



Hawaiian Electric
Company, Inc.

Energy Solutions for Business

February 16, 2012

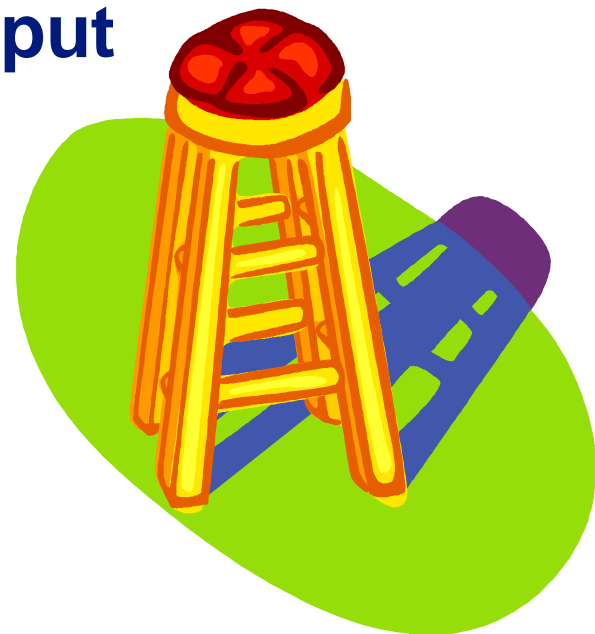




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Presentation Objectives

- ✓ **Update you on the status of the current EnergyScout Commercial Program**
- ✓ **Introduce you to new DR initiatives**
- ✓ **Get your feedback and input**

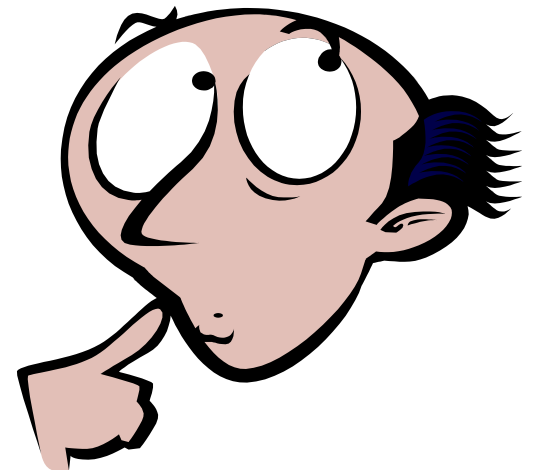




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Key Questions

- **How has DR benefited me?**
- **How has DR benefited our community?**
- **What's the next steps?**



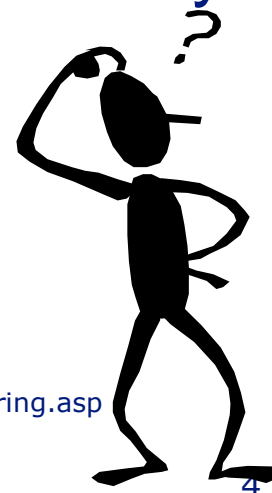


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What is Demand Response?

Changes in electric usage by customers from normal consumption.

- DR 1.0 - Incentive payments designed to induce lower electricity use
- DR 2.0 - Changes in the price of electricity



See: <http://www.ferc.gov/industries/electric/indus-act/demand-response/dem-res-adv-metering.asp>



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Planning Benefits of DR

Load control programs are used to defer building new generation.

- By deferring the construction of a 110 MW unit from 2006 to 2009 we saved \$25.9M
- Doing more DR will save \$250M over next 20 years.





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Operational Benefits of DR

Load control programs are used to maintain the reliability of the grid.

- System Protection - Automatic load shedding feature helps stabilize system frequency
- Economic – DR is being used to defer running generating units which saves fuel cost
- Renewable – Can DR be reliable tool for system operators?



