

AIA's BIG MOVE

THREE ACTIONS:

- 1. Declare an urgent climate imperative for carbon reduction
- 2. Transform the day-to-day practice of architects to achieve a zero-carbon, equitable, resilient and healthy built environment
- 3. Leverage support of our peers, clients, policy makers, and the public at large

AIA's Efforts

Voluntary AIA 2030 Commitment

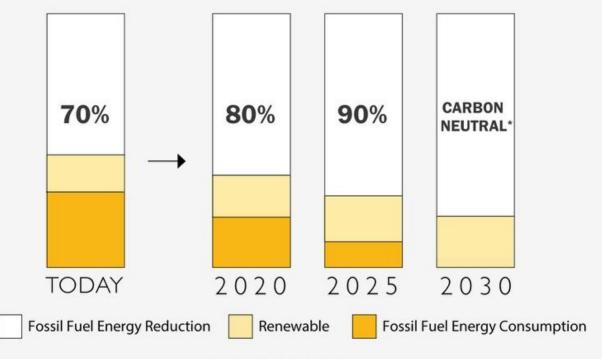
Code of Ethics and Professional Conduct

Product Transparency

Resilient Design



What is the 2030 challenge:



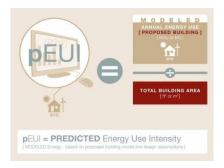
The 2030 Challenge

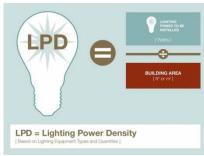
Source: ©2015 2030, Inc. / Architecture 2030. All Rights Reserved. *Using no fossil fuel GHG-emitting energy to operate.

what is reported?

Include all **DESIGN** projects which meet the following criteria:

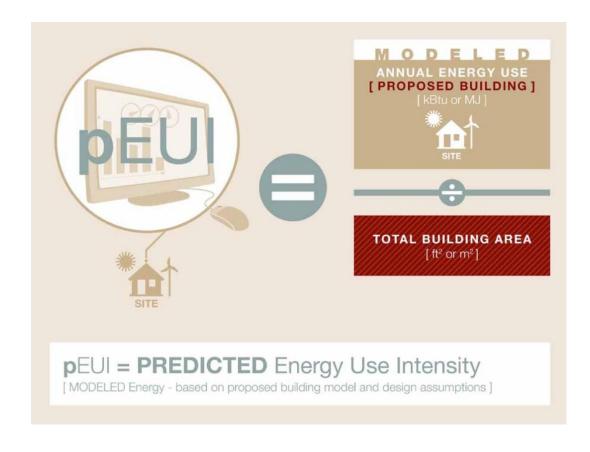
- was in an active design phase during the calendar year (concept, SD, DD, CDs) – not construction
- architectural projects whose scope included HVAC system, lighting or envelope modifications (new construction or major renovation)
- interiors-only projects which included lighting design



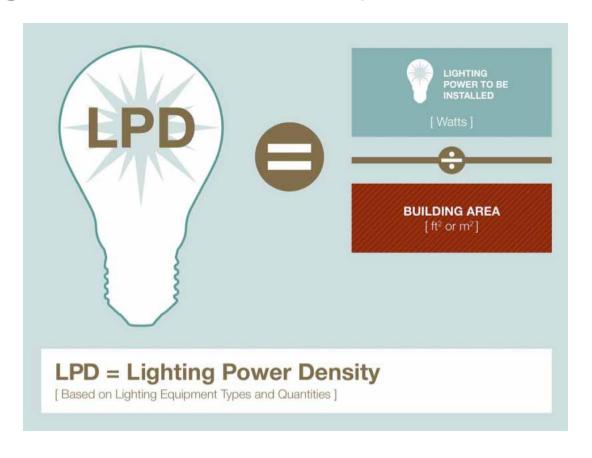


ASHRAE 90.1-2010 Code = **40%** Reduction

Energy Use Intensity (PEUI):



Lighting Power Density (LPD):



What are our EUI Targets?

