

# NET ZERO EMERGING LEADERS:

*Knowledge is Power*

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*Hennebery Eddy design studio (LEED Gold)*

## Hennebery Eddy Background

Net-Positive Design Philosophy

AIA 2030 Commitment

## Design Data Exchange (DDx) Influence on Firm

Using DDx as an Archive

Tools Beyond DDx

## Globalization of Data

Net Zero Emerging

Leaders Internship

# Net-Positive Design Philosophy

Healthy | Efficient | Adaptive



Provide design solutions for buildings that result in a **positive impact** through efficient energy use, water consumption, and adaptive structures. Net-positive approach is **the foundation** of design decisions. *Knowledge* of how to achieve net-positive results is the *power*.



*Net-Positive charrette: the philosophy*

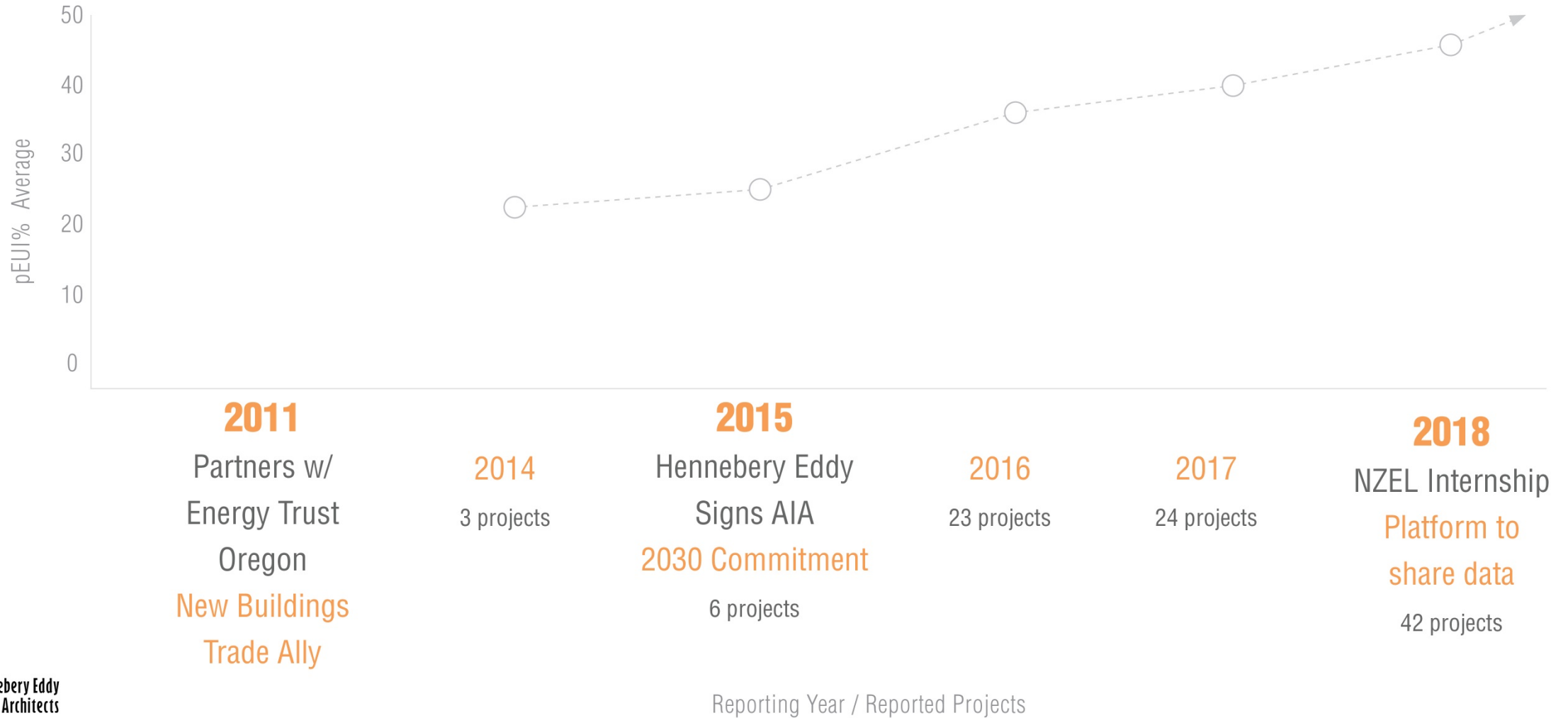


*TriMet South Terminus: the first step*



*Portland Community College Newberg Center: achieving goals by industry standards*

## Net-Positive Design Philosophy & Design Data Exchange:





Examples of Projects Meeting 2030 Target:



