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From Concept to Reality: AIA's Climate Programs & Local Climate Leadership

AIA Leadership Summit 2025

Melanie De Cola; Daniel Overbey, AIA; Jason Shelley, Hon. AIA





Learning Objectives

- Understand the role of the 2030 Commitment and A&D Materials Pledge on furthering industry progress, including what it entails to be a signatory and how current signatories are performing alongside program goals.
- Learn how key AIA climate programs including the 2030 Commitment and Materials
 Pledge can spur members to action and help encourage climate, sustainability, and
 resilience planning within firms.
- Hear case studies from components and member leaders on the ways in which they've incorporated climate action in their programming including advocacy and education.





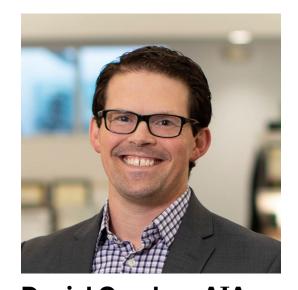
Speakers



Melanie De Cola

AIA Climate Action Pledge

Program Director



Daniel Overbey, AIA

Director of Sustainability,
Browning Day;
Assistant Professor,
Ball State University



Jason Shelley, Hon. AIA
Executive Director,
AIA Indiana



AIA Leadership Summit



Agenda

- AIA's Climate Action Pledge Programs & Framework for Design Excellence
 - o 2030 Commitment
 - Architecture & Design Materials Pledge
 - AIA's resources for members & components
- Case study #1: The State of Indiana & Building Advocacy
- Case study #2: The City of Indianapolis & Sustainability Action Plan
- Audience Q&A





AIA's Framework for Design Excellence & the 2030 Commitment

FRAMEWORK FOR DESIGN EXCELLENCE

Design for energy

Reduces energy use and dependence on fossil fuels



Design for well-being

Supports health and well-being for all



Design for resources

Informed material selection



Design for change

Adaptability, resilience, and reuse



Design for discovery

Applies lessons learned and fosters long-term relationship



Design for integration

Delivering beauty and function in balance



Design for equitable communities

Positive impacts for larger community



Design for ecosystems

Benefits human and nonhuman inhabitants



Design for water

Improves quality of water as a precious resource



Design for economy

Adds value regardless of project size or budget





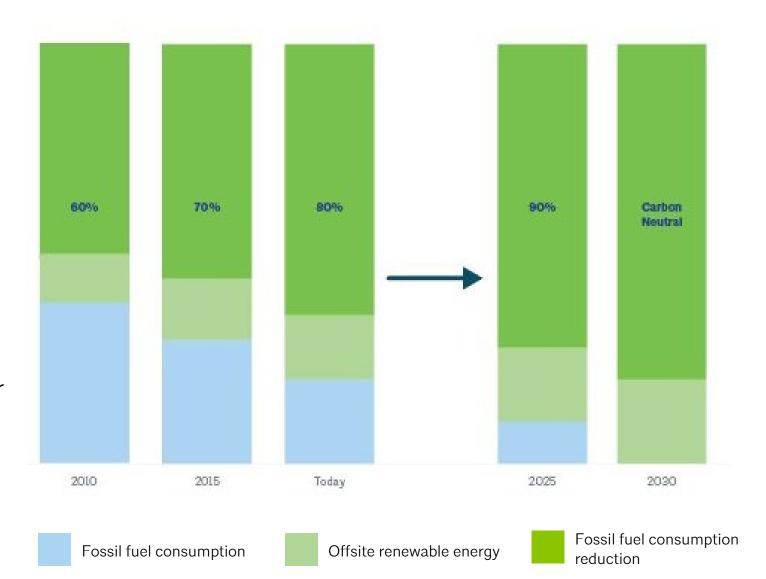


The 2030 Challenge asking the global architecture and building community to adopt the following incremental carbon reduction goals over a 25-year timeline. Meeting the targets would mean that all new buildings and major renovations would be zero carbon by 2030.

To support the 2030 Challenge, the AIA created the **AIA 2030 Commitment** program for signatory firms to track their progress towards net zero.







AIA 2030 Commitment data: 2023 At a Glance

3.9 billion

Total GSF

24,742

Projects

490

Reporting firms

116

Countries

50%

pEUI Reduction

61%

Whole-building GSF with an energy model

430

Net zero energy projects

2,163

Projects with renewable energy

7,067

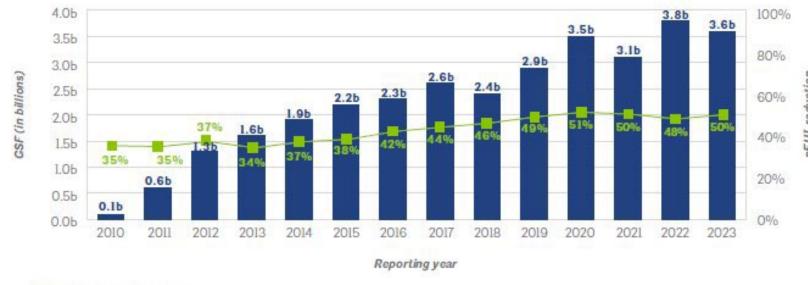
Projects reported embodied carbon



Challenge: In past five reporting years, reported whole-building projects have plateaued around 50% pEUI reduction. Here's where 2030 signatories need to improve:

- **Energy modeling**: only 61% of reported whole-building GSF is energy modeled.
- Fuel sources: 10% of wholebuilding projects report by fuel sources.
- Renewable energy integration: projects with renewable energy sources are increasing, but only to 9% of reported projects.

WHOLE-BUILDING GSF & PEUI % REDUCTION BY YEAR 2010-2023

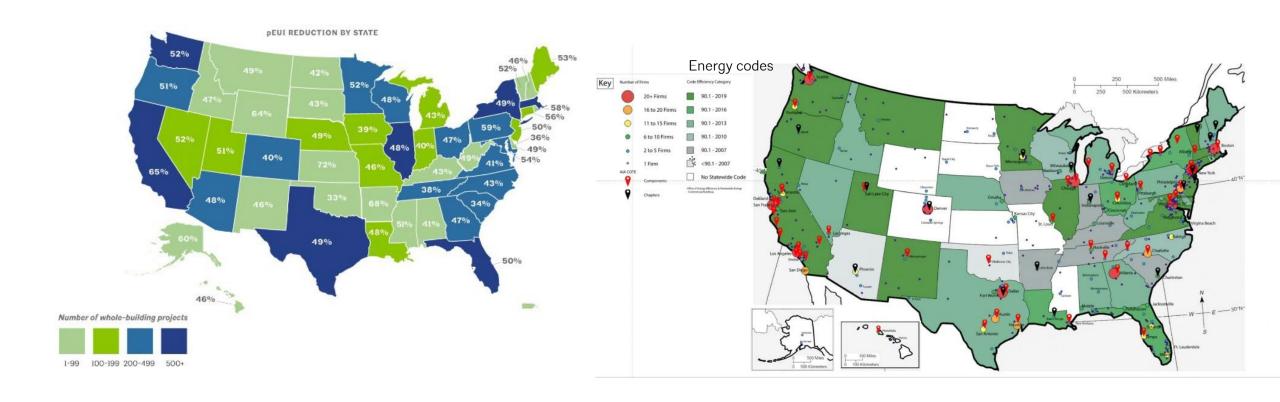


Whole-building GSF

pEUI % reduction



Energy codes matter in improving building efficiency!





Firm path to committing and reporting:

1

Sign the Commitment letter

2

Create a
Sustainability
Action Plan

3

Endeavor to meet 2030 targets

4

Report all projects in the DDx

5

Review and update your Sustainability Action Plan

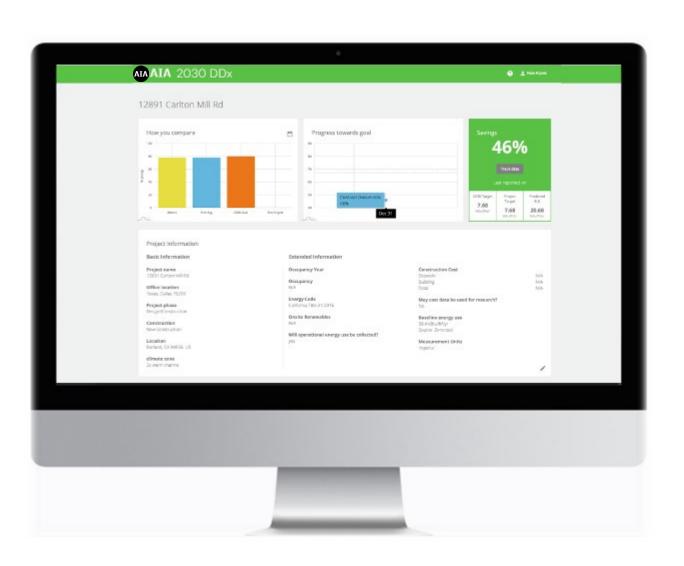


The Design Data Exchange (DDx)

The DDx is a cloud-based, anonymized reporting tool created by AIA that allows you to compare projects by type, size, climate, and other attributes across the 2030 portfolio. **2030ddx.aia.org**



AIA 2030 Peer-to-Peer Network

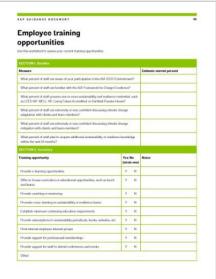




Sustainability Action Plan (SAP) Guidance

As part of the AIA 2030 Commitment (and A&D Materials Pledge), signatories are asked to create as SAP within six months of joining the program. The goal is to think through how your sustainability values and aspirations can translate into a comprehensive strategy that transforms a firm's entire portfolio.













A&D Materials Pledge



A&D Materials Pledge

Architects and designers can help improve the health of the planet and people by giving careful thought to how they evaluate products and finishes. AIA developed the Architecture & Design Materials Pledge to inspire a positive shift in materials specification.

Email: materials@aia.org





5 Pledge Statements



Human health

Support **Human Health** by preferring products which support and foster life throughout their lifecycles and seek to eliminate the use of substances that are hazardous.



Climate health

Support **Climate Health** by preferring products which reduce carbon emissions and ultimately sequester more carbon than emitted.



Ecosystem health

Support **Ecosystem Health** by preferring products which support and regenerate the natural air, water, and biological cycles of life through thoughtful supply chain management and restorative company practices.



Social health & equity

Support **Social Health and Equity** by preferring products from manufacturers who secure human rights in their own operations and in their supply chains, and which provide positive impacts for their workers and the communities where they operate.

