

LBL: Distributed Energy Resources Customer Adoption Model (DER-CAM)

Goal	Finding optimal distributed energy resource (DER) investments in the context of either buildings or multi-energy microgrid
Method	<p>In the process of finding optimal DER solutions for microgrids through mathematical modeling, several important questions are answered by DER-CAM:</p> <ul style="list-style-type: none">• What is the optimal portfolio of DER that meet the specific needs of this microgrid?• What is the ideal installed capacity of these technologies to minimize costs?• How should the installed capacity be operated so as to minimize the total customer energy bill?• Where in the microgrid should distributed energy resources be installed and how should they be operated to ensure voltage stability?• What is the optimal DER solution that minimizes costs while ensuring resiliency targets?
Discussion and Q&A	<ul style="list-style-type: none">• Additional case studies available (NC, OR, FL)• Are costs for interconnections factored into the model?<ul style="list-style-type: none">○ Not taken directly into account• What are the differences between ReOpt, DER-CAM, and HOMER? Which one should be used when?<ul style="list-style-type: none">○ Homer simulation vs. optimization tool (case studies have table outlining this)○ DER-CAM looks deeper into distribution system
Availability	Free web tool
URL	dercam.lbl.gov