Yellowstone Youth  
Campus

**108%**  
Energy Use Intensity  
(EUI) reduction



Bend Science  
Station

**100%**  
Energy Use Intensity  
(EUI) reduction



Clackamas Fire  
Station 16

**70%**  
Energy Use Intensity  
(EUI) reduction

# DESIGN DATA EXCHANGE (DDx) INFLUENCE

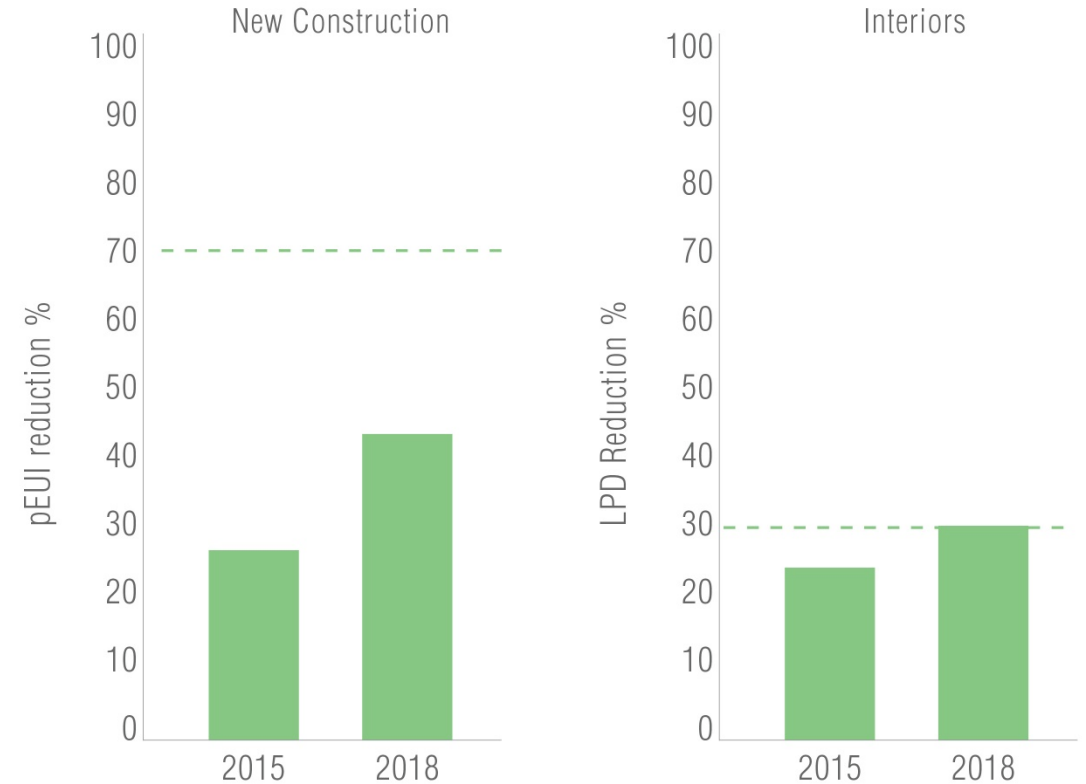
## DDx as the Archive:

### *Knowledge is Power*

Reporting and analyzing projects: **highlighting progress** and room for improvement.

By reporting basic information such as location, square footage, and Energy Use Intensity (EUI), the data is **more accessible** at a general level.

