

PANEL 11: Resilient, Sustainable Communities

This panel seeks papers that advance the understanding of resilient and sustainable communities in the built environment. Understanding and addressing both potential synergies and conflicts between efficiency and resilience and describing methods for achieving the benefits of buildings and communities that are both efficient and resilient are most important.

Selected papers will attempt to answer questions through research, field demonstration, and/or case studies, potentially including the following:

- 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?
- Which sustainable and resilient features are best managed at an individual-building level, versus at a larger community scale?
- When is it best to design community-scale sustainability and resilience strategies (e.g., microgrids, energy storage, district thermal power), including in both new and existing communities?

Preferred papers will present outcomes that could include the following:

- Quantification of efficiency and resilience benefits offered by specific technologies
- Identification of efficient and resilient strategy integration in disaster planning and disaster recovery efforts
- 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
- How to assure 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