ASME Journal of Engineering for Sustainable Buildings and Cities

Special Issue on Grid-Interactive Efficient Buildings

Dates:

Paper Submission Deadline: April 15, 2020

Initial Reviews Complete: July 15, 2020

Final Paper Submission: September 1, 2020

Publication: November 2020

Applicable Topic Areas:

Demand Response\*

Distributed Energy Resources

Energy Efficiency

Energy Costs

Energy Storage\*

Grid Services

What We Have Done:

* Measure Development – Already in BPACS Paper
* High Level Control Strategy Assessment: Secondary School – Already in BPACS Paper
* Flex Potential Assessment of a given design – Just one example in BPACS Paper

What We Could Do:

* Design Assessment: Baking Flexibility into the Design
  + Assume: Fixed Building Model
  + Assume: Fixed Chiller Sizing (IOT permit daytime charging?)
  + Modulate: Ice Storage Capacity, and Chiller Limiter
  + Examine: Add/Shed Flexibility Potential (kW and kWh) w/Temporal Availabilities, Shift Amount and Efficiency. Chiller Performance Impacts, Ice Utilization (Histogram-of/statistics-on daily unused ice values), and Capital Cost.