

Clark Public Utilities Conservation Plan



Spokane, WA

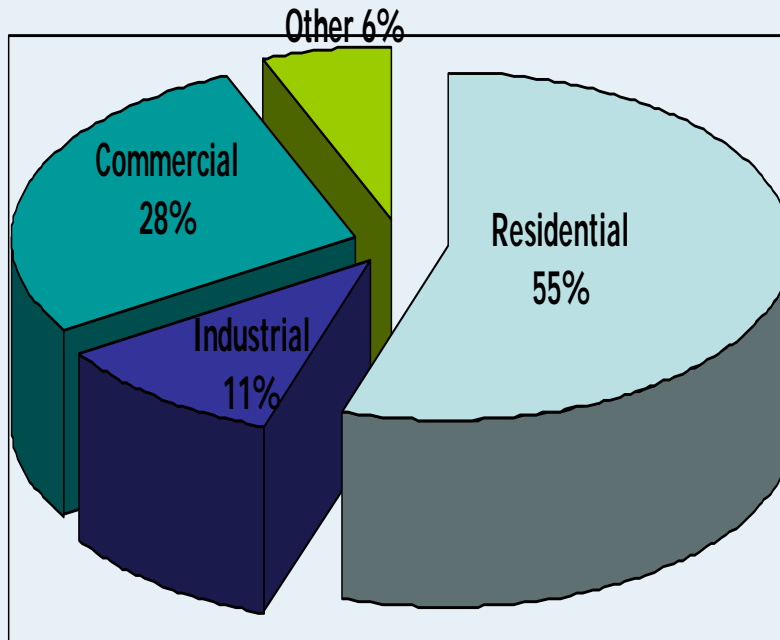
Presented by Larry Blaufus
November 12, 2008

Electric Utility Fast facts

- Service area: All 667 square miles of Clark County
- Customers: 180,000
- Employees: 315
- Substations/switching stations: 55
- Transmission/distribution lines: 6,600 miles
- Poles: 62,000
- 2007 operating revenue: \$353 million
- 2007 electricity sales: 5 billion kilowatt hours
- Average annual use/residential: 14,237 kilowatt hours
- Average annual outage time: 26 minutes per customer

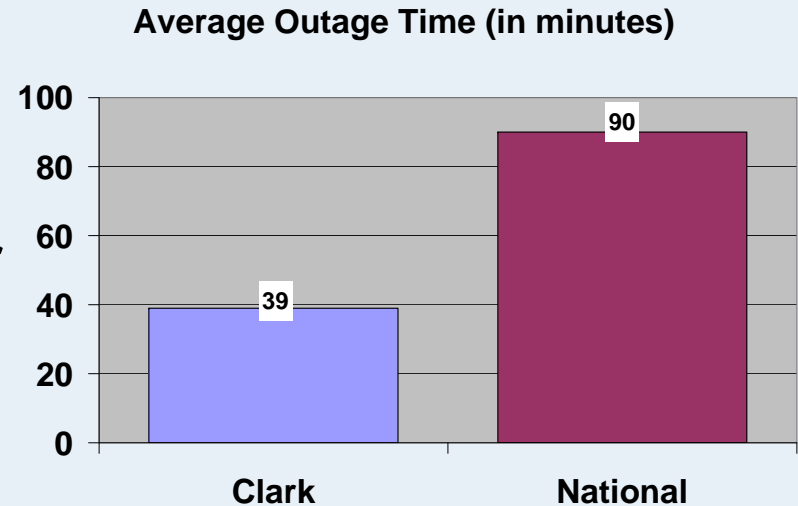
Customers of Clark Public Utilities

Clark Public Utilities Power Distribution 2007



- All classes of our customer base are growing
- We Have
 - 164,155 Residential
 - 27 large Industrial
 - 13,065 Commercial
 - ...customers
- Who spend \$350 million on power annually

- Supply reliable services
 - Average outage time: 28 minutes per customer (national average: 90 minutes per customer)
- Provide stable reasonable rates
- Provide outstanding customer service
 - 95%+ “satisfied” rating from customers



Residential Customer Benchmarking



Clark Public Utilities receives coveted 2008 J. D. Power and Associates distinction for electric utilities

July 17, 2008

In a report issued today by J.D. Power and Associates, Clark Public Utilities ranked highest in **customer satisfaction** for residential electric service among midsize electricity providers in the Western United States.

- Midsize utilities in the report serve between 125,000 and 499,999 residential customers.
- It is the first time the utility has been included in the study. Clark Public Utilities also scored fifth highest in the nation for residential customer satisfaction regardless of utility size or region.