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Summary of Accomplishments

Commercial

Consolidated Actuals: \$15.5M

Incentives: \$11.7M

Large Business

Approved: 2004

Customer: 42

Load: 18.2 MW

Small Business

Approved: 2007

Customer: 161

Load: 1 MW

Residential

Consolidated Actuals: \$21.9M

Incentives: \$6.7M

Water Heater

Approved: 2004

Customer: 34,200

Load: 15.0 MW

Central Air Conditioning

Approved: 2005

Customer: 4,100

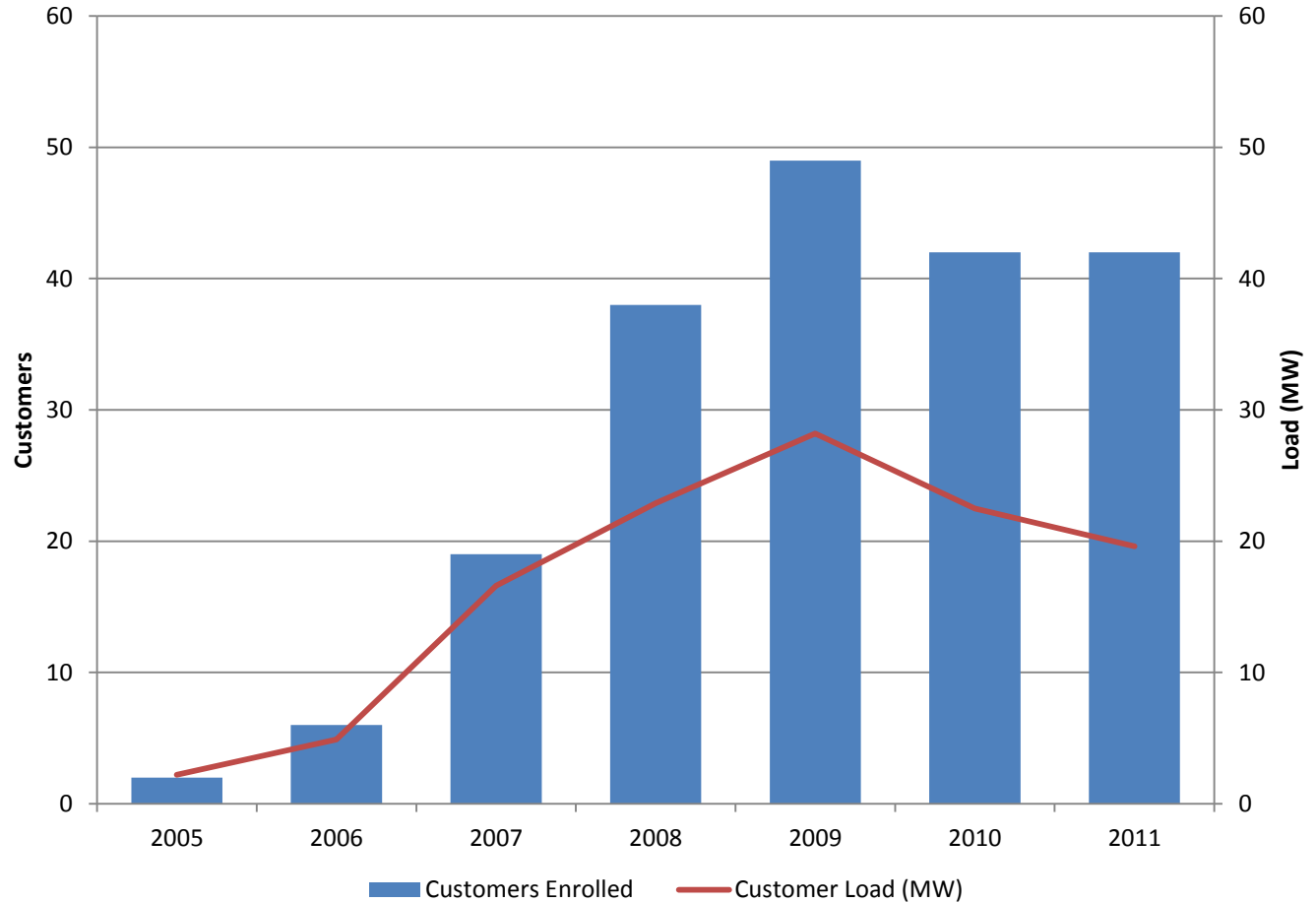
Load: 2.7 MW



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How Well Are We Doing? (2005-2011)

Commercial



Adjusted by results of evaluation studies





Is DR Cost Effective?

