

BUILDING PERFORMANCE

ASSOCIATION

The Building Performance Association (BPA) is a nonprofit 501(c)6 industry association that serves as the hub for businesses, nonprofits, and government agencies working to make America's homes more comfortable, healthy, and energy efficient.

AGENDA

9:30 am – 9:45 am

9:45 am – 10:00 am

10:00 am – 10:30 am

10:30 am – 10:45 am

10:45 am – 11:15 am

11:15 am – 11:45 am

11:45 pm – 1:00 pm

1:00 pm - 1:20 pm

1:20 pm – 1:30 pm

1:30 pm – 1:45 pm

1:45 pm – 2:00 pm

2:00 pm – 3:00 pm

3:00 pm – 4:00 pm

- **Welcome/Introductions – Robin Yochum & Brook Vernon, BPA**
- **Overview: Training Residential Energy Contractors (TREC) Grant**
- **Current Training in Kentucky for Employees & Contractors**

- **Break**

- **Commonwealth of Kentucky Energy & Environmental Cabinet**
- **BPA Initiatives**

- **Break, Activity, Lunch & Survey**

- **BPA Initiatives Continued**
- **North America’s Building Trades Union – KY Chapter**
- **Kentucky Registered Apprenticeships**

- **Break**

- **Inflation Reduction Act, Federal Rebates**
- **Networking, Feedback, & Questions**

SPEAKERS



Robin Yochum
Building Performance Association



Brook Vernon
Building Performance Association



Mark Adams
Kentucky Housing



Bruce Maybriar
Building Institute of Central KY



Rick Hall
Building Science Professional
Training, LLC



Maria Lewis
Building Performance Association



Xavier Walter
Building Performance Association



**Kentucky Energy &
Environmental
Cabinet**



Ben Richardson
Apprenticeship Workforce Consultant



Kara Saul-Rinaldi
AnnDyl Policy Group

ENERGY EFFICIENCY WORKFORCE NEEDS

- **West Virginia, Maine, Delaware, Virginia and Kentucky**
 - **To identify strengths, challenges and needs in workforce development**
 - **Map the current energy efficiency workforce landscape**
 - **Provide implementation plans for workforce recommendations**
- **“Boots on the Ground” involvement**
 - **BPA sponsors a Maine AmeriCorps VISTA for outreach & engagement**
 - **Pursuing AmeriCorps members in various states and nationally**
- **ACE Network Partner for DOL Registered Apprenticeship Programs**
 - **Provide additional outreach support, technical assistance, and industry engagement in the development of “Energy Specialist” registered apprentices**

BPA GOAL:
CREATE Clear Pathways
FOR careers in energy efficiency

- **Expand Energy Specialist Registered Apprenticeships**
- **Outreach in hard-to-reach communities**
- **Exposure at K-12 level**
- **Engagement with disadvantaged populations**
- **Multiple channels for training opportunities**
- **Connecting wrap-around services**
- **Defining braided sources of funding**
- **Wage progression & Hands-on skills**
- **Ensuring equity, diversity and inclusion in career pathways**