TQS Research, Inc.
2008 National Utility Benchmark
Service to Large Key Accounts

Clark Public Utilities

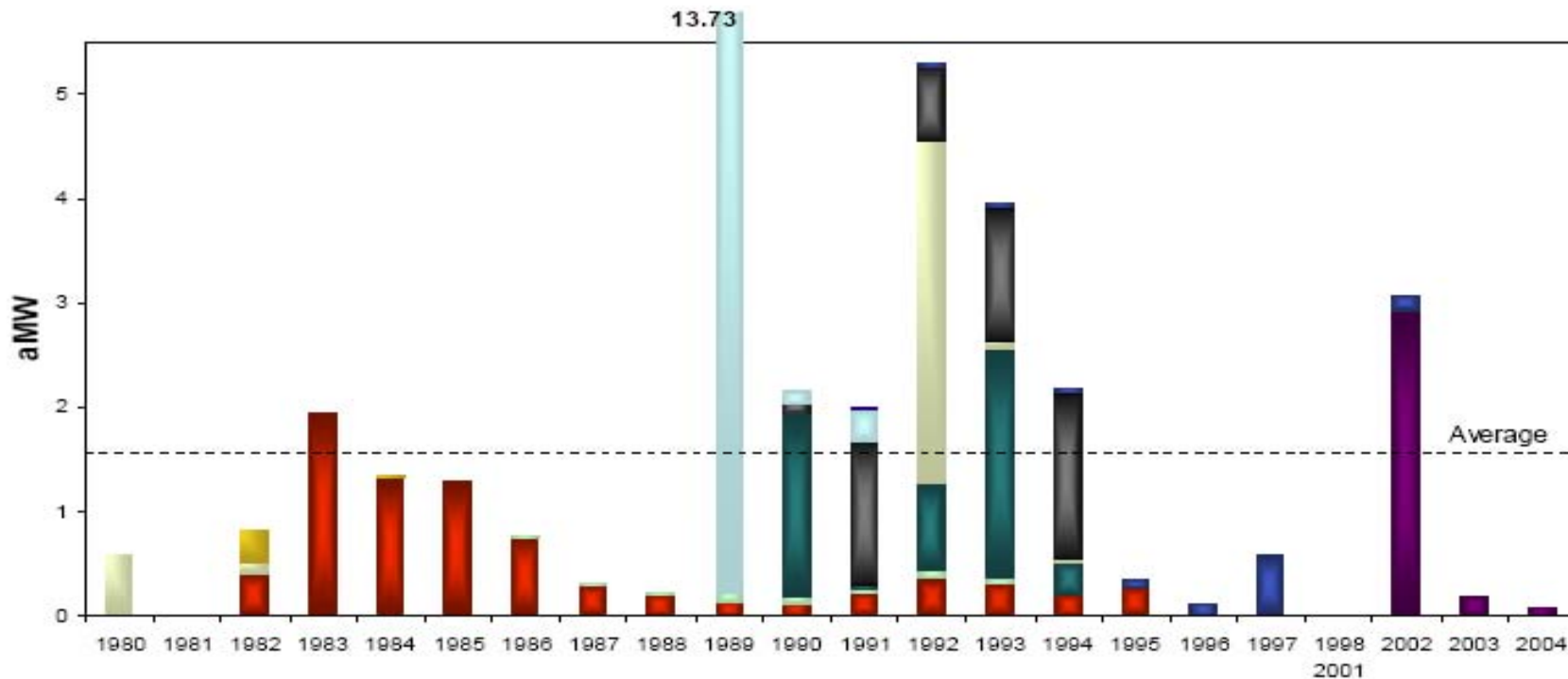
#4 National Ranking
Overall Customer Satisfaction

Overview of Conservation Plan Presentation

- History of Clark Public Utilities Conservation Programs
- 2009 Programs and levels
- 2009 -2010 Ramp-up
- 2011 and Beyond

