



**Building Operator Pathway**

## BOP: Energy Efficiency Needs Building Operators

Iowa Association for Energy Efficiency  
Energy Summit 2024  
October 10, 2024 @ 10:45 a.m.




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**SESSION OBJECTIVES:**

1. Understand Iowa's shortage of energy efficiency employees, including building operators--especially in rural areas.
2. Learn how Iowa's preK-12 public schools provided grassroots input to create the Building Operator Pathway.
3. Experience the pilot Building Operator Pathway's success through the eyes of students and coaches.
4. Develop a Success Plan for you and/or your organization to support bringing more students into BOP and energy efficiency-related jobs.

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## Introductions

EAIS: Non-profit. Support since 2011 that saves energy, budget dollars and lives. Created School Radon Training & Support System in 2015. Created Building Operator Pathway in 2021.



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**2024-25 EAIS School District Members and Board of Directors**

**District 4 Board Member:**  
Jay Lutz, Westwood CSD

**At Large Board Member:**  
Justin Duggett, Manson-NW Webster CSD

**District 3 Board Member:**  
Tim Hood, South Page CSD

AHSTW • Albia • Alta-Aurelia • Aplington-Parkersburg • Atlantic • Bedford • Boone  
Boyer Valley • Calamus-Wheatland • CAM • Camanche • Carroll • Central Decatur  
Charter Oak-Ute • Cherokee • Clarinda • Clarke • Clay Central-Every • Clinton  
Colfax-Mingo • Colo-Nesco • Danville • Davis County • Diagonal • Dike-New Hartford  
Earham • East Mills • East Union • Edgelyville-Statesburg-Fremont • Edgewood-Goldsburg  
Eldora-New Providence • Forest City • Fort Madison • Fremont-Mills • Galva-Holstein  
Green Hills AEA • Grinnell-Newburg • Griswold • Hinton • HLV • Howard-Winneshiek  
Hudson • Interstate-35 • Knoxville • Lamoni • Laurens-Marathon • Lawton-Bronson • Lenox  
Logan-Magnolia • Louisa-Muscatine • Madrid • Manson Northwest Webster  
Maple Valley-Anthon Oto • Marshalltown • Melcher-Dallas • Mississippi Bend AEA B  
Missouri Valley • Montezuma • Mormon Trail • Moulton-Iddell • Mount Airy • Murray  
Nashua-Plainfield • Nodaway Valley • North Polk • North Tama County  
Northeast Northwood-Kersett • OABOG • Okoboji • Osage • Oskaloosa • PCM • Red Oak  
Riceville-Riverside • Rudd-Rockford-Marble Rock • Schaller-Crestland • Sherandoah  
Sidney • Sigourney • Sioux Central • South O'Brien • South Page  
South Tama County • Southwest Valley • St Ansgar • Summit-Fredricksburg  
Troyton • Tropic • Twin Cedars • Van Buren • Van Meter • Washington • Wakarusa  
Waverly-Shell Rock • Wayne • Webster City • West Fork • West Harrison  
West Monona • Westwood • Woodward-Granger

**District 2 Board Member:**  
Mike Kruger, West Fork CSD

**District 1 Board Member:**  
Erin Stater, Fort Madison CSD

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### Introductions

1. Name + organization
2. Have you run into challenges hiring qualified energy staff?

Austin from Clinton CSD

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### Why are building operators important to EE?

A farming analogy...

Without operators, stuff won't work long term (even with autonomous, GPS, etc.).  
Fancy or broken down machinery, without a human responsible for understanding, running and fixing it wastes time, energy, dollars - everything!

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1) Understand Iowa's shortage of energy efficiency employees, including building operators--especially in rural areas.

79 percent of energy-related employers reported hiring difficulty due to insufficient non-technical skills (work ethic, dependability, critical thinking), and lack of experience, training or technical skills and competition/small applicant pool (NASEO, 2020).



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1) Understand Iowa's shortage of energy efficiency employees, including building operators--especially in rural areas.



Business, industry and education take place inside buildings that need Heating, Ventilation and Air Conditioning (HVAC), lighting, and good air quality.

Yet 100 percent of southwest Iowa business and industry survey respondents who hired building operators within the last five years had no candidates who were extremely knowledgeable about HVAC and energy efficiency.



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How do you find energy efficiency staff?

Grow your own!



Building Operator Pathway

- Out of this high demand occupation need, the Grow Energy: Workforce Development Program for Rural Communities grant was written. Became the BOP.
- The Iowa Energy Center/Iowa Economic Development Authority awarded Energy Association of Iowa Schools (EAIS) a 3-year grant to create and pilot to build a pipeline of skilled workers for Iowa's high-demand energy workforce.