Training Residential Energy Contractors (TREC) Grant

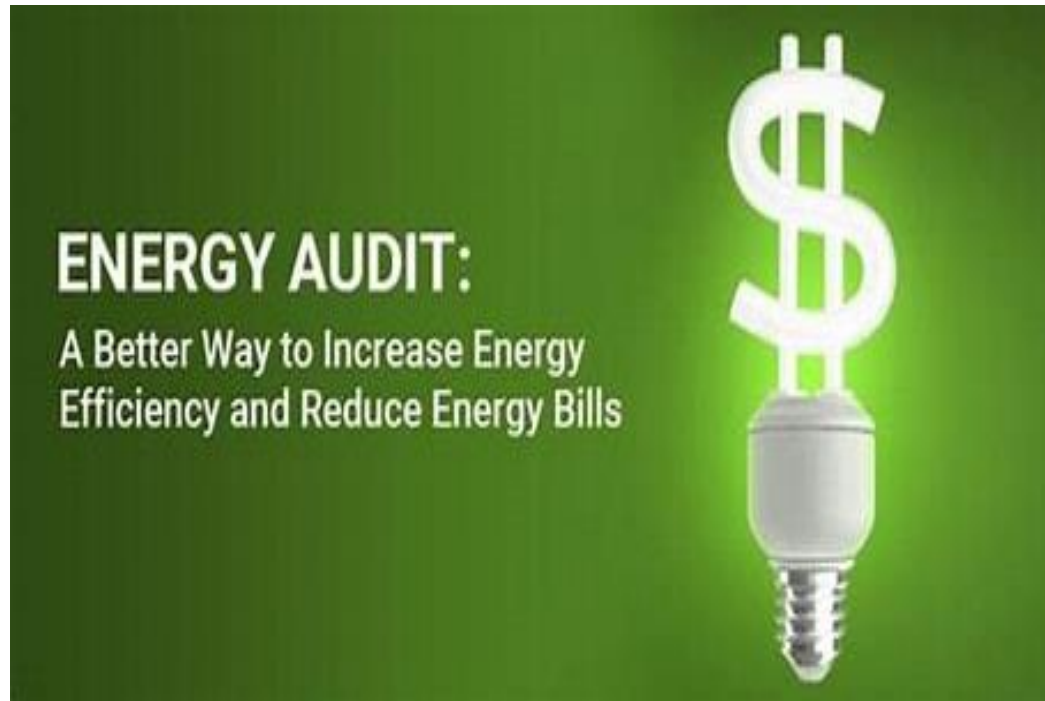
- Available to State Energy Offices
- Designed to train, test and certify residential energy efficiency & electrification contractors
- To help ensure that clean energy technologies are installed in homes across the nation
- Contractors trained through this funding will be connected to projects funded by the Department of Energy's Home Energy Rebates Programs
- Rebates will be available to eligible residents for retrofits and appliance upgrades that reduce energy use



Training Residential Energy Contractors (TREC) Grant

SHORT-TERM GOALS

- Reduce the cost of training contractor employees
- Test & certify contractors trained and educated under state programs
- Opportunity to partner with nonprofit organizations to develop & implement state programs
- Prepare workers & businesses in every state and territory to deliver energy efficiency and electrification measures



TRAINING RESIDENTIAL ENERGY CONTRACTORS (TREC) GRANT

LONG TERM GOALS

- **Local Jobs!**
 - Diversify the energy efficiency workforce and connect under-represented workers with opportunities for economic mobility
- **Well-trained!**
 - Stimulate high quality contracting across the residential sector
- **Educate Communities!**
 - Help residential households understand a home's energy use and how to decrease costs



BUILDING
PERFORMANCE

ASSOCIATION

Affiliate NETWORK



BPA State Affiliate

Kentucky BPA is an official BPA State Affiliate, representing the state of KY. We have organized to coordinate on the implementation of our state's programs that are administered through the Bipartisan Infrastructure Law (BIL) and the Inflation Recovery Act (IRA). Our focus is on the recruitment needs of local contracting businesses and the strategies used to affect workforce development. We strongly believe that giving one voice to individual workers, contracting businesses, and advocates on the ground enables those impacted by these programs to have a hand in their design.

The Kentucky Affiliate of BPA was formalized by a group of stakeholders. This project officially kicked off in October 2023.

Affiliate GOALS



- **Local stakeholders**
- **Address workforce barriers and other issues affecting the residential building performance space**
- **Strategic partnerships**
- **Involve local workforce in identifying barriers and finding solutions**
- **Provide outreach and education on energy efficiency and building performance**
- **Infuse DEIA into hiring**
- **Build a skilled workforce**
- **Reach disadvantaged, displaced, and unemployed populations for potential workforce**

IMPORTANCE OF THE KENTUCKY SURVEY

To help identify the hiring needs, workforce development gaps, and accessibility barriers facing contractors and trainers like you in Kentucky.

The needs assessment will guide the future of energy efficiency, workforce development and training in Kentucky.



CALL TO ACTION

- Circulate and Promote
 - Email partners, sub-contractors, industry leaders
 - Share on LinkedIn and Facebook, or other social media sites
- Ideas for greater participation & diversity
 - Share in your own company – their perspectives are valuable!
 - Do you have an HR Manager?
 - Employees certified in the energy efficiency careers?
- Think outside the box
 - Where and Who ARE training employees in the energy efficiency sector?
 - Local community technical colleges, other training programs for the trade industry

SURVEY TIMELINE

Collection

Responses tracked and reviewed as they are received.