Clark Conservation History

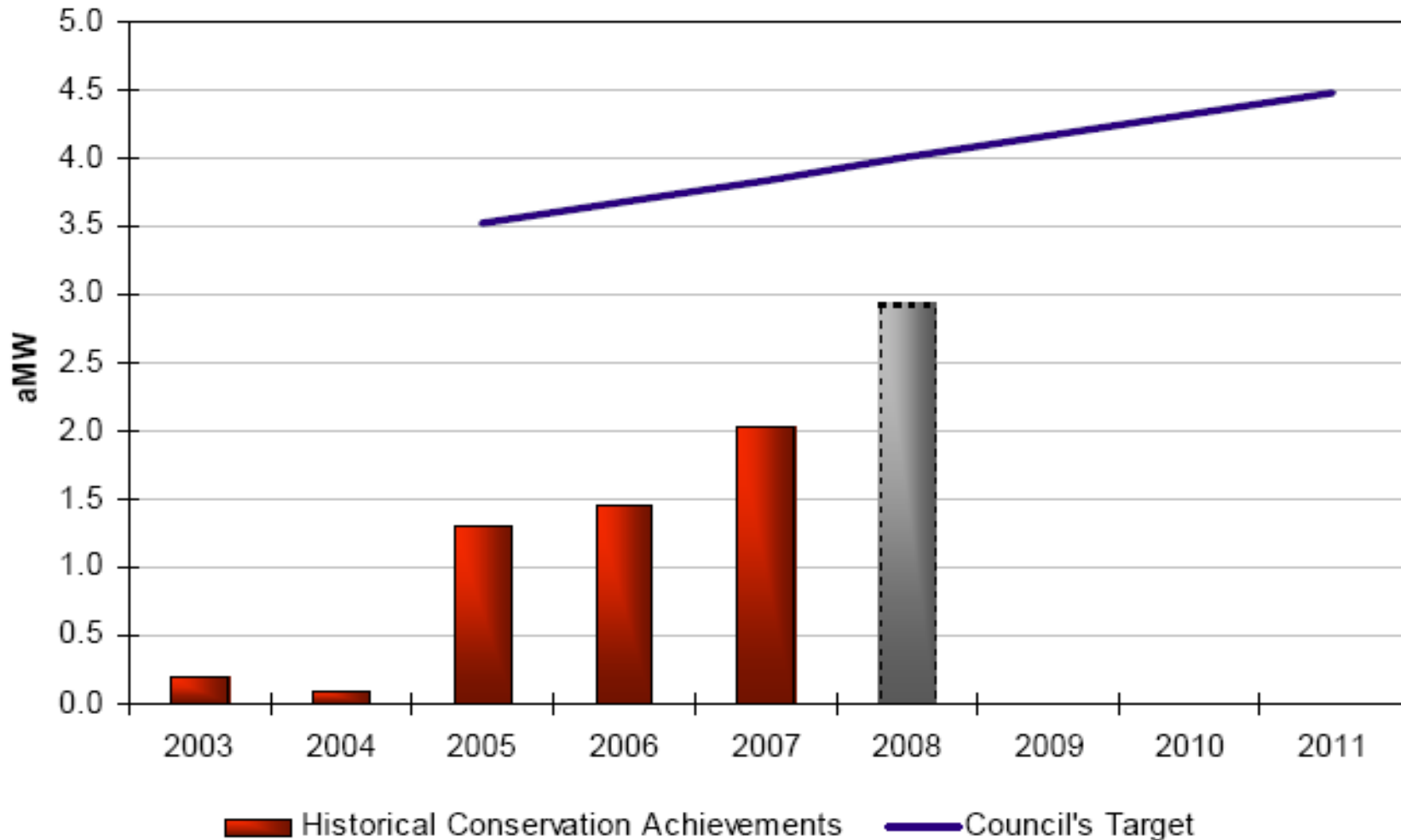
Figure 1
Clark Public Utilities Conservation 1980 to 2004



- Residential Weatherization
- CR&D and ConAug
- Residential Appliance, Shower Heads, DHW Heater Wraps
- WA Options & Initiative
- Purchase Energy Savings
- Super Good Cents and EE Housing
- Energy Savings Plan - Buildings and Motors
- EnergySmart Design
- Early Adoption Energy Codes
- Street Lighting

