Multiple Benefits of Energy Efficiency

Jobs

Why is energy efficiency important for jobs?

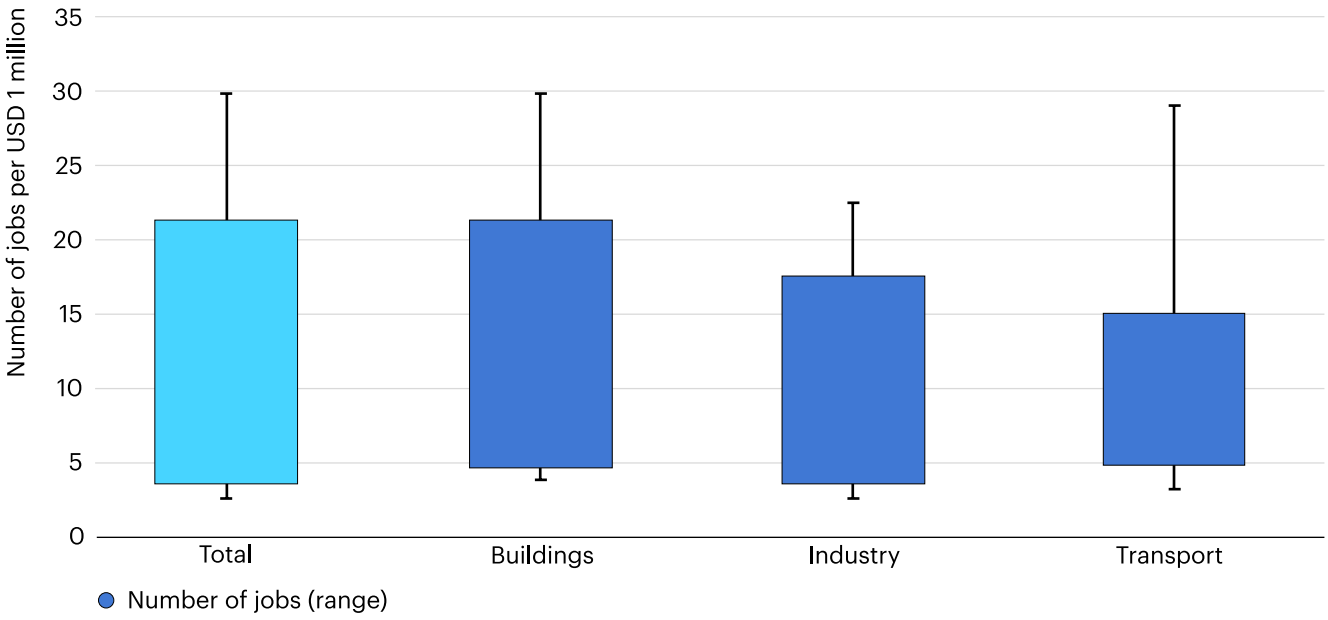
Investment in energy efficiency **creates jobs** in a wide range of occupations and geographic locations.

- Around **10 million people** work in energy efficiency-related jobs globally, representing nearly 15% of all energy-related jobs.
- Studies indicate that energy efficiency creates **between 4 and 22 jobs** per USD 1 million invested, depending on economic structure and energy efficiency measure. By lowering energy spending, energy efficiency also helps foster business growth and competitiveness.
- Energy efficiency offers a **wide array of job opportunities**, including in installation and repair but also in the manufacturing, supply and distribution of efficient equipment.

Key analysis

A review of studies shows that an investment of USD 1 million can create and maintain for one year between 5 and 22 jobs in the buildings sector, between 4 and 14 jobs in the industrial sector, and between 5 and 15 jobs in the transport sector.

Number of jobs created by energy efficiency action type, European Union, 2024



Notes
Columns denote the 20th and 80th percentile of countries; spread indicators denote the full sample.