- Personal interviewer engaged to conduct phone interviews and input survey responses
- **Contact Brook Vernon – bvernon@building-performance.org | 276.685.3178**

Review

Survey closes on Friday, March 29th 2024

No new responses are accepted after this date unless:

- Target number of responses have not been met
- Deadline may be extended

Analysis

Survey responses collected and analyzed for the final report.

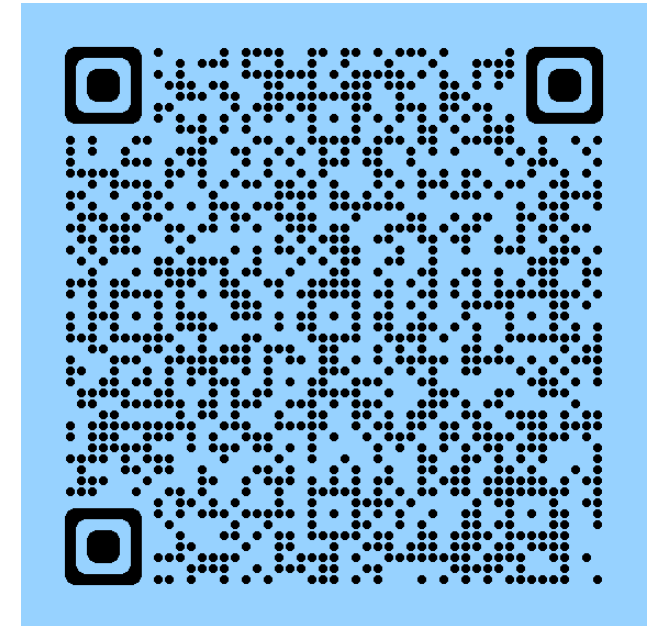
1st Draft: May 1, 2024

Stakeholder Review: June 1, 2024

Distribution

Target Date: FINAL REPORT RELEASED – July 31, 2024

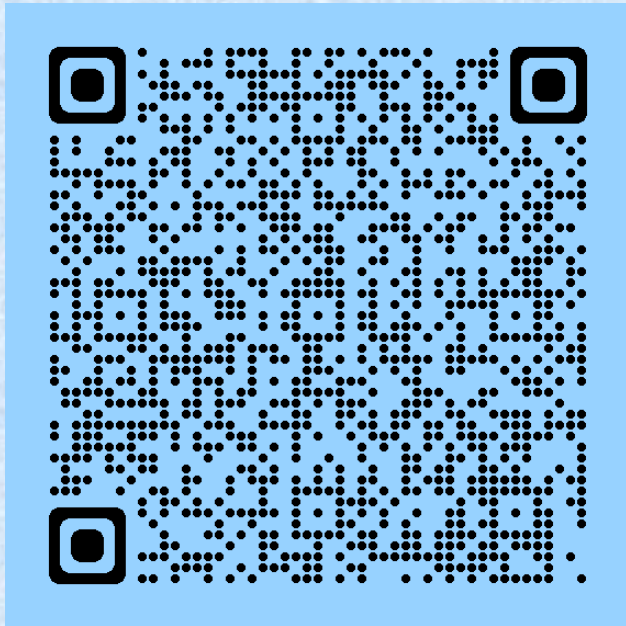
- Stakeholders
- Webpage on BPA site
- Social Media



Kentucky Survey

BREAK

**RETURN AT 12:00
FOR LUNCH & TRIVIA!**



KY Survey Link



Energy Efficiency Trivia!



**THERE ARE
SHEETS OF
PAPER AT EACH
TABLE**



**20 QUESTIONS WILL
BE PRESENTED ON
SCREEN**



**YOU HAVE 2
MINUTES TO
CORRECTLY LIST A
QUICK RESPONSE
FOR EACH QUESTION**



**AT THE END OF THE
LAST QUESTION,
ANSWERS WILL BE
COLLECTED &
TALLIED DURING
LUNCH**



**TWO PRIZE
WINNERS WILL BE
ANNOUNCED**



**A BRIEF OVERVIEW
OF THE CORRECT
ANSWERS WILL BE
PROVIDED**

Question # 1

What accounts for the most energy use in American homes?

