



**SOUTHWEST ENERGY
EFFICIENCY PROJECT**

PNM Energy Efficiency Program

**Southwest Regional
Energy Efficiency
Workshop**

December 8-9, 2011

The power to make life better. Together.



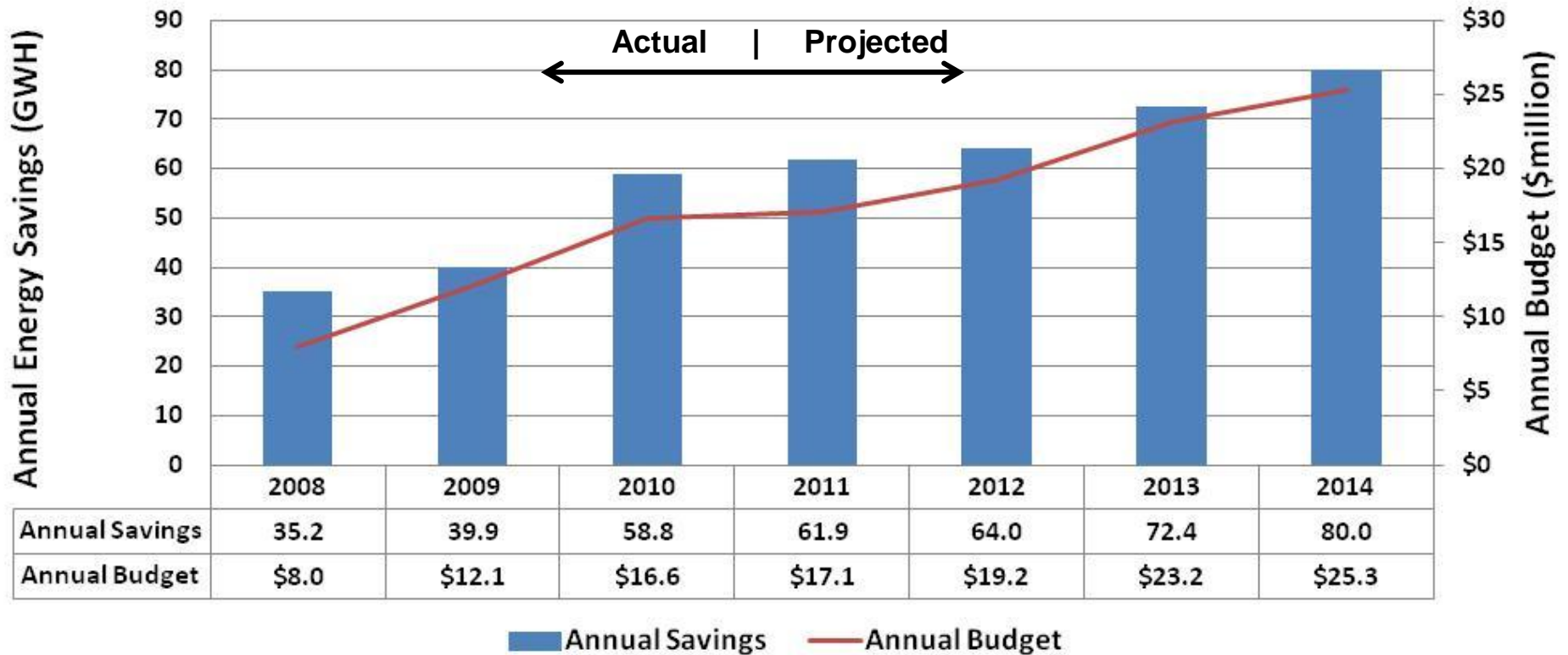
Topics



1. **Selected Program Metrics**
2. **Program Highlights**
 - **Easy Savings Low-Income Kits**
 - **Proposed Whole House Program**
3. **Proposed New Programs – 2012 Filing**
4. **Issues & Challenges**