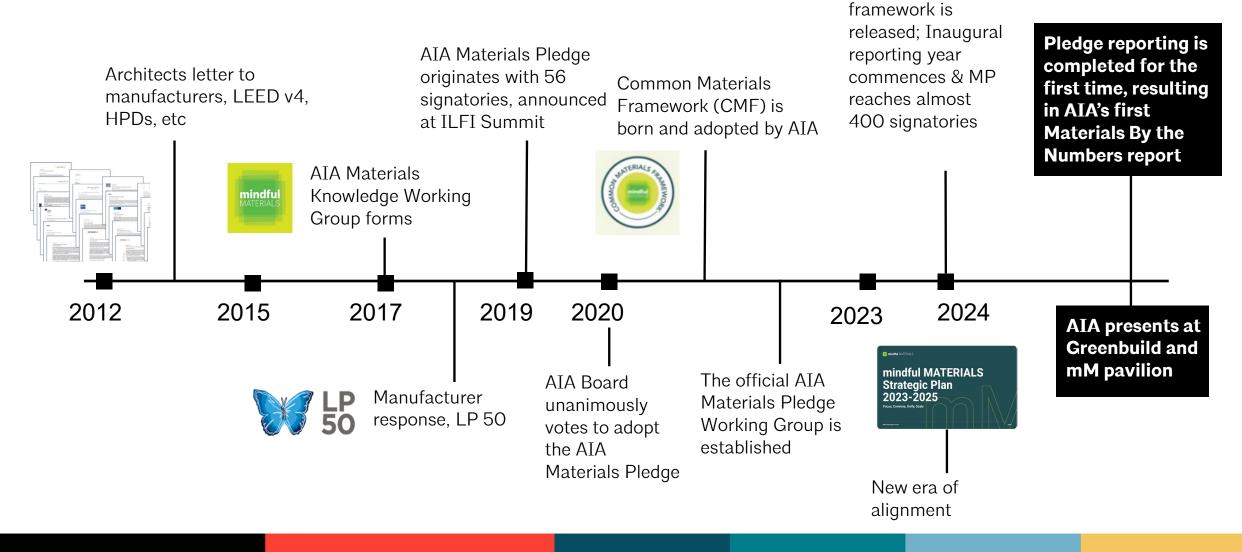


Circular economy

Support a **Circular Economy** by reusing buildings and materials; and by designing for material efficiency, long life and reuse.



Pledge History



MP reporting

Materials Pledge: 2023 Data At a Glance

287

Signatories

92

Reporting signatories

136

Reported projects

61%

of reporting firms have Sustainability Action Plans (SAP) with materials

Human health & climate health

were the most reported impact categories

Carpeting, resilient flooring, and acoustical ceilings

were the most reported product types

79%

Of reported projects were in pursuit of building certification

>500k

Reported gross square feet







A&D MATERIALS
PLEDGE REPORTING
GUIDE

A&D Materials Pledge Reporting Guide

This resource provides an overview of the reporting process for 2024 and 2025, including the methods and schedule, eligibility, content and structure, definitions, FAQs, and product types and definitions.



Climate Action Resources & Component Toolkit



AIA CLIMATE ACTION PLEDGE PROGRAMS

CHAPTER TOOLKIT



average pEUI reduction of 44 23,000 projects. View all rep

Tips on meeting the 2030 Co firms that has in 2019 was th pEUI reduction goal. Read m

A&D MATERIALS PLED

Host a Why Join webinar, W Why Join presentation temp member to host this webinar

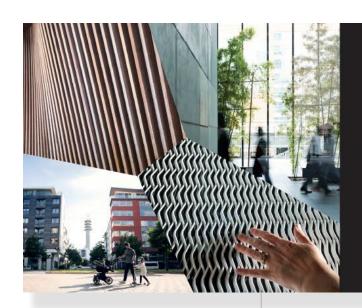
AIA Climate x Chapter Toolkit

This PDF resource includes an introduction, strategies and linked resources to grow and engage your climate signatory communities and a general FAQ for the climate action pledge programs.

A&D MATERIALS PLEDGE

2030 COMMITMENT





Design for a better future.

Sign the A&D Materials Pledge and transform how you evaluate the materials you specify daily.

Learn more at aia.org/materialspledge



1. AIA CLIMATE PLEDGES



Commitment and A&D **Materials Pledge** The onboarding process with ATA is simple and easy!

Access creative >

Caption copy Interested in getting started?

AIA Climate x Chapter Toolkit

- Social media assets to promote these programs on your social accounts
- 2030 Commitment presentation template to tailor member-specific webinars
- Climate Action Program banners to print or include online in your chapter promotion







2030 By the Numbers

The AIA 2030 Commitment program offers architects and firms a way to publicly show their dedication and track progress toward a carbon-neutral future. Access the yearly By the Numbers report detailing the impact of the AIA 2030 Commitment.







Materials Pledge By the Numbers

With data from ninety-two firm signatories, the AIA Materials Pledge By the Numbers (RY23) report offers insights into the strides currently made in firm culture and project design. It's the only report showcasing the current progress firms are making—and where the industry needs to go—in healthy material specification.





AIA-CLF Embodied Carbon Toolkit for Architects

This resource provides and overview and the necessary steps to be taken to reduce embodied carbon in your projects. It is divided into three parts, introducing the necessary steps and resources to take in reducing embodied carbon.





BUSINESS INTELLIGENCE

ROI: Increasing asset values

NOVEMBER 28, 2023

Owners and developers are interested in the financial upsides of highperformance design, particularly increasing asset or market value. Green labeling and operational cost reductions help boost a



BUSINESS INTELLIGENCE

ROI: Reducing operational costs

NOVEMBER 29, 2023

Out-of-pocket operational expenses add up fast and can account for up to 15% of a company's total business expenses, creating a huge incentive for owners, tenants, and society to drive down costs with



BUSINESS INTELLIGENCE

ROI: Reducing up-front costs

NOVEMBER 28, 2023

Sustainable, high-performance design can cause concerns about high upfront costs, but an integrated design process, smart tradeoffs, and various grants and incentives are proven to reduce initial



BEST PRACTICES

ROI: Codes. standards, & reporting on resilient design

NOVEMBER 28, 2023

Designing beyond building codes and standards provides significant resilience benefits to both building owners and occupants.



FIRM MANAGEMENT

ROI: Attracting & retaining talent

JUNE 22, 2021

Green labels and high-performance design elements help attract and retain talent and increase staff productivity and wellness by providing a compelling and safe workplace.



BEST PRACTICES

ROI: Healthier, more productive occupants

NOVEMBER 28, 2023

Our indoor environments have a direct impact on our health and wellness. High-performance design elements, such as air quality, thermal comfort, and daylighting, can significantly improve occupant



CLIMATE ACTION

ROI: Designing for reduced embodied carbon

NOVEMBER 30, 2023

Architects play a pivotal role in reducing embodied carbon-a significant contributor to global annual emissions-within the built environment to address environmental concerns and reach decarbonization



CLIMATE ACTION

ROI: The These talking points are intended for use in resilient your conversations with clients, potential clients, civic leaders, vendors, contractors and other architects. This helps demonstrate that architects are trusted partners in strengthening society, designing solutions, and transforming communities.



Case study #1: The State of Indiana & Building Advocacy





Number of building-related codes currently enacted and in effect in Indiana.

Here are 9 of them...

