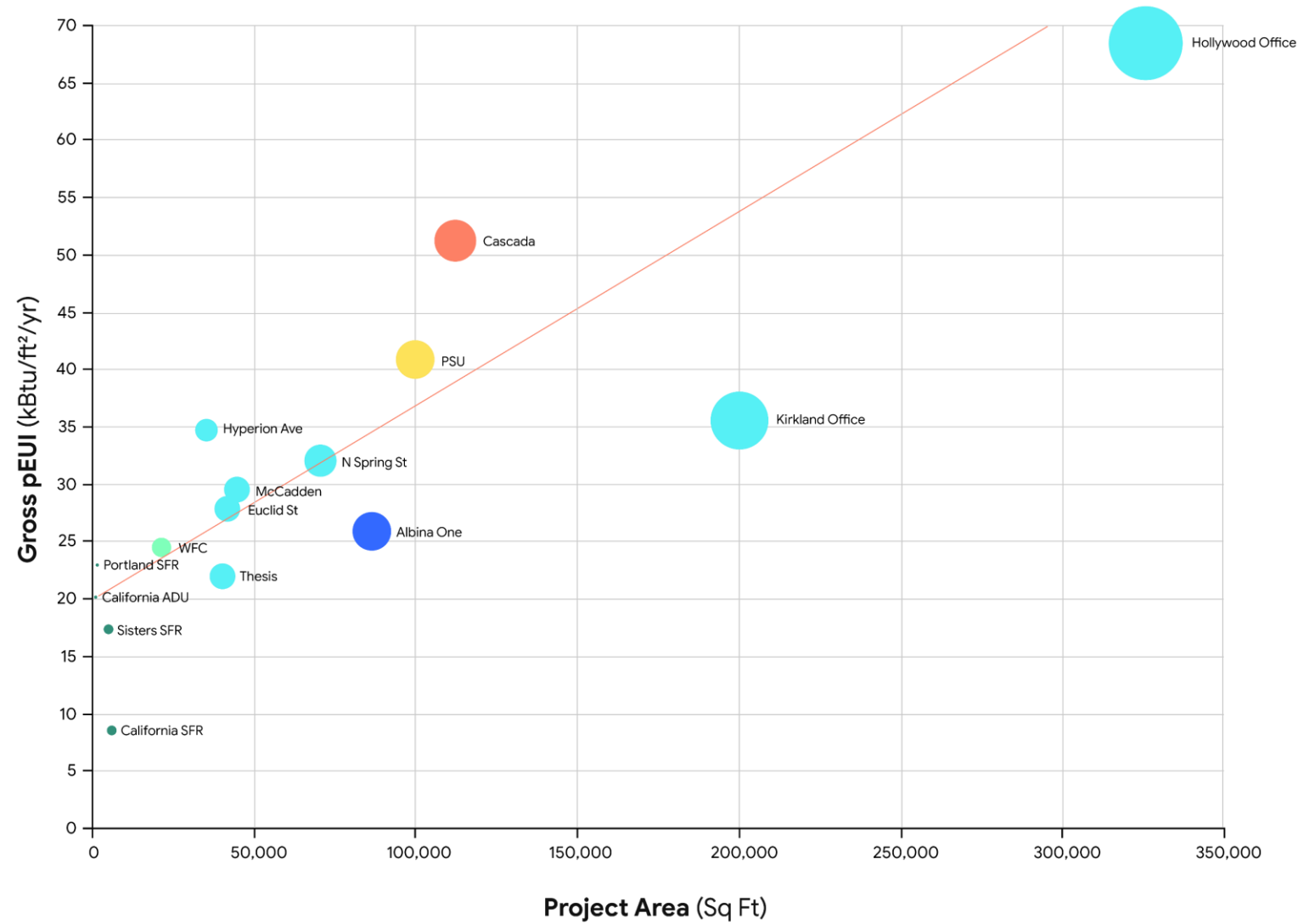


- 2030 Challenge Benchmarks
- Firm's Average - 49.7%
- Similar Projects in DDx
- Energy Modeled
- Code Equivalent

