

PANEL 3: Commercial Buildings: Technologies, Design, Operations, and Industry Trends

To support the conference theme of “Equity and Climate Action: Time to Deliver” this panel will cover a range of U.S. and international topics relevant to equitably improving energy efficiency and reducing greenhouse gas in the commercial sector, with an emphasis on how the IRA and other major policies are impacting the economics of deployment. Topics of interest include:

- Current and emerging strategies and technologies that can scale up building decarbonization in hard-to-reach sectors while sharing benefits with environmental justice, low-income, and marginalized communities.
- Strategies, approaches, and technologies to equitably decarbonize existing buildings through benchmarking and performance analysis/modeling/monitoring, building retrofits, electrification, system commissioning/fault detection, and operational improvements.
- Innovative and impactful new construction strategies and technologies, including embodied carbon measurement/mitigation, integrated design approaches, and prefabrication/modular construction techniques.
- Smart, innovative controls, energy management and information systems, mechanical equipment, and novel AI/ML-based techniques that improve commercial building operational and energy efficiency while enhancing building-grid integration, resiliency, occupant comfort and well-being, or delivering other benefits.
- Electrification of commercial building end uses, especially space heating, water heating, and transportation.
- Integration of distributed energy resources and improved building-grid integration within and beyond the single-building scale, such as on-site renewable generation, energy storage, electric vehicles, and community-level energy management.
- Other important commercial buildings industry and market trends.