
# Working Groups


NORTHWEST
STRATEGIC ENERGY MANAGEMENT
COLLABORATIVE
NWSEMC/NASEMC
Decarbonization Working Group

# Decarbonization Working group Members

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Emily Startz
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# 2022 NWSEMC Decarbonization Working Group

## SEM as a Pathway to Decarbonization

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**SEM is the ideal platform for decarbonization that, in addition to reducing utility-supplied energy use, can reach beyond energy efficiency to achieve GHG reductions in all energy aspects of companies' businesses.**

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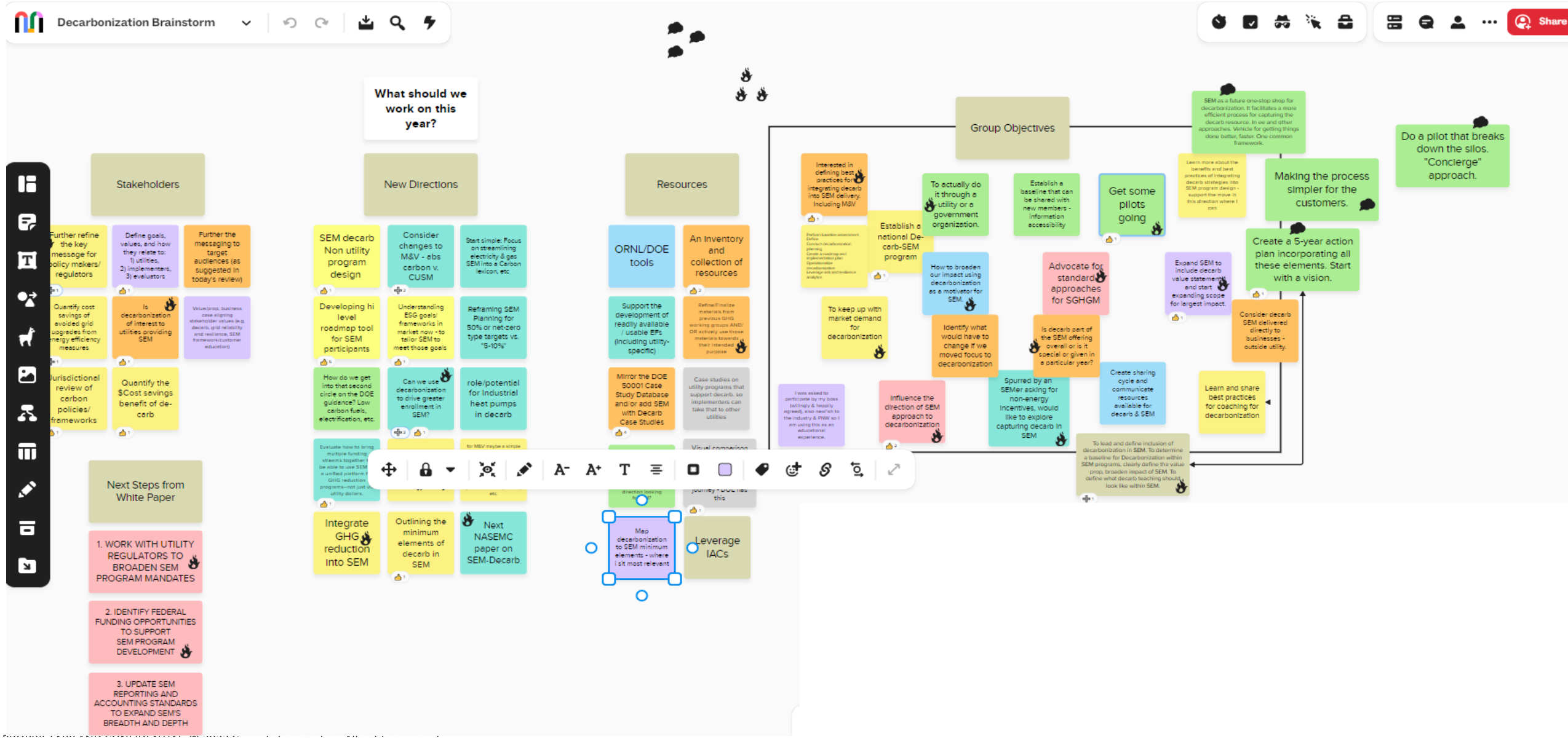
There is variation among SEM programs, but they have common elements, defined by the Consortium for Energy Efficiency[3]. Among them:

- Reduction goals
- Commitment of resources (people and dollars)
- Regularly maintained list of savings opportunities

# NASEMC/NWSEMC SEM Decarbonization Workgroup

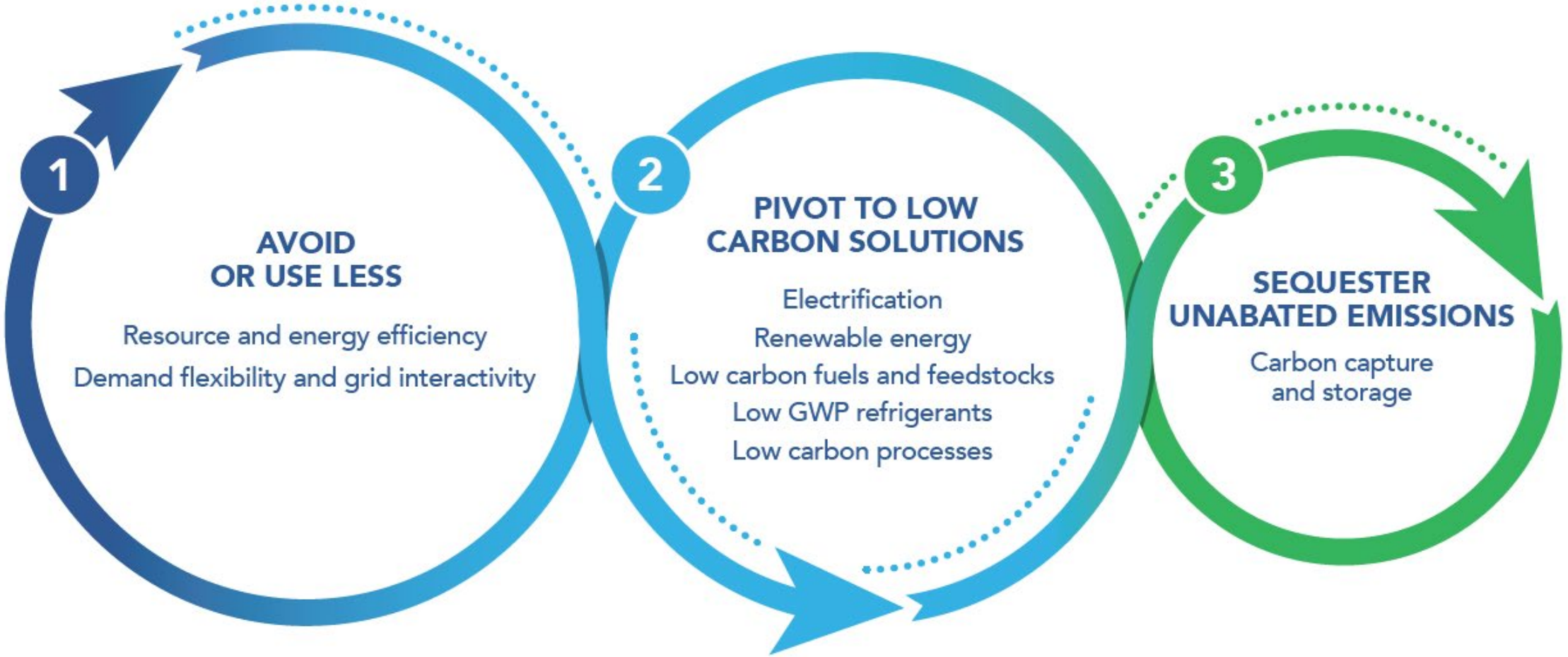


# Decarbonization Workgroup

Next steps:

1. Work with utility regulators to broaden SEM program mandates
2. Identify Federal funding opportunities to support SEM program development
3. Update SEM reporting and accounting standards to expand SEM's breadth and depth

# DOE Decarb Prioritization



# Research Work

1. Articulation of how SEM as a decarbonization strategy will further energy efficiency efforts and benefit regulators, utilities, and customers.
2. Market study of commercial and industrial customers to confirm the need and desire for SEM to capture decarbonization opportunities, at the site level and also across all sites owned by participating corporations.
3. Voluntary survey for NASEMC members to ask their participants.
4. Interviews with NARUC, State PUCs, and their equivalent in Canada to determine feasibility of augmenting utility SEM programs with federal money to include decarbonization. Do they see decarbonization as part of their mandate?
5. Summary of interviews and outline plan.
6. Evaluation of funding needed to do this.
7. Research and recommendations on funding sources

