PANEL 11: Resilient and Healthy Communities

Communities are at the core of actions taken to reduce climate change impacts and increase resilience. This panel seeks papers that advance our understanding of the role and impact that resilient and sustainable communities have on the built environment. We seek to increase our understanding of both potential synergies and possible conflicts between efficiency and resiliency. Selected papers will attempt to answer questions through research, field demonstration, and/or case studies, potentially including the following:

• What considerations need to be made when designing community-scale sustainability and resilience strategies (e.g., microgrids, energy storage, district thermal power), including in both new and existing communities?

• How do community-based organizations work to enact change equitably?

• Which sustainable and resilient features are best managed at an individual-building level versus at a larger community scale?

• Which building technologies and operations methods can contribute to both efficient and resilient performance?

• How can high-performance building features be leveraged, changed, or optimized to also deliver resilience benefits? Preferred papers will present outcomes that could include the following:

• Quantification of efficiency, health, and resilience benefits offered by specific technologies

• Methods that ensure resilience benefits can be delivered equitably, including communities that historically have been underserved in terms of building efficiency and resilience investment and as a result may be more vulnerable

• Identification of best-value efficient and resilient technology investments based on building types, geography, and potential building- or community-level threats (e.g., threats and hazards to building structures, systems, controls, and energy supply)

• Valuation of resilience benefits from distributed energy resources (e.g., site generation, energy storage, microgrids) at individual-building and community scales

• Identification of efficient and resilient strategy integration in disaster planning and disaster recovery efforts