2014 Indiana Building Code

2012 International Building Code

2014 Indiana Fire Code

2012 International Fire Code

2012 Indiana Plumbing Code

2006 International Plumbing Code

2009 Indiana Electrical Code

2008 NFPA 70

2014 Indiana Mechanical Code

2012 International Mechanical Code

2014 Indiana Building Code Chapter 11

All7.1, 2009 Edition

2010 Indiana Energy Conservation Code

ASHRAE 90.1-2007

2014 Indiana Fuel Gas Code

2012 International Fuel Gas Code

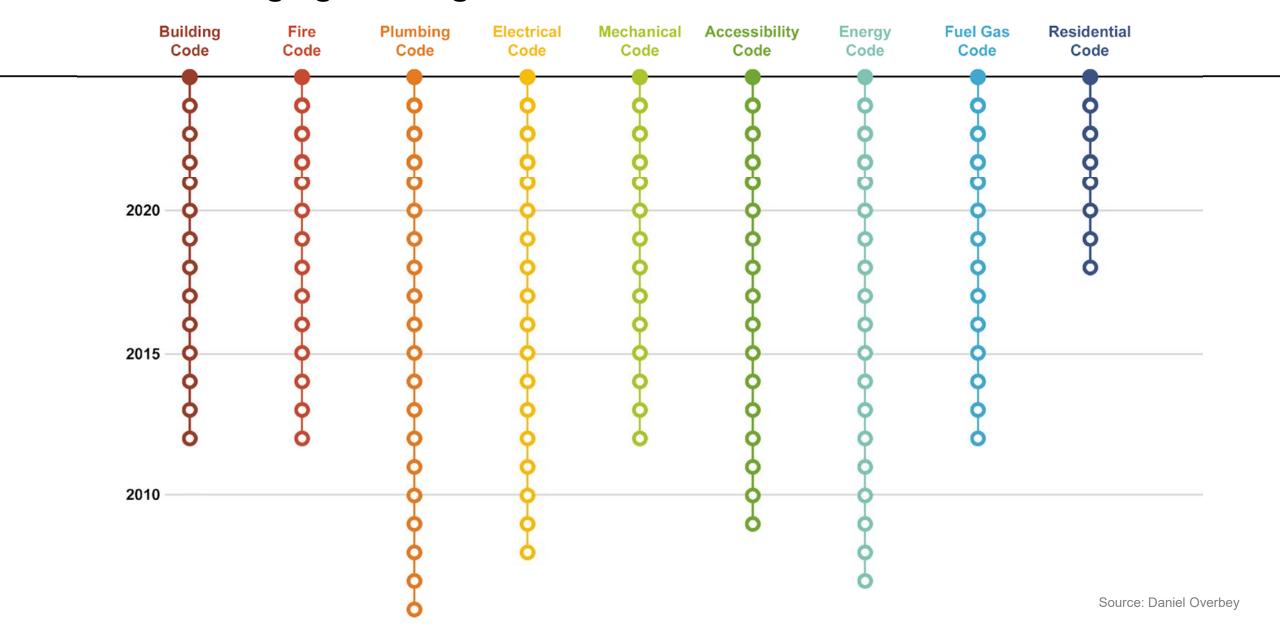
2020 Indiana Residential Code

2018 International Residential Code

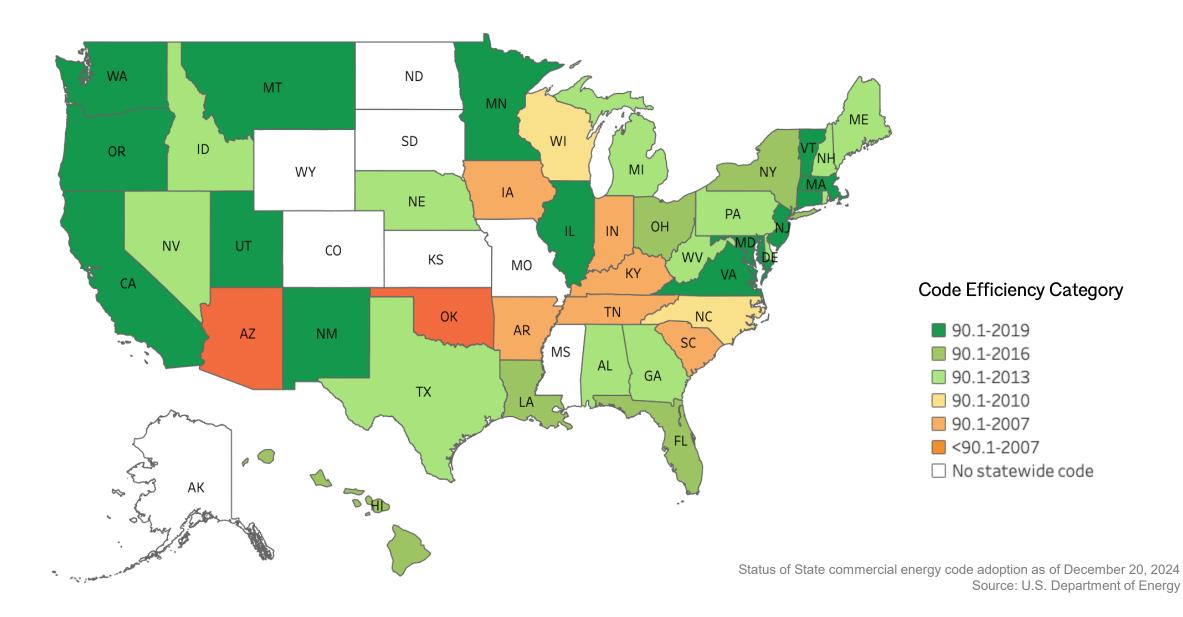
Information accurate as of January 16, 2025.

List is not exhaustive.

Indiana's Aging Building Codes

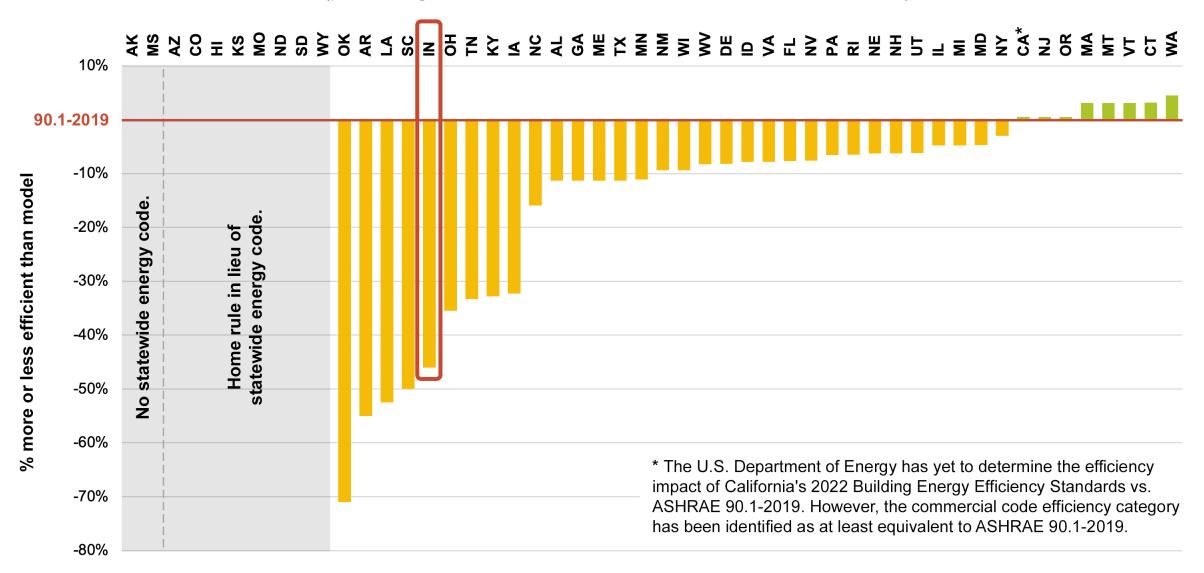


State Commercial Energy Code Efficiency

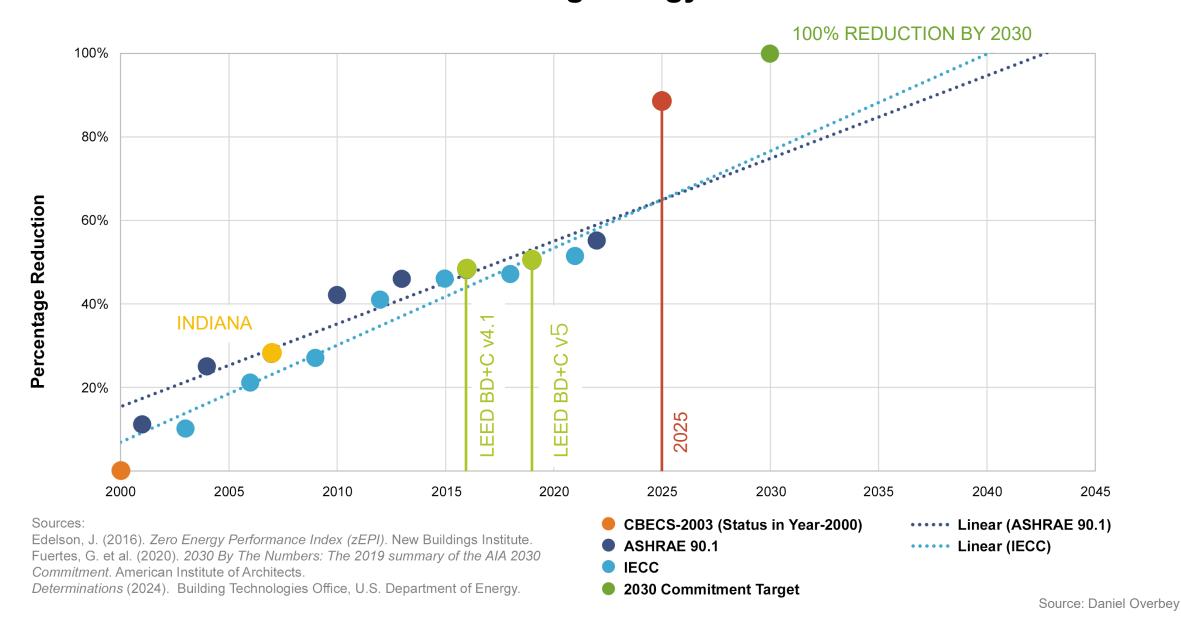


Commercial Energy Codes Relative to Current Model

(percentage more or less efficient than ASHRAE 90.1-2019)



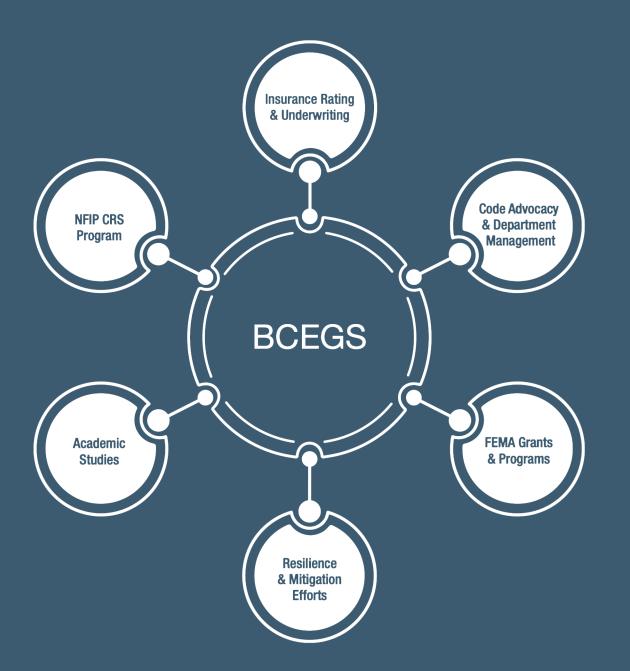
Predicted EUI Reduction in Building Energy Codes





Even the insurance industry is taking notice.



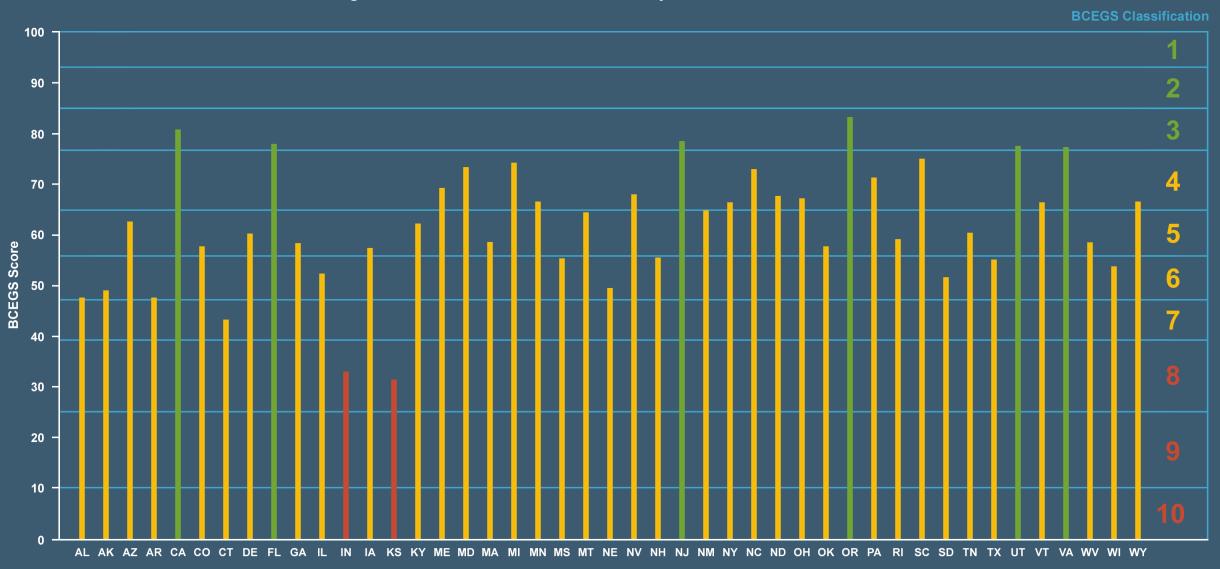






The Building Code Effectiveness Grading Schedule (BCEGS)

Average Scores and Classifications by State: Commercial Codes



Data source: Verisk Analytics, Inc. (accessed: January 25, 2024) https://www.isomitigation.com/bcegs/facts-and-figures/

Note: There are five bureau states (i.e., HI, ID, LA, MO, WA) which do not participate in the BCEGS.