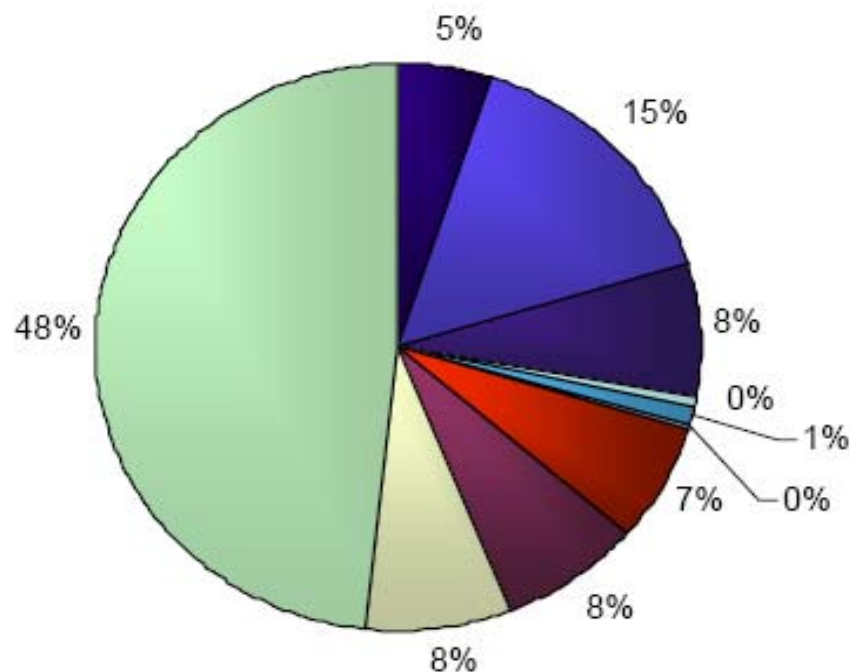
Clark Recent History

Figure 2
Clark Public Utilities Conservation History



Historic Conservation Measures

Figure 3
Historic Conservation Measures 2006-2007



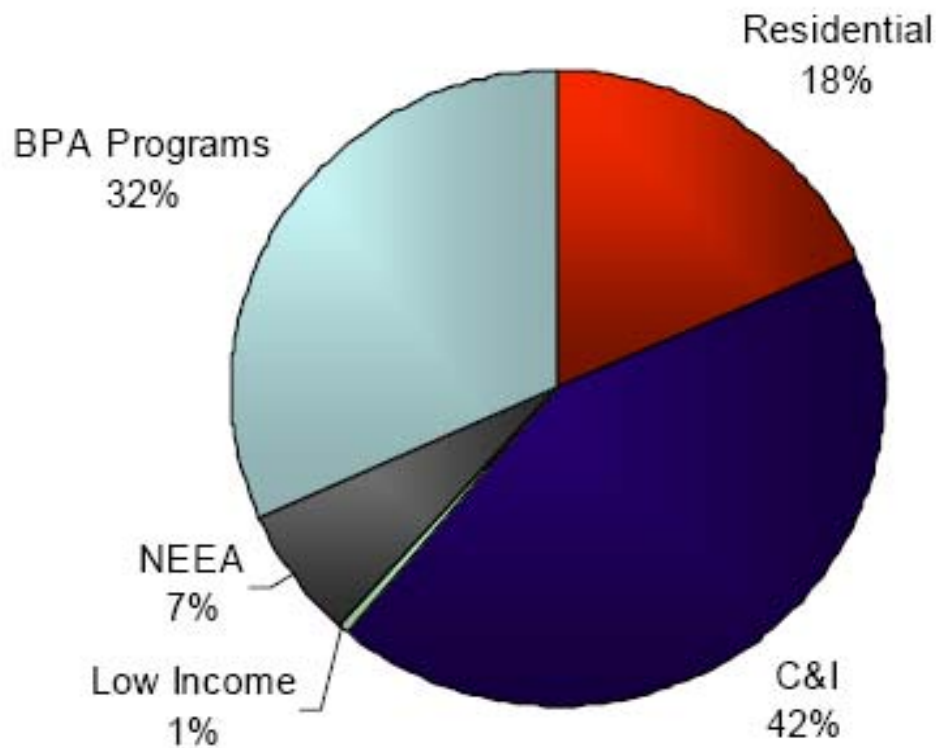
■ Residential Weatherization
■ SGC Manufactured Homes
■ C&I Lighting
■ BPA Share of NEEA