- A. Electric oven
- B. Cooling & Heating
- C. Dishwasher
- D. Lighting

Question # 2

How much electricity does a typical American home use per month? (Based on a 1,700 square foot home)

- A. 575 kWh
- B. 2000 kWh
- C. 1250 kWh
- D. 900 kWh

Question # 3

When a home has energy efficiency measures performed, what is the estimated amount of electricity saved per month?

(Based on total house)

- A. 5%
- B. 12%
- C. 20%
- D. 23%

Question #4

Testing individual return and supply ducts with a pressure pan helps determine what?

- A. Location of leakage areas in the ductwork
- B. Overall leakage from ducts to the home
- C. Whether the ducts are blocked or constrained
- D. Effective R-value for insulated ducts

Question #5

Home duct efficiency in the United States could be as low as 50 – 70%.

True or False

Question #6

What is the MOST important energy efficiency measure that people can do to reduce greenhouse gas emissions?

- A. Installing a programmable thermostat
- B. Insulating the attic
- C. Installing energy efficient showerheads and LED lightbulbs
- D. Replacing old appliances

Question #7

How long do conventional water heaters last?

- A. 2 years
- B. 20 years
- C. 10 years
- D. 50 years

Question #8

What percentage of homes in America use natural gas for heat?

- A. 25%
- B. 71%
- C. 56%
- D. 18%

Question #9

How much does a typical U.S. family spend on home UTILITY bills per year?

- A. \$250
- B. \$2200
- C. \$5600
- D. \$8000

Question #10

According to ASHRAE 62.2 - 2013, a full bathroom with a fan moving, at a minimum, this amount of air would require no additional ventilation added using the alternative compliance ventilation method, as long as there was an operable window:

- A. 20 CFM
- B. 50 CFM
- C. 15 CFM
- D. 30 CFM

Question #11

Using a programmable thermostat to set back your temperature 10 degree for 8 hours per day can lower your heating and cooling costs how much every year?

- A. \$40
- B. \$120
- C. \$60
- D. \$180

Question #12

Which of the following is not a type of insulation?

- A. Rolls and batts
- B. Loose-fill
- C. Rigid foam
- D. Synthetic fiber

Question #13

American homes consume twice the energy of the World average.

True or False

Question #14

If you're on the market for new home insulation, it's best to get one that has a high E-rating.

True or False

Question #15

How much can sealing air leaks save you on average on your heating & cooling bills?

- A. 0 – 5%
- B. 5 – 10 %
- C. 10 -20 %
- D. 20 – 25%

Question #16

The amount of water vapor contained in a given volume of air compared to the total amount of water vapor it is capable of containing is called:

- A. Relative humidity
- B. Dew point
- C. Condensation
- D. Wet bulb

Question #17

The temperature difference between the evaporator and the compressor inlet on a cooling unit is called:

- A. Temperature rise
- B. Subcooling
- C. Superheat
- D. Expansion ratio

Question #18

Which of the following pieces of information regarding the exterior of a home should be collected during an inspection in order to analyze the home's energy consumption?

- A. Condition of roof
- B. Standing water around the crawlspace
- C. Presence of gutters
- D. Number of windows

Question #19

How should the size of a HVAC unit for a home be calculated?

- A. Dividing the square foot of the home by the amount of cooling per ton of the HVAC unit
- B. Determine the Seasonal Energy Efficiency Ratio (SEER) of the HVAC unit
- C. Using the Manual J load calculation
- D. Use a HVAC unit that is less than 5 years old

Question #20

True or False:

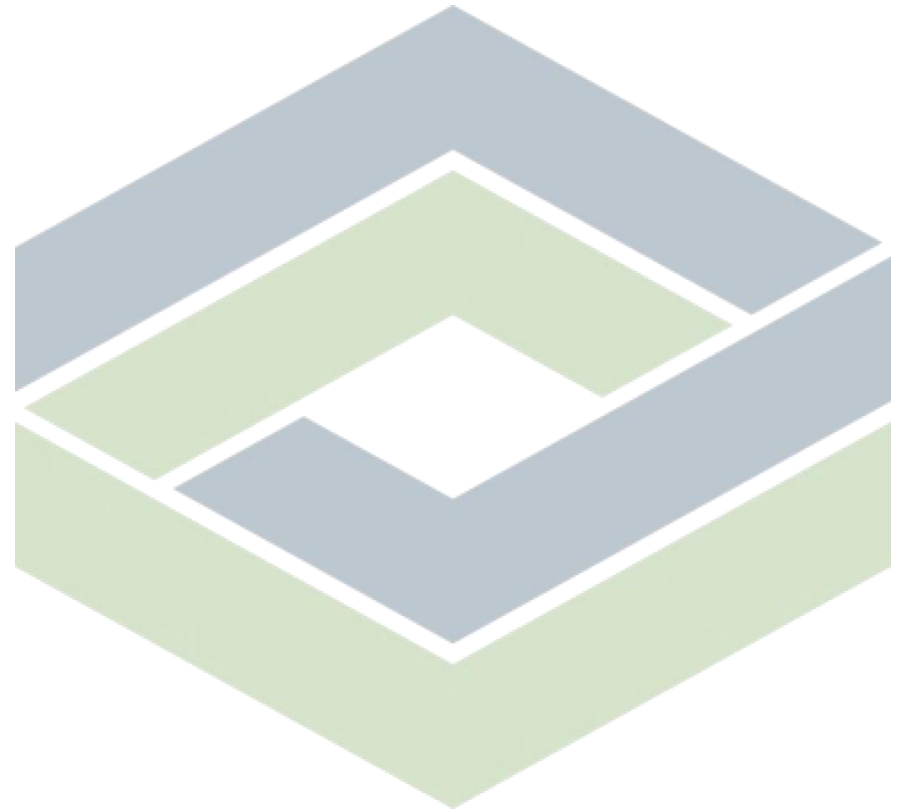
The color of your roof can result in higher energy costs.

Bonus:

What color is more energy efficient?

Please place your papers
in a pile on your table
for collection.

Winners will be announced after lunch!





Mark your calendars!



NHPAC
2024 | MINNEAPOLIS



<https://building-performance.org/events/national/>



Earn CEUs through BPA

Earn continuing education credits whether you're *attending a conference* or *reading articles in the BPA journal*, through our allied organizations, including **ASHI, BPI** (including **QCI, HHE, and EA**), **InterNACHI, NARI, and NATE.**



NATIONAL HOME PERFORMANCE CONFERENCE & TRADE SHOW

APRIL 8-11, 2024 | MINNEAPOLIS, MINNESOTA



Exploring Registered Apprenticeships

Energy Specialist Pathway

Energy Efficiency Jobs in America

- **2 in every 5 jobs within the energy sector are concentrated energy efficiency**
- **1.19 million construction jobs are in energy efficiency**
- **15% spend at least 50% of the time on energy efficiency**
- **9% of jobs are held by veterans**
- **6% growth projected in energy efficiency careers in 2023**
- **95% of construction employers say it is “very difficult or “somewhat difficult” to hire qualified workers**

***Energy Efficiency Jobs in America, October 2023, E4 The Future.**

Kentucky's Energy Goals

- **Million \$ Question** – What is Kentucky's energy efficiency workforce?
 - Current energy efficiency workers =
 - Need an additional =

Careers in Energy Efficiency

- ***Residential Energy Auditor**
- ***Residential Quality Control Inspector**
- **Healthy Home Evaluator**
- **Crew Leader**
- **Technician**
- **Program Manager**
- **Building/Home Performance Contractor**
- **HVAC Contractor**
- **Residential Building Code Inspector**
- **Building Science Installer**

**Career concentrated in “Energy Specialist” Apprenticeship Pathway*

Training, Loans and Grant Opportunities

- **TREC (Training Residential Energy Contractors)** for states to train individuals to conduct energy audits or conduct surveys of commercial buildings and residential homes.
- **Weatherization** has been allocated additional funding for training purposes that could be used to offset the cost associated with supporting apprentices.
- **Energy Efficiency Revolving Loan & Grant Fund** available to states to establish revolving loan funds in support of loans and grants that will provide EE audits, upgrades, and retrofits to increase a building's energy efficiency.

