



# Dane County Council on Climate Change

Buildings Working Group recommendation ♦ May 8, 2018

# Dane County OECC Buildings Working Group

- ▶ National talent - local commitment to place
- ▶ Technical rigor
- ▶ Market alignment
- ▶ Deeply pragmatic - “art of the possible”



# Approach

- ▶ Economic benefits
- ▶ Health
- ▶ Justice & equity
- ▶ Bridging the rural/urban divide
- ▶ Energy security & resilience

# Framing & key themes

Leadership

Voluntary, not  
mandatory

Strong sense of  
place & place-  
making

“at the local  
level, you can  
still get stuff  
done”

Re-engage with  
conservatives

Thriving  
economy

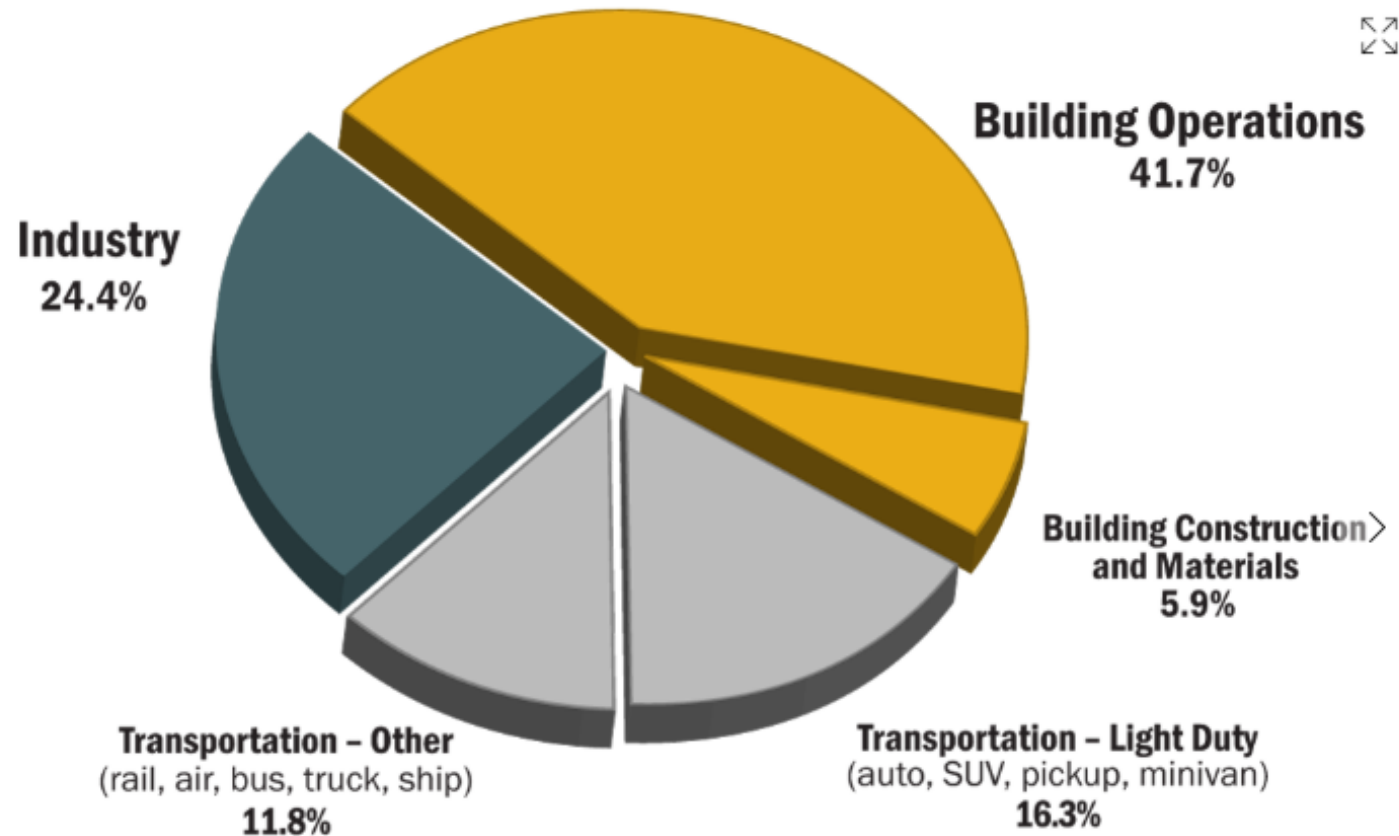
Connection to  
the environment

Diversity &  
inclusion

Momentum

Opportunity

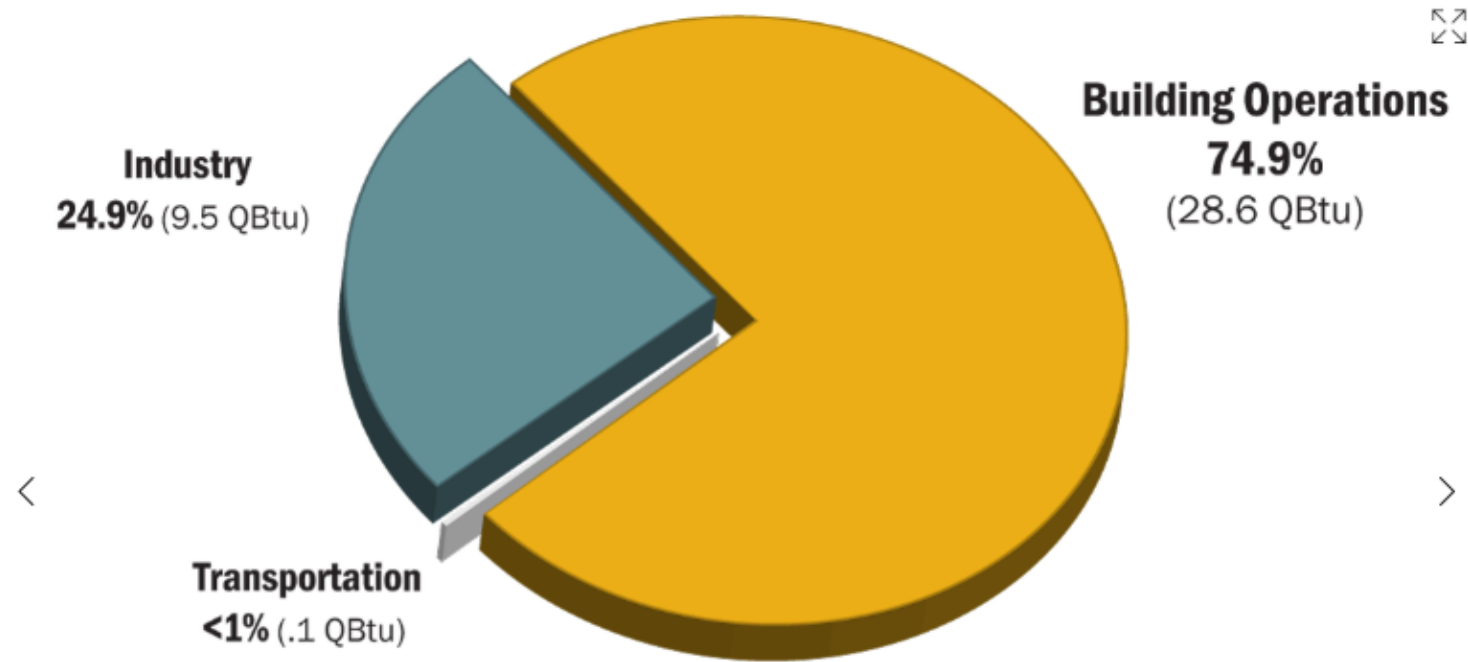
# Why buildings?