NASEMC In-kind ACEEE

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# K-12 Schools Working Group

Wendy Gibson & Kathleen Belkhayat

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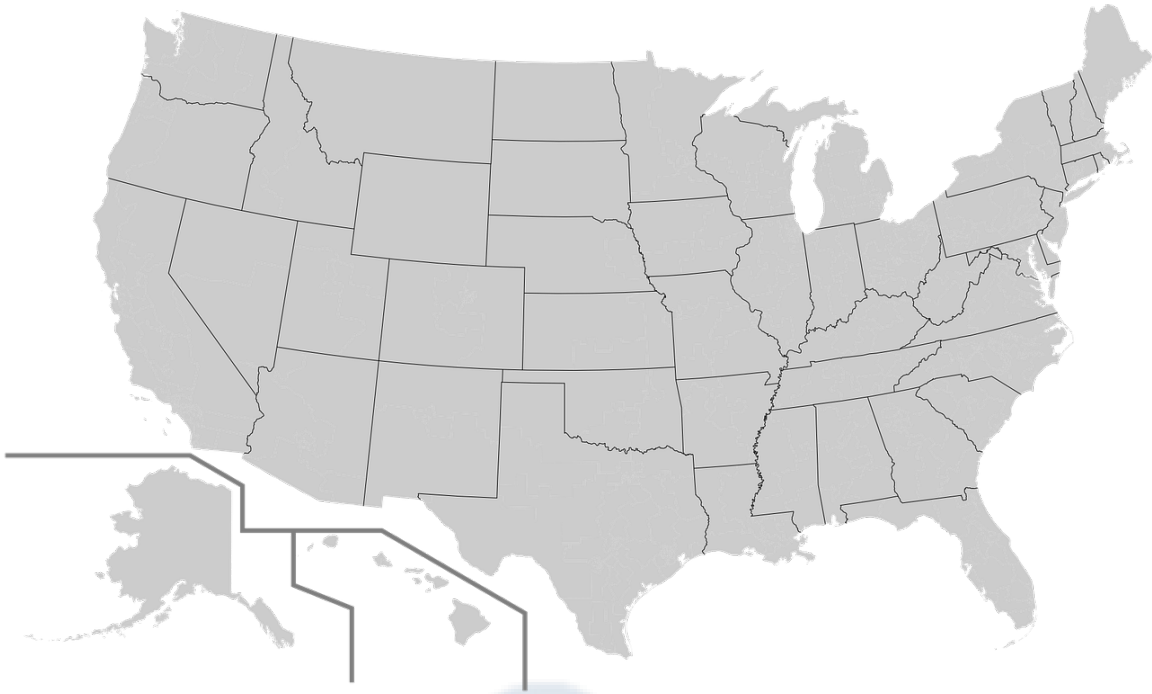
# Members

- Oregon
- Washington
- Tennessee
- New York
- California



# Overview

- Started in 2024
- Defined areas where we see gaps and opportunities (subgroups)
  - Resource constraints
  - Curriculum
- SEM Summit in August
- More work to do in 2025

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# Problem Statements & Needs

**Resource Constraints**

- Schools lack adequate resources to implement energy efficiency measures
- Need: maximize a child's learning environment, meet climate goals and maintain occupancy health and comfort.

**Energy Curriculum**

- Lack of consistent/sufficient energy curriculum
- Need: Easy to access, engaging content to enable educated consumer base or workforce to implement energy efficiency.

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# The AI Revolution in SEM: A New Era

Brought to you by Beyond the E

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# What is Beyond the E?

We work to enhance what SEM brings to energy efficiency by looking at indirect and long-term benefits such as:

- Engagement
- Program design
- Customer service
- Non-energy resource conservation

This year, the Beyond the E Working Group developed a work product around the concept of **AI Best Practices and Use Cases for SEM**.

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# 2024 Beyond The E Team

**Karen Brooks**

**SEM Program Manager**
**SEM & MFSEM Coach**
**Strategic Energy Group**

**Marti Mendenhall**

**Senior Facilitator and**
**Curriculum Development**
**SEM & MFSEM Coach**
**Strategic Energy Group**

**Lana Stern**

**SEM Program Manager**
**SEM & MFSEM Coach**
**Alternative Energy Systems**
**Consulting**

**Key Contributors:** Joseph Ball (PG&E), April Cannon (ASK Energy), Robert Greenwald (Prism Engineering), Jay Mullin (Goldfin Consulting Inc.)

