Introduction

The Association of Energy Engineers, a nonprofit global professional society of over 18,000 members, issues an annual survey to determine the need for energy efficiency jobs, energy industry potential, and salary data. The results are based on more than 2400 responses and 78 countries represented.

AEE was founded in 1977 and its mission is “to promote the scientific and educational interests of those engaged in the energy industry and to foster action for Sustainable Development.”

The Association of Energy Engineer’s member survey shows that 20% of energy professionals surveyed plan to retire within the next 5 years and 20% within the next 10 years. This means close to 40% of the energy professionals surveyed are planning to leave the energy workforce before 2030.

The 2018 U.S. Energy and Employment Report found that 6.5 million Americans were employed in traditional energy and environmental jobs, out of approximately 145 million American workers. The 6.5 million is a 5% increase since 2016, adding 300,000 new jobs, nearly 14% of all jobs nationwide.

The International Renewable Energy Agency (IRENA) shows that more than 70% of clean energy jobs are in just six countries - China, Brazil, India, Germany, Japan, and the United States. showing that this sector has an enormous growing opportunity globally. IRENA’s fifth Renewable Energy and Jobs Review shows the clean energy sector employs 10.3 million workers, with 60% of jobs in Asia.

The energy efficiency, renewable and sustainability markets will continue to gain significant traction and growth in 2019 as more organizations embrace energy efficiency and strive to achieve energy reduction and energy savings goals.
The results represented in this report are based on more than 2400 responses with 78 countries represented. The map below details the diverse locations where energy related work is performed.
Respondents Role in Organization

- Sustainability Manager / Executive: 3.16%
- Utility Account Manager: 5.01%
- Facility Manager: 5.45%
- Equipment Manufacturer / Sales: 1.89%
- Energy Executive: 5.09%
- ESCO Representative: 6.41%
- Project Manager / Engineer: 20.33%
- Energy Manager (End User, Government, Industrial, or Institutional): 20.86%
- Energy Consultant or Contractor: 23.58%
- Academia (Professors or Students): 1.84%
- Other (Building Owners, Operators, Energy Auditors, Supervisors, Operations): 6.37%
Years of Energy Efficiency Experience

- 87% of respondents hold a 4-year degree.
- 26% of respondents have a P.E. or R.A.
- 40% of respondents have a post graduate degree.
Is there a shortage of energy professionals?

- 71% of international respondents said yes
- 64% of U.S. respondents said yes

24% of international respondents plan to retire within the next 5-10 years.

48% of U.S. respondents plan to retire within the next 5-10 years.

47% of companies plan to hire within the next 12 months.
Respondents Base Salary in 2017

- **Up to $25,000**: 1.37% (US) / 24.51% (International)
- **$25,000 to $50,000**: 3.8% (US) / 22.27% (International)
- **$50,000 to $75,000**: 17.41% (US) / 16.07% (International)
- **$75,000 to $100,000**: 30.34% (US) / 17.41% (International)
- **$100,000 to $150,000**: 37.34% (US)
- **$150,000 to $200,000**: 7% (US) / 2.64% (International)
- **$200,000 to $300,000**: 2.13% (US) / 0.53% (International)
- **Over $300,000**: 0.61% (US) / 0.4% (International)

**US Respondents Average Salary** - $105,661
**International Respondents Average Salary** - $66,838
Respondents Bonus in 2017

US Respondents Average Bonus - $7,426.91
International Respondents Average Bonus - $4,984
96% of respondents hold an AEE certification.

Which of the following have been achieved since gaining an AEE Certification?

- Helped my Career/Promotion: 52%
- Receiving higher compensation: 24%
- Receiving higher visibility: 45%
- Benefitted my firm: 57%
- Given my firm a competitive edge: 26%
85% of respondents feel the need for additional training.

### Additional Training Needed

- **Water Efficiency**: 28%
- **Smart Grid / Demand Response**: 33%
- **Skills Update for Energy Managers**: 40%
- **Performance Contracting & Project Financing**: 24%
- **Measurement & Verification**: 40%
- **Cogeneration & Distributed Generation**: 26%
- **Carbon Reduction & GHG Management**: 24%
- **Energy Auditing**: 24%
- **Building Commissioning**: 32%
- **Big Data / Data Analytics**: 40%
- **Alternative Energy & Renewables**: 46%

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