**U.S. Energy Consumption by Sector**

Source: EIA, Architecture 2030

# Why buildings?



**U.S. Electricity Consumption by Sector**



# Why buildings?



- We spend 87% of our time indoors

# Why buildings?





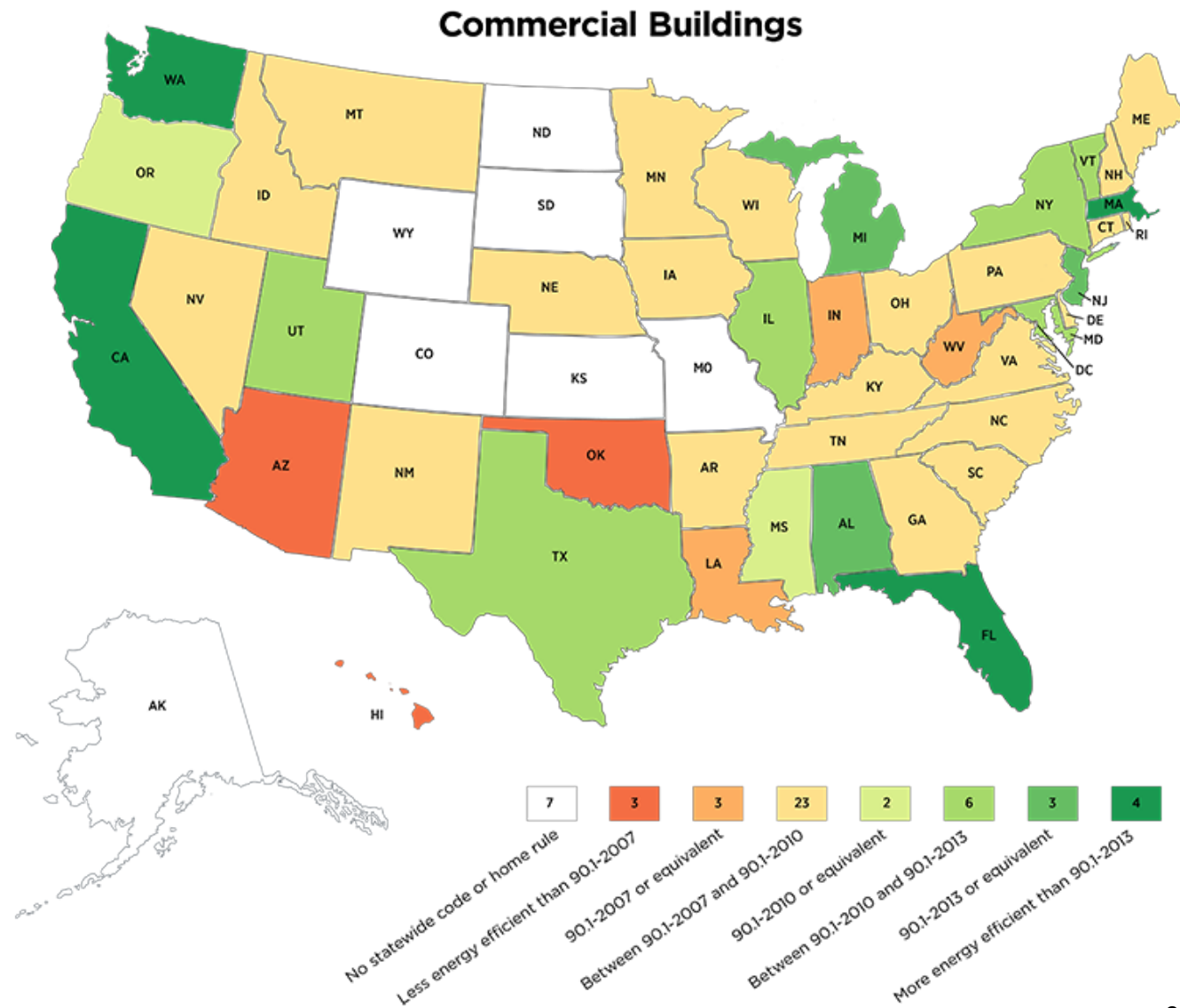
# Why buildings?

- ▶ Immediate cost savings - energy bills
- ▶ Energy retrofits average 10-20% return on investment
- ▶ "I want my business to be in a building that reflects my company's values."
- ▶ Buildings jobs: 100% local



