

# Schneider Electric and Boston University Joint-Study Reveals Over 2 million New Jobs Can Be Created During the Transition to Net-Zero Buildings

- Results offer micro-scale view of green employment opportunities from deploying low-carbon technologies in retrofit and new buildings
- Even with conservative estimations, the journey to net-zero buildings could generate more than 141 million job years

**Rueil-Malmaison (France), 10 October 2023** – [Schneider Electric](#), the leader in the digital transformation of energy management and automation, together with Boston University, today announces a first-of-its-kind study that finds that more than 2 million new jobs and up to 141 million additional job years can be created in Europe and the United States by adopting clean energy technologies in new and retrofitted buildings. The results come from a research collaboration between the [Boston University Institute for Global Sustainability](#) (IGS) and the [Schneider Electric™ Sustainability Research Institute](#) (SRI).

The open-access paper, "[Building a Green Future: Examining the Job Creation Potential of Electricity, Heating, and Storage in Low-Carbon Buildings](#)," is the first to estimate job creation in low-carbon "buildings of the future" at such a granular level. Taking a micro-scale view, the study estimates the global employment outcomes for low-carbon building archetypes spanning residential, hospital, hotel, office, retail, and education in regions of North America, Europe and Asia. The data focused specifically on the potential around deploying rooftop solar panels, heat pumps, and energy storage batteries for self-produced (or prosumer) renewable energy. These low-carbon technologies—all of which are readily available today—support the electrification and digitalization of the buildings sector, which is critical to reducing greenhouse gas emissions on a global scale. The study's job estimates will be fully realized over time in alignment with global net-zero goals targeting 2050, making this a reasonable timeline for 100% renovation of eligible buildings.

"It is increasingly clear that, thanks to modern technologies, it is now feasible to rapidly transition buildings to net-zero," explained Vincent Petit, Senior Vice President of Climate and Energy Transition Research at Schneider Electric and Head of the SRI. "What we often do not realize is that such a transition comes with significant socioeconomic benefits. This research is another demonstration of this fact."

## Key findings:

- Job creation potential depends on both the region and type of building. For residential buildings, approximately 0.05 jobs can be created per building. For commercial buildings, it ranges between 0.3 and 4.7 jobs each. Due to the number of combined residential and commercial buildings, the job creation potential surpasses millions.
- Europe envisions substantial job creation, with specific figures indicating the potential workforce growth in several key countries. France could potentially generate 295,000 jobs, closely followed by Germany with 257,000 jobs, Italy with 252,000 jobs, the UK with 247,000 jobs, Spain with 212,000 jobs, and the Netherlands with 66,000 jobs.
- Significant job creation is anticipated across various regions of the United States with the West region with 182,000 potential jobs created, while the Midwest is projected to see an increase of

18,900 jobs. In the Northeast, 123,000 jobs are anticipated, and the South and Southeast regions are poised for substantial growth, with an estimated 319,000 jobs.

- The greatest job creation potential is in using heat pumps for large buildings and battery storage in regions and building types with surplus solar energy.
- For heat pumps, solar PV, and batteries, the largest share of job years comes from construction and installation.
- The research expands on two recent findings from the SRI that demonstrated [over 60% carbon emissions reduction](#) can also be achieved when implementing these low-carbon solutions and up to [70% when deploying digital building and power management solutions](#) in existing office buildings.

“Employment is often a polarizing topic at the center of the transition to a net-zero economy, mired in uncertainty about emerging opportunities in green energy,” stated Benjamin Sovacool, Director, Boston University Institute for Global Sustainability and Professor, Earth & Environment, College of Arts & Sciences. “This study brings greater detail to the sizable potential for new jobs created by low-carbon buildings, a compelling co-benefit of decarbonization that could have the power to ease social and economic concerns and positively shape climate policy.”

These findings can drive significant benefits in the near term, making the detailed estimations useful for informing companies, communities, and governments seeking to engage in building projects. For policymakers, understanding the potential that the transition to net-zero living can have on creating jobs could potentially incentivize skeptics to favor a green energy shift. For business decision makers, job estimates can improve forecasts around scope, investment, lifecycle management and impact for building projects.

**Access to the research paper and reference:**

Sovacool, BK, D Evensen, TA Kwan and V Petit. “Building a Green Future: Examining the Job Creation Potential of Electricity, Heating, and Storage in Low-Carbon Buildings,” *Electricity Journal* 36(5) (June, 2023), 107274, pp. 1-11. Available at: <https://doi.org/10.1016/j.tej.2023.107274>

**Access to Schneider Electric™ Sustainability Research Institute report**

Schneider Electric, 2022, July 13. Towards net-zero buildings: a quantitative study. Sustainability Research Institute, Boston, MA, USA and Grenoble, France. Retrieved from:

<https://www.se.com/ww/en/insights/sustainability/sustainability-research-institute/building-a-green-future.jsp>

**About Schneider Electric**

Schneider’s purpose is to **empower all to make the most of our energy and resources, bridging progress and sustainability** for all. We call this **Life Is On**.

Our mission is to be your **digital partner for Sustainability and Efficiency**.

We drive digital transformation by integrating world-leading process and energy technologies, end-point to cloud connecting products, controls, software and services, across the entire lifecycle, enabling integrated company management, for homes, buildings, data centers, infrastructure and industries.

We are the **most local of global companies**. We are advocates of open standards and partnership ecosystems that are passionate about our shared **Meaningful Purpose, Inclusive and Empowered** values. [www.se.com](http://www.se.com)

Discover Life Is On

Follow us on:



Discover the newest perspectives shaping sustainability, electricity 4.0, and next generation automation on [Schneider Electric Insights](#)

**Hashtags:** #News #Sustainability #Net-Zero #SRI #BuildingsOfTheFuture #Electrification #Decarbonization