The State of Indiana's Energy Code

Indiana now has a less stringent energy code than all of its adjacent neighbors.

Indiana is now in the upper third of states for most expensive energy costs.

The insurance industry is responding to Indiana's emerging risk/resilience concerns stemming from outdated codes.



The U.S. is driving toward all-electrification and grid decarbonization by 2050.



IRA AND BIL BREAKDOWN

Total Investment:

Inflation Reduction Act +
Bipartisan Infrastructure Law

Total \$761,121,000,000

Transportation \$196,186,000,000

Water \$55,000,000,000

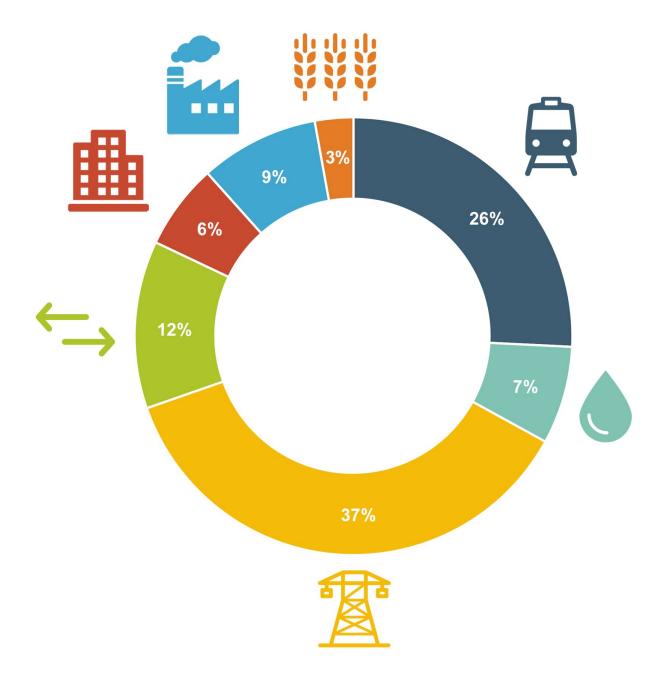
Electricity \$279,052,000,000

Land & Resilience \$94,265,000,000

Buildings \$48,128,000,000

Manufacturing \$66,840,000,000

Agriculture \$21,650,000,000



Sources:

Category

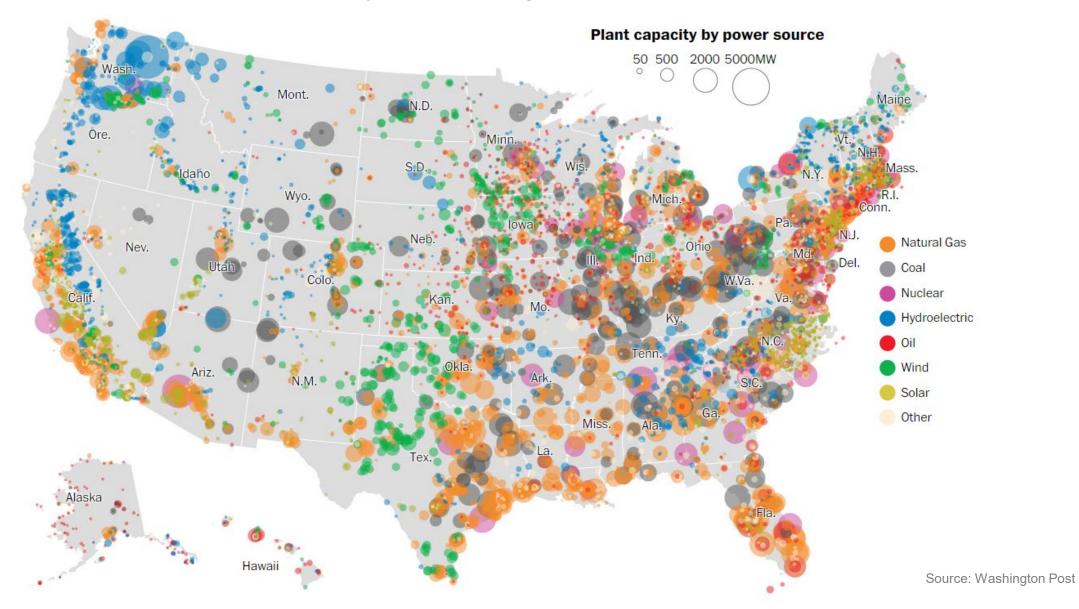
American Institute of Architects (AIA) and the Rocky Mountain Institute (RMI)

A big problem is that different parts of the U.S. electrical grid use different energy resources.



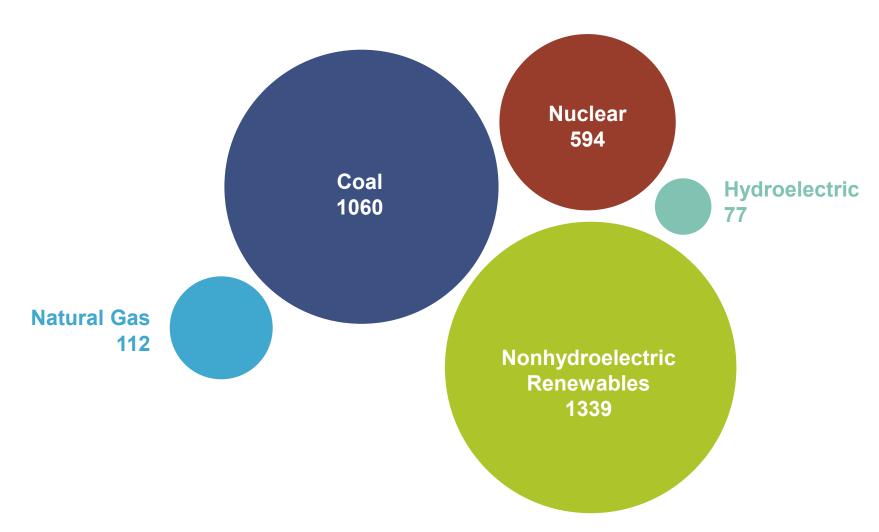
United State's Energy Resources for Electricity Generation

Units by thousand megawatt-hours



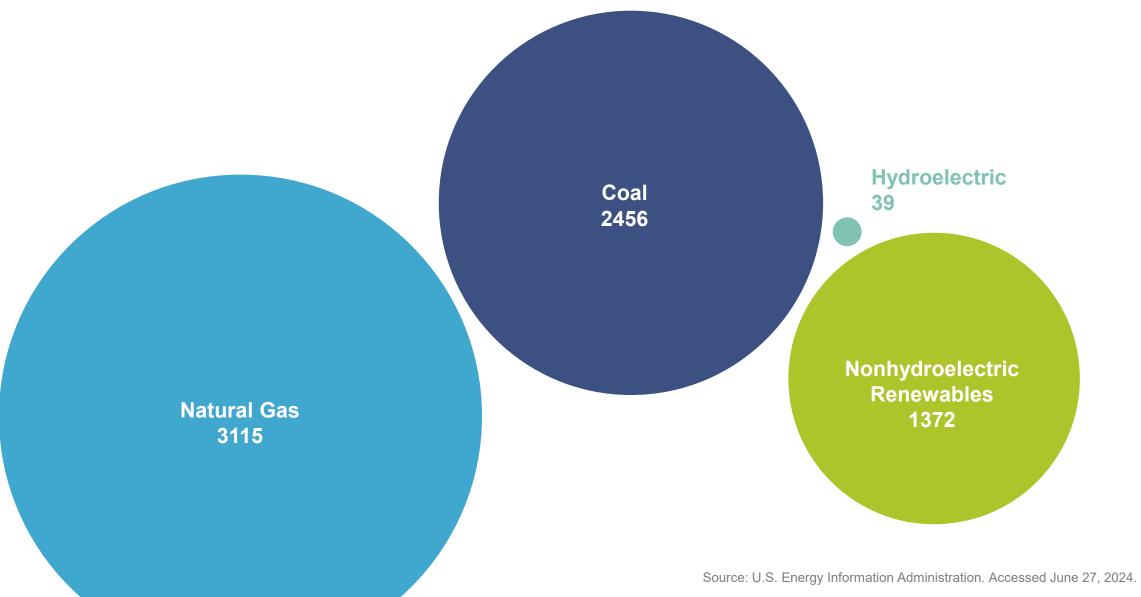
Nebraska's Electricity Generation by Source

Units by thousand megawatt-hours



Indiana's Electricity Generation by Source

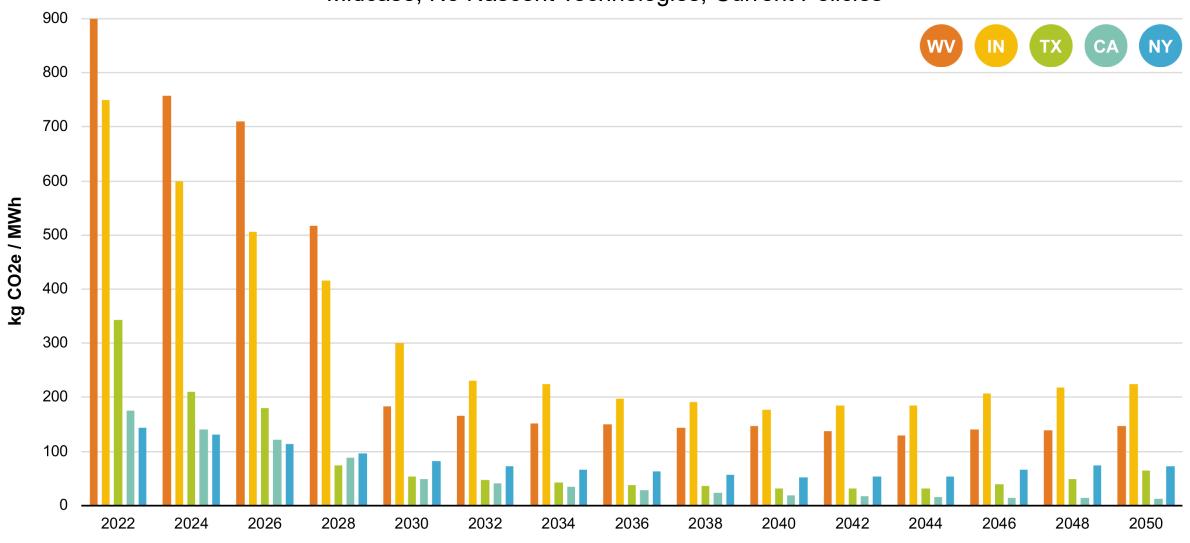
Units by thousand megawatt-hours



Indiana's energy resources for electricity are particularly high-carbon today and may be among the highest of all 50 states by 2050.