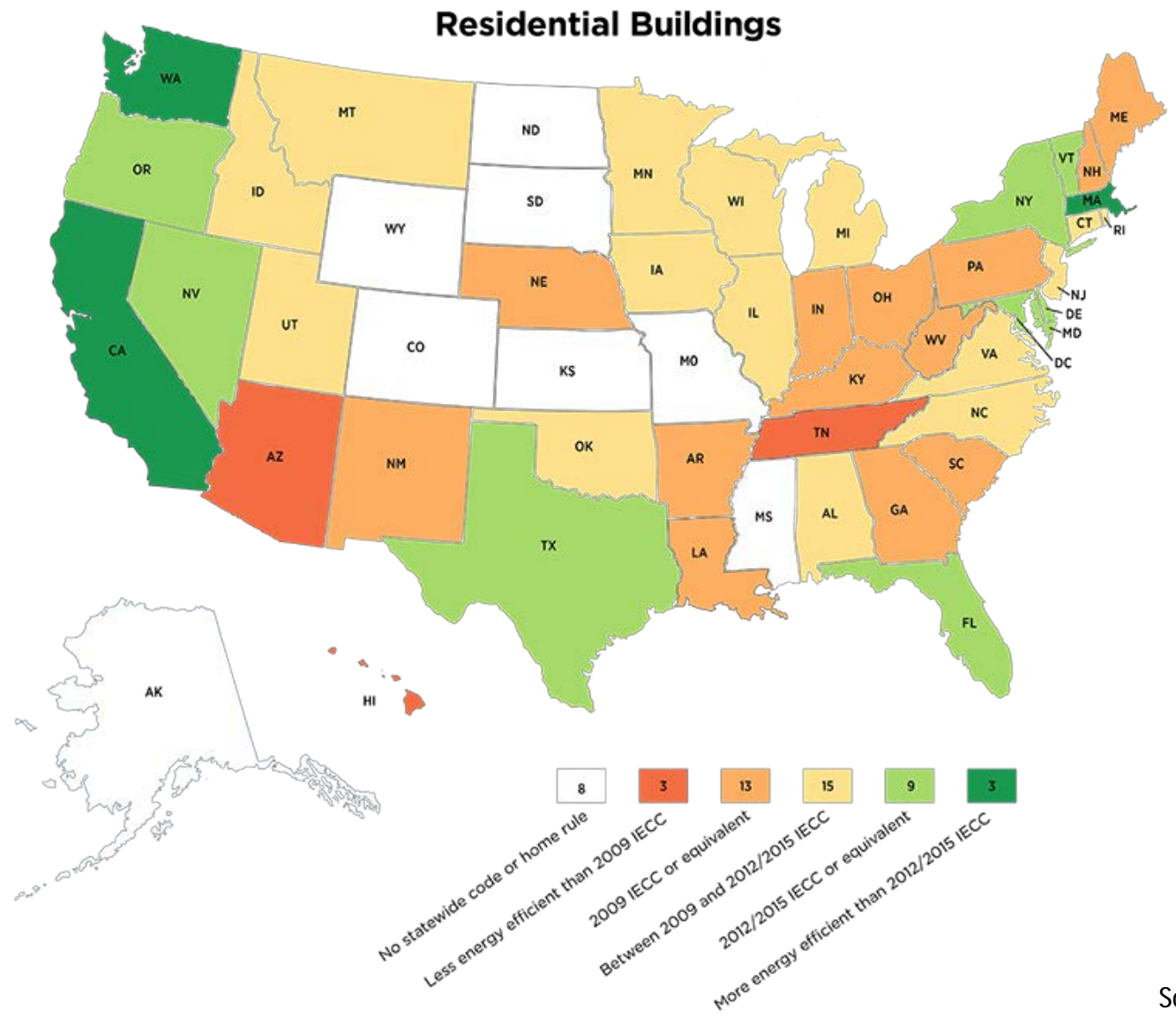
Buildings &  
climate  
leadership: a  
catch-up  
opportunity for  
Dane County

