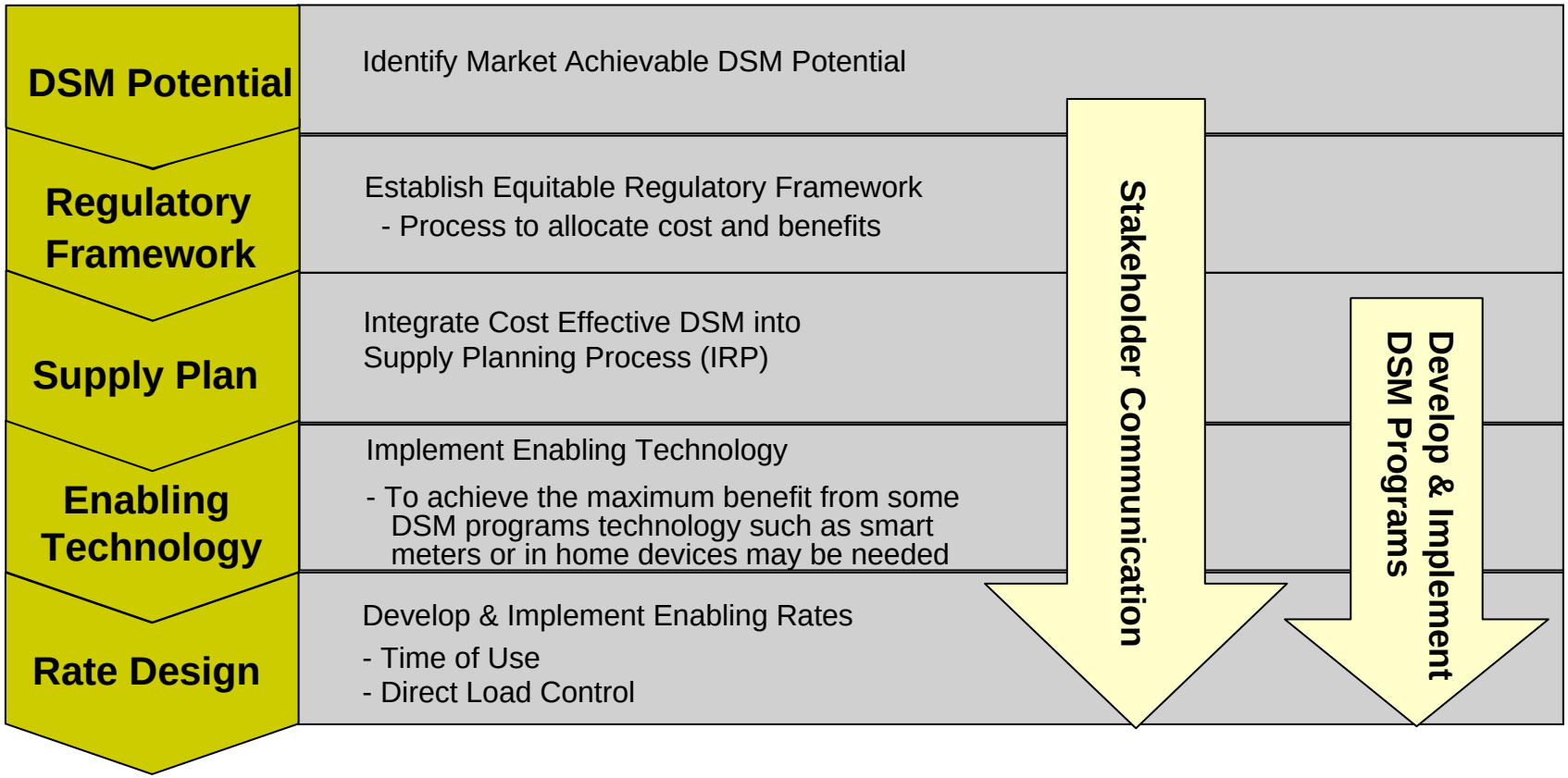
Helping to Meet Future Energy Needs

Through Cost Effective Demand Side Management

January 13, 2009

Key Steps to Develop and Implement an Integrated DSM Strategy



Market Scenarios / Assumptions to Measure DSM Potential

	Low case	Reference case	High case
Gas price	$5.0 / MMBtu	$7.60 / MMBtu	$12.0 / MMBtu
CO_2 price	$10 / ton by 2020	$25 / ton by 2020	$50 / ton by 2020
New capacity cost	$350 / kW	$680 / kW	$850 / kW
Net to gross ratio	Same as reference	80%	Same as reference
Program cost	+20%	Baseline	-20%
Participation level	-10%	Baseline	Baseline +
Incentive level	3 yr payback capped at 50% measure	2 yr payback capped at 75% measure	1 yr payback capped at 100% measure (or best judgment by ICF

