



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

Sponsor Name	
RTI Provider Name	Everblue
RTI Provider Address	8720 Camberly Road, Huntersville, NC 28078
RTI Contact Name	Lesley Baulding
RTI Contact Phone	(800) 460-2575
RTI Contact Email	training@support.goeverblue.com
Total Hours of Instruction	160

Course		Hours	
	BPI Building Science Principles	16	
	<ul style="list-style-type: none">• The “house-as-a-system” approach to home performance• How to identify potential building performance problems in a home• How to improve the safety, comfort, and health of building occupants• Why you should focus on energy efficiency before solar• How to educate clients about potential building performance problems		
	BPI Building Analyst Technician	40	
	<ul style="list-style-type: none">• Principles of Energy• Basics of Heat, Moisture & Airflow• Building Structural Elements• Types of Insulation• Building Mechanical Elements• Blower Door & Pressure Diagnostics• Combustion Safety• Common Problems & Solutions• The Energy Audit Process• Health & Safety		
	BPI Building Analyst Professional	10	

- Construction Math
- Principles of Heat, Moisture & Airflow
- Building Structural Elements
- Analysis of Data Collection
- Energy Modeling
- Work Scope Development
- Common Problems & Solutions
- The Energy Audit Process
- Health & Safety

Course	BPI Infiltration & Duct Leakage	Hours	14
	<ul style="list-style-type: none"> • Construction Math • Airflow • Blower Door & Pressure Diagnostics • Tightness Verification • Duct Testing • Duct Tightness Verification 		
Course	HEP Energy Auditor	Hours	40
	<ul style="list-style-type: none"> • Professional energy audit conduct • How to collect information about a building for an energy audit • Energy audit process • How to evaluate the collected energy audit data • Compliance with the program or project requirements • Educate homeowner on energy usage, mold, lead, and ventilation • Address homeowner's concerns and use of the home 		
Course	HEP Quality Control Inspector	Hours	15
	<ul style="list-style-type: none"> • In-process quality assurance inspections • Post-work visual and sensory inspections • Post-work diagnostic inspections for health and safety • Worker professionalism assessments • Compliance with program or project requirements • Evaluating customer satisfaction 		
Course	Weatherization Installer Badges	Hours	25
	<ul style="list-style-type: none"> • Work Lead-Safe • Air Seal Attic Floor • Seal & Dam High-Temp Heat Sources in Attic • Prep Attic Floor for Insulation • Treat Attic Hatch • Insulate Attic Floor & Pass Inspection the 1st Time 		

- Insulate Ceiling of a Manufactured Home
- Seal and Insulate Knee Walls
- Install Dense-Pack Sidewall Insulation
- Insulate Mobile Home Walls
- Install Weatherstripping & Sweep Set on Exterior Door
- Air Seal & Insulate Walls of a Conditioned Subspace
- Air Seal Floor Above an Unconditioned Subspace
- Insulate the Floor Above an Unconditioned Subspace
- Insulate the Belly of the Manufactured Home
- Install or Repair Vapor Retarder in a Subspace
- Vent Clothes Dyer to the Exterior
- Install Ducting for a Bath or Kitchen Range Fan
- Air Seal Ducted Distribution System
- Insulate Ducted Distribution System
- Install Window or Exterior Door
- Repair/Replace Cracked or Broken Glass
- Insulate a Water Heater Tank & the First 6 Feet of Pipes
- Install Low-Flow Faucet Aerators or Showerhead
- Install Exterior Roof Penetration



Work Process Schedule

Energy Auditor And Analyst	
Job Description: Conduct energy audits of buildings, building systems, or process systems. May also conduct investment grade audits of buildings or systems.	
RAPIDS Code: 2005CB	O*NET Code: 47-4011.01
Estimated Program Length: 2000 hours	
Apprenticeship Type: <input checked="" type="checkbox"/> Competency-Based <input type="checkbox"/> Time-Based <input type="checkbox"/> Hybrid	

Suggested On-the-Job Learning Outline

Identify opportunities to improve operational efficiency.		
Competencies	Date Completed	Initial
A. Identify and prioritize energy-saving measures.		
B. Identify opportunities to improve the operation, maintenance, or energy efficiency of building or process systems.		

Analyze energy usage data.		
Competencies	Date Completed	Initial
A. Calculate potential for energy savings.		
B. Collect and analyze field data related to energy usage.		
C. Measure energy usage with devices such as data loggers, universal data recorders, light meters, sling psychrometers, psychrometric charts, flue gas analyzers, amp probes, watt meters, volt meters, thermometers, or utility meters.		
D. Analyze energy bills, including utility rates or tariffs, to gather historical energy usage data.		
E. Quantify energy consumption to establish baselines for energy use or need.		
F. Determine patterns of building use to show annual or monthly needs for heating, cooling, lighting, or other energy needs.		
G. Compare existing energy consumption levels to normative data.		

Analyze risks related to investments in green technology.		
Competencies	Date Completed	Initial
A. Identify any health or safety issues related to planned weatherization projects.		

Calculate data to inform organizational operations.		
Competencies	Date Completed	Initial
A. Calculate potential for energy savings.		

Prepare financial documents, reports, or budgets.		
Competencies	Date Completed	Initial
A. Prepare audit reports containing energy analysis results or recommendations for energy cost savings.		

Inspect facilities or equipment to ensure specifications are met.		
Competencies	Date Completed	Initial
A. Inspect or evaluate building envelopes, mechanical systems, electrical systems, or process systems to determine the energy consumption of each system.		
B. Inspect newly installed energy-efficient equipment to ensure that it was installed properly and is performing according to specifications.		

Assess the cost effectiveness of products, projects, or services.		
Competencies	Date Completed	Initial
A. Analyze technical feasibility of energy-saving measures, using knowledge of engineering, energy production, energy use, construction, maintenance, system operation, or process systems.		

Evaluate condition of properties.		
Competencies	Date Completed	Initial
A. Examine commercial sites to determine the feasibility of installing equipment that allows building management systems to reduce electricity consumption during peak demand periods.		

Advise others on business or operational matters.		
Competencies	Date Completed	Initial
A. Recommend energy-efficient technologies or alternate energy sources.		

Research issues related to the environment or sustainable business practices.		
Competencies	Date Completed	Initial
A. Collect and analyze field data related to energy usage.		

Correspond with customers to answer questions or resolve complaints.		
Competencies	Date Completed	Initial
A. Educate customers on energy efficiency or answer questions on topics such as the costs of running household appliances or the selection of energy-efficient appliances.		

Develop technical specifications for systems or equipment.		
Competencies	Date Completed	Initial
A. Prepare job specification sheets for home energy improvements, such as attic insulation, window retrofits, or heating system upgrades.		

Test characteristics of materials or structures.		
Competencies	Date Completed	Initial
A. Perform tests such as blower-door tests to locate air leaks.		

Oversee business processes.		
Competencies	Date Completed	Initial
A. Oversee installation of equipment such as water heater wraps, pipe insulation, weatherstripping, door sweeps, or low-flow showerheads to improve energy efficiency.		

Verify application data to determine program eligibility.		
Competencies	Date Completed	Initial
A. Verify income eligibility of participants in publicly financed weatherization programs.		

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