# Building energy codes



Source: DOE

# Building energy codes

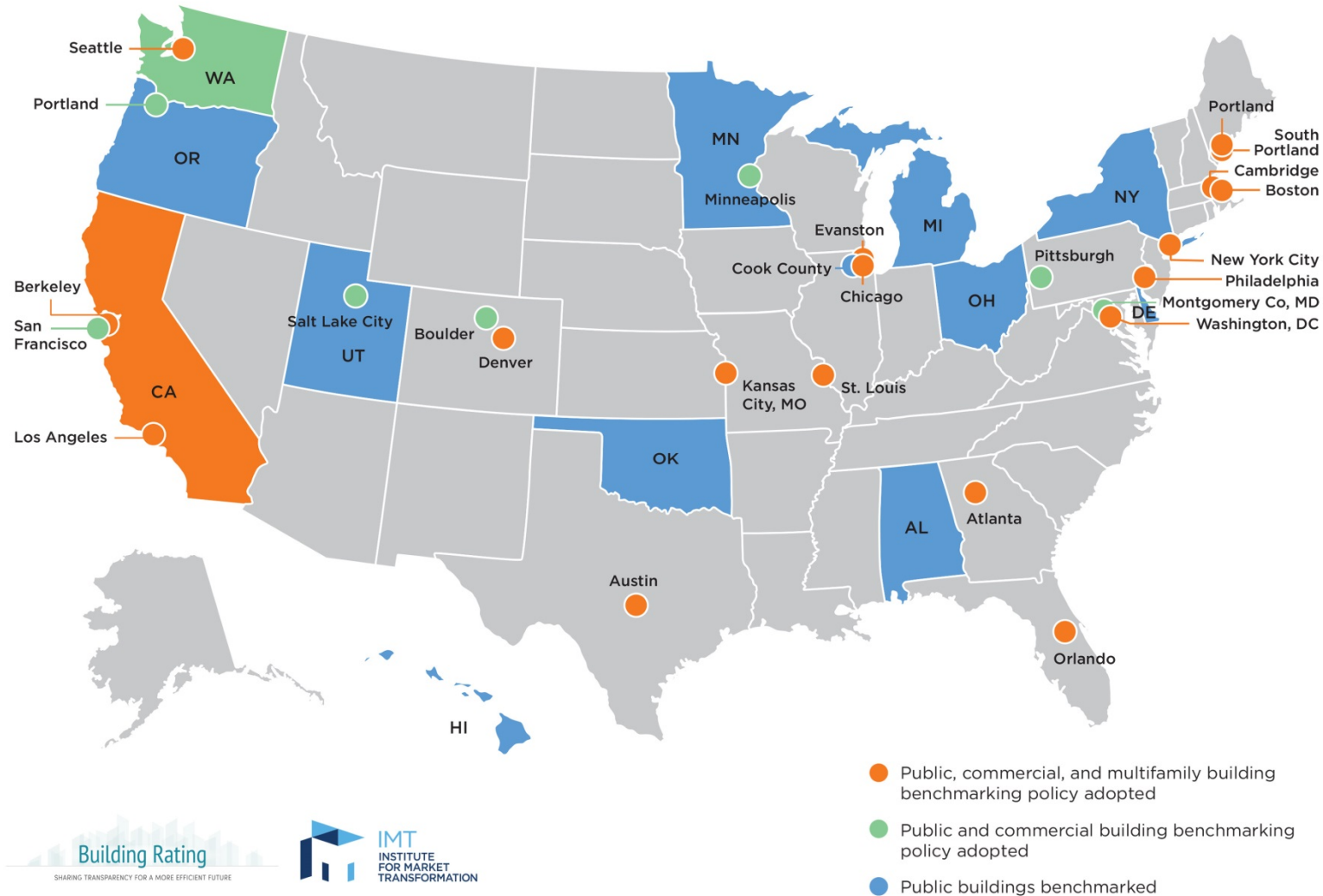


Source: DOE



# Benchmarking & transparency policies

## U.S. Building Benchmarking and Transparency Policies

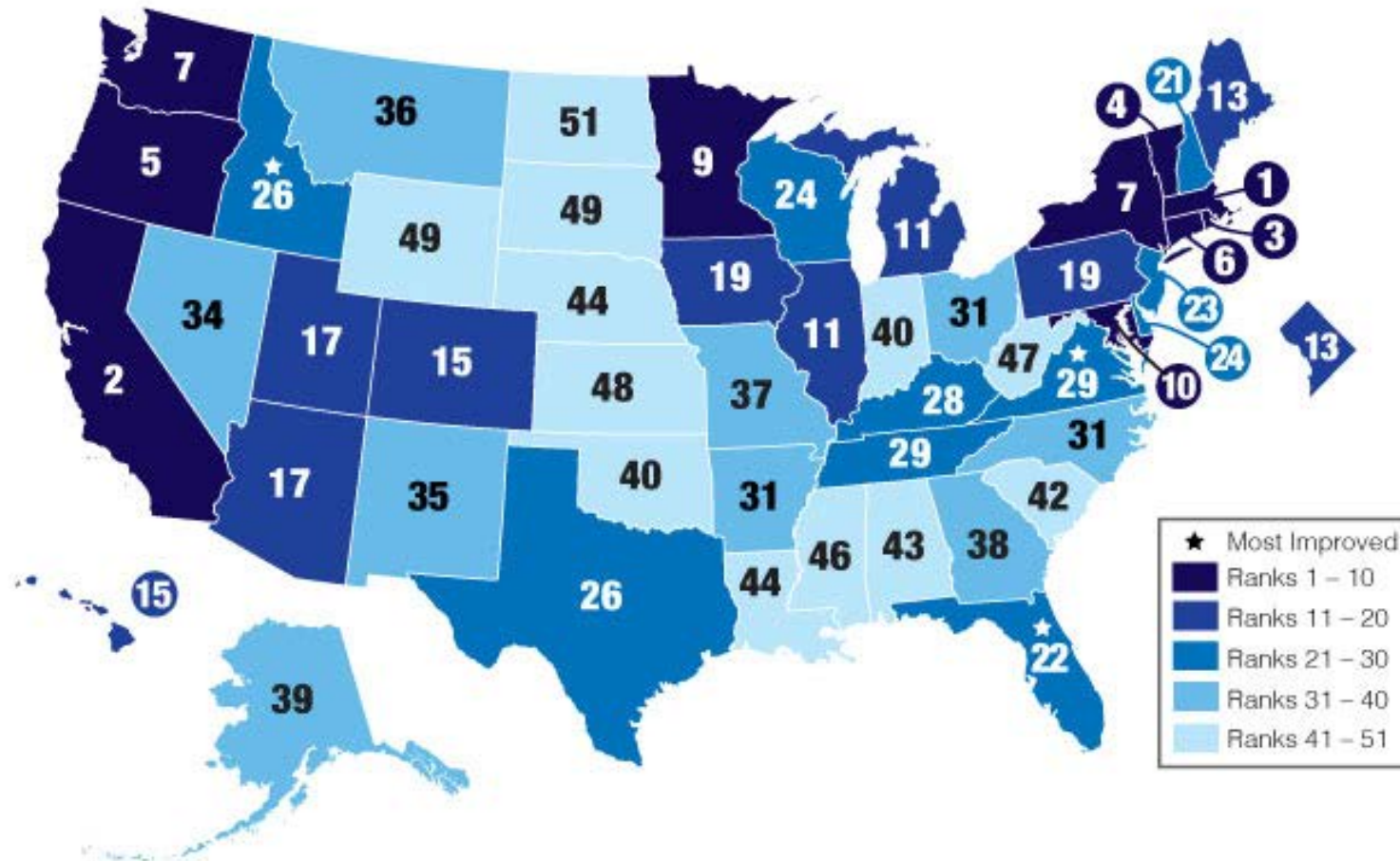


# 2030 districts

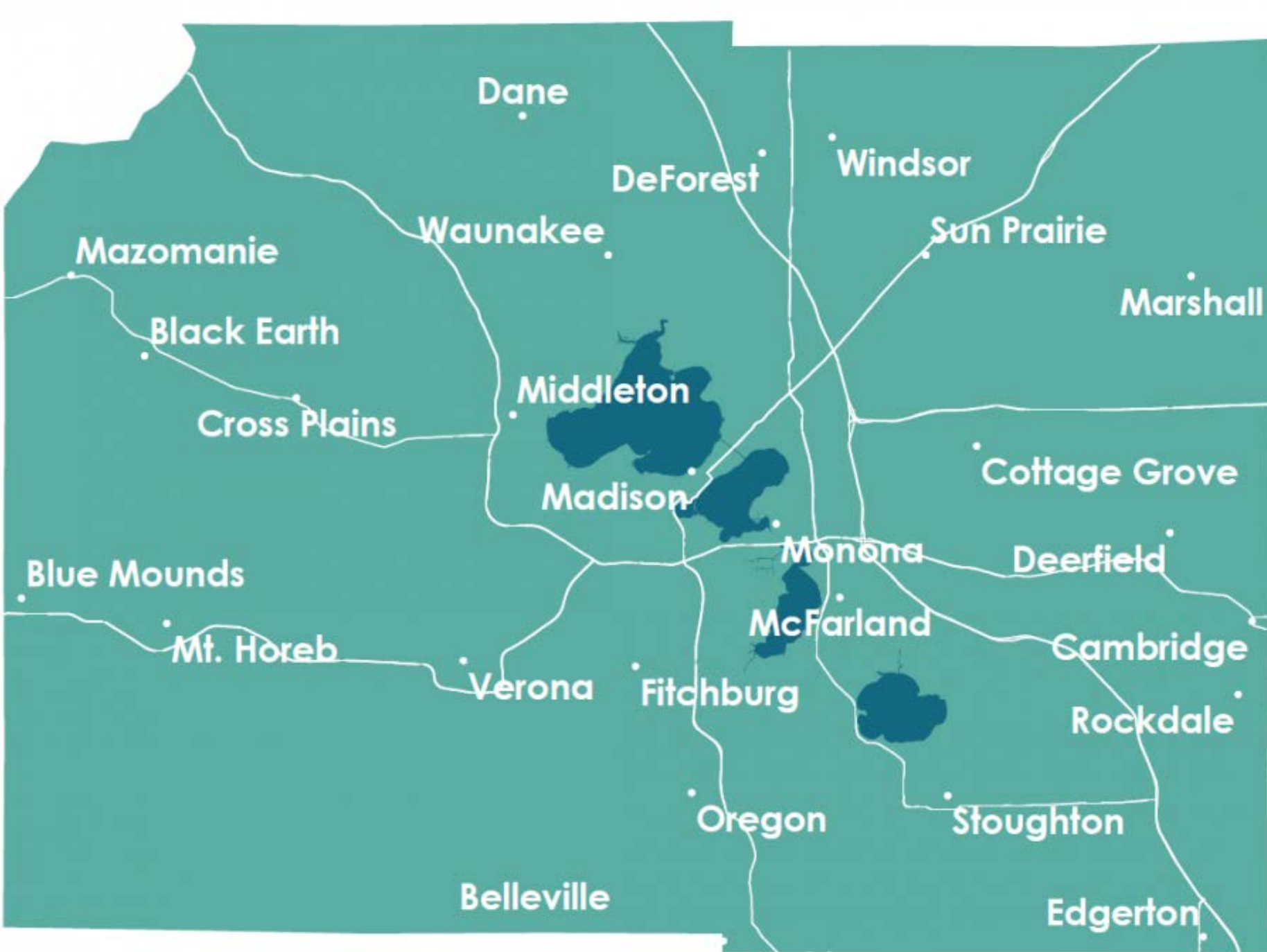


- 50% reduction in building energy, water, & transportation emissions by 2030

# ACEEE rankings in energy efficiency









The background features abstract, overlapping green geometric shapes, primarily triangles and polygons, in various shades of green, creating a modern and dynamic visual effect.

# Recommendations for the Council

# 1: Voluntary performance challenge

- ▶ Outcome-based: Based on how a building performs with people in it, not on how it's designed.
- ▶ Simple: pick a level, do energy-savings projects that you choose, watch usage go down.
