

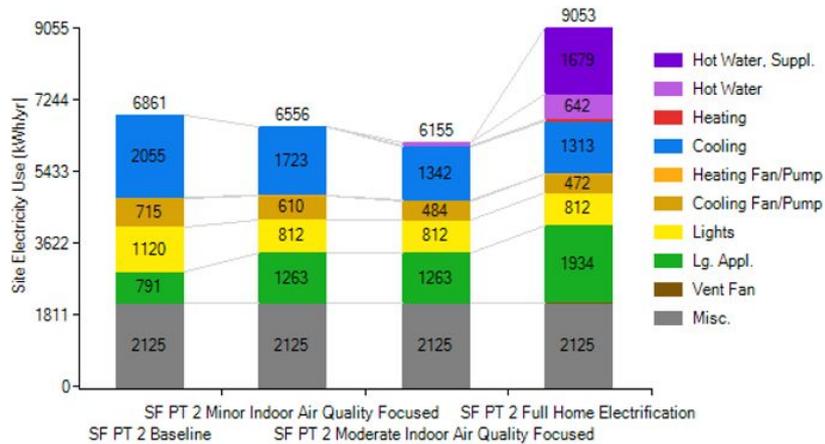


CPUC Resiliency/Reliability Workshop

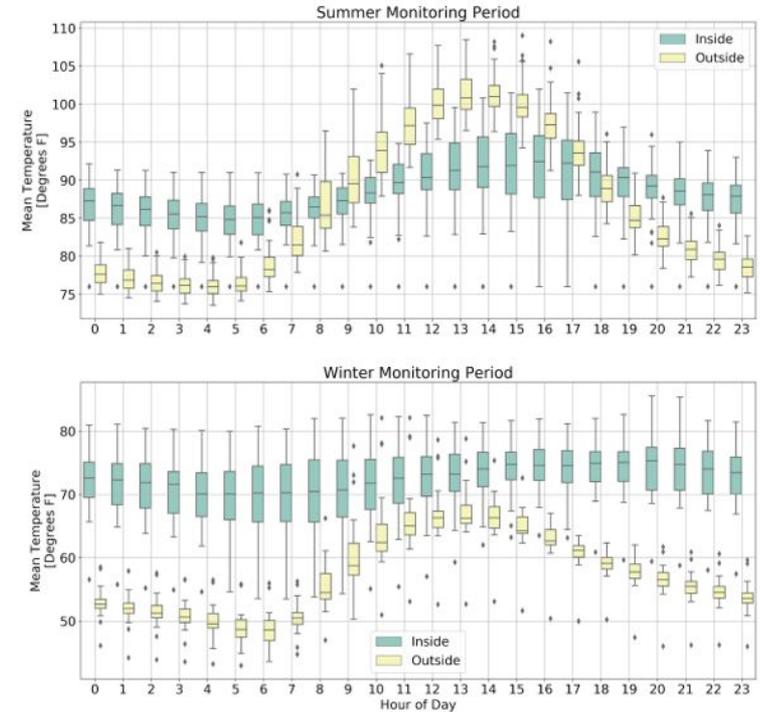
Los Angeles, Sept 2023

Homes and people need help

- High tolerance for thermal discomfort
- >85F inside the homes

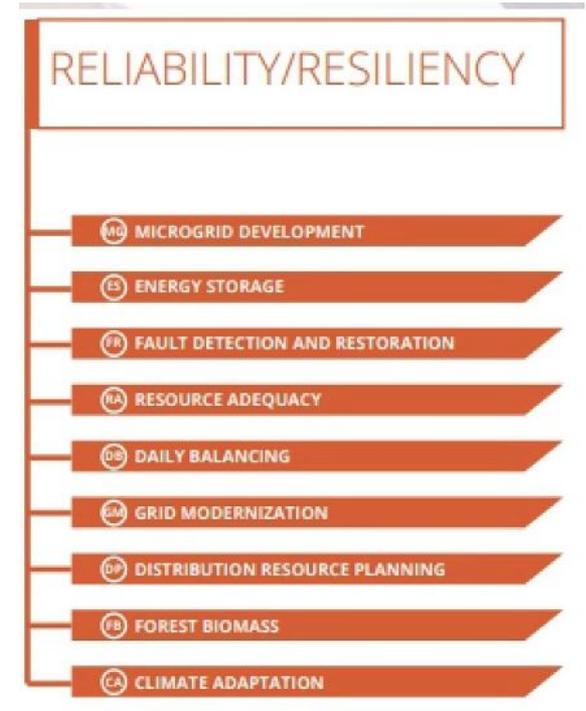


Comparison of Indoor-Outdoor Mean Temperatures



Critical RD&D Gaps

- Data
 - All-electric load profiles
 - Granular market characterization
 - Distribution grid interventions
- Analysis
 - Multi-measure IDSM VPP needs
 - Power conditioning of BTM exports
 - Stochastic modeling of dispatch availability
- Recommendations
 - Cascading impact analysis
 - Consider customer and societal objectives
 - Look beyond rate structures for solutions



EPIC Outcomes

- Habitability and thermal comfort as non-energy resilience benefits
- Passive House strategies and building code adoption
- Research in co-simulation of grid, EV and BTM resources
- Eastern facing solar PV and winter morning peak analysis
- Clean grid, clean charging studies
- Evaluation of Loading order → Loading Lanes
- Naturally occurring adoption of electrification paired with solar+storage
- Increased investment in communities of concern
- High BTM DER → Lower resource adequacy / local capacity requirements
- Alignment of Integrated Resource Plans with resilience
- Aggregated participation in distribution system markets
- International collaboration on innovations



Thank you!

CalBEM



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