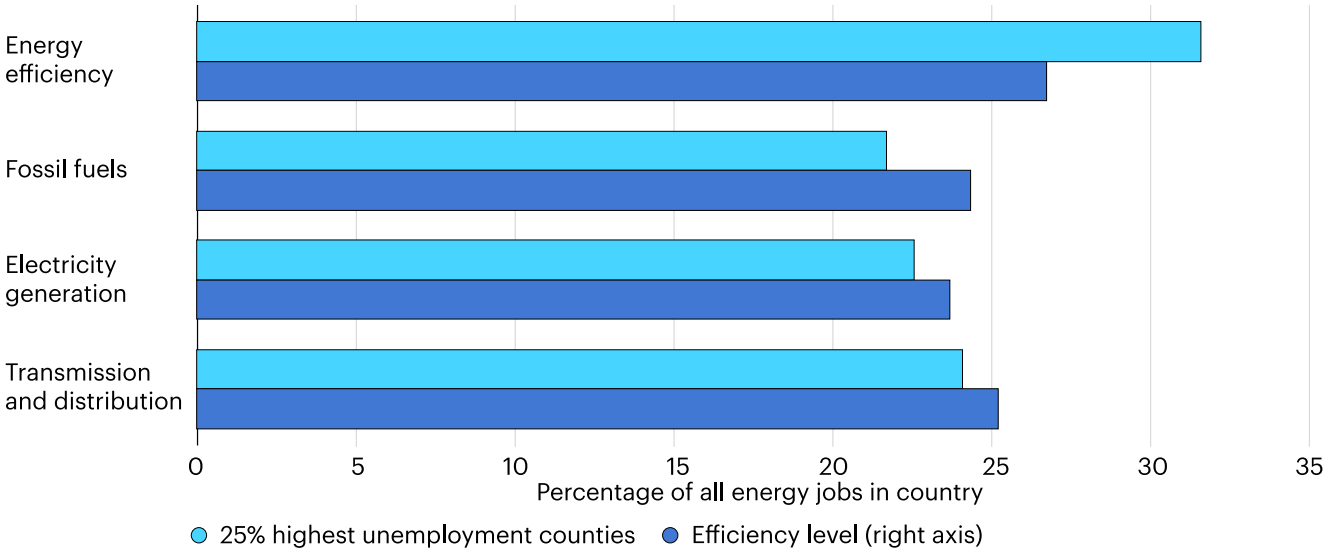
Source
IEA analysis based on data from MICATool.

A closer look at job location

Energy efficiency spurs job creation at the local level while creating economy-wide gains. While jobs in industrial efficiency and manufacturing tend to be more concentrated, sectors such as buildings, which require the deployment of technicians to install and repair equipment or energy auditors, can also boost local employment. Investments in qualification and upskilling can decrease the risk of skills and labour shortages and enable the economy to benefit from the full potential of energy efficiency job creation.

In the United States, IEA analysis shows that energy efficiency offers more jobs than other energy sectors – such as fossil fuel supply, power generation, or transmission and distribution – across a variety of locations. For instance, in areas with high unemployment rates, energy efficiency accounts for an even higher share of energy sector jobs than in areas with lower unemployment. Meanwhile, other energy sector jobs are more prevalent in areas with lower unemployment rates.

Distribution of energy sector jobs by local unemployment rate and by functional area, United States by county, 2024



Notes
Fossil fuels include provisioning and refinement.

Source
IEA analysis based on US Department of Energy (2024), 2024 U.S. Energy & Employment Jobs Report (USEER) (accessed on 08 April 2025) and data from Social Vulnerability Index, (accessed on 08 April 2025).

Energy efficiency investments also contribute to enhance the quality of jobs in other industries. Firms that invest in energy efficiency can significantly improve the quality of the working environment, with efficient lighting that provides increased visual comfort, or efficient ventilation systems that enhance air quality. By freeing up businesses' spending through reduced energy bills, energy efficiency helps minimise cost pressures and supports employers in safeguarding jobs.

Need more information?

IEA (2020), World Energy Outlook Special Report - Sustainable Recovery.
MICAT (2024), Empirical basis factsheet on Economic impacts - Employment effects.