Appendix A

WORK PROCESS SCHEDULE

AND

RELATED INSTRUCTION OUTLINE

Appendix A

WORK PROCESS SCHEDULE

Energy Specialist

(Existing Title: Energy Auditor and Analyst)

O*NET-SOC CODE: 47-4011.01 RAPIDS CODE: 2005HY

This schedule is attached to and a part of these Standards for the above identified occupation.

1. APPRENTICESHIP APPROACH

☐ Time-based ☐ Competency-based ☒ Hybrid

2. TERM OF APPRENTICESHIP

The minimum term of this occupation shall be approximately 1-1.25 years with an OJL attainment of 2000-2520 hours supplemented by 164 hours of related technical instruction

3. RATIO OF APPRENTICES TO JOURNEYWORKERS

The apprentice to Journeyworker ratio is: 1 Apprentice to 1 Journeyworker at the jobsite.

4. APPRENTICE WAGE SCHEDULE

Apprentices shall be paid a progressively increasing schedule of wages based on either a percentage or a dollar amount of the current hourly journeyworker wage rate, which is: *$*22.50. (This wage is illustrative. Local Wages will be provided by local employer/sponsor)

Period	Length	Percentage Journeyworker Rate
1	0-6 months	83%
2	7-12 months	98%
3	Exit Wage	100%

5. PROBATIONARY PERIOD

Every applicant selected for apprenticeship will serve a probationary period of 13 weeks.

6. SELECTION PROCEDURES

Please see page A-8.

Appendix A

WORK PROCESS SCHEDULE

Energy Specialist

(Existing Title: Energy Auditor and Analyst)

O*NET-SOC CODE: 47-4011.01 RAPIDS CODE: 2005HY

Energy Specialist/ Energy Auditor	
Job Description: Conduct energy audits of buildings, building systems, or process systems. May also conduct investment grade audits of buildings or systems.	
RAPIDS Code: 2005HY	**O*NET Code:** 47-4011.01
Estimated Program Length: 2,000 hours to 2,520 hours	
Apprenticeship Type: ☐ Competency-Based ☐ Time-Based ☒ Hybrid	

Identify opportunities to improve operational efficiency.	Approximate Hours	
A. Identify and prioritize energy-saving measures.	150	200
B. Identify opportunities to improve the operation, maintenance, or energy efficiency of building or process systems.	100	125
Total Hours	**250**	**325**

Analyze energy usage data.	Approximate Hours	
A. Calculate potential for energy savings.	20	25
B. Collect and analyze field data related to energy usage.	20	25
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.	20	50
D. Analyze energy bills, including utility rates or tariffs, to gather historical energy usage data.	10	15

E. Quantify energy consumption to establish baselines for energy use or need.	10	15
F. Determine patterns of building use to show annual or monthly needs for heating, cooling, lighting, or other energy needs.	10	15
G. Compare existing energy consumption levels to normative data.	10	15
Total Hours	**100**	**160**

Analyze risks related to investments in green technology.	Approximate Hours	
A. Identify any health or safety issues related to planned weatherization projects.	80	115
Total Hours	**80**	**115**

Calculate data to inform organizational operations.	Approximate Hours	
A. Calculate potential for energy savings.	40	50
Total Hours	**40**	**50**

Prepare financial documents, reports, or budgets.	Approximate Hours	
A. Prepare audit reports containing energy analysis results or recommendations for energy cost savings.	60	90
Total Hours	**60**	**90**

Inspect facilities or equipment to ensure specifications are met.	Approximate Hours	
A. Inspect or evaluate building envelopes, mechanical systems, electrical systems, or process systems to determine the energy consumption of each system.	150	170
B. Inspect newly installed energy-efficient equipment to ensure that it was installed properly and is performing according to specifications.	50	75
Total Hours	**200**	**245**

Assess the cost effectiveness of products, projects, or services.	Approximate Hours	
A. Analyze technical feasibility of energy-saving measures, using knowledge of engineering, energy production, energy use, construction, maintenance, system operation, or process systems.	150	170
Total Hours	**150**	**170**

Evaluate condition of properties.	Approximate Hours	
A. Examine sites to determine the feasibility of installing equipment that allows building management systems to reduce electricity consumption during peak demand periods.	100	115
Total Hours	**100**	**115**

Advise others on business or operational matters.	Approximate Hours	
A. Recommend energy-efficient technologies or alternate energy sources.	50	70
Total Hours	**50**	**70**

Research issues related to the environment or sustainable business practices.	Approximate Hours	
A. Collect and analyze field data related to energy usage.	80	125
Total Hours	**80**	**125**

Correspond with customers to answer questions or resolve complaints.	Approximate Hours	
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.	150	170
Total Hours	**150**	**170**

Develop technical specifications for systems or equipment.	Approximate Hours	
A. Prepare job specification sheets for home energy improvements, such as attic insulation, window retrofits, or heating system upgrades.	160	180
Total Hours	**160**	**180**

Test characteristics of materials or structures.	Approximate Hours	
A. Perform tests such as blower-door tests to locate air leaks.	100	155
Total Hours	**100**	**155**

Oversee business processes.	Approximate Hours	
A. Oversee installation of materials and equipment such as air sealing, insulation, pipe insulation, weather-stripping, door sweeps, or low-flow showerheads to improve energy efficiency.	400	450
Total Hours	**400**	**450**

Verify application data to determine program eligibility.	Approximate Hours	
A. Verify income eligibility of participants in publicly financed weatherization programs.	80	100
Total Hours	**80**	**100**
Total Program Hours	**2,000**	**2,520**

Appendix A

RELATED INSTRUCTION OUTLINE

Energy Specialist

(Existing Title: Energy Auditor and Analyst)

O*NET-SOC CODE: 47-4011.01 RAPIDS CODE: 2005HY

Related Instruction Provider	
Name: Building Performance Association	
Address: 651 Holiday Drive Suite 400, Pittsburgh, PA 15220	
Email: info@building-performance.org	**Phone Number:** 412-424-0070
Related Instruction Hours: 164 Hours	

Course Titles	**Approximate Hours**
Advanced Building Science Principles	24
Advanced Energy Auditing and Diagnostics	28
Combustion Safety and HVAC System Analysis	16
Energy Modeling and Analysis Software	32
Renewable Energy Systems for Residential Buildings	16
Financial Analysis and Reporting	16
Advanced Client Communication and Consultation	8
Codes, Standards, and Regulations	8
Final Project and Comprehensive Assessment	16
Total	**164**

SELECTION PROCEDURES

Selection procedures will be determined by the local sponsor.

The local sponsor will not discriminate against apprenticeship applicants or apprentices based on race, color, religion, national origin, sex (including pregnancy and gender identity), sexual orientation, genetic information, or because they are an individual with a disability or a person 40 years old or older.

The sponsor will take affirmative action to provide equal opportunity in apprenticeship and operate the apprenticeship program as required under Title 29 of the Code of Federal Regulations, part 30.

Sponsors may develop procedures for direct entry, such as completing a pre-apprenticeship program.