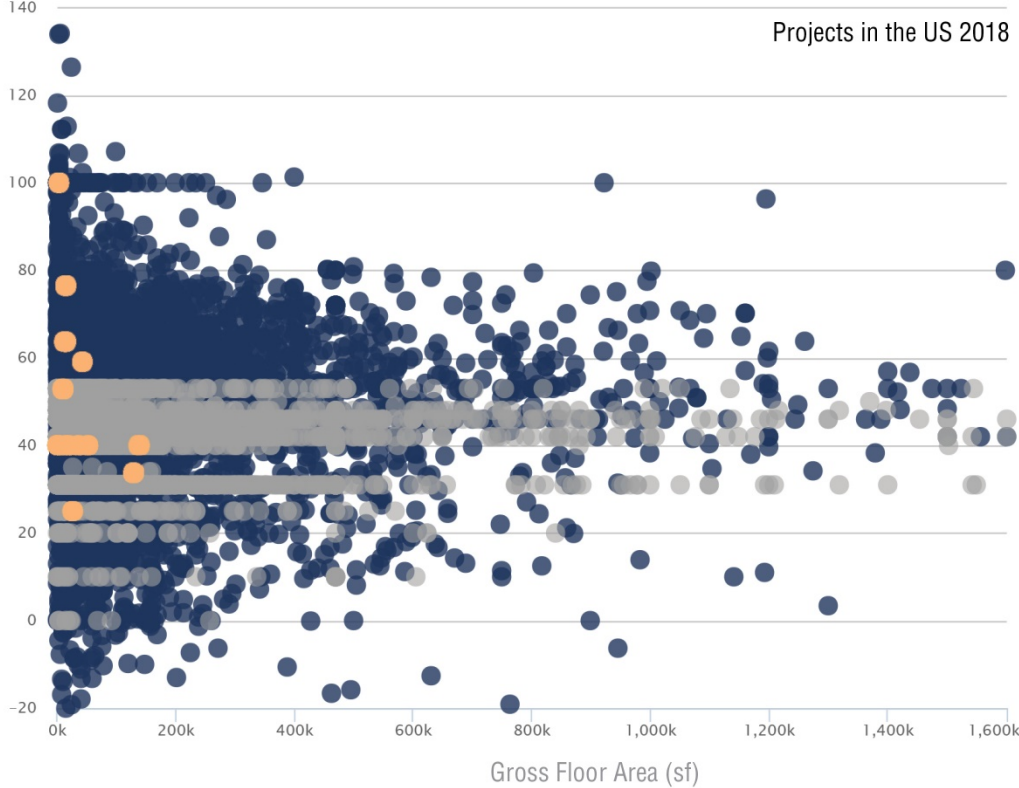
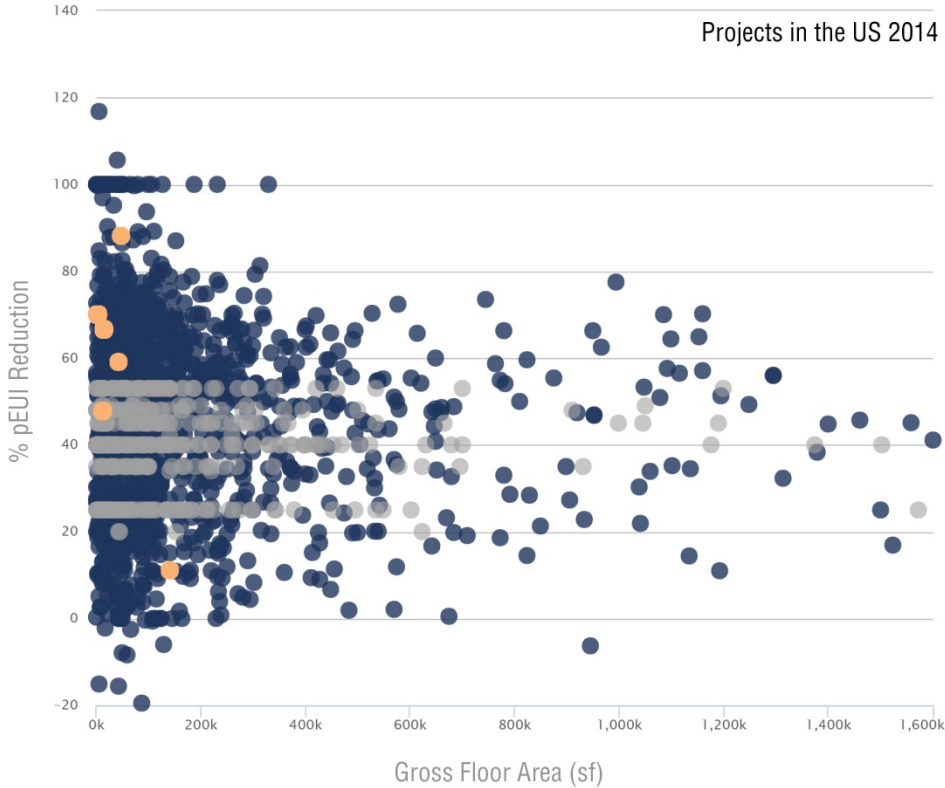
Design Data Exchange (DDx) has value with the **firm, clients, and future generations.**



**19% improvement**  
in Predicted Energy Use  
Intensity

**5% improvement**  
in Lighting Power  
Density

Locating Our Firm:



● Other Firms ● Hennebery Eddy's Projects

2015 -----> 2018



### Net Positive Tools and the DDx:

Define project goals early for projects with a net positive focus: an eco-charrette to get the conversation started with clients.

DDx is a platform for documenting: encouraging **energy modeling** and a **net-positive checklist** throughout the design process.

Another resource: **Energy Trust Oregon (ETO)** offers incentive programs that offset costs to achieve design goals. This includes **eco-charrettes**, **Path to Net Zero**, & **solar incentives**.

How can historic preservation projects be recognized through DDx?