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2) Learn how Iowa's preK-12 public schools provided grassroots input to create the Building Operator Pathway.

- On January 19, 2021, while school districts were still recovering from the Covid-19 Pandemic shutdowns of 2020, EAIS facilitated the first Grow Energy Advisory Committee meeting via Zoom.
- Ongoing input from this committee's Iowa school superintendents and facility managers created the two-year Building Operator Pathway (BOP) for incoming Iowa high school juniors.




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2) Learn how Iowa's PreK-12 public schools provided grassroots input to create the Building Operator Pathway

Many thanks to our Grow Energy Advisory Committee members for sharing their in-the-trenches needs, wisdom and advice that helped this project to be a success:

- Gary Delacy; Clinton Community School District (CSD) superintendent
- Tim Hood; Sidney, South Page and East Mills CSDs superintendent
- Justin Daggett; Manson-Northwest Webster CSD superintendent
- Timothy Mitchell; Riverside CSD superintendent
- Paul Croghan; Nodaway Valley and CAM CSDs superintendent
- Bill Almond; Oskaloosa CSD building operator/facility manager
- Mike Nelson; East Union CSD building operator/facility manager
- Tom Lesan, Lindsay Stoaks and Rachel Ramaeker; Southwestern Community College (SWCC)
- Molly Graham, Kathy Machaj, and Katheryn Eggers; Midwest Energy Efficiency Alliance (MEEA)




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3) Experience the pilot Building Operator Pathway's success through the eyes of students and coaches.

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3) Experience the pilot Building Operator Pathway's success through the eyes of students and coaches.



BOP life changing support:

- Connection with coaches - car rollover
- Connection with coaches - incarcerated father
- Field trips - life outside
- Daily connections/practice



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3) Experience the pilot Building Operator Pathway's success through the eyes of students and coaches.



"BOP teaches you skills and gives you opportunities no other class can and I am very proud and happy that I decided to take this program."

Racann Elliott, Okaloosa Community School District BOP student (BOP Post Program Survey Question 5/10/23)



"Before I started (BOP) I didn't know one thing about HVAC as a whole. Now I can do a bunch of stuff on my own."

Clayton Nylan, Clinton Community School District BOP student (BOP Post Program Survey Question 5/10/23)



Joe Ehrenberger, Clinton Community School District  
Jayden Overton, Okaloosa Community School District

On grounds outside the former Avera Iowa Capital building operations from May 28, 2022. (The Mirror, IA)

Q. What would you tell an incoming high school junior who is considering participating in the next BOP cohort?  
A. "It's a great program to start something with your life."  
Isaac Boyer, South Page Community School District (BOP Post Program Survey Question 5/10/23)

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FUTURE:

- Working with IEDA and Training for Residential Energy Contractors program
- "Encourage Iowans that are new to the workforce to enter energy related careers by enhancing an existing program aimed at high school and community college youth."
- 90 students across two years
- After TREC = Unknown



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4) Develop a Success Plan for you and/or your organization to support bringing more students into BOP and EE-related jobs.

The illustration shows several people working together to assemble a large puzzle. The puzzle pieces contain the following text:

- Pivot to local industry providing internships, if needed
- Idea of just HS credits
- Adapt to 1-year program
- Awareness of BO as a career
- More clearly tie in w/ CTE
- Find add'l FUNDING
- Intro to BOC
- Keep OSHA 10-hr training
- Change so current staff do not take classes

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4) Develop a Success Plan for you and/or your organization to support bringing more students into BOP and EE-related jobs (YOURS!).

*Excerpt from student Success Plan*  
*Yours is different!*

Please:  
 1) Complete yours  
 2) Snap a pic so you can take ideas home  
 3) Leave your copy at table.

5. Post-High School Graduation Goal(s). Choose all that apply:\*

Check all that apply:

- I would like to start a job right out of high school, with my new Building Operator Level I Certificate of Completion and two years of hands-on experience rocking my resume!
- I would like to head to a community or four-year college to expand my learning even more. I will be ahead of the game with the college credits I earned in high school in BOP!
- I would like to go into a branch of the U.S. Armed Forces to expand my BOP learning even more.

Other:

6. Jobs I am most interested in at this point include:\*

Check all that apply:

- Building Operator
- HVAC Technician
- Energy Efficiency Specialist
- HVAC or Lighting Salesperson
- Electronics/Controls System Technician
- Engineer who designs HVAC systems

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Thank you for attending.  
You are

#ChillerThanAnAC  
energyais.org

Energy  
Efficiency

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