- ▶ All can participate. Choose the level that's right for you:
  - ▶ Climate hero - net zero or net positive, definition TBD
  - ▶ Super high performance - 75% better than peer buildings
  - ▶ High performance - 50% better than peer buildings
  - ▶ Better building - 25% better than peer buildings (existing only)

## 2. Lead by example: Better Buildings Challenge



Leading businesses, manufacturers, cities, states, universities, and school districts, commit to improving the energy efficiency of their portfolio of buildings by at least **20% over 10 years and share their strategies and results.**

### 3. Target under-performers, voluntary performance tracking

- ▶ Collaborate with utilities & Focus on Energy to identify abnormally high energy usage by building type, target with extra assistance.
- ▶ Encourage, support and assist owners in tracking energy use to help owners understand their energy use



## 4. Benchmarking policy support for municipalities

- ▶ Share best practices
- ▶ Model policy language when requested

# Benefits to Dane County

## Economic benefits

- Significant ROI from energy investments
- Climate leadership attracts new business
- Business can better manage their buildings

## Health

- Improved indoor environmental quality
- Lower emissions / better air quality
- More productive places to work and learn

## Justice & equity

- Programs on-ramps for all
- Targeting

## Bridging the rural/urban divide

- Targeting
- Allows small municipalities to lead by example

## Energy security & resilience

- Improved building stock
- Distributed resources



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