FLEXLAB®

The world's most advanced integrated building and grid technologies testbed

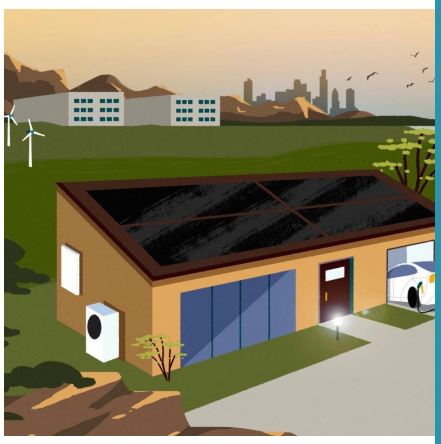
Decarbonization for All

As we celebrate **FLEXLAB's®** first 10 years of accomplishments, we will be highlighting research achievements over this period and looking towards the future. In this newsletter we focus on projects that have supported deep energy retrofits and decarbonization of underserved communities. As we look towards mitigating climate change and creating a greener future, technical solutions should meet the needs of all building stakeholders and communities, including disadvantaged communities, low-income K-12 schools, and low-to-medium income multi-family and small commercial buildings. From energy efficiency to demand flexibility, FLEXLAB research informs how innovative states and the nation can achieve their lofty goals for a more equitable, just, and clean energy transition.

Learn More!

Latest FLEXLAB News & Updates

How FLEXLAB Supports Decarbonization of the Grid, Communities, and Buildings

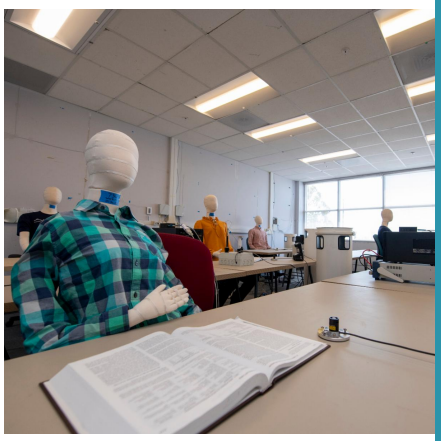


Decarbonizing buildings and the grid are key to meeting U.S. climate goals, and FLEXLAB is perfectly positioned to help with this. FLEXLAB's testing capabilities span the full range of demand-side building systems, energy storage, renewable energy generation, and grid condition simulation and emulation. It's an ideal environment to test the full spectrum of carbon saving and load flexible technologies. We recently published an article that highlighted a few notable projects that demonstrate FLEXLAB's decarbonization research, focusing on the role of heat pumps in decarbonizing buildings, electric

vehicles as a resilience and load flexibility resource, and technologies to support the underserved small commercial buildings market.

Learn more

Improving Energy Use and Environmental Quality for Schools



For the U.S. Department of Energy's Building Technologies Office, FLEXLAB researchers developed sets of energy efficient, zero or low carbon, and indoor air quality (IAQ) improvement technology packages for schools. The FLEXLAB tests enabled researchers to illustrate both the energy and IAQ benefits of the technology packages under controlled poor air quality conditions. They illustrated up to 90% improvement in IAQ while also lowering energy costs. The results can quickly show K-12 schools the benefits of these cost-effective and lighter touch retrofits, and they are being referenced as accessible, achievable examples for applicants of the **Renew America's Schools BIL FOAs**, and in support of schools gaining recognition for improvement efforts through the **Efficient and Healthy Schools Program**. Both programs lead the way in prioritizing support for K-12 schools in disadvantaged communities, providing funding and technical support in achieving these goals.

Learn more

ZNE Small Commercial Building Retrofits

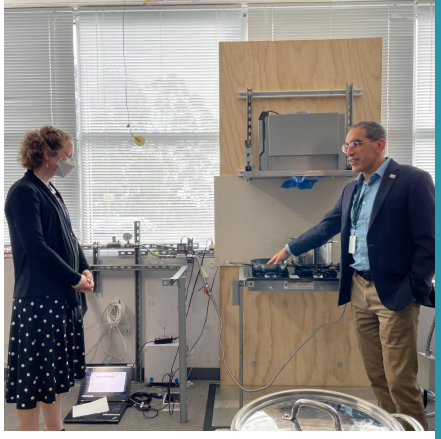
Funded by the California Energy Commission (CEC), researchers from Berkeley Lab developed cost-effective packages of technologies for zero net energy (ZNE) retrofits of small commercial offices in California. This underserved market typically doesn't have access to comprehensive, cost-evaluative information about how to reduce energy use, as professional energy consulting services that identify savings opportunities tend to have proportionally higher costs compared to the energy cost savings gained. FLEXLAB researchers developed the cost-effective packages for easy access through the **Commercial Building Energy Saver tool**, and validated package performance in FLEXLAB, giving industry the confidence to apply them in existing buildings.

Learn more

Visits from EERE Leadership

Recently, FLEXLAB had the honor of hosting Office of Energy Efficiency & Renewable Energy (EERE) leaders to brief them on current research and to discuss industry needs in the clean energy transition. **Dr. Carolyn Snyder**, Deputy Assistant Secretary for Buildings and Industry at the U.S. Department of Energy (DOE), leads offices that advance energy efficiency and reduce emissions from

buildings and industry while supporting U.S. energy security and manufacturing competitiveness. **Alejandro Moreno**, Associate Principal Deputy Assistant Secretary for EERE at DOE, provides strategic advice and leadership in strategic planning, execution, and oversight of the EERE portfolio. While visiting Berkeley Lab, Dr. Snyder and Mr. Moreno had the opportunity to discuss industry challenges and future R&D needs, engage with Berkeley Lab staff, and tour multiple world-class laboratories, including FLEXLAB.



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(In case you missed it...)

FLEXAB Animation | **FLEXLAB Self-guided Virtual Tour** | **FLEXLAB Video** | **FLEXLAB Case Studies**

To learn how FLEXLAB® can work for you

Contact **Cindy Regnier**

Visit **flexlab.lbl.gov**

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