# 2024 Beyond the E 2024 KICKOFF: Topics Discussion

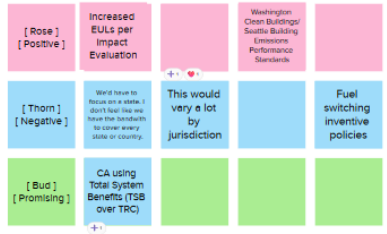
## Multi-utility focus (energy, water, solid waste, transportation)


## Story telling in facilitation


## Executive/Organizational engagement and commitment toolkit (modify existing)


## Carbon Neutrality and SEM: Examine strategies for organizations to achieve carbon neutrality through SEM initiatives


## Regulatory and Policy Implications: Explore the latest energy regulations and policies affecting SEM and how organizations can navigate compliance effectively.




## Behavioral Energy Management: Explore the role of employee engagement and behavior change in achieving energy efficiency goals within organizations.


## Global Energy Trends: Provide insights into international energy trends and their implications for SEM strategies on a global scale.


## Intersection of SEM and Health/Safety (i.e., safety - closing windows doors, bad actors, etc.; health - bldg. pressure, air quality, proper lighting; could include mental health (SAD))


## SEM & AI - How to use effectively.

# What SEM-related AI concepts or questions should we pursue this year?

How can we use AI to identify EE projects for companies by segment (manufacturing, food, commercial etc)? - Logan

The use of AI in final reporting KB

How to cope with the increase is energy usage KB

"It's estimated that 80% of the data center power will... be consumed by AI over the next 15 years. So, at the end of the day, access to power is a key differentiator."

DigitalBridge Group CEO Marc Ganzi, Q2'23 earnings call

How can SEM bring in organizations that utilize data centers (Diana, MCE)

Use & limitations in quantifying savings (baseline models) (Jay)

What are the risks of AI for SEM? (Josh)

As consultants, what are the IP and privacy considerations re: AI (Josh)

AI in building automation systems - what exists already, what's in development for the future, pros, cons, things to lookout for - Lana

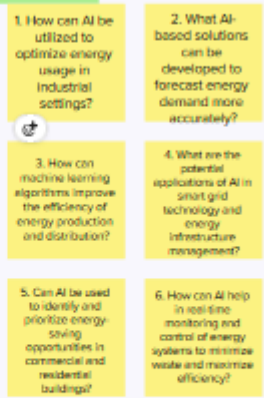
What opportunities can SEM programs suggest for customers (Diana, MCE)

How can participants use AI in their energy management efforts (Jay)

Possibility of AI to help with energy models and M&V

Predictive Maintenance: AI-powered predictive maintenance systems can anticipate equipment failures in energy infrastructure, such as power plants or transmission lines, minimizing downtime and reducing maintenance costs. KB

Energy Management in Buildings: AI-based systems can optimize energy usage in buildings by adjusting heating, cooling, lighting, and other systems based on occupancy patterns, weather forecasts, and energy prices, leading to energy savings and increased comfort. KB