■ Residential Lighting
■ Heat Pump
■ C&I Custom Projects

■ Appliances
■ Solar Measures
■ Clark Share of NEEA

2008 Conservation Programs

Figure 4
2008 Conservation by Program



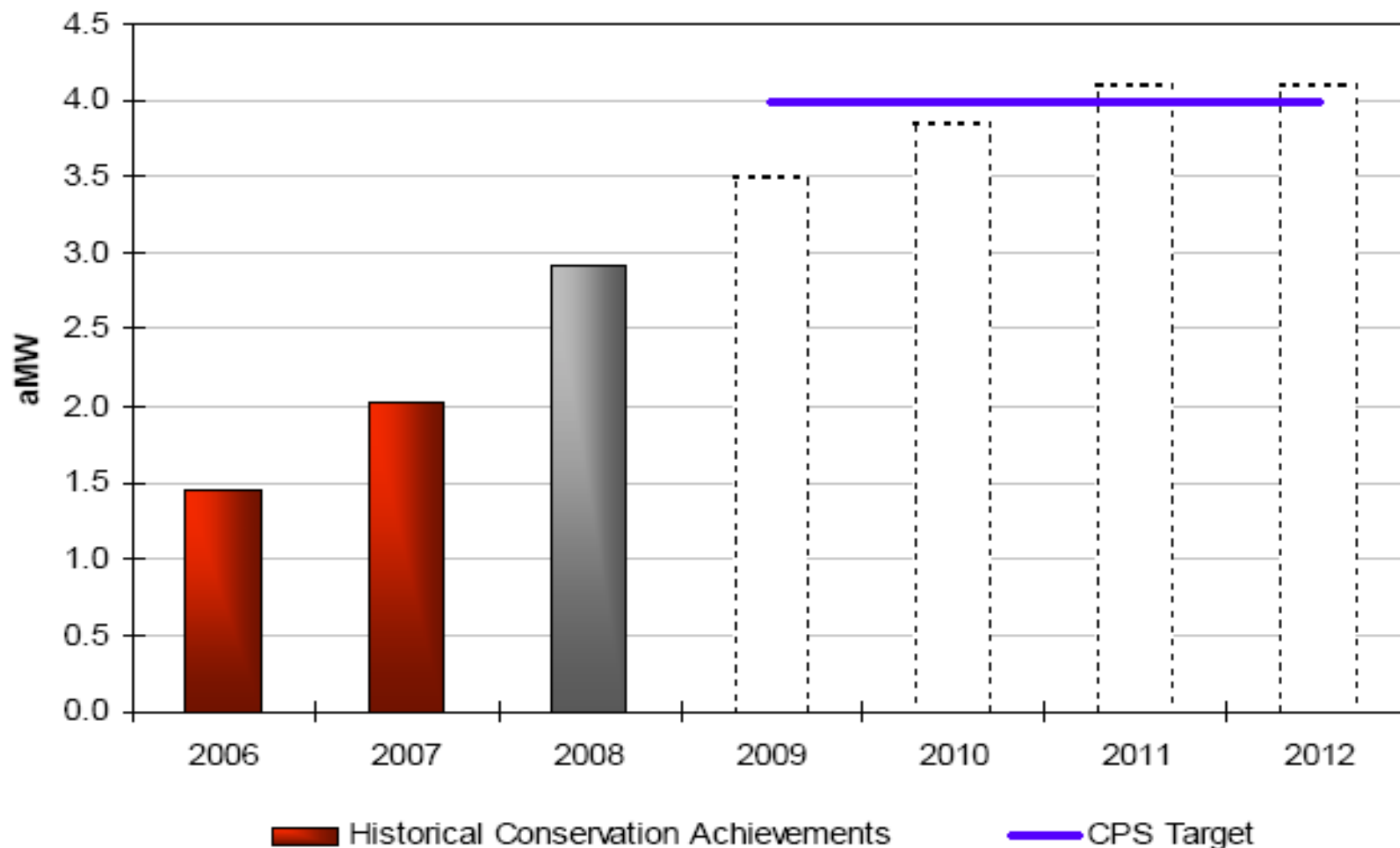
2009 Residential Conservation Programs

- CFL (Kits, Change a Light Campaign, Recycle)
- Low Flow Shower Heads
- Weatherization Loans/ Incentives
- Heat Pump Loans/ Rebates
- Duct Sealing – Single Family & Mobile Homes
- Weatherization Loans for Man. Homes
- Low Income Weatherization
- Appliance Rebates (Refrigerators/ Clothes Washers)
- Solar Water Heater Rebates
- Photovoltaic System Rebates
- Solar Pool Heating Systems
- Demonstration Projects - Net Zero/ Mainstream Green

2009 Commercial & Industrial Conservation Programs

- Commercial Lighting Improvement Program (CLIP)
- New Construction Lighting Program
- Energy Smart Office Design
- Energy Smart Grocer
- Compressed Air Audits
- Custom Projects – up to 35% incentives
- 80 Plus
- Green Motor Program
- Commercial Building Energy Audits
- Technical Assistance
- LEED Buildings
- Photovoltaic System Rebates

