



Energy Specialist Apprenticeship Program

Mission

Train new and prospective workers in modern workforce skills to become home energy auditors, analysts, technicians, and specialists.

Energy Specialist Job Description:

Establish oneself with the knowledge, skills, and abilities to conduct energy audits of homes and buildings, building systems, or process systems - making them safer, healthier, and more efficient.

Alternative Job Titles:

Home Performance Consultant; Building Science and Energy Specialist; Building Scientist; Energy Advisor; Energy and Building Systems Specialist; Energy Auditor; Energy Consultant; Energy Rater; Home Energy Inspector; Home Performance Consultant; Energy Auditor and Analyst

Workforce & Training Program Management

Weatherization Assistance Program (WAP) Grantees & Contracting Businesses:

Turn-key apprenticeship program to recruit, train, and successfully implement the pending Inflation Reduction Act (IRA) Home Energy Rebate programs.

WAP and Contracting Businesses can receive employer direct subsidies through existing federal workforce programs and within individual states, including Training for Residential Energy Contractors (TREC), Energy Auditor Training (EAT), Infrastructure Investment and Jobs Act (IIJA), and more.

1 Market Gap Analysis

Evaluate existing contractor base, job-seekers, and community assets.

Identify gaps and opportunities for partnerships and sub-contractors.

Develop an outreach and training plan that includes local partners.

2 Outreach, Recruiting, & Enrollment



Direct outreach

to companies, nonprofits, employers, & prospective employees



Make connections

between interested companies & WAP sub-grantees



Enroll participants

in training programs
(see below)



Track & report

programmatic success

3 Training & Certification

Coordinate certification training and/or cohort training programs.

Certification-based on-the-job (OTJ) and online training developed based on organization needs and the needs of individual learners.

Cohort-based training programs are programs for new industry entrants and disadvantaged workers who need more support.

BPA has various training partners that can provide online tracking and training.

Training: Energy Specialist Program Highlights

The Energy Specialist apprentice will complete **2,000 hours of OTJ** and **144 hours of related technical instruction (RTI)**. The Energy Specialist apprenticeship program is designed to scale with IRA TREC Grants.

Schedule:

Flexible schedules enable apprentices to work within your business alongside a mentor while also receiving related technical instruction online, or in person through local providers. This follows the “earn while you learn” model.

Available Certifications:

BPI Building Science Principles (BSP), BPI Infiltration and Duct Leakage (IDL), BPA Building Analyst Technician (BA-T), BPI Building Analyst Professional (BA-P), BPI Energy Auditor (EA), BPI Quality Control Inspector (QCI), BPI Healthy Housing Principles (HHP), BPI Total Building Performance (TBP) (available soon) OSHA 10, DOE Energy Score Assessor, RESNET HERS Rater, RESNET Rating Field Inspector, IECC Codes Plans Examiner.

BPA Training Partners:

BPA collaborates with a range of providers to offer online tracking and program management tools. We also partner with both online and in-person training providers to assist you in crafting a personalized training pathway.

Programs created and facilitated online and in-person nationwide.

Technology solutions for program tracking, certification/licensure, and contractor eligibility.

Partnerships with state workforce development agencies, community action agencies, utilities, and community colleges.

Workforce & Training Program Management

Example Schedule

MONTH	MON	TUES	WED	THURS	FRI
Pre-Apprenticeship 1	<ul style="list-style-type: none"> • Orientation • Outline • Introductions • Pre-Assessment 	General labor in the field, shadowing different crews or roles			Building Science Principles (32hrs)
2	On-The-Job Technician Training		NREL: Badges in the field		Safety/OSHA/Lead Safe (24hrs)
3	BPI Infiltration & Duct Leakage Training (online) (8hrs)	BPI Infiltration & Duct Leakage Training (field) (8hrs)	On-The-Job Auditor Training (8hrs)		BPI Infiltration and Duct Leakage Testing (4hrs)
4	On-The-Job Technician Training Energy Specialist Training (online) (30hrs)				Professional Development Evaluation
5	BPI Building Analyst Technician Online (16hrs)		On-The-Job Training Technician BPI Building Analyst Technician field exam (4hrs)		
6	BPI Building Analyst Professional (Online) (16hrs)	On-The-Job Training Team Leader, Project Manager, Energy Auditor		BPI Building Analyst Professional written exam (2hrs)	