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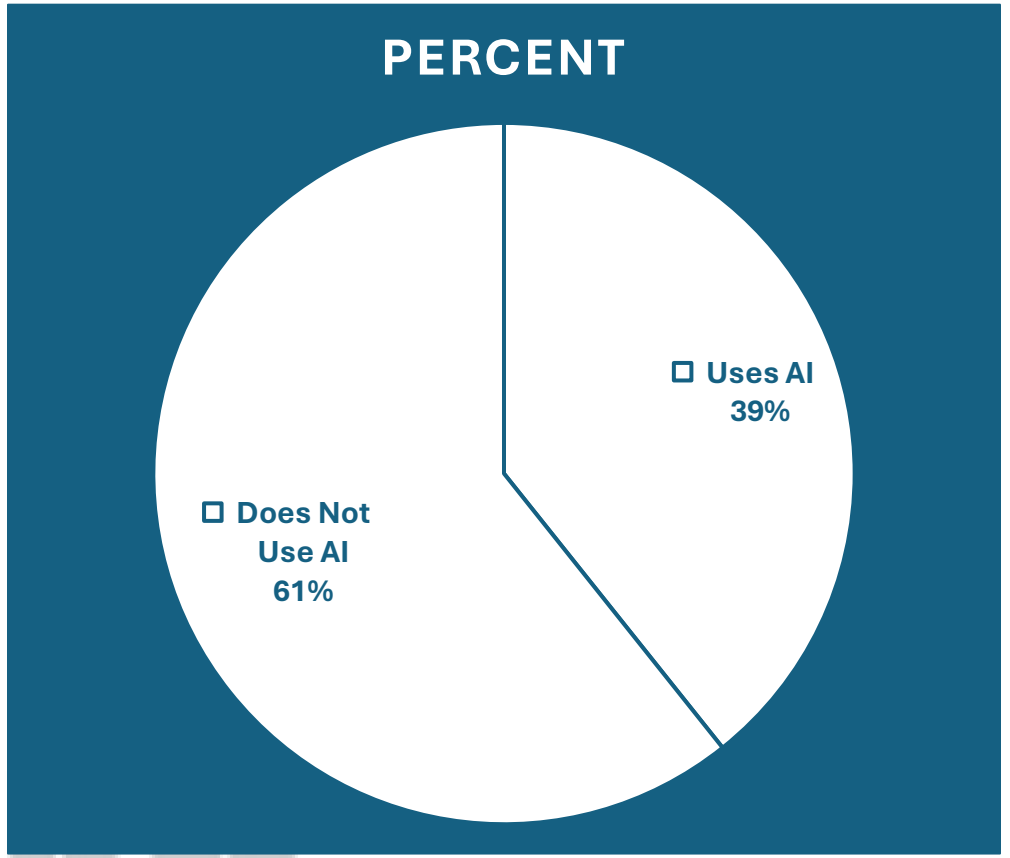
# Overview of Survey Results

- 11 out of 28 surveyed members of the SEM Community responded that they use AI.
- Common uses include brainstorming and refining communications, process understanding, and creative tasks.
- Don’t feel left behind if you’re not using AI!



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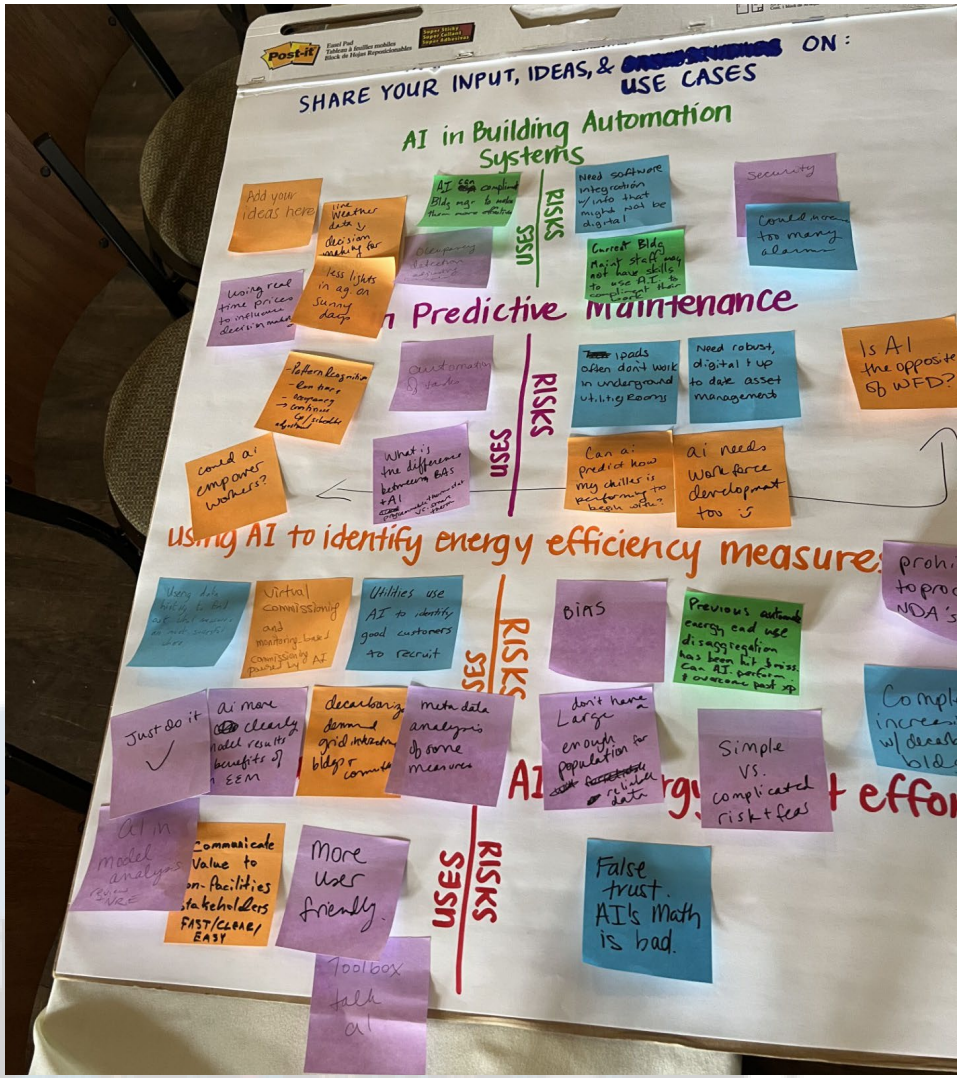
# Shoutout to SEM Summit