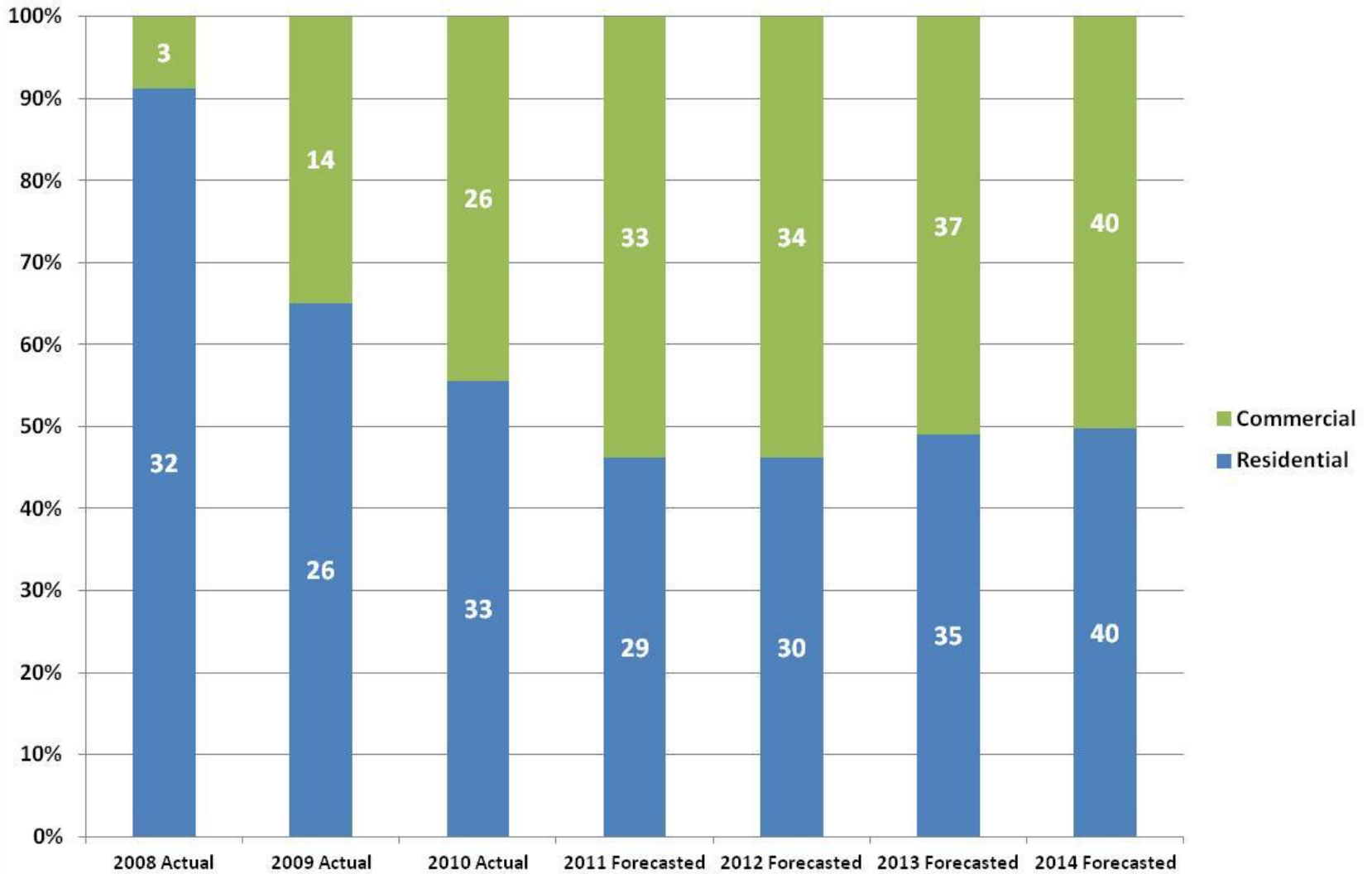
Appendix – Program List

PNM EE/LM Programs Annual Savings and Budgets



	2008	2009	2010	2011	2012	2013	2014
Cummulative Annual Savings (GWH)	35	75	134	196	260	332	412

Program Savings Distribution (GWh)



2011 Demand Response Events

Event Date	Event Start Time	Event End Time	Preliminary Total Event Performance (kW)	Reason for Event
6/23/2011	4:00 PM	6:00 PM	70,838	High temperatures and higher than forecasted loads.
6/24/2011	4:00 PM	6:00 PM	67,051	High temperatures and higher than forecasted loads.
6/27/2011	4:00 PM	7:00 PM	64,730	High temperatures and higher than forecasted loads.
6/28/2011	3:00 PM	6:00 PM	68,143	High temperatures and higher than forecasted loads.
7/5/2011	4:00 PM	6:00 PM	66,955	San Juan 2 and 4 off-line
7/6/2011	2:00 PM	6:00 PM	66,934	High temperatures and higher than forecasted loads.
7/8/2011	3:00 PM	6:00 PM	63,301	San Juan 4 off-line and higher than forecasted loads.
7/18/2011	2:00 PM	6:00 PM	64,974	San Juan 2 and 3 off-line and higher than forecasted loads.
7/19/2011	3:00 PM	6:00 PM	62,546	San Juan 2 and 3 off-line and higher than forecasted loads.
7/20/2011	3:00 PM	6:00 PM	60,806	San Juan 2 and 3 off-line and higher than forecasted loads.
8/9/2011	4:00 PM	6:00 PM	63,364	High temperatures and higher than forecasted loads.
8/23/2011	2:00 PM	7:00 PM	63,158	System Reliability Emergency.
8/24/2011	2:00 PM	7:00 PM	63,091	System Reliability Emergency.
8/31/2011	2:00 PM	6:00 PM	60,743	San Juan 3 off-line and higher than forecasted loads.