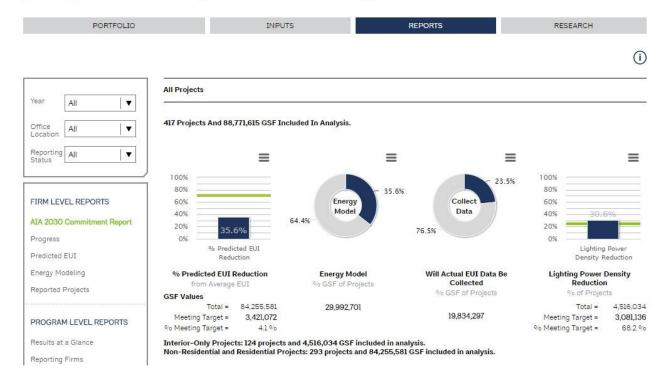
Facility Type	National Average (2003 CBECS)	AIA 2016 Target 70%*
ES&T: Higher Ed	120	36
ES&T: Lab	370	111
Justice: courthouse	118	35.4
Justice: prison	90*	27
Corporate office: 10,000-100,000 sf	90	27
Corporate office: 100,001+ sf	74	22.2
Healthcare: clinic	73 - 84	21.9 - 25.2
Healthcare: inpatient/hospital	227	68.1
Healthcare: MOB	59	17.7
Govt office: 10,000-100,000 sf	90	27
Govt office: 100,001+ sf	74	22.2

What are our LPD Targets?

Facility Type	ASHRAE 90.1-2007 baseline	AIA 2030 target: 25% reduction*
ES&T: Higher Ed	1.2	0.9
Justice: courthouse	1.2	0.9
Justice: prison	1.0	0.75
Office	1.0	0.75
Healthcare: clinic	1.0 – 1.2	0.75 - 0.9
Healthcare: inpatient/hospital	1.2	0.9
ES&T: Laboratory	1.4	1.05
Retail	1.5	1.13

2030 Data Reporting:

AIA 2030 Design Data Exchange



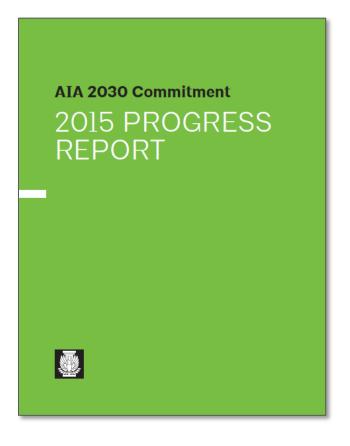
2030 Data Reporting:



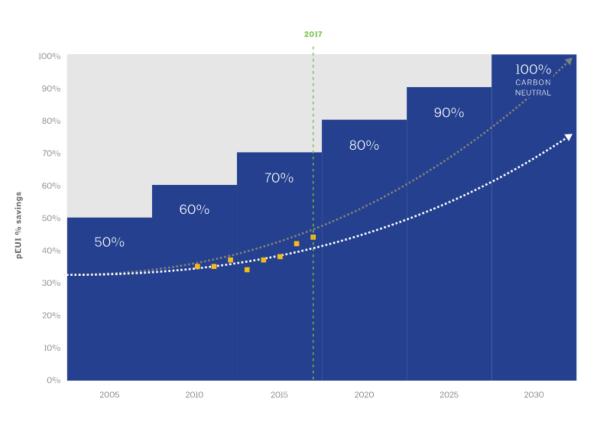








RESULTS / Progress to 2030 goals



PICK UP THE PACE TO MEET OUR 2030 GOALS

Each year we make progress toward achieving the 2030 goals, but the current trajectory suggests we'll need more time to achieve 100 percent carbon-neutral design. Improvements could happen faster with stricter codes, more energy modeling, and other market motivators.

Key

2030 Commitment pEUI % savings goals

Average annual pEUI tracked by the 2030 Commitment

2 dotted projection paths:

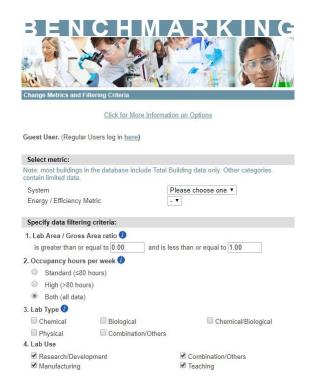
■ ■ Meeting 2030 goals

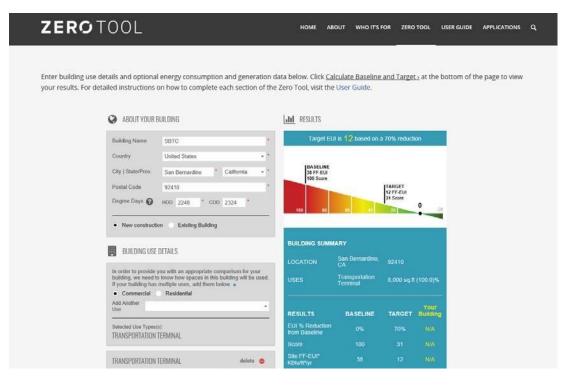
Current pace

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)⁶ and 2001 Residential Consumption Survey (RECS).⁶



Benchmark the Project





Benchmark the Project

CBECS average 2003 average

ASHRAE 90.1-2010 (40% over CBECS)

City of Boulder (30% over 90.1-2010)

Project Target (AIA 2030 Challenge?)