*Sustainability committee participating in a charrette*

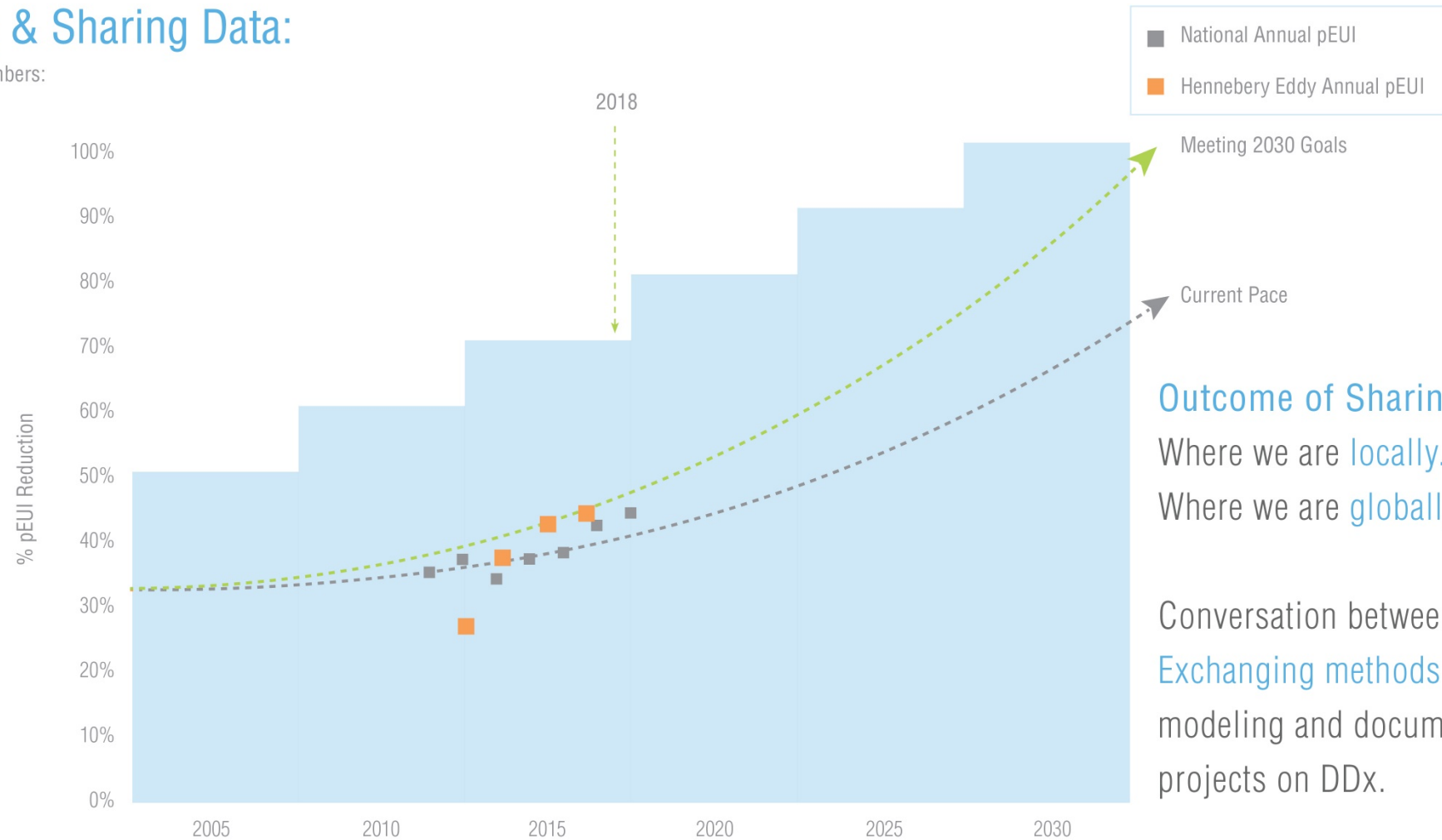


*Reviewing fixtures with representatives from the Yellowstone Youth Campus*



## Gathering & Sharing Data:

AIA 2030 By the Numbers:



### Outcome of Sharing Data:

Where we are **locally**.

Where we are **globally**.

Conversation between firms  
**Exchanging methods** of energy modeling and documenting projects on DDx.

Annual predicted energy use intensity (pEUI) savings is a weighted average of whole building project gross square feet (GSF). pEUI savings is relative to the 2030 Baseline-2003 Commercial Building Consumption Survey (CBECS)\* and 2001 Residential Consumption Survey (RECS).\*

## Net Zero Emerging Leaders: *Extending the Conversation*

Sustainability is not a race;  
Design Data Exchange is not a competition.

Encourages the philosophy of  
“knowledge is power”

Architects play a key role in combating climate change, nearly 40% of US energy is consumed by buildings (AIA).

Design Data Exchange is our way of  
“climate leadership” – how we can recognize  
*where we are and where we are going.*



*Students watch as solar panels are installed at Cascades Academy of Central Oregon*



*24.6-kW solar panel array at Cascades Academy of Central Oregon*