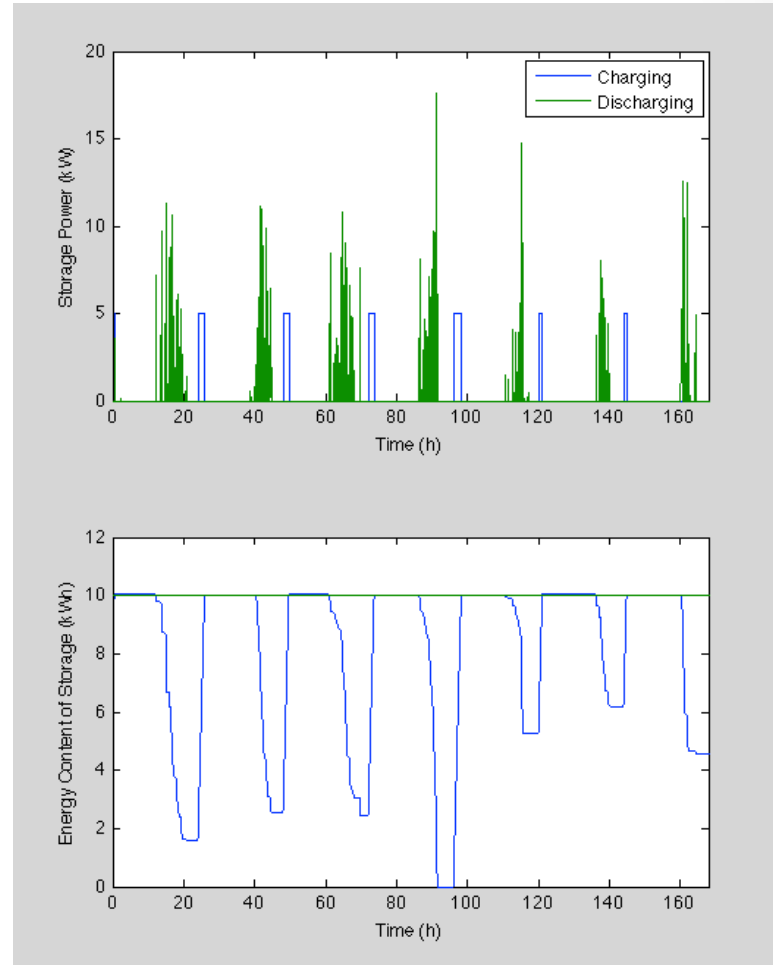
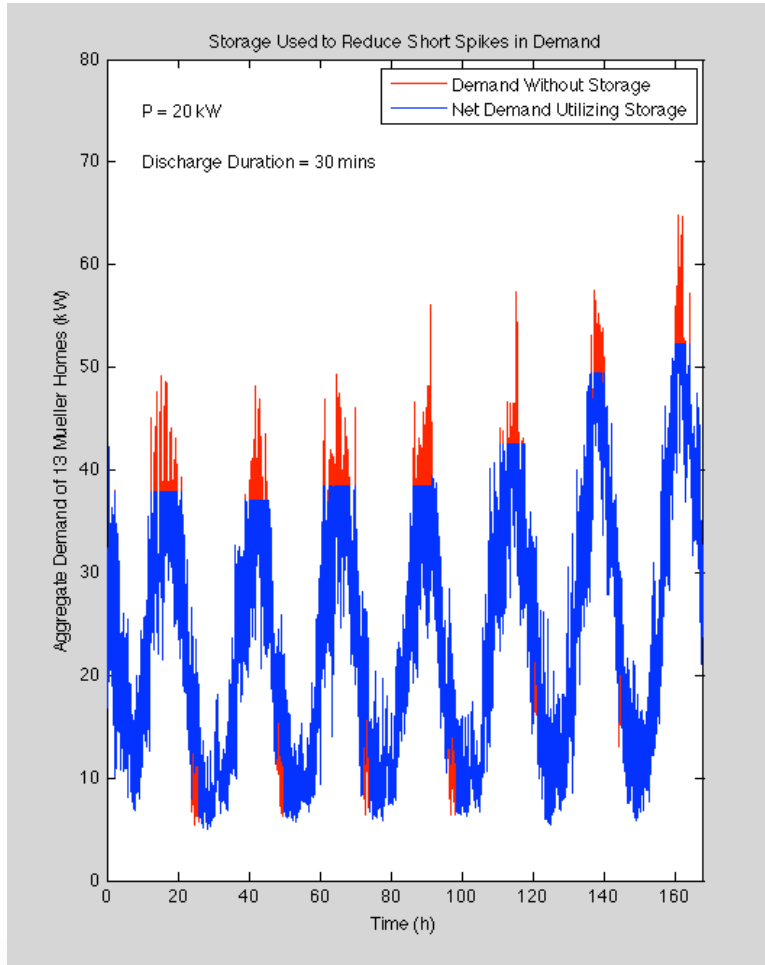


Energy Storage in the Smart Grid

Robert Fares MS, PhD student in Mechanical Engineering
with Dr. Jeremy Meyers

- How should energy storage operate on the future smart grid?
- How can energy storage operate within the electricity market to yield a benefit?
- How can energy storage be used for demand response and other local-level applications to yield a benefit?
- Goals for the future
 - Simulate grid-tied energy storage technology as part of larger model being developed with Pecan Street
 - Match suitable technology with desired storage action

Energy storage used to shave short peaks in demand



Education Progress

- BS in Mechanical Engineering Washington University in St. Louis '10
- Working towards MS and PhD in Mechanical Engineering
- Important milestones
 - Completed core coursework in Thermal/Fluid Systems
 - Passed the PhD Qualifying Exams in Thermal/Fluid Systems
- Goals for the future
 - Continue study of electrochemistry
 - Build knowledge of power systems, dynamic systems, modeling and optimization in the coming semesters