CERTIFICATION PATHWAY TO AN ENERGY SPECIALIST

Industry lead

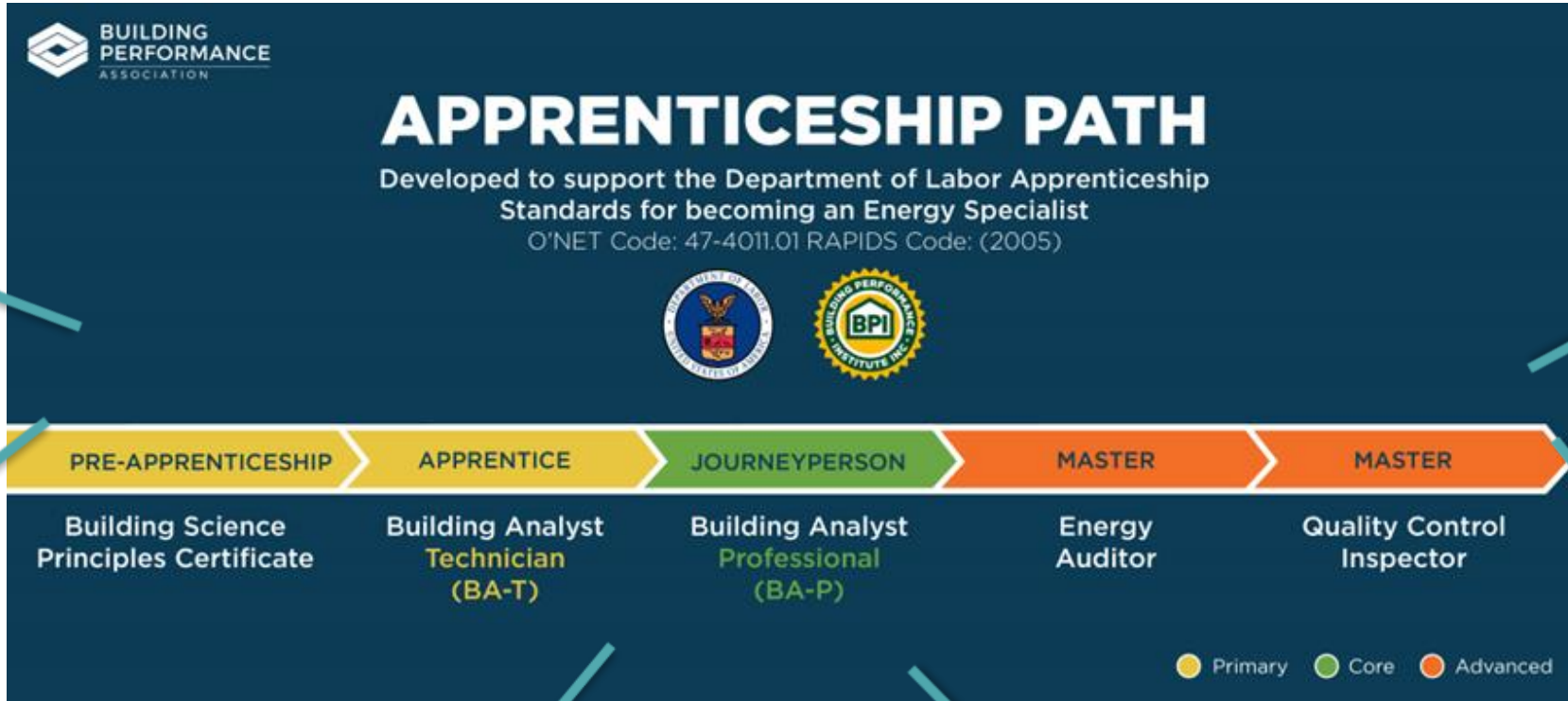
Best practices in DEIA & safety standards

Related Technical Instruction, O-T-J

Mentored job shadowing

Paid training with wage progression

Credentials that build on each other





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**Learn more about
Building Science Principles:**

[https://building-
performance.org/education/training/bpa-
building-science-principles-course/](https://building-performance.org/education/training/bpa-building-science-principles-course/)

CERTIFICATION PATHWAY TO AN ENERGY SPECIALIST



Interested in learning more or starting an “Energy Specialist” Registered Apprenticeship?

Scan the QR Code below and the BPA State Outreach team will set up a consultation!

Technical assistance is FREE!



Funding and Disclaimer

Acknowledgment: This material is based upon work supported by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy under the U.S. Department of Labor Employment and Training Administration Office of Apprenticeship Industry Intermediary Contract 1605C2-23-C-0015.