2011 Summary: 14 events – 45 hours – 64 MW average performance

Program Highlight

“Easy Savings” Kits



Program Elements

- Customized mail-order kits
- Participant selects 6 CFLs (13 – 23 Watt)
- Other items:
 - Low-flow showerhead
 - Faucet aerators
 - Digital thermometer
 - Stickers - magnets
 - Easy-to-read instructions
 - EE education – savings tips
 - Survey

Program Delivery

- Third-party implementer: Resource Action Programs
- Primary outreach – direct mail to LIHEAP qualified customers
- Secondary outreach – low income agencies
- 3 Year direct mail response rate: 20%

Program Highlight

“Easy Savings” Kits



Independent M&V

- 330 kWh per kit
 - 45 kWh per CFL
 - 61 kWh per showerhead
(18% electric penetration)
- NTG = 100%
- 7.6 year EUL

2010 Performance

- 7,251 kits
- 2.4 GWH annual savings
- \$433,000 total program cost
(including all internal allocated costs)

	# Mailers	# Enrollments	Response Rate	Total w/ Agency Kits
2009	31,721	7,781	25%	8,681
2010	32,628	6,803	21%	7,251
2011	36,574	5,551	15%	7,437*
	100,923	20,135	20%	23,369

*projected

Program Highlight

Whole House (Proposed)



Program Concept

1. \$40 walk-through audit includes installation of:
 - Up to 20 CFLs
 - Programmable t-stat
 - Low-flow showerheads
 - Faucet aerators
2. \$250 rebate on one major ES appliance:
 - Refrigerator
 - Dishwasher
 - Clothes washer
3. \$500 rebate on A/C replacement:
 - Existing system \leq 10 SEER
4. Cross-sell evaporative cooling rebate:
 - Up to \$400 retail rebate

Program Highlight

Whole House (Proposed)



Year One Program Metrics

- Participation target: 1,000 homes
- Budget: \$825,000
- Average gross savings per home: 1,114 kWh
- Projected NTG ratio: 70%
- Net program energy savings: 780,000 kWh
- Average EUL: 9 years

Program Delivery

- Third-party or in-house
- Trade ally network:
 - Home assessors
 - Participating HVAC
- Target markets:
 - Older homes
 - Homes w/ older HVAC
- Cross-promote:
 - NMGC rebates on insulation and furnaces

Proposed New Programs 2012 Filing



Whole House

Home Energy Reports

- 40,000 – 60,000 homes
- 6 reports per year
- First year savings: 1.5% ~ 4 – 6 GWH

Home Cooling

- Mail-in rebate – participating retailers
- Solid media evaporative & ES window
- First year Savings: 2,400 units, 1.3 GWH

Pool Pumps

- Mail-in \$200 rebate
- Variable speed pump + integrated controller
- First year Savings: 100 pumps, 0.1 GWH

Student Kits

- 2 CFLs + LF showerhead + education
- First year savings: 4,500 kits; 0.4 GWH

Building Tune-Up

- Low-cost measures: set points, lighting schedules, economizer settings, etc.
- Web-based monitoring
- First year savings: 1.3M Sq Ft ~ 0.6 GWH

Load Management

- Under-served market: 150 kW – 500 kW
- Direct load control – TES
- Target capacity: 20 – 40 MW

Issues & Challenges



1. Budget Approval

- 2012 plan would increase tariff from 2.5% to 3.2% of customer bills

2. Utility Incentive/Disincentive Uncertainty

- Supreme Court rejected PRC rule

3. Program Delivery Options

- Third-party or in-house

Thank You !



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2011 Program List

Residential



Refrigerator Recycling

Residential Lighting

- Up-stream, buy-down

Low Income

- Refrigerator and CFLs
- EnergySmart for Renters
- Implemented by State WAP agency

Easy Savings

- Low-income kits

Community CFL

- Giveaways at low-income events

Load Management

- Power Saver (direct load control)

Market Transformation

- Education and general EE promotion

2011 Program List

Non-Residential



Commercial Comprehensive

- Retrofit rebates
- New construction rebates
- QuickSaver™ (less than 100 kW, direct-install program)

Refrigerator Recycling

Load Management

- Power Saver (less than 150 kW)
- Peak Saver (150 kW and greater)

ENERGY STAR® Homes

Large Customer Self-Direct

- Rate rider opt-out program

Program Budget & Savings Summary



Program	2010 Actual Costs	2010 Actual Savings (kWh)	2012 Projected Costs	2012 Projected Savings (kWh)
Refrigerator Recycling	\$ 1,293,092	7,312,412	\$ 1,300,000	7,100,000
Residential Lighting	\$ 1,748,973	20,583,370	\$ 1,800,000	21,000,000
Energy Star Home	\$ 518,795	830,586	\$ 429,000	458,000
Load Management	\$ 6,781,633	67 MW	\$ 7,100,000	68 MW
Easy Savings Kit	\$ 433,080	2,390,391	\$ 426,000	2,300,000
CFL- Refrig Replacement	\$ 524,494	1,245,419	\$ 440,000	1,100,000
Commercial Comprehensive	\$ 4,953,624	26,104,137	\$ 5,400,000	31,000,000
Market Transformation	\$ 322,017	NA	\$ 107,000	NA
Energy\$mart for Renters			\$ 455,000	921,000
Community CFL	\$ 31,437	341,564	\$ 10,000	100,000
Total	\$ 16,607,144	58,807,879	\$ 17,467,000	63,979,000