2022 Portfolio PV Array Comparison



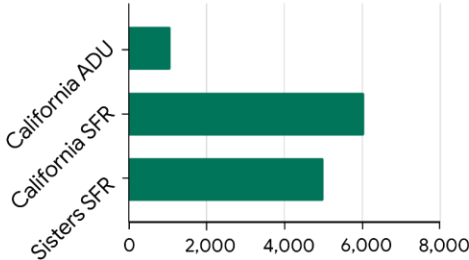
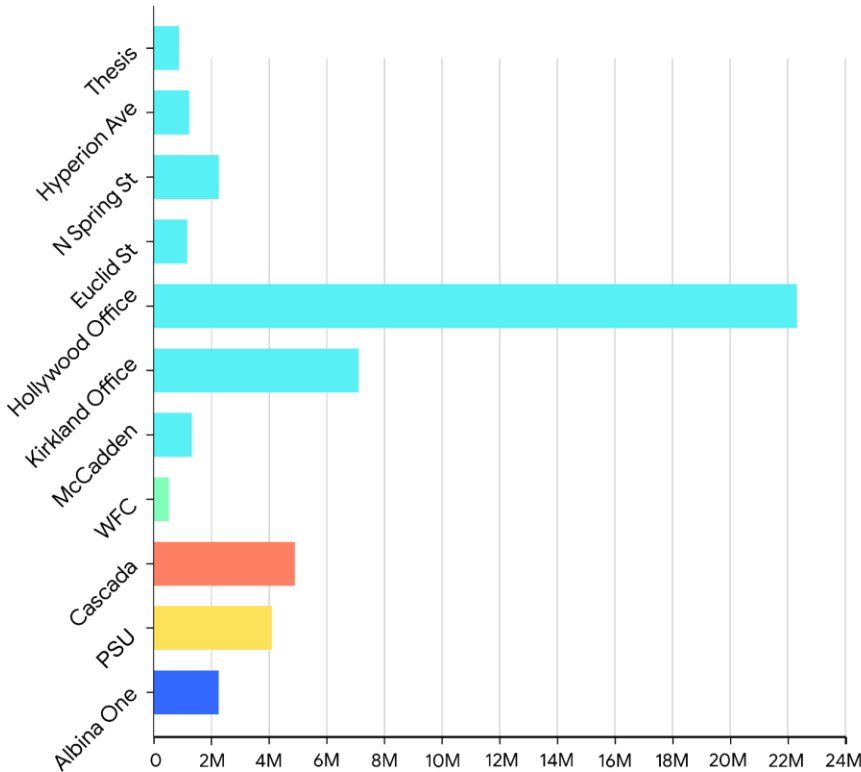
Project Gross pEUI Based on Area - without renewables



MFH SFR Office Public Assembly Lodging - Hotel/Motel Education

Total Annual Energy Use per Project

without renewables



Energy Use (kBtu/yr) - without Renewables

Case Study:

Kirkland Office

Operational Carbon

Location: Kirkland, WA
Phase: 2022 - Construction Documents
2021 - Design Development
Total Area: 200,000 Sq Ft
Office: 186,000
Retail: 14,000

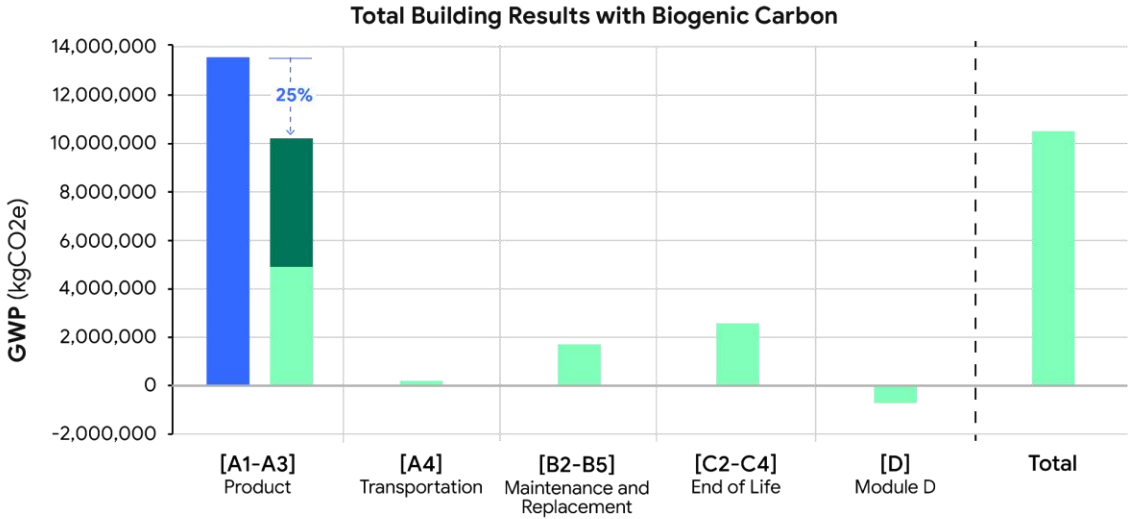
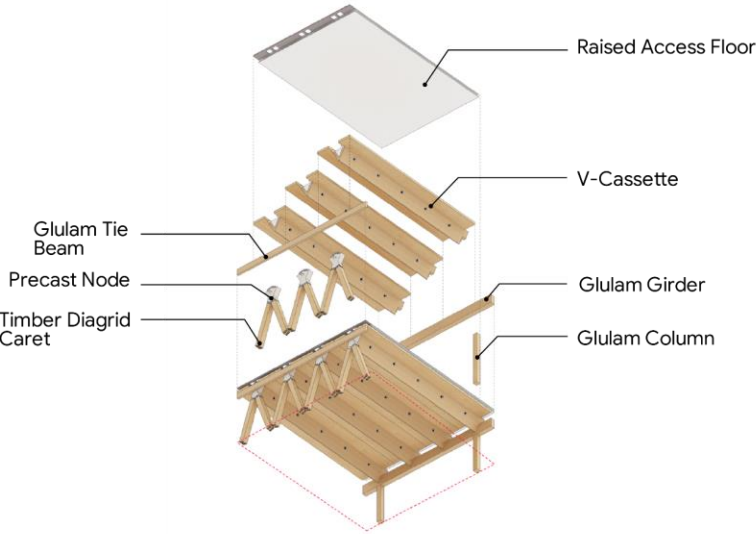