Projected Combustion Emissions Rates

Midcase, No Nascent Technologies, Current Policies



Efforts to decarbonize the grid will help, but minimal energy performance standards will remain critical to mitigate building sector GWP.

Goldman Sachs

Al is poised to drive 160% increase in data center power demand

Published on 14 MAY 2024

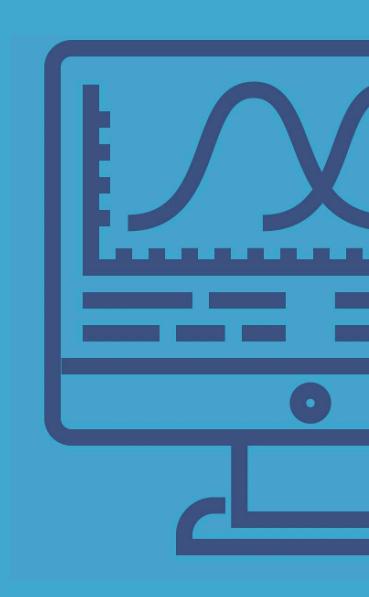
Topic: ARTIFICIAL INTELLIGENCE



On average, a ChatGPT query needs nearly 10 times as much electricity to process as a Google search. In that difference lies a coming sea change in how the US, Europe, and the world at large will consume power — and how much that will cost.

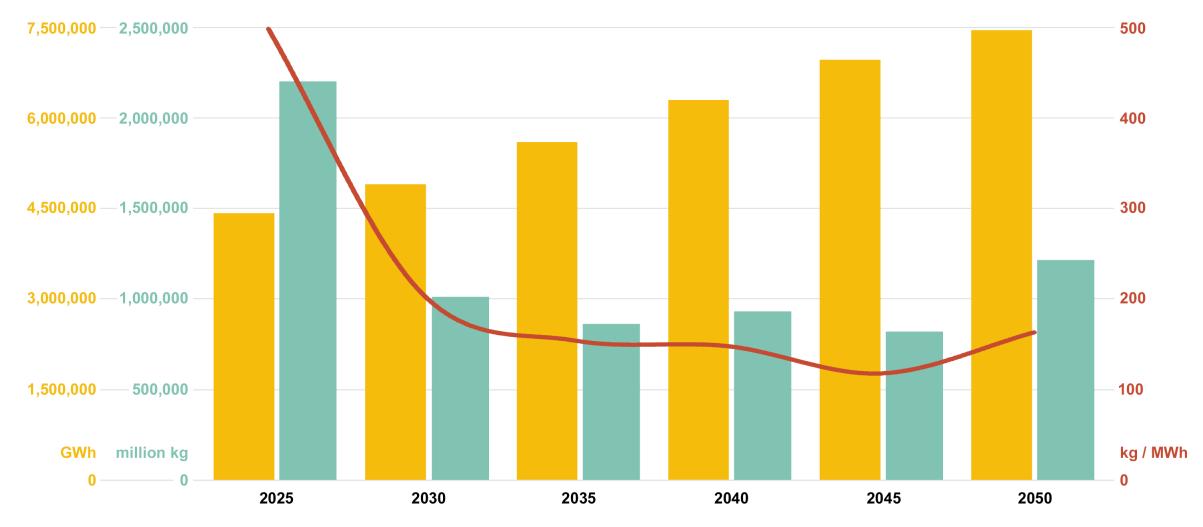
A hyperscale data center typically uses between 200,000 to 400,000 MWh of electricity per year, depending on its size and operations.

That's enough energy to power Galveston, Texas.



U.S. Electricity Generation and CO2 Equivalent Emissions Projections: 2025-2050

NREL Cambium 2023 Midcase Scenario



Source: Scenarios generated using *Cambium 2023* data from the National Renewable Energy Laboratory (NREL). Accessed June 29, 2024. Scenarios display projected long-run marginal emission rates (LRMER) CO2e from combustion and precombustion data. Emissions rate assume all technologies and utilize a weighted average of all generation and emissions assessment (GEA) regions (c2023).

Electricity Generation, GWh (1 GWh = 1000 MWh)

CO2 Equivalent GHG Emissions Rate, kg CO2e / MWh

Total CO2 Equivalent GHG Emissions, million kg CO2e

We must decarbonize the grid forty percent by 2050 just to break even with current emissions. Even with a low-carbon grid.

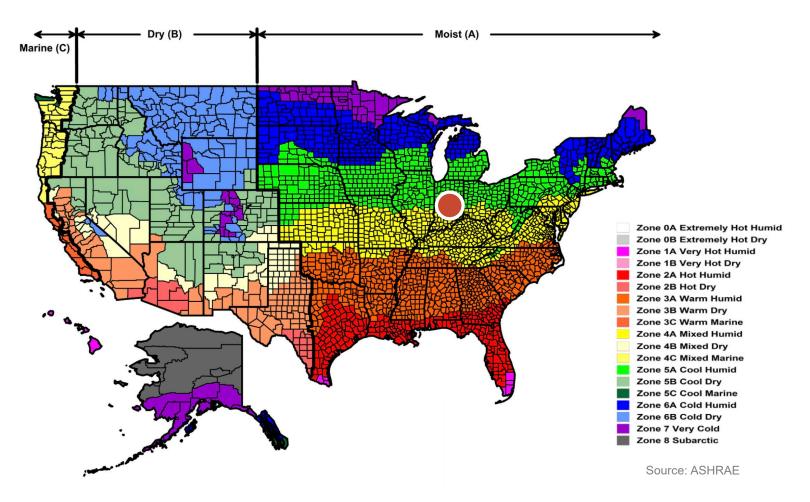
We will continue to need low-energy buildings.

Case study #2: The City of Indianapolis & Sustainability Action Plan

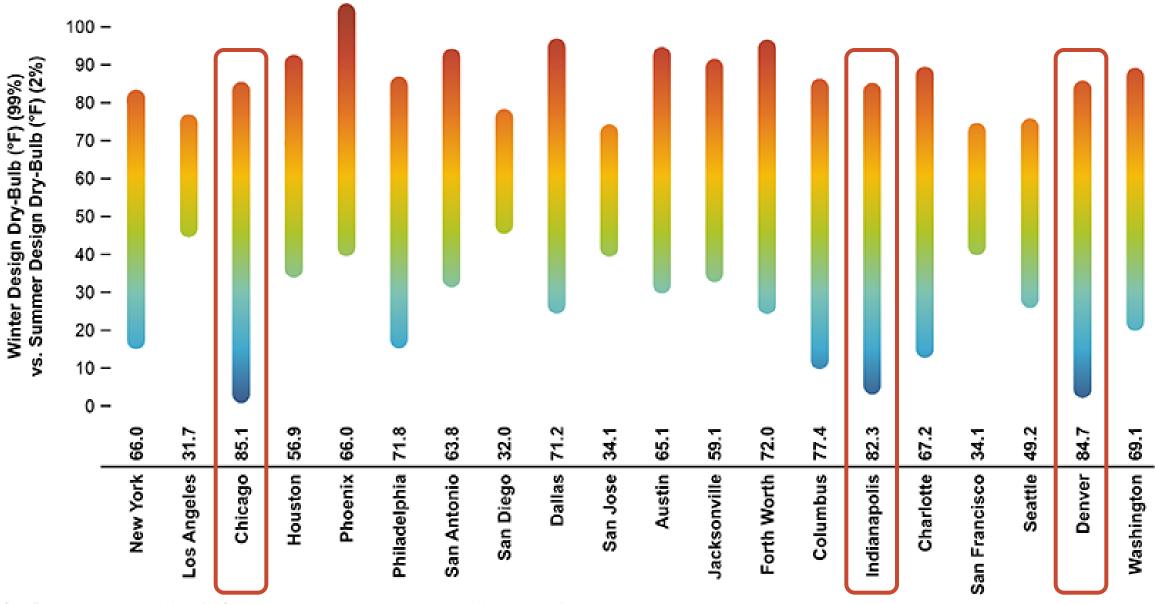


Central Indiana is a particularly challenging place to design for energy-efficiency.

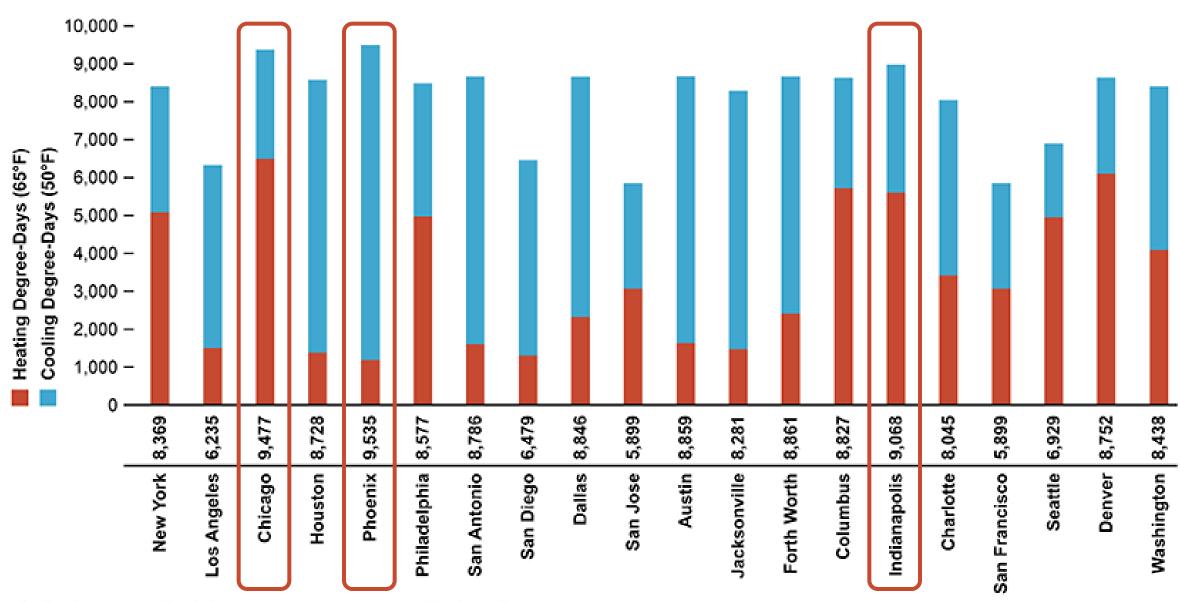




Design Dry-Bulb Temperature Ranges for the 20 Largest Cities in the U.S.



