

Electrification through the Lens of Resilience:

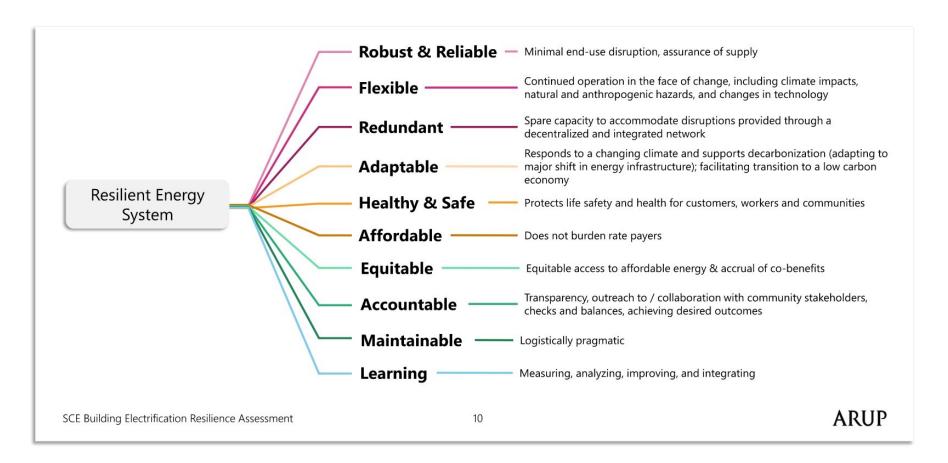
A Conceptual Overview

Heather Joy Rosenberg

Associate Principal | Resilience



Attributes of a Resilient Energy System

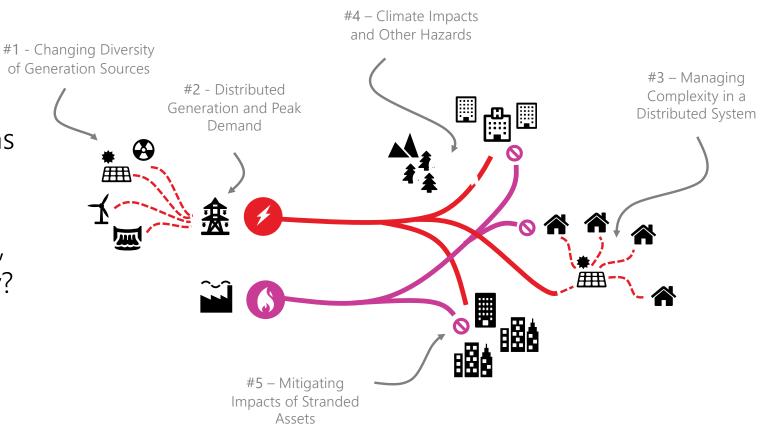


What Does Good Look Like?



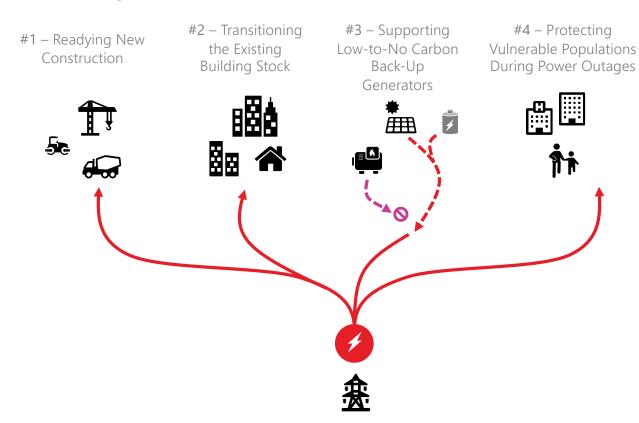
Energy Resilient Grid

How do we strategize grid enhancements as we electrify to ensure building resilience, safety, and affordability?