Near-Term Conservation Goals



Conservation Scenarios beyond 2010

- Business As Usual
- Baseline Compliance
- Accelerated

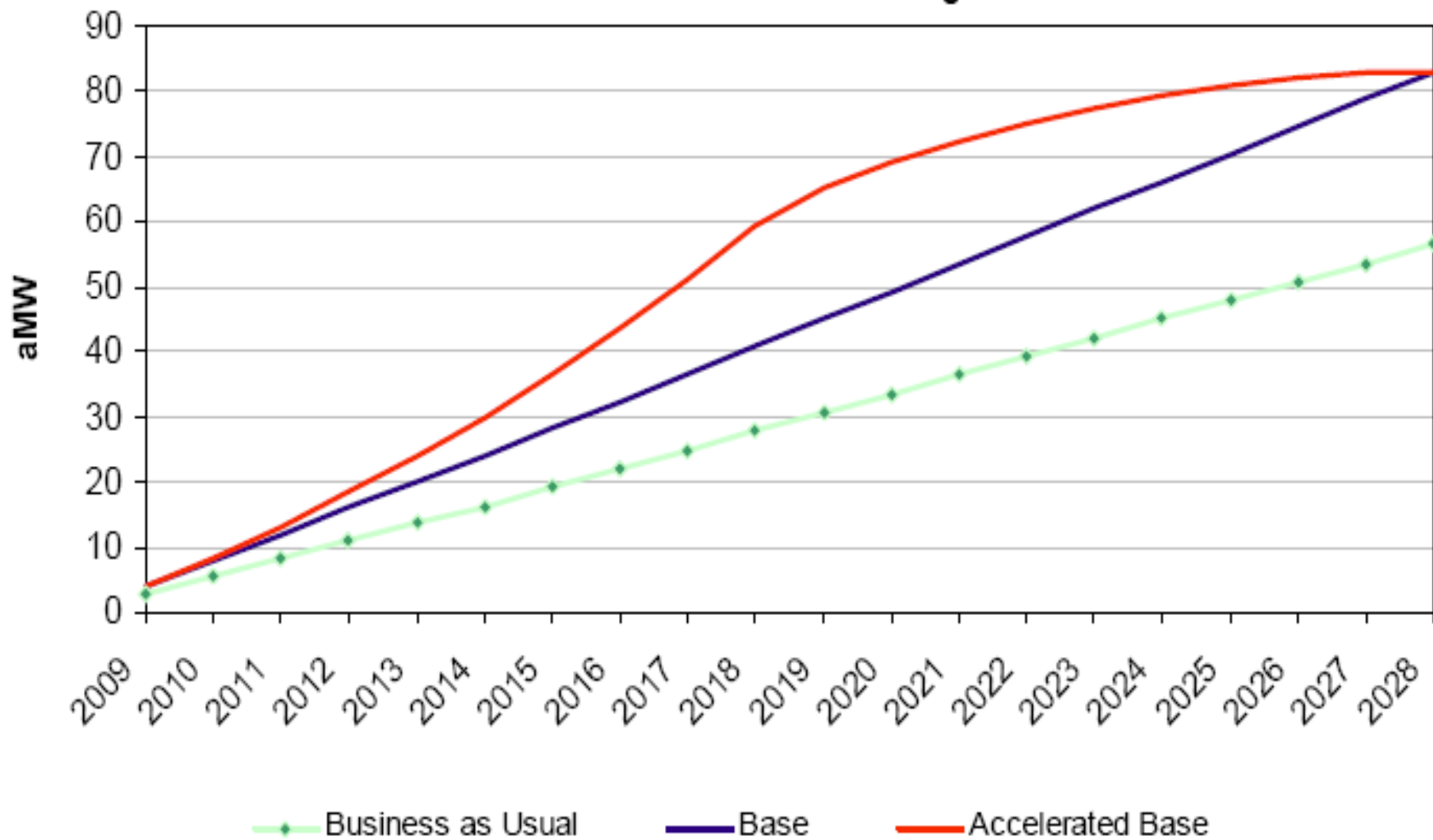
Costs of Conservation 2009-2028

	Business as Usual	Base	Accelerated Base
Levelized Cost ⁵	\$22	\$22	\$22
\$1000s per Year	\$6,041	\$8,883	\$8,896
Total (\$1000s)	\$120,811	\$177,663	\$177,924

Projected Conservation Resources

Scenario	Savings (aMW)	Average Annual Cost \$2008
Business as Usual		\$6,040,536
2009	2.7	
2013	13.6	
2018	27.8	
2028	56.5	
Base Case		\$8,883,141
2009	4.0	
2013	19.9	
2018	40.8	
2028	83.1	
Accelerated Case		\$8,896,215
2009	4.0	
2013	23.9	
2018	59.2	
2028	83.1	

