



Maximizing Workforce

for Energy Efficient Buildings
& Building Construction in Pennsylvania

The U.S. Department of Energy (U.S. DOE) awarded \$3 million to the Pennsylvania Department of Environmental Protection's **Energy Programs Office** (EPO) to create a workforce and energy building codes project. Funding was provided under the Infrastructure Investment and Jobs Act (IIJA) through the Resilient and Efficient Codes Implementation program. This project was funded for a 3-year period.

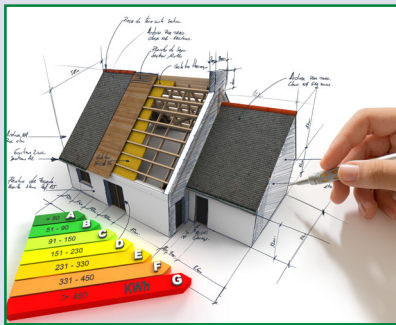


Mission: Ensure energy resilient and efficient buildings in the Commonwealth, for generations to come, by expanding education and training opportunities to meet the owner and occupant demand for more comfortable and energy efficient structures.

HOW IT WORKS

This workforce project helps to address the code inspection and skilled energy trades employment gaps through three components. **First**, the EPO will catalogue existing building related education opportunities, and provide building science and energy codes training, tools and certifications for instructors, students, and to existing or upcoming workers in the design, construction, and code inspection fields. **Second**, map PA's education opportunities to the U.S. DOE Green Building Careers Map. **Third**, evaluate the potential for energy building code degree programs. Each of the three steps are described below.

CATALOGUE AND ENHANCE LEARNING:



- Inventory lessons at career and technical high schools across PA that offer building-related technical training, including HVAC and carpentry.
- Provide updated lesson plans to include building science and energy building codes.
- Provide instructors with free professional development on the lessons.
- Provide energy testing equipment to the schools for hands-on learning.
- Add energy certification opportunities to programs for students and instructors.
- The process will be piloted in 15 or more career and technical high schools and appropriate technical colleges and career centers, and then expanded to all remaining interested schools across the Commonwealth.

Mapping: The catalogued educational opportunities at high schools and colleges in PA from step one, that includes building technical training for programs, will be linked to the [US DOE Green Building Careers Map](#) so students from middle school age to adult learners can easily identify potential career path opportunities.

Associate degree evaluation: Evaluate the potential for a Building Code Officials' associate degree program at a community or technical college in PA.

WAYS TO ENGAGE

There are multiple opportunities for participation in this project: for individuals as a member of a Technical Advisory Group (TAG), as a career and technical instructor or administrator at a Career Technical Education (CTE) program at the high school or college level, or as an employer.

We need your assistance to make this program a success!





THE EPO IS SEEKING:

High Schools interested in being one of the pilot schools.

Colleges interested in expanding their offerings to include an associate degree in building energy codes and those interested in learning more about related energy associate programs.

High Schools or Colleges interested in following the progress of the project for future implementation.

Technical Advisory Group Participants: Individuals, building trades and codes industry professionals, school administrators, career and technical educators, and instructors to join and provide guidance and feedback on the implementation of this project.

TECHNICAL ADVISORY GROUP ROLES AND EXPECTATIONS



- Participate in quarterly meetings – most will be virtual and last approximately 1 hour.
- Provide input, perspective, and feedback on documents, materials, requests for proposals, equipment selection, and other project elements.
- Assist in engaging the building design, construction, and the inspection communities about the projects.
- Provide connections to additional support for new and existing workforce members such as wrap-around services, job connections, additional training, and funding opportunities.

WHAT CAN THIS DO FOR YOU/YOUR SCHOOL?

High schools that participate in the pilot program and colleges that provide one or more programs that provide HS-level Career Technical Education (CTE) training may receive the following benefits:

- Free or extremely low-cost professional development for all building trade program instructors.
- Free building energy-related certifications for interested instructors through the Building Performance Institute (BPI).
- Free blower door test kits, duct blaster kits, and infrared thermal imaging cameras for all participating schools (this equipment is valued at approximately \$8,000).
- Free building energy-related certifications for many students for the duration of the U.S. DOE funding program.
- Training for high school guidance counselors on green building career opportunities for their district's students.
- Training for college admissions and job placement counselors on green building career opportunities for students.



If you are interested in participating in the Technical Advisory Group, being selected as a school in the pilot, or have questions and want to learn more, contact:

Heather Cowley, Energy Program Specialist (Project Lead), at 484.250.5816 or hcowley@pa.gov