Case Study:

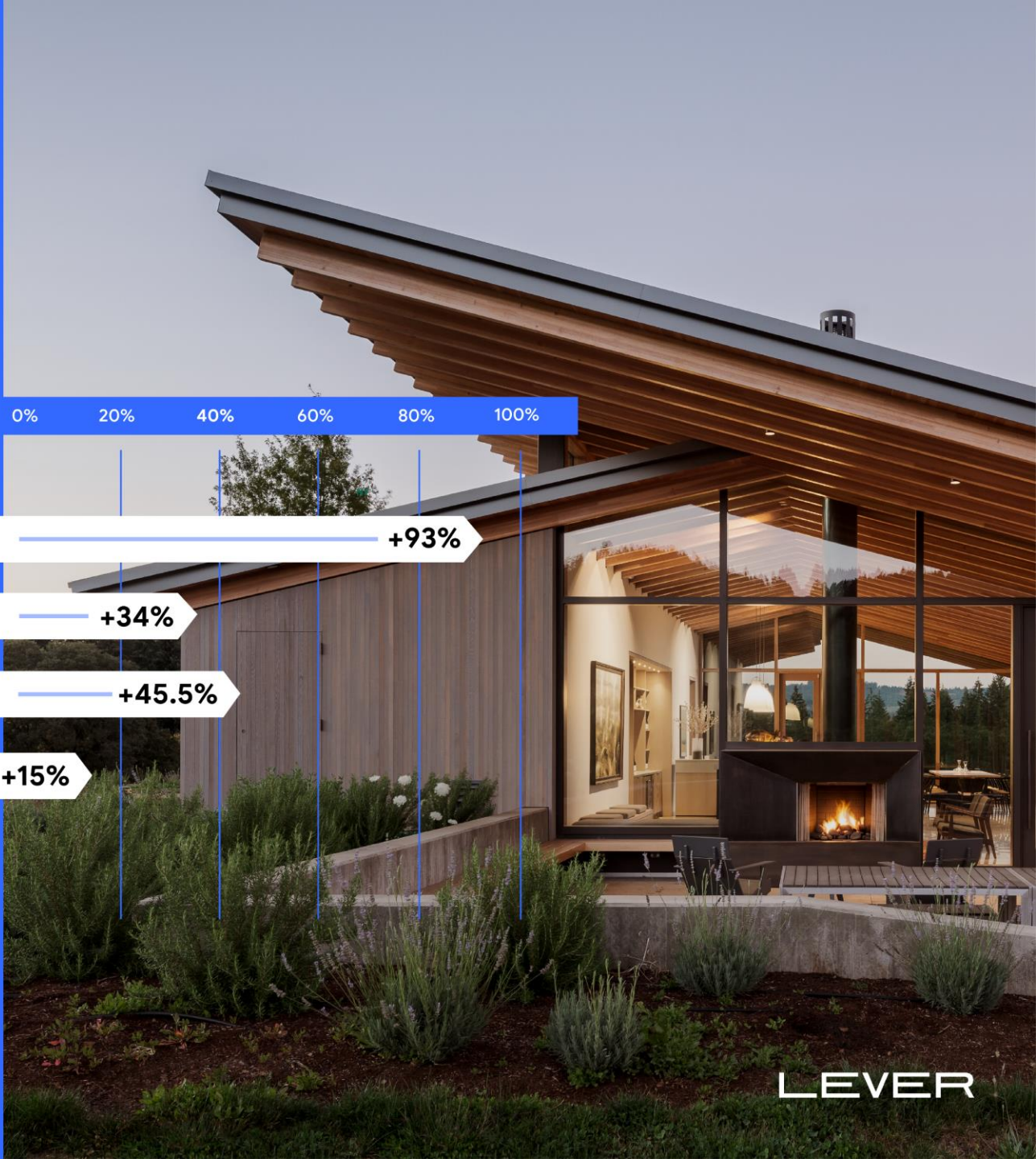
Kirkland Office

Embodied Carbon

Embodied Modeling Tool: Tally
Building Life assumed: 75 yrs.
Biogenic Carbon Included: Yes
Included Scope: Substructure,
Superstructure,
Enclosure,
Interiors,
Other.



2021 and 2022 Reporting Comparison



Next Steps



Goal One:
Increase Embodied
Carbon Reporting.

Goal Two:
Improve operational
energy performance
across all projects.

Goal Three:
Prioritize early-phase
energy modeling and
incorporate into the
design process.

Thank You