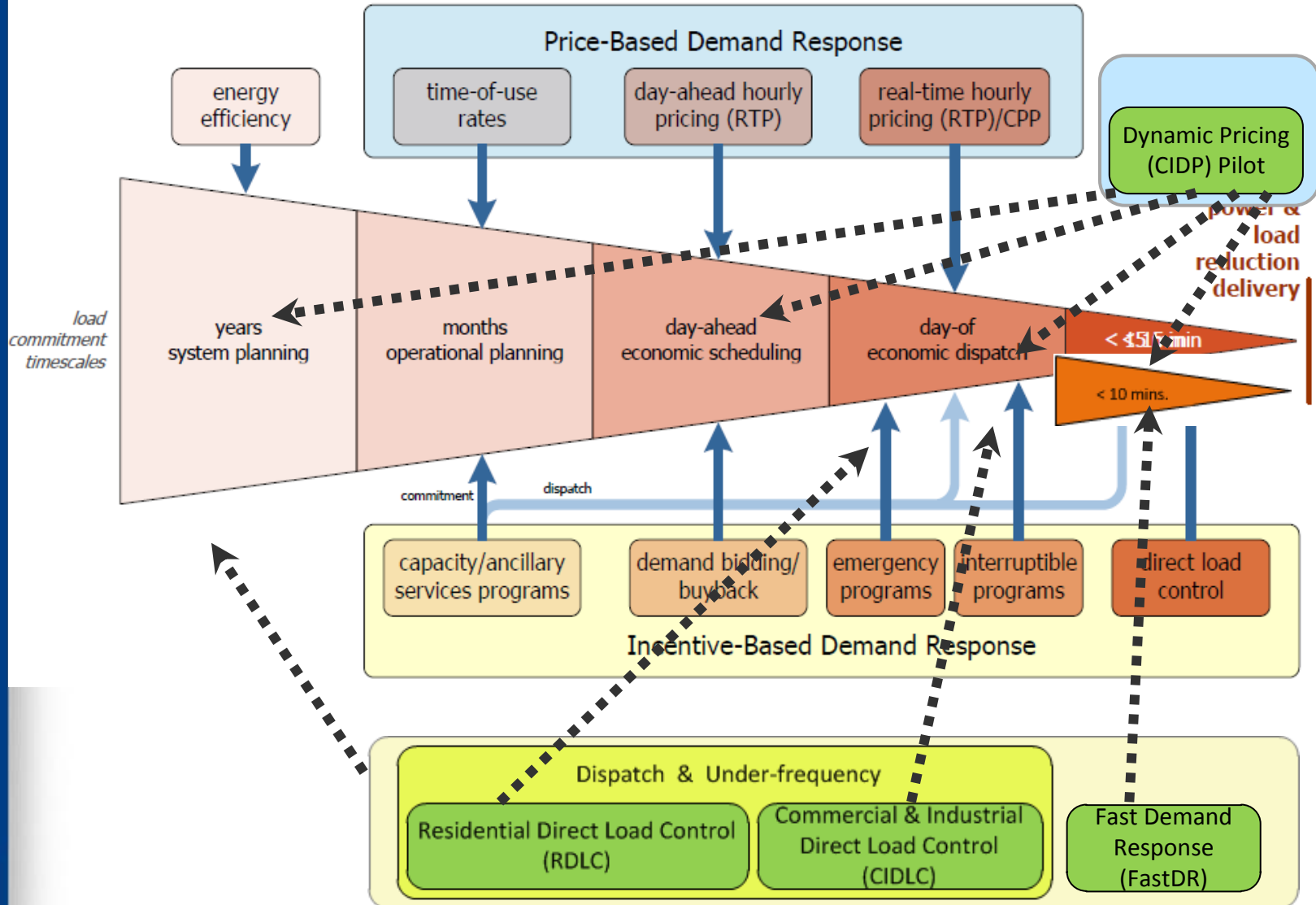
	RDLC			CIDLC		
	2003 Application	2009 Expansion	2011 M&E	2003 Application	2009 Expansion	2011 M&E
Total Resource Cost	3.5	3.6	5.3	20.1	3.7	6.3
Utility Cost	2.0	1.6	1.8	3.9	1.1	1.2
Rate Impact Measure	2.0	1.6	1.8	3.9	1.1	1.2
Participant Cost *	Infinite	Infinite	Infinite	30.1	182.7	89.2