Cumulative Conservation Savings



Post 2010 Potential Conservation



Base Case Potential Savings aMW/Year

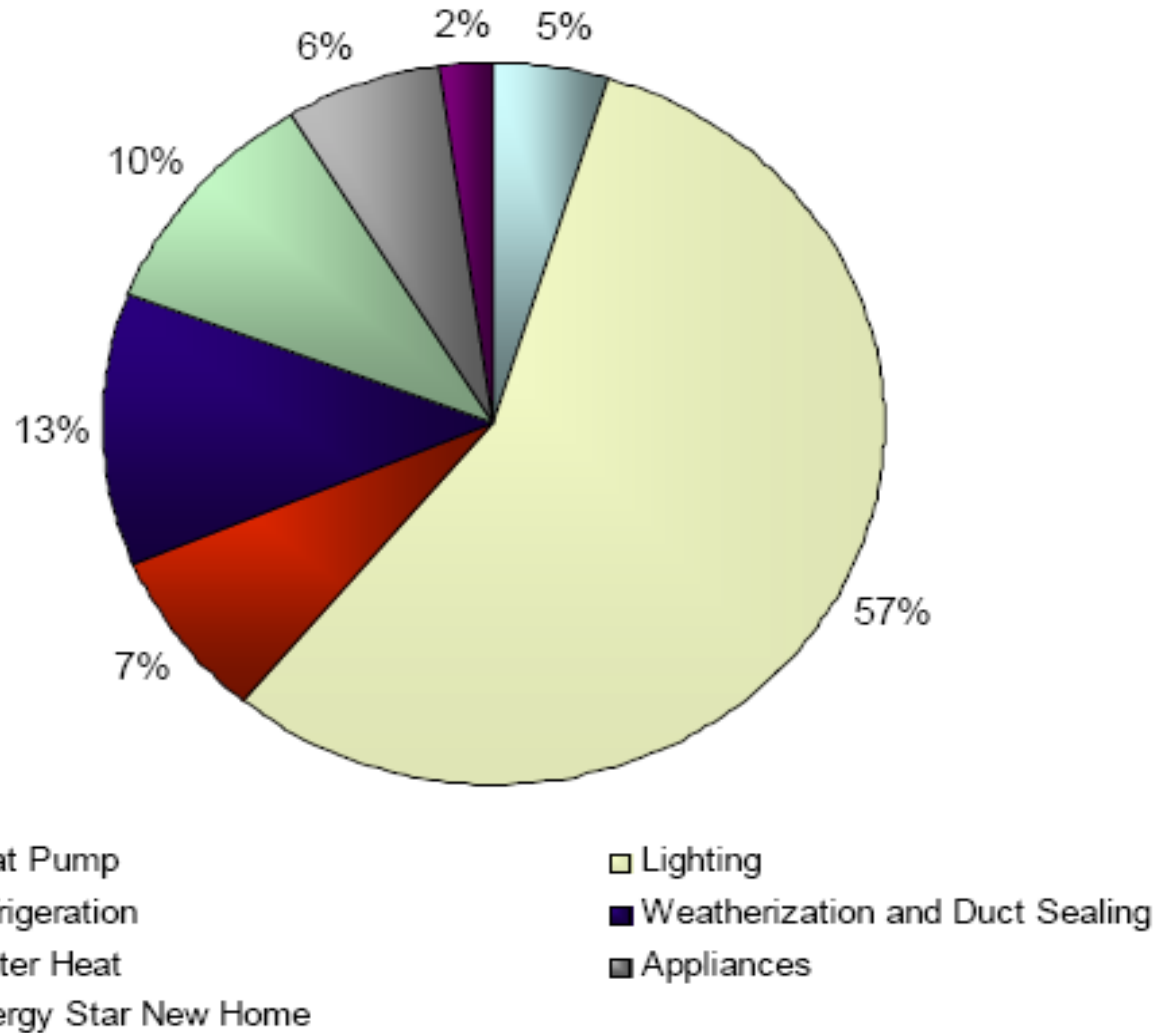
End Use	Technical Potential	Economic Potential	Achievable Potential
Residential			
Heat Pump	0.40	0.15	0.10
Lighting	1.36	1.36	1.16
Refrigeration	0.24	0.19	0.15
Room AC	0.10	0.09	0.08
Weatherization and Duct Sealing	0.30	0.30	0.25
Water Heat	0.42	0.29	0.21
Customer-Side Solar	0.24	0.00	0.00
Appliances	0.31	0.20	0.13
Energy Star New Home	0.07	0.07	0.04
Total	3.44	2.64	2.13
Commercial			
Lighting	0.77	0.75	0.64
Infrastructure	0.10	0.10	0.07
Weatherization	0.11	0.10	0.06
Equipment	0.20	0.20	0.14
HVAC	0.22	0.22	0.18
Emerging Technologies & Code Changes*	0.39	0.39	0.23
Custom C&I Projects	1.06	0.90	0.77
Irrigated Agriculture	0.00	0.00	0.00
Total	2.85	2.66	2.10
All Sector Total			4.23**
NEEA Portion			1.03
Remaining Clark Portion			3.20

*Programs begin in year 7 and include heat pump water heaters for the residential sector and power supply efficiency for commercial and residential sectors.