# The AI Revolution in SEM: A New Era

Scan QR code for final work product!

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# Objectives

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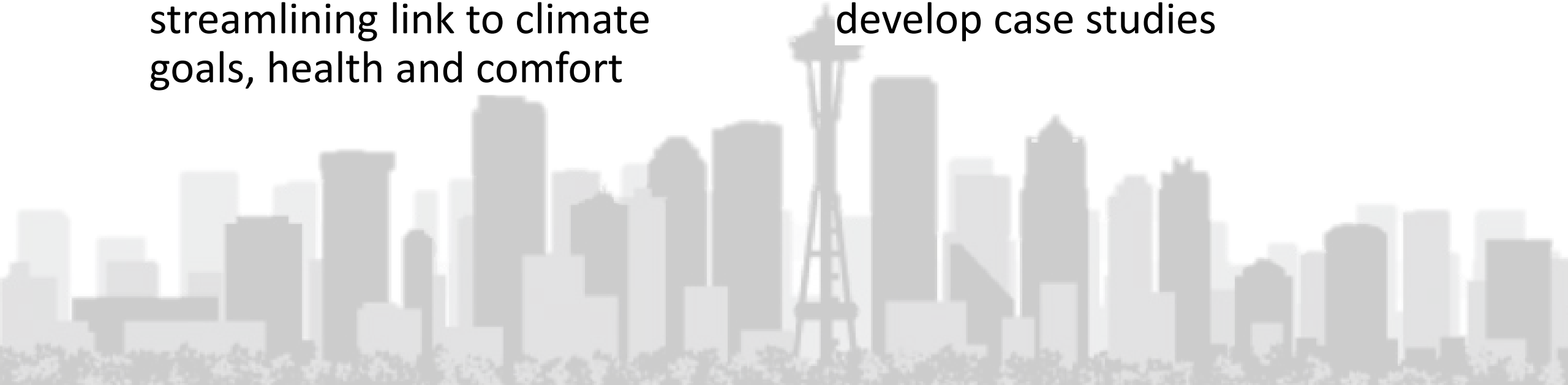
**Resource Constraints**

1. Provide avenues to identify and secure additional resources
2. Provide recommendations for streamlining link to climate goals, health and comfort

**Energy Curriculum**

1. Provide list of curriculum resources
2. Identify best practices and develop case studies



# SEM Summit Recap

Explored ways to address climate anxiety in students by directly empowering students to engage in impactful, visible SEM activities such as:

- Treasure hunts
- Energy modeling data collection
- Energy planning
- Creating an energy dashboard

# Resource Constraints

- Developed two separate surveys. One for staff and one for faculty at schools
- Looking for administrators to distribute survey once ready

# Energy Curriculum

- Identified methods to explore
  - Infuse into existing curriculum
  - Student clubs
  - Classroom guests
  - Student internships
  - Certification/energy bootcamp for teachers
  - Parenting advocacy

# Next steps

- Resource Constraints
  - Finalize and distribute surveys
  - Conduct persona activity
- Curriculum
  - Expand upon curriculum inventory: https://app.smartsheet.com/sheets/GPR4RvPwHxm2q4rX6G78CJW5PXgMXFRpQmjxmfV1
  - Design student specific SEM activities