HDD and CDD for the 20 Largest Cities in the U.S.



The New Hork Times

'Here to Ruin Your Daily Commute:' A Plague of Potholes Jolts the Midwest

For those who live in snow-prone regions, driving in the winter can feel like an exercise in futility: Unsuspecting, and then it appears, a crater in the asphalt, just waiting to blow out a tire. You try to swerve, brace for impact, and then: *Kathunk*.

But commuters of America, take heart: Indianapolis has it worse.

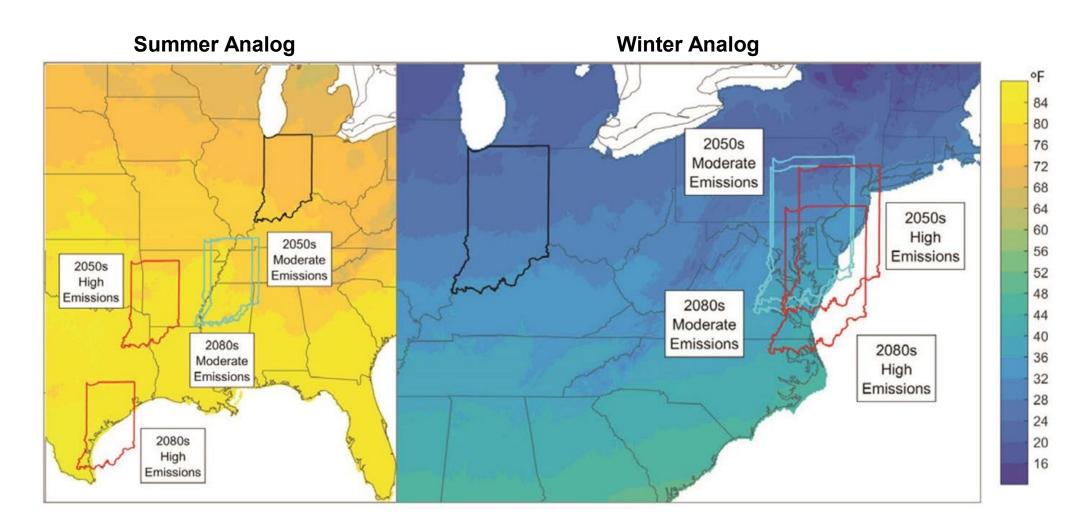
Much, much worse.

The capital of Indiana (whose state motto is, ironically, "the crossroads of America") has essentially become one large pothole, compliments of wild temperature swings this winter. The metropolis is so pockmarked by decaying asphalt that local officials have said that more than \$730 million is required to repair over 8,100 miles of streets — nearly six times the city's current budget for transportation infrastructure.

Decades of neglect and underfunding, combined with the brutality of Midwestern winters, have left the city's roads resembling the surface of the moon. To assist motorists, the city last year posted an "Indy pothole viewer" map online, which currently shows 4,388 open potholes, marked by a swarm of angry red dots.

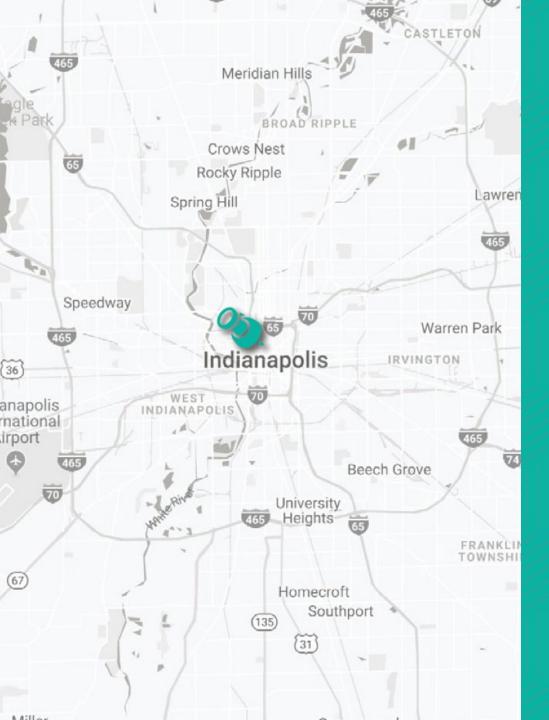


A moving target... and a call for improved building resilience



How is Indianapolis responding?

















Carlton Waterhouse, J.D., Ph.D.





ADDITIONAL GUIDANCE PROVIDED BY:

Indiana NAACP Denise Abdul-Rahman Shannon Anderson Earth Charter Indiana John Dane Hoosier Interfaith Power & Light Jessica Davis IUPUI - Office of Sustainability Dr. John Ellis Improving Kids Environment Dr. Indra Frank Hoosier Environmental Council **Margaret Frericks** Improving Kids Environment John Gibson Earth Charter Indiana Kim Irwin Health By Design John Ketzenberger The Nature Conservancy Jesse Kharbanda Hoosier Environmental Council Allyson Mitchell Indiana Recycling Coalition Kerwin Olson Citizens Action Coalition Jim Poyser Earth Charter Indiana Julie Rhodes Reconnecting Our Waterways Rosemary Spalding Earth Charter Indiana Margot Tucker Citizens Action Coalition Kristina Uland Keep Indianapolis Beautiful Richard Van Frank Improving Kids Environment

Indiana Wildlife Federation

Emily Wood

MUNICIPAL TASK FORCE

COMMUNITY TASK FORCE

Paul Babcock	Office of Public Health & Safety	Phyllis Boyd	Groundwork Indy
Brad Beaubien	Department of Metropolitan Development	Matt Carter	Visit Indy
Jeff Bennett	Mayor's Office	Ella Comerford-Barnett	Earth Charter Indiana
Linda Broadfoot	Indy Parks	Marlene Dotson	Indiana Latino Institute
Ken Clark	Information Services Agency	Josh Driver	Selflessly
Gary Coons	Department of Homeland Security	Zac Elliot	IPL
Jeff Hasser	Department of Metropolitan Development	Lacey Everett	MIBOR
Scott Hohl	Community Corrections	Gabe Filippelli	Center for Urban Health (IUPUI)
Julee Jacob	Indy Parks	Stephanie Goodrid Lawson	McKinney Family Fund
Michael Kaufmann	Health & Hospital Corporation of Marion County	Rep. Carey Hamilton	Indiana House of Representatives
Emily Mack	Department of Metropolitan Development	Jill Hoffman	White River Alliance
Brian Madison	Department of Business & Neighborhood Services	Mali Jeffers	Ambrose Property Group
Ryan Mann	Department of Business & Neighborhood Services	Angie Le Blanc	Immigrant Welcome Center
Mary McKee	Marion County Public Health Dept.	Luke Leising	U.S. Green Building Council/Guidon
Jeff Meek	Office of Sustainability	Bryan Luellen	IndyGo
MaCie' Moore	Office of Sustainability	Cathy Mangan	Keep Indianapolis Beautiful
Matt Mosier	Office of Sustainability	Janet McCabe	Indiana University Environmental R
Cristina Padilla	Office of Sustainability	Ann McIver	Citizens Energy Group
Melody Park	Department of Public Works	Mandla Moyo	American Association of Retired Pe
Dan Parker	Department of Public Works	President Van Osili	City-County Council
Fady Qaddoura	Office of Finance & Management	Dan Overbey	American Institute of Architects/B
Cameron Radford	Mayor's Office	Jodi Perras	Sierra Clup
Katie Robinson	Office of Sustainability	Maury Plambeck	Indianapolis Neighborhood Resource
Taylor Schaffer	Mayor's Office	Jim Rawlinson	Develop Indy
Al Stovall	Office of Public Health & Safety	Betsy Revell	EmployIndy
Hope Tribble	Office of Audit & Performance	Reed Rouch	Earth Charter Indiana
Brett Wineinger	Office of Finance & Management	Adrienne Slash	Urban League
Aliya Wishner	Mayor's Office	Kameelah Shaheed-Dialo	The Mind Trust (formerly)
		Greg Stowers	Kiwanis International
		Michael Terry	IndyGo

Alan Witchey

OVERARCHING GOALS RELATED TO CLIMATE CHANGE

Increase
community
resilience by
prioritizing equity
in policy, planning
and project
implementation.

n Design

ersons

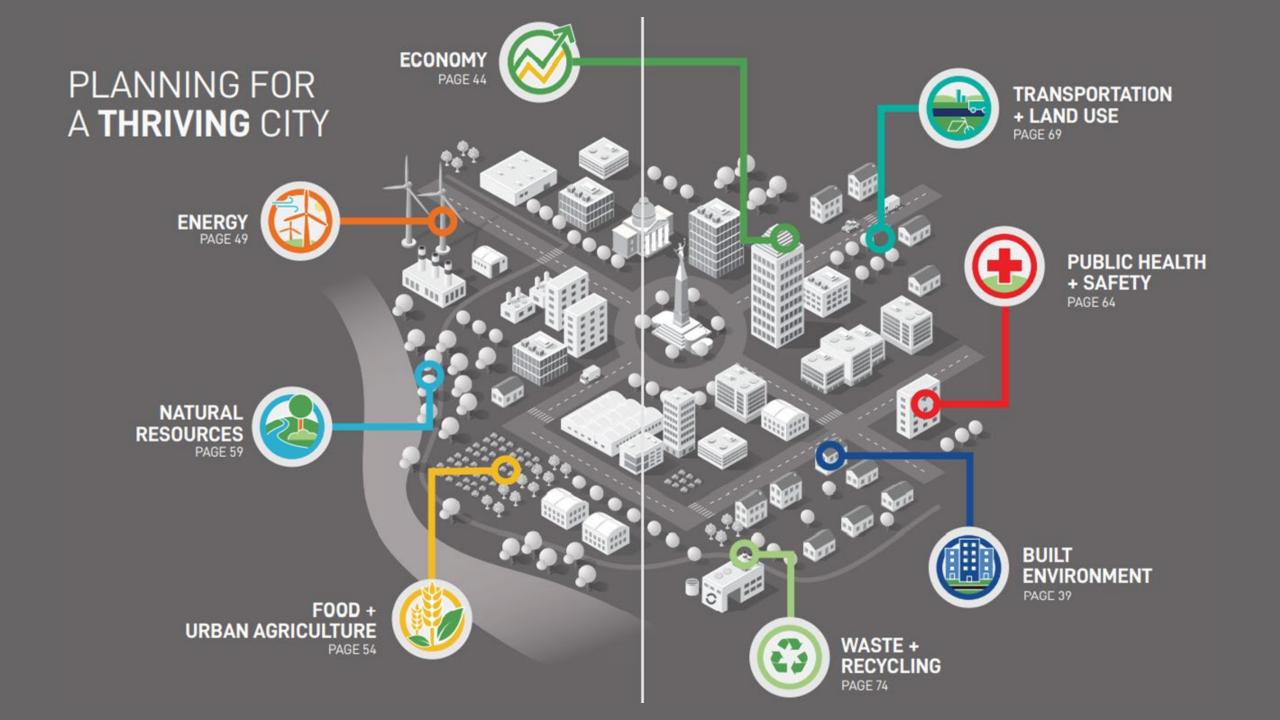
Coalition For Homelessness Intervention &

Prevention (CHIP) (formerly)

Resilience Institute

rce Center (INRC)

Achieve net zero greenhouse gas (GHG) emissions by 2050.