**This potential is available annually beginning in year 7. Prior to year 7 there is approximately 3.99 aMW available annually.

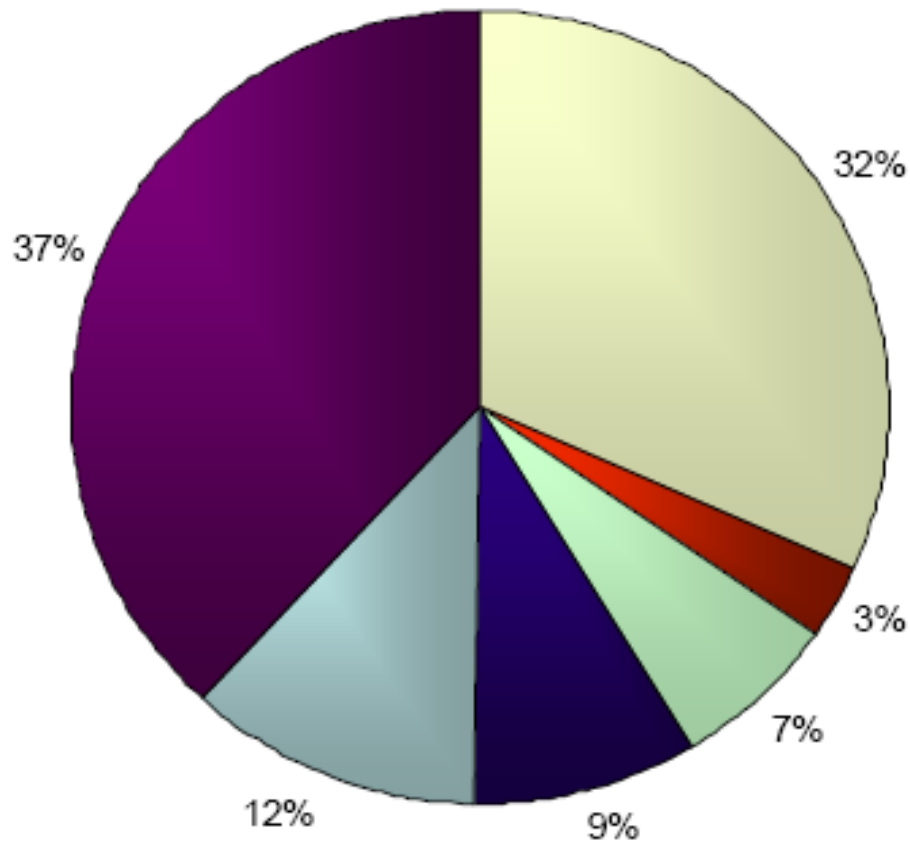
Residential Conservation

Residential Conservation Potential



Commercial Industrial Conservation

Commercial Conservation Potential



- Lighting
- Equipment
- Emerging Technologies & Code Changes
- Weatherization
- HVAC
- Custom C&I Projects

Share of 2007 Industrial Load by NAICS

- Food 11%
- Textiles 7%
- Industrial Gases 18%
- Plastics and Rubber 2%
- Iron & Steel Foundries 1%
- Fabricated Metal Products 3%
- Computers & Electronics 57%
- Other 1%

Conservation Budget



	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010-2019 Ave. Per Year</u>
Conservation Loans	\$1,996,000.00	\$1,996,000.00	\$1,996,000.00	\$1,996,000.00
BPA Program Funds	\$1,772,000.00	\$1,598,450.00	\$1,600,000.00	\$ 1,600,000.00
Utility Program Funds	<u>\$ 200,000.00</u>	<u>\$ 600,000.00</u>	<u>\$2,400,000.00</u>	<u>\$5,287,000.00</u>
Total	\$3,970,007.00	\$4,196,458.00	\$5,996,000.00	\$8,883,000.00

Conservation Staffing

	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010-2019</u>
Energy Counselors	4	4	4	4
Program Coordinator	1	1	1	1
Energy Specialist	1	0	0	0
Key Account Managers	2	3	3	3
Energy Engineer	0	1	1	1
Senior Manager	1	1	1	1
Res. Program Manager	0	0	0	1
C&I Program Manager	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>
Total # of Employees	9	10	10	12

5th Plan Relies on Conservation and Renewable Resources to Meet Load Growth

