

Opportunity Title: ORNL Energy Efficiency Engineer Post-Master's Research

Opportunity Reference Code: ORNL20-16-ETSD

Organization Oak Ridge National Laboratory (ORNL)

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Description Oak Ridge National Laboratory (ORNL) is the largest U.S. Department of Energy (DOE) science and energy laboratory, conducting basic and applied research to deliver transformative solutions to compelling problems in energy, environment, and security.

> The Energy Efficiency Research and Analysis Group within the Energy and Transportation Science Division (ETSD) at ORNL is seeking applicants to work in the areas of industrial and building energy efficiency and corporate energy management.

The Post-Master's Research Associate would assist principal investigators and lead projects as part of an expanding program. This position will be focused on technical assistance and research related to improved energy management in existing buildings and industrial facilities during their operational phase. The selected candidate would provide support to the U.S. DOE's Advanced Manufacturing Office (AMO) programs. AMO is under the DOE Office of Energy Efficiency and Renewable Energy (EERE). There may also be opportunities to work on international energy efficiency programs. AMO's Technology Partnerships subprogram presently works with some of the largest manufacturing plants in the U.S. through the DOE's Better Buildings, Better Plants Program.

## **Major Duties and Responsibilities:**

The selected candidate will collaborate on research and analysis of technologies and practices for increasing the energy efficiency of the industrial and buildings sectors. The assignment will involve leading projects and supporting ORNL program managers and principal investigators on AMO programs and projects in a fast-paced multi-tasking environment. The AMO project work includes supporting activities under the DOE's Better Buildings, Better Plants program; activities would include: working with key Better Plants companies and interfacing with corporate energy managers, visiting manufacturing sites, analyzing technologies, assisting industrial clients to improve energy management practices, perform energy data benchmarking, and analysis studies. This work may include writing technical reports to summarize the results of technical assistance activities and contributing to periodic progress reports for sponsors. The candidate should have the ability to work creatively and cooperatively as a member of an interdisciplinary research team.

The selected candidate will support projects, collaborate with staff and partner organizations on research initiatives, network with related organizations, interact with a variety of individuals, and prepare/present results to stakeholders.

Qualifications Candidates should have completed a master's degree in mechanical engineering, industrial engineering, or a related discipline. Experience with industry and/or buildings, specifically with energy efficiency management



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Associate

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and projects is desired.

### Required Skills:

 Excellent oral and written communication skills to support regular interactions with manufacturing partners, sponsors, and others and to prepare reports, proposals, publications, and journal articles is required.

#### **Preferred Skills:**

- Proficiency with the use of Excel in engineering data reduction and analysis is essential.
- Experience with mechanical engineering modeling and analysis tools is highly desirable.
- Knowledge of industrial processes, building science, energy savings performance contracts, heating and cooling technologies, and mechanical systems and controls is desired.
- Familiarity with numerical calculation and statistical data analysis techniques is desired.
- Strong interpersonal and communication skills to support team building, partnering, and communications are a plus for this position.
- Must be willing to travel. The successful candidates will be involved in meetings with DOE sponsors in Washington, D.C. and will attend key conferences and workshops. Travel will be periodically required to visit federal facilities and industrial plants.

No security clearance is required for this position.

Living in East Tennessee: While the opportunity to work at ORNL is an amazing experience in itself, it's easy to overlook everything else East Tennessee has to offer if you haven't had the opportunity to spend time here. From spending your weekends downtown at Knoxville's farmers market, the Rhythm n' Blooms Music Festival, or the Dogwood Arts Festival, to some of the best hiking, kayaking, and camping in the U.S., East Tennessee has something to offer everyone.

The ORNL Post-Master's Research Associate Program is administered by Oak Ridge Associated Universities through its contract with DOE to manage the Oak Ridge Institute for Science and Education (ORISE).

# Eligibility Requirements

- Degree: Master's Degree received within the last 60 months or currently pursuing.
- Discipline(s):
  - Computer, Information, and Data Sciences (1\_)
  - Engineering (27 •)
- Age: Must be 18 years of age

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