Couldn't Indy just have its own energy code?

IC 22-13-2-3 Precedence of rules adopted by commission; reference to rules; ordinances

- Sec. 3. (a) The rules adopted under section 2 of this chapter take precedence over:
 - (1) any rule adopted by a state agency that conflicts with the commission's fire safety rules or building rules; and
 - (2) any ordinance or other regulation adopted by a political subdivision that covers the same subject matter as the commission's fire safety rules or building rules.
- (b) State agencies and political subdivisions may incorporate the rules adopted by the commission by reference into a rule, ordinance, or other regulation. Notwithstanding IC 4-22-9-6, a reference to the rules adopted by the commission, by citation to the Indiana Administrative Code (IAC), shall be construed to include all amendments as of the date that the reference is written and any later amendments to that provision, unless accompanied by a reference to a specific edition or supplement to the Indiana Administrative Code.
- (c) A city, town, or county may not adopt an ordinance that conflicts with or includes more stringent or detailed requirements than the commission's rules. As added by P.L.245-1987, SEC.2. Amended by P.L.104-2018, SEC.4; P.L.155-2023, SEC.7.

First Regular Session of the 123rd General Assembly (2023)

PRINTING CODE. Amendments: Whenever an existing statute (or a section of the Indiana Constitution) is being amended, the text of the existing provision will appear in this style type, additions will appear in this style type, and deletions will appear in this style type.

Additions: Whenever a new statutory provision is being enacted (or a new constitutional provision adopted), the text of the new provision will appear in **this style type**. Also, the word **NEW** will appear in that style type in the introductory clause of each SECTION that adds a new provision to the Indiana Code or the Indiana Constitution.

Conflict reconciliation: Text in a statute in *this style type* or *this style type* reconciles conflicts between statutes enacted by the 2022 Regular Session of the General Assembly.

HOUSE ENROLLED ACT No. 1575

AN ACT to amend the Indiana Code concerning labor and safety.

Be it enacted by the General Assembly of the State of Indiana:

SECTION 1. IC 22-12-2-2, AS AMENDED BY P.L.249-2019, SECTION 14, IS AMENDED TO READ AS FOLLOWS [EFFECTIVE UPON PASSAGE]: Sec. 2. (a) The commission consists of eleven (11) twelve (12) members, nine (9) ten (10) of whom shall be appointed by the governor.

- (b) The term of a commission member is four (4) years.
- (c) The state health commissioner or the commissioner's designee shall serve as a member of the commission and the commissioner of labor or the commissioner's designee shall serve as a member of the

Source: https://iga.in.gov/pdf-documents/123/2023/house/bills/H B1575/HB1575.05.ENRS.pdf

HEA 1575 Update - Ordinances and Code Change Proposals

In 2023, the Indiana General Assembly enacted <u>HEA 1575</u> which significantly changed the Fire Prevention and Building Safety Commission and programs it administers. The information contained here provides an overview of the impacts of this legislation on building and fire safety ordinances and represents the position of IDHS that, in general, provisions of ordinances that establish *substantive* building and fire safety laws, outside of mere incorporation of the rules of the Fire Prevention and Building Safety Commission, are unenforceable and may not be adopted. However, HEA 1575 did <u>not</u> eliminate the authority of local jurisdictions to adopt and enforce *administrative* provisions in building and fire safety ordinances, which include, among other things: (1) the establishment of departments; (2) the requirement to obtain a building permit or plan review; (3) the creation of inspection schedules; (4) the establishment of fines; or (5) the creation of an order review process. Additionally, this legislation did not remove the requirement for local jurisdictions to require compliance with the rules of the Commission.

In effect, this legislation has created a framework where the *substantive* building and fire safety laws that are enforced throughout Indiana are the unamended rules of the Commission. The Commission no longer reviews or approves ordinances, and any modification of the standards set by the Commission (e.g., new, more detailed, or heightened requirements) may only be completed through Commission rulemaking. In place of the repealed ordinance review program, <u>Indiana Code 22-12-2.5-5</u> and <u>22-13-2-5.6</u> now establish processes by which local jurisdictions may petition the Commission to modify its rules.

Please be aware, the statements made here solely represent the position of IDHS on this issue and are not binding. All initial determinations concerning whether specific ordinance provisions remain enforceable are left to the local unit of government administering the ordinance. It is strongly encouraged that impacted parties consult independent legal counsel to determine how this legislation impacts them.

Instead, let's leverage the market.

BUILT ENVIRONMENT OBJECTIVE 1

All new buildings meet basic green building standards,* and programs to increase energy and water efficiency are actively pursued in existing huildings

*i.e., basic requirements	of green building	programs that foci	us on minimum energ	y and water standards
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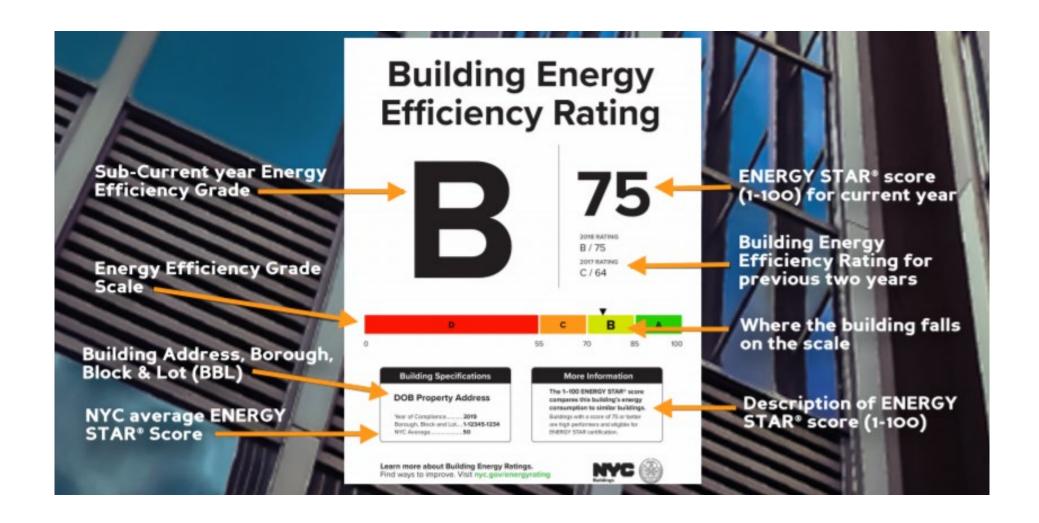
*i.e., basic requirements of green building programs that focus on minimum energy and water standards			COSTS MENTERS	Benefits: Reducin	Positive Public Health Im	r Net Job Crea	GHG Reduction Potential	Resilience for Areas/ Popul
ACTION	POTENTIAL FUNDING SOURCE(S)	INITIAL COSTS TO IMPLEMENTERS	ONGOING TO IMPLE	Equity Bene	Positive Pul	Potential for Net Job	GHG Reduct	Increased Resilience Vulnerable Areas/ Po
BE:1A Develop an energy benchmarking and disclosure policy for municipal and commercial buildings with the first-year disclosure completed by the end of 2020.	American Cities Climate Challenge grant	\$	\$					

IMPLEMENTATION BENEFITS:

Socially ations



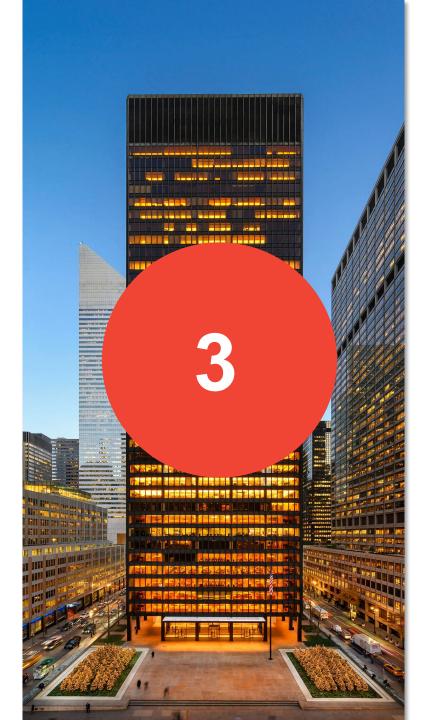
How Does Benchmarking Get Translated?



















Strategic Partnerships



October 05, 2020

Honorable Members of the Indianapolis City-County Council 200 E. Washington St. #241 Indianapolis, IN 46204

Re: Benchmarking and Transparency Ordinance

Dear Councillors:

The American Institute of Architects Indiana Chapter (AIA Indiana), which represents over 500 Architects in the Indianapolis Metro Area, is writing in strong support of the proposed Benchmarking and Transparency Ordinance. This ordinance will effectively create the equivalent of a Miles Per Gallon rating for our buildings by measuring their annual energy and water use and recording it in a publicly accessible

Indianapolis sources 88% of its energy from the burning of fossil fuels, and as the city seeks to simultaneously generate economic growth and transition towards clean energy sources, managing the energy use of our commercial buildings will be key because we cannot manage what we don't measure. The Benchmarking and Transparency will facilitate these goals by enhancing consumer awareness of building performance metrics, which will create a market-based incentive for building owners to pursue energy efficiency. This market-based influence will:

- Lead to economic development and job creation related to energy-efficient improvements.
- Reduce the energy consumption and greenhouse gas emissions from buildings.
- Reduce energy costs for businesses and building owners.
- 4. Provide energy information to building owners and tenants, driving a marketplace focus on
- 5. Provide City leaders with key information on utility usage that will inform plans to upgrade and expand our City's utility infrastructure.

Indianapolis has made a crucial commitment to the health of its citizens and our planet by adopting the Thrive Indianapolis Plan, which lists the adoption of a benchmarking ordinance as one of its goals. By adopting this ordinance, Indianapolis will join several of our neighbors in the Midwest that have adopted similar policies including Columbus, Chicago, St. Louis, Des Moines, and Pittsburgh.

