THE AIA 2030 COMMITMENT: BUILDING ENERGY LITERACY ANDREA LOVE AIA LEED FEILOW, DIRECTOR OF BUILDING SCIENCE, PAYETTE DEE SPIRO LEED AP, DIRECTOR OF SUSTAINABILITY, BERGMEYER STEPHANIE HOROWITZ, AIA CPHC, MANAGING DIRECTOR, ZEROENERGY DESIGN

March 10, 2017

2030 OVERVIEW | TARGETS



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OPERATIONAL EFFICIENCY

Long range sustainability action plan that aligns with the stated 2030 benchmarks for achieving carbon neutrality.



The Program Continues to Grow

Number of signatory firms increased by 19%

The Institute is focused on increasing value to small firms



Signatory & reporting firms





Number of Reporting Firms by Staff Size Over Time



Total Area Reported

Continue to see more projects than ever are being reported

Building area reported increased to 2.6B GSF - 8.3% increase



Total reported area (GSF) and total number of projects



Data for total number of projects is unavailable for 2010.

Predicted Project Performance

Average pEUI increased by **1.5%** but remained mostly flat across all reporting years

Time to meet the challenge!





Percent Mean pEUI Reduction from the National Average

The Impact of Modeling

59% of projects used energy modeling41% of projects used code equivalent baselines

Only Modeled Projects reach the reduction targets

Percent Improvement by pEUI Reduction Bins



Whole building projects by use type

Use type	Average pEUI reduction		Number of projects	Total GSF (million)	Average GSF	Average EUI*
Assembly	4	0.8	530	93.3	176,011	52
Higher education	4	0.7	428	47.0	109,857	82
K-12 education	4	3.7	413	32.3	78,268	45
Laboratory	4	6.3	198	25.5	128,712	201
Healthcare	3	38.1	606	131.0	216,222	125
Office		42.1	1,076	455.2	423,012	60
Retail	3	2.8	650	379.0	583,014	75
Multi-family residential	4	11.8	640	204.5	319,554	42
Single-family residential	4	6.4	155	1.5	9,348	26
Mixed Use	3	5.8	679	619.4	912,261	61
Other	3	8.3	607	213.6	351,842	103



Interiors projects by use type

Use Type	Average pEUI reduction		Number of projects	Total GSF (million)	Average GSF
Assembly		28.2	67	3.1	45,545
Higher education		27.3	79	2.2	27,456
K-12 education		2.3	63	10.7	169,111
Laboratory		19.0	96	1.7	17,802
Healthcare		25.5	433	8.8	20,328
Office		28.1	800	40.5	50,666
Retail		35.3	142	2.0	14,097
Mixed use		30.9	39	3.4	87,693
Other		18.1	58	2.5	43,123



2015 Key Takeaways

- We can only meet 2030 targets with energy modeling.
- More firms are signing on. Good potential for more reporting next year.
- The pEUI reduction and overall GSF continues to grow and improve. But not as fast as we would like.
- The DDx is a new tool with greater value propositions.



AIA 2030 DDx A BIG STEP FORWARD...

to

AIA 2030 Commitment Reporting Tool - DESIGN YEAR 2014

Worksheet

AA 2030 Committeent Reporting Tool, Variano 2014.1 © Angencan Institute of Architects 2014. Revised December 24, 2014, This files a collaborative work product of mainy AM member/films. Kerparticipants and ale an AA Chicago Chapter Working Groups and member films. This file is extended to be allowed with AM member films. Kerparticipants and ale an AA Chicago Chapter Mitter This file is not interded for individual distribution a

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AIA 2030 Design Data Exchange

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AIA 2030 Design Data Exchange



TESTIMONIALS

- "...DDx allows us to learn from our past projects and utilize that knowledge to constantly improve..." - Nathan Kipnis, FAIA, Principal, Kipnis Architecture + Planning
- "Being able to access the data and see immediate results on how our projects are performing created a bit of a 'wow factor' that has gotten people within the firm excited and more engaged..." - Melissa DeStout, project architect with Perkins Eastman.





Let's go live! (if we can)

PAYETTE



- 140-person, Boston based office
- Research and Healthcare Focus
- Integrated Building Science Group

PROGRESS TOWARDS GOALS | EUI REDUCTION



PROGRESS TOWARDS GOALS | PROJECTS WITH ENERGY MODELS



PROGRESS TOWARDS GOALS | INTERIOR PROJECTS



PROGRESS OVER TIME



IMPACT OF INTERNATIONAL WORK



MARKET SECTOR



BY MARKET SECTOR - LABS



BY MARKET SECTOR - LABS



BY MARKET SECTOR - LABS