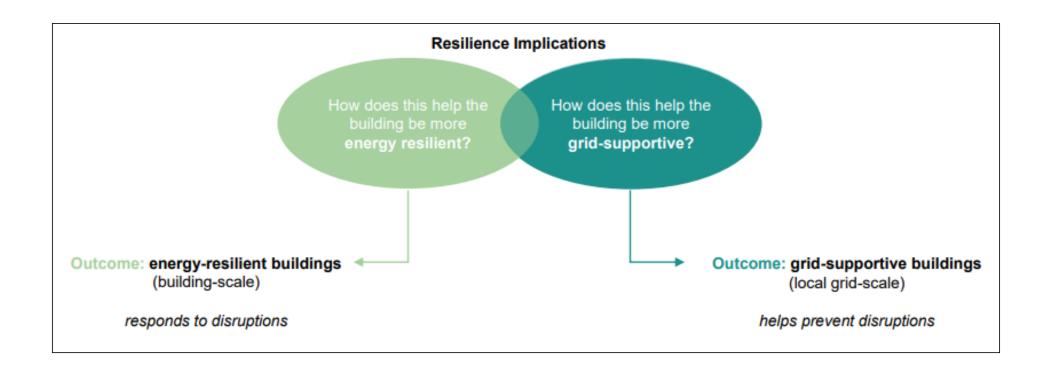
Energy Resilient Buildings

How do we electrify buildings while ensuring resilience and equity in demand-side operations and infrastructure?



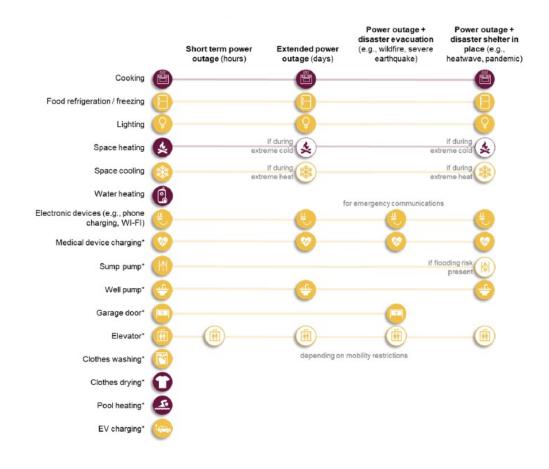


Energy Resilient Buildings





Planning for Changing Conditions



Legend

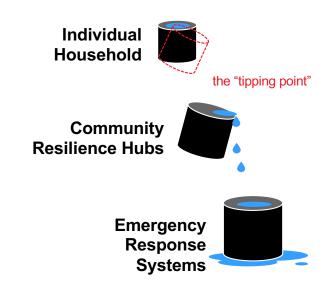
Typically powered by onsite natural gas now
Only option now is all-electric

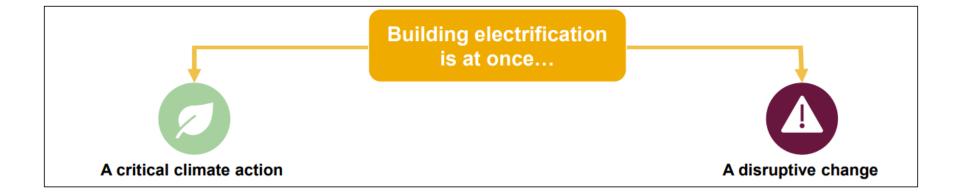
*if applicable (common but less typical end-uses, depending on residential building type)



How Does Your Building Function?

- During normal times?
- During times of disruption?
 - Shelter in place?
 - Receiving evacuations?
 - Providing information?
 - Providing community services?
 - Supporting emergency services?





Challenge:

How can we leverage the energy transition to become more resilient?

How can we reduce the drivers of climate change as we build adaptive capacity in the energy system?

Thank you

Heather.Rosenberg@Arup.com



What does good look like from a carbon perspective?



What does good look like from a resilience perspective?