This ordinance is aligned with AIA's core values at the national level, including our goal to achieve carbon neutrality in the built environment by 2030; and our members have the skills and knowledge to help building owners make informed decisions as it relates to energy efficient improvements, as well as assist and train building owners in the reporting of energy use data. We are proud to support the Benchmarking and Transparency Ordinance as it is considered by the Council in 2020, and look forward to partnering with the City in 2021 and beyond as it is implemented.

Kindest Regards,

Joseph T. Yount, AIA, LEED AP BD+C, WELL AP

AIA Indiana, Jason Shelley, Executive Director 115 W. Washington St., Suite 955, Indianapolis, IN 46204 Phone (317) 634-6993 www.aiaindiana.org • jshelley@aiaindiana.org



Honorable Members of the Indianapolis City-County Council 200 E. Washington St. #241 Indianapolis, IN 46204

Re: Benchmarking and Transparency Ordinance

The ASHRAE Central Indiana Chapter which represents over 300 Engineers in the Indianapolis Metro Area, is writing in strong support of the proposed Benchmarking and Transparency Ordinance. This ordinance will effectively create the equivalent of a Miles Per Gallon rating for our buildings by measuring their annual energy and water use and recording it in a publicly accessible database.

Indianapolis sources 88% of its energy from the burning of fossil fuels, and as the city seeks to simultaneously generate economic growth and transition towards clean energy sources, managing the energy use of our commercial buildings will be key because we cannot manage what we do not measure. The Benchmarking and Transparency will facilitate these goals by enhancing consumer awareness of building performance metrics, which will create a market-based incentive for building owners to pursue energy efficiency. This market-based influence will:

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- 4. Provide energy information to building owners and tenants, driving a marketplace focus on continuous improvement
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This ordinance is aligned with ASHRAE core values at the national level, including our goal to achieve carbon neutrality in the built environment by 2030; and our members have the skills and knowledge to help building owners make informed decisions as it relates to energy efficient improvements, as well as assist and train building owners in the reporting of energy use data. We are proud to support the Benchmarking and Transparency Ordinance as it is considered by the Council in 2020, and look forward to partnering with the City in 2021 and beyond as it is implemented.

Assistant Regional Chair Region V

Central Indiana Chapter President

Joseph Yount - AIA Indianapolis Tony Schoelein - Government Affairs Chair Douglas Zentz - Director and Regional Chair Region V



October 22, 2020

Honorable Members of the Indianapolis City-County Council 200 E. Washington St. #241 Indianapolis, IN 46204

Re: Benchmarking and Transparency Ordinance

Dear Councilors:

ERMCO, Inc. is a local union electrical contractor here in Indianapolis since 1962 and currently represents 600+ craftspeople in the field and 125 office staff. ERMCO is writing to you in support of the proposed Benchmarking and Transparency Ordinance. This ordinance would provide a phased starting point and could be leveraged to achieve economic growth through construction to improve building energy efficiency.

According to the Thrive Indianapolis planning project, in 2016, 65.9% of GHG Emissions in the Indy Metro area were from buildings. Focusing on this sector would provide the largest return on investment for Indianapolis from a reduction in energy consumption and greenhouse gas emissions. Benchmarking the buildings would rank buildings and compare them to identify which ones use the most energy per size. This information could be used to prioritize and plan improvements. Those improvement projects would provide:

- . An economic impact to Indianapolis and the construction trades
- . Lower energy consumption and GHG emissions by the built environment
- · Provide trackable results from the implemented projects
- . Bring Indianapolis into the forefront with 34 other major cities, 9 in the Midwest, that currently have some version of benchmarking requirements (according to Institute for Market Transformation)
- . Make Indianapolis a more attractive place for people and businesses as a result this commitment to energy efficiency and a sustainable future

ERMCO, Inc. has made a commitment to energy efficiency with an energy solutions team and previous work in solar, energy efficiency, and building integration. It is our belief that this Ordinance is in line with our commitment to serve the Indianapolis Metro Area to provide a sustainable future. We would like to show our strong support for the Benchmarking and Transparency Ordinance. We look forward to our continued relationship with the City and make a commitment to work with the City in the implementation of this Ordinance once passed and beyond.

Sincerely, ERMCO, Inc.

David Peterson Senior Vice President

1625 W THOMPSON RD - INDIANAPOLIS, IN 46217 - 4655 MIDDLE ROAD, SUITE B - COLUMBUS, IN 47203

(317)780-2923 - WWW.ERMCO.COM - (812)372-1569

CITY-COUNTY GENERAL ORDINANCE NO.____, 2021 PROPOSAL NO.____, 2021

PROPOSAL FOR A GENERAL ORDINANCE amending the Revised Code to add a new chapter to Title III, Public Health and Welfare, to wit: Chapter 710, Energy Benchmarking and Transparency.

WHEREAS, the Consolidated City of Indianapolis and Marion County is committed to taking steps to mitigate and adapt our community to climate change to ensure a healthy and prosperous community for all our residents now and in the future; and

WHREAS, in 2018, the City launched Thrive Indianapolis, the first sustainability and resilience action plan in our city's history, which was developed through an extensive community engagement process and sets out the goals for our city in the coming decades to address the effects of climate change; and

WHEREAS, in furtherance of the Thrive Indianapolis action plan, the city desires to establish an energy and water benchmarking, reporting and transparency requirement for certain buildings within its jurisdiction to incentivize the city, the county and other property owners to improve the use of energy and water in buildings to reduce costs and to foster a cleaner and healthier environment; and

WHEREAS, improvements to energy efficiency will serve to spur economic investment through reduced operating costs, increased asset values and improved worker productivity; and

WHEREAS, energy efficient buildings will consume less power, resulting in fewer greenhouse gas emissions and improved air quality; and

WHEREAS, reduced energy costs will create an efficient building stock and maintain affordability for tenants and businesses; now, therefore:

BE IT RESOLVED BY THE CITY-COUNTY COUNCIL OF THE CITY OF INDIANAPOLIS AND OF MARION COUNTY, INDIANA:

SECTION 1. Title III of the Revised Code of the Consolidated City and County, Indianapolis/Marion County, Indiana, Public Health and Welfare, is hereby amended by adding a new chapter, Chapter 710, Energy Benchmarking and Transparency, to read as follows:

Benchmarking & Transparency Ordinance

July 12, 2021:

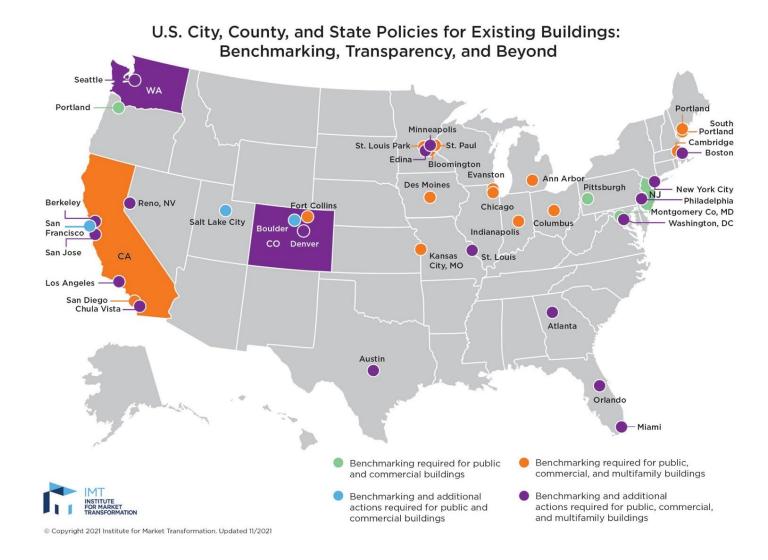
Passed by Indianapolis City-County Council

Energy benchmarking ordinance.

First major building sector objective of the Thrive Indianapolis plan.

Requires commercial buildings over 50,000SF to report annual energy use in publicly accessible database.

Like an MPG rating for buildings.



Benchmarking & Transparency Ordinance

Key pieces of feedback represented in the final draft:

- Multi-phase implementation.
- Square footage requirements and platforms to utilize.
- Exemption eligibility including lack of data availability.
- Notification of compliance requirements & penalty amounts
- Creation of an Energy and Water Efficiency Fund to direct fines.
- Education and outreach: Four (4)
 outreach and educational
 opportunities per calendar year.



Benchmarking & Transparency Ordinance

Ordinance Implementation:

- Dedication of full-time employee position
- Mailers, social media, and other outreach and engagement strategies
- Software needed to manage compliance tracking and data analysis
- Ongoing collaboration with key stakeholders, Data Jams to support building owners
- Rewarding building owners who have benchmarked with opportunity for free anergy audits





This energy profile details the estimated annual energy costs and expected annual energy usage of this building. It also highlights energy upgrades and improvements made to increase the building's efficiency. The profile includes further recommendations that can help to achieve more efficiency and energy costs savings.

BUILDING INFORMATION

LOCATION:

77 MASSACHUSETTS AVE CAMBRIGE, MA 02139

YEAR BUILT:

1895

GROSS FLOOR AREA: 100000 Sq.Ft.

REPORT INFORMATION

PROFILE CREATION DATE: 11/14/2023

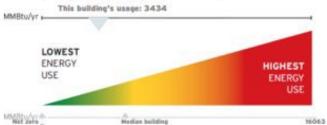
REPORTING YEAR:

Brought to you by the Building Energy Analysis Manager



3434 MMBtu Annual Energy Usage

The building energy use with 0 being a net zero building



\$10,000

building ()

Annual Energy Cost

Estimate includes electricity and fuels from ENERGY STAR Portfolio Manager



Insights & Trends

- This building generated 20000 KWh of solar or wind on site
- This building has an electric vehicle charging on-site
- This building's greenhouse gas emissions was: 150 metric tons CO2e
- This building's energy use intensity was: 3434 MMBTU/ft2
- The national median energy use intensity for a hotel was: 50 MMBTU/ft2

Take Action!

The following actions can help you save money on your energy costs for years to come

- For information about solar energy options please visit this link.
- ☐ For energy efficiency building tune ups please view the following Link I and Link 2.
- Tor places of worship interested in making their building more energy efficient please visit Faith in Place.
- For information regarding financing building tune ups please click here.
- For schools looking for funding a building tune up please click here.
- ☐ For a list of Energy Star service providers who can perform building tune ups please visit Energy Star.

Source: City of Indianapolis

Through AIA Indiana's partnership with the City of Indianapolis as a technical resource, the building sector will see continuously improving performance outcomes – and we did it without an energy code.

Key Takeaways

- 1. Advocacy can (and should) be much more than voicing support for rule changes.
- 2. Due to every project's limited resource capital, the gravity of the minimum standard is very difficult to overcome.
- 3. The market can innovate and advance faster than the regulatory context of any jurisdiction. Leverage it.
- 4. Often the best way to advocate is to educate. Build trust with policymakers as an objective technical resource.

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