Workforce & Training Program Management

Example Schedule

MONTH	MON	TUES	WED	THURS	FRI
7	<ul style="list-style-type: none"> Evaluation Promotion 	On-The-Job Training Team Leader, Project Manager, Energy Auditor		Professional Development Evaluation	
8	On-The-Job Training Team Leader, Project Manager, Energy Auditor		BPI Building Energy Auditor Training (online) (32hrs)	Online Math (8hrs)	Community Enrichment hours (8hrs)
9	On-The-Job Training Team Leader, Project Manager, Energy Auditor, Quality Control Inspector		BPI Energy Auditor Field written exam (8hrs)	Entrepreneurship Training (8hrs)	Energy Modeling Training (Online) (8hrs)
10	On-The-Job Training Team Leader, Project Manager, Energy Auditor, Quality Control Inspector		BPI Quality Control Inspector Training (online) (26hrs)	Professional Development Evaluation	ASHRAE 62.2 (8hrs)
11	On-The-Job Training Team Leader, Project Manager, Energy Auditor, Quality Control Inspector		BPI Quality Control Inspector written Exam (2hrs)	Introduction in the mentorship of others	BPI Multifamily training (Online) (8hrs)
12	On-The-Job Training Team Leader, Project Manager, Energy Auditor, Quality Control Inspector		<ul style="list-style-type: none"> Pay Increase Final Evaluation 	Career exploration opportunity	BPI Healthy Homes Principles (12hrs)

Related Technical Instruction (RTI) Outline for the Energy Specialist Apprenticeship Program

RTI Provider Name	
Sponsor Name	Building Performance Association
Sponsor Address	651 Holiday Drive Suite 400 Pittsburgh, PA 15220
Sponsor Contact Name	Xavier Walter
Sponsor Contact Phone	(412) 424 - 0070
Sponsor Contact Email	xwalter@building-performance.org
Total Hours of Instruction	144

COURSE: Core Skills **HOURS: ~30**

1. Trade Orientation
2. OSHA 10-Hour
3. CPR/First Aid/AED
4. Construction Fall Protection
5. Energy Standards Codes
6. Professional Etiquette
7. Safety Data Sheets
8. Communication
9. Diversity Training
10. Lead Safety Training
11. Worker Behaviors
12. Basic Math
13. Basic Building Thermodynamics

COURSE: Materials, Tools, & Equipment **HOURS: ~30**

1. EE Product Recognition
2. Hand Power Tools
3. Ladder Safety
4. Blower Door Testing Equipment
5. Duct Leakage Testing Equipment
6. Sealants Weather-stripping
7. Equipment Maintenance
8. Product Safety
9. Innovative Diagnostics
10. Insulation Training
11. Advanced Building Materials
12. Commercial Applications
13. Trade Tools Activities

COURSE: Weatherization Skills**HOURS: ~30**

1. Material Handling
2. Floor, Ceiling, and Wall Insulation
3. Door & Window Replacement
4. Water Conservation Efficiency
5. Lighting Efficiency and Replacement
6. Appliance Efficiency Replacement
7. Moisture Control
8. Air Leakage Control
9. Consumer Communication Education
10. Healthy Home / IAQ
11. Team Leadership
12. Best Practices
13. Job Cleanup

COURSE: Energy Audits**HOURS: ~30**

1. Blower Door Test
2. Duct Leakage Test
3. Energy Usage Analysis
4. Working with Sub-contractors
5. Consumer Outreach Education
6. Energy Modeling/Reporting
7. Utility/Government Program Design
8. Sales
9. Project Management
10. HVAC Training
11. Project Communication
12. Interoffice Reporting
13. Public Speaking

COURSE: Supplemental Skills**HOURS: ~30**

1. Construction Skills
2. Print Reading
3. Communication Leadership Training
4. Career Advancement Opportunities
5. Resume Writing/Interviewing
6. Real Estate Engagement
7. Entrepreneurship
8. Quality Control
9. Inventory Management
10. Field Practices
11. Powered Industrial Truck Operator Qualification
12. Industry Advocacy
13. Mentorship Training



Work Process Schedule

Energy Specialist	
Job Description: Conduct energy audits of buildings, building systems, or process systems. May also conduct investment grade audits of buildings or systems.	
RAPIDS Code: 2005	O*NET Code: 47-4011.01
Estimated Program Length: 2000 hours	
Apprenticeship Type: Time-Based Competency-Based Hybrid	

On-the-Job Learning Outline

	Approximate Hours
A. Core Skills	300
B. Materials, Tools, & Equipment	300
C. Weatherization Skills	500
D. Energy Audits	500
E. Supplemental Skills	400

On-the-Job Learning Template

Demonstrates ability to...		
Competencies	Date Completed	initial
A.		
B.		