* Represents value to participant





HECO's DR Portfolio

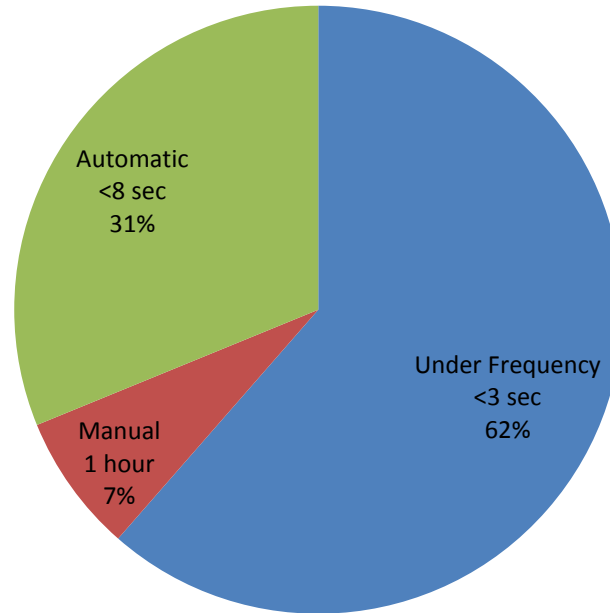




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Large Business

Amount of Contract Curtailable Load by Response Time

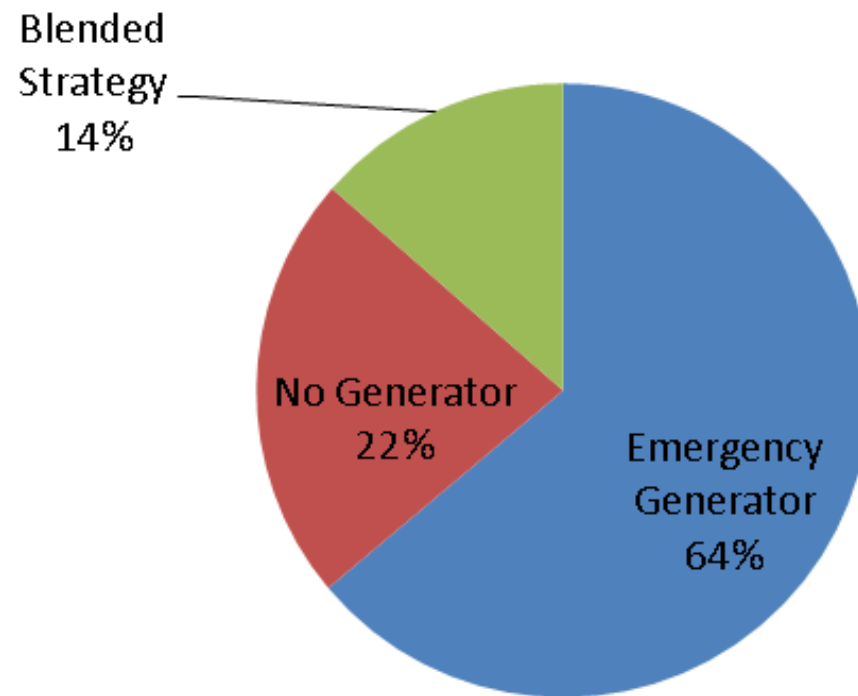




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Large Business

Amount of Contract Curtailable Load by Curtailable Strategy





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What are HECO's Plans for the future?

- Implement the approved FastDR Pilot (2012-2013)
- Implement C&I Dynamic Pricing Pilot, pending PUC approval (est. start 2013)
- Request 3-year extension of Large Business Program (2013-2015)
- Request 3-year expansion of the Small Business Program (2013-2015)





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Improvements for 2012

The DR goal is to continuously improve the performance.

- Planned system upgrade in 2nd quarter
- Plan for system load testing in April (announced) and Sept-Oct (unannounced)
- Quarterly notification testing
 - How important is the voice notification system?