Economic Analyses of Employing Used Batteries in Power Systems

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Problem: What to do with used li-ion batteries to maximize their cycle life value.

Objective: Assessing value propositions from individual and synergistic applications in the power systems.

Approach: Estimating cost and market value of applications or avoided cost of the applications to construct benefit-cost ratios.

Collaborators: Sandia National Laboratories (SNL), Environmental Protection Agency (EPA).

Deliverables & Results: Cost and benefits of 26 applications have been identified and full economic analysis with synergistic benefits have been documented in final report ORNL/TM-2011/151.

Future Work: Experimental validation and testing batteries on power system applications,
- Developing an economical analysis tool for energy storage applications,
- Validating the “customer side of the meter” benefits in a commercial building.