

Retrocommissioning (RCx) Building Optimization Analysis (BOA) Tool Overview

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Overview of BOA Tool

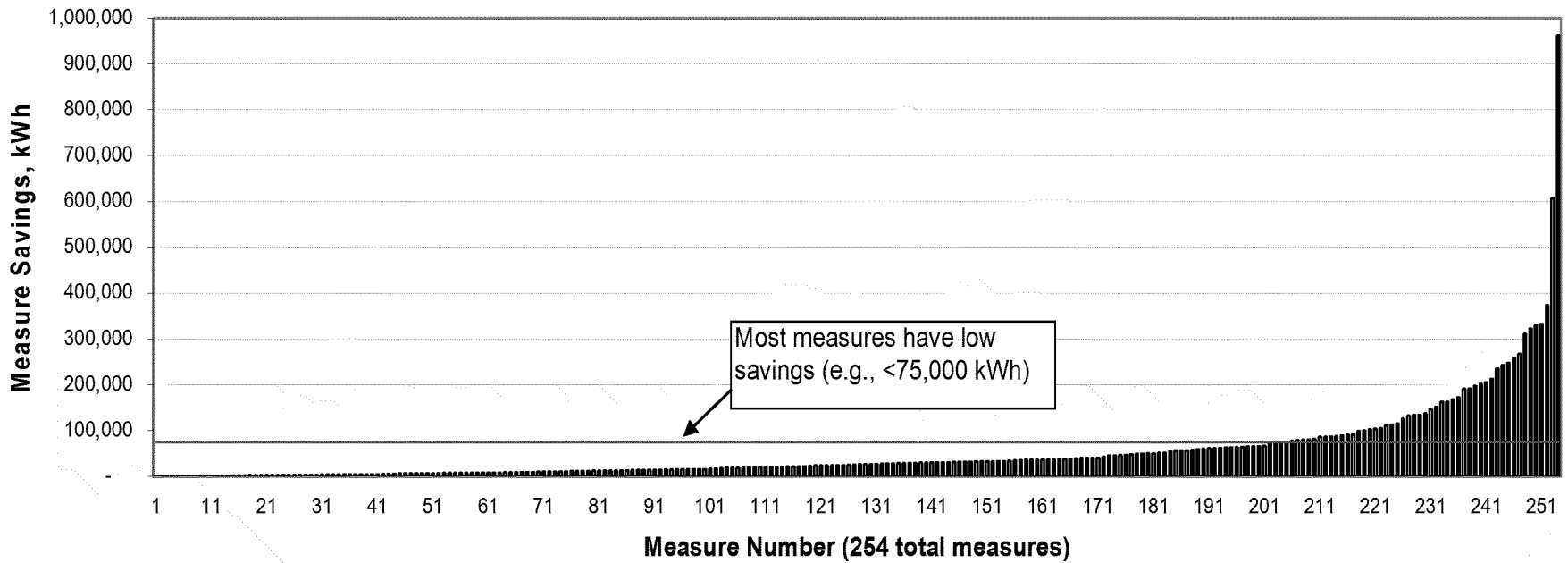
- ◆ Free spreadsheet-based Tool, sponsored by California utilities for retrocommissioning programs
- ◆ Publicly available:
<http://www.cacx.org/resources/rcxtools/index.html>
- ◆ For use in California utility RCx programs (PG&E, SCE, SoCal Gas, SDG&E, SMUD)
- ◆ BOA Tool calculates energy and demand savings
 - Does not calculate implementation costs
 - Does not prescribe M&V methodology for measures
- ◆ Covers 13 common RCx measures with savings <75,000 kWh or <5000 therms
- ◆ Completed September, 2010

Why was BOA Tool Created?

- ◆ Process Evaluations of recent RCx programs said “simplify” and reduce implementation costs
- ◆ Recommended streamlining process for most common lower-savings measures
- ◆ BOA Tool is a direct result of the process evaluation recommendations
- ◆ SCE developed first set of measures, with AESC, PECL, ASW, and SoCal Gas
- ◆ PG&E developed second set of measures, with PECL, NAM, AESC, and statewide utility input

81% of RCx Measures Deliver only 34% of Savings

Identified Measures in 2006-2009 PECO PG&E RCx Program



13 Measures Included in Tool

<75,000 kWh or <5000 therms

- ◆ Covers 11 HVAC RCx measures
 1. Reduce supply fan operating schedule
 2. Add supply air temperature reset
 3. Reduce supply duct static pressure
 4. Reset supply duct static pressure
 5. Add supply fan VFD
 6. Adjust zone temperature deadband
 7. Adjust airside economizers
 8. Add boiler lockout
 9. Add chilled water supply temperature reset
 10. Add condenser water supply temperature reset
 11. Add chilled water pump VFD
- ◆ And two lighting measures
 12. Reduce lighting operating schedule
 13. Add / optimize occupancy sensors for lighting control

RCx Program Contacts

- ◆ SCE RCx Program: Mugi Lukito, Project Manager
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- ◆ PG&E RCx Program: Steve Clarke, Program Manager,
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- ◆ San Diego RCx Program: Michelle Lichtenfels, Program
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Additional Resources

- ◆ BOA Tool download (Excel)
 - <http://www.cacx.org/resources/rcxtools/index.html>
- ◆ BOA Tool Final report (PDF)
 - http://www.cacx.org/resources/rcxtools/documents/BOA_Tool_Final_Report.pdf
- ◆ BOA Tool user technical support (email)
 - boatool@peci.org
- ◆ BOA Tool Training session slides (PDF)
 - http://www.cacx.org/resources/rcxtools/documents/BOA_Tool_Training_September_2010.pdf
- ◆ BOA Tool Training session recording (video)
 - <http://www.cacx.org/resources/rcxtools/index.html>