101.7

EnergyStar Target Finder Regional Average 61.0

EUI

 \uparrow

Energy Code Average Savings (varies by code) 42.7

EUI

 \uparrow

EUI Target – Established by Client, Team or Municipality

30.5

EUI

1

AIA 2030 Commitment EUI Target (70% Reduction)

Benchmark the Project

ASHRAE 90.1 LPD Standard

1 2

w/sf

1

Lighting Power Density Healthcare Project Target (AIA 2030 Challenge?)

0.9

w/sf



AIA 2030 Commitment LPD Target (min 25% Reduction)

Top 50 Firms in Sustainability

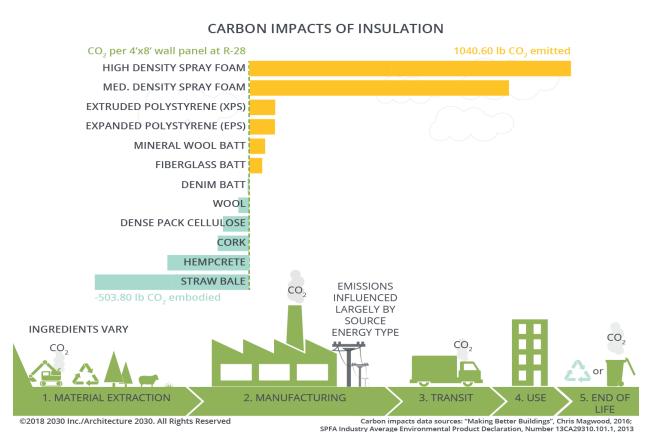
RANK	ORGANIZATION	SCORE
1	BNIM	100.0
2	The Miller Hull Partnership	99.0
3	WRNS Studio	98.3
4	HDR	97.6
5	SmithGroup	97.5
6	Mithun	96.7
7	Touloukian Touloukian	95.7
8	Bruner/Cott & Associates	95.5

Perkins And Will

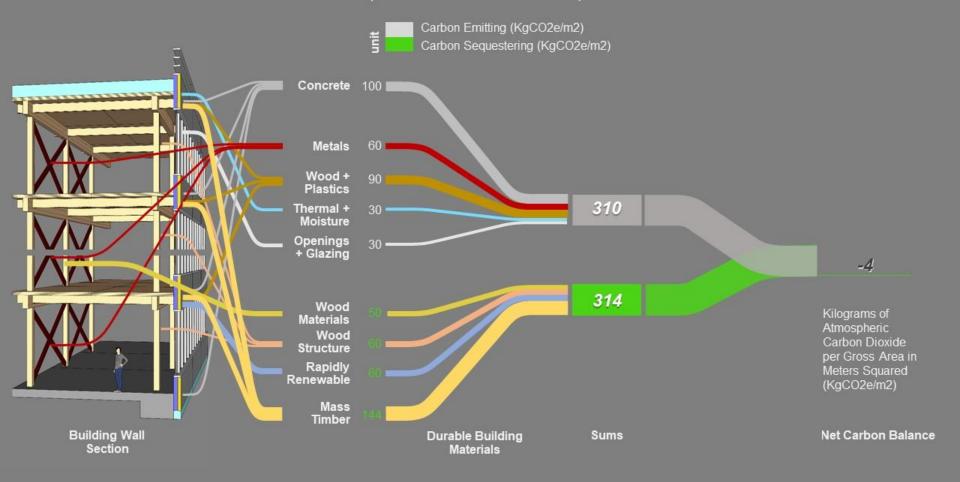
95.3



Annually, the **embodied carbon of building structure, substructure, and enclosures are responsible for 11% of global GHG emissions** and 28% of global building sector emissions



CARBON BALANCE GOAL (SCHEDULE A1-A5 + D)



THANK YOU