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DOL Contract #: 1605C2-23-C-0015 – Apprenticeships in Clean Energy Network

Contact BPA



Xavier Walter

STATE OUTREACH DIRECTOR

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412.924.6710

To sign-up for BPA's mailing list for all things home and building performance, please use the QR Code with your Smartphone!

www.building-performance.org/membership



ENERGY OPPORTUNITY CORPS

AmeriCorps State/Nation

- **AmeriCorps: A paid opportunity to develop real-world skills through hands-on service that seeks to address some of our nation's greatest challenges**
 - **Win: Program participant or "corps member"**
 - **Win: Community being served**
 - **Win: The nation as a whole**
- **There are between 65,000-85,000 AmeriCorps opportunities across the country that offer experiences of varying lengths of commitment, in different issue areas, and across different geographic regions**

AmeriCorps State/Nation



AmeriCorps

VISTA

- Capacity Building
 - Fight Against Poverty
 - 17yo+
 - Full-Time
 - Stipends/Benefits
- Administered by Federal Agency

NCCC

- Episodic Projects
 - Broad Service Categories
 - 17-24yo
 - Full-Time
 - Stipends/Benefits
- Administered by Federal Agency

Seniors

- Broad Service Categories
 - 55yo+
 - Primarily Part Time
 - Stipends/Benefits
- Administered by Federal Agency

State/National

- Broad Service Categories
 - 17yo+
- Part Time & Full-Time
- Administered through a Competitive Three-Year Grant

Energy Opportunity Corps

- **With the help of the National Renewable Energy Laboratory, Service Year Alliance and the Building Performance Association have partnered to develop a grant proposal to support a national AmeriCorps program to support weatherization/clean energy initiatives**
- **Increased opportunity to expand programming due to Congress' and the white house's recent investments in weatherization, energy efficiency, clean energy, and the American Climate Corps**

Initial Scope

- **Primary Objectives/Outcomes**
 - Assist underrepresented populations and individuals who are unemployed/underemployed in securing weatherization careers
 - Increase the ability of partners to provide weatherization services to more qualified families
- **Proposed Member Service Activities**
 - Workforce development and career navigation support to underrepresented, unemployed, and underemployed populations
 - Community outreach, engagement, education, and application assistance/follow-up support
 - Stakeholder engagement and coordination
 - Research, community engagement, data collection, and design support for pursuing/coordinating resources that would expand or enhance WAP programming
 - Assistance in establishing processes and systems needed to administer and enhance weatherization services
 - Potentially - Facilitating entry-level weatherization and retrofit services

Initial Scope:

BUILDING PERFORMANCE ASSOCIATION

PRIMARY RESPONSIBILITIES

- **Grant administration**
- **Securing match/cost share**
- **HR - Payroll/Benefits/Criminal History Checks/Onboarding Paperwork**
- **Reporting and Compliance**
- **Supervisor training and support**

ADDITIONAL SUPPORT PROVIDED

- **Corps Member Recruitment**
 - **Marketing materials/templates**
 - **National marketing/outreach efforts/postings**
 - **National applicant coordination**
 - **Initial onboarding and training**
- **Corps Member Support**
 - **Infuse BPI Certifications**
 - **Monthly Virtual Corps Member Enrichment and Training**
 - **Corps member check-ins**

**Initial
Scope:**

TARGET HOST SITES

- **Primary: State Weatherization or Energy Office**
- **Secondary: WAP Subgrantees**

Host Site Commitments

- **Local recruitment and Interviewing**
- **Designate a supervisor**
 - **Attend BPA meetings and trainings**
 - **Interviewing**
 - **Supplemental onboarding/training**
 - **Mentorships/advice**
 - **Timesheet approval**
 - **Data reporting**
 - **Necessary space, supplies, and equipment**
 - **Cost share contribution**

Next Steps

- **Timeline**
 - Submitted application in January 2024
 - Receive “intent to fund” in May 2024
 - Launch program in September 2024
- **Input Survey**
 - Not asking for any type of firm commitment at this time
 - Additional input on proposed service activities/areas of need
 - Term types that could be of most use/interest
 - Initial interest in serving as a host site
 - Ideal # of corps members
 - Staff capacity to provide recruitment/supervision support
 - Input on realistic cost share contribution (\$12,000)



**Home Depot
Program**



**Kentucky
Survey**



**Registered
Apprenticeship
TA Request**



**Affiliate and Allied
Partnerships**



Membership



**National Home
Performance
Conference &
Trade Show**

Staff Contacts

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