Assumptions on key input variables were modified to create three market scenarios. The DSM potential study modeled all three scenarios and detailed results were produced for each scenario.

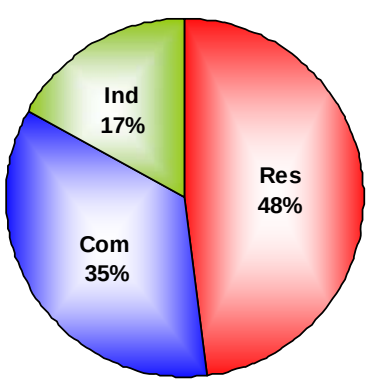
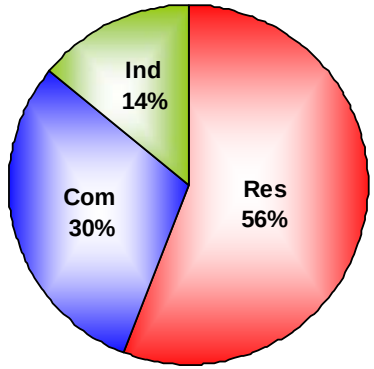
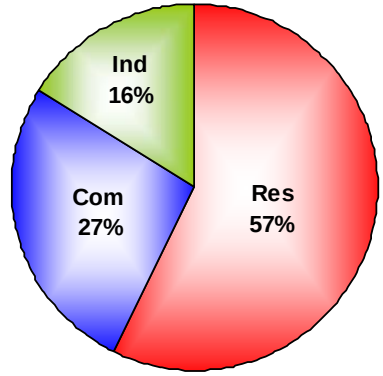
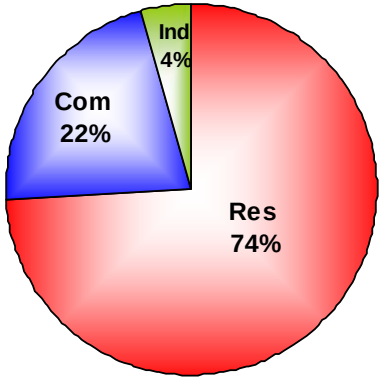
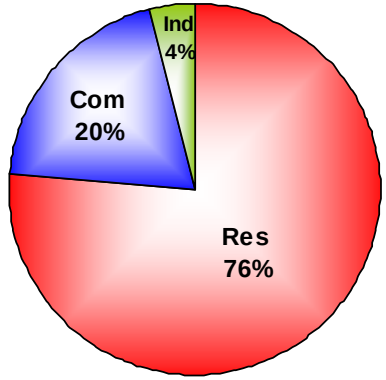
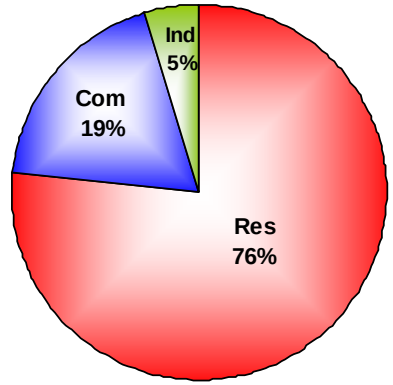
ENO – Estimated 10 Year DSM Potential

	Energy			Demand			10 Year Cumulative Program Cost (Thousands)
	Cumulative mWh Saved over 10 Years	% of Total Energy Forecast	% of Sales Growth	Cumulative mW Saved over 10 Years	% of Total Demand Forecast	% of Demand Growth	
Low	57,829	1.2%	16.8%	40	4.4%	32.2%	$18,061
Reference	**114,565**	**2.3%**	**33.5%**	**73**	**7.9%**	**58.6%**	**$37,044**
High	171,499	3.4%	50.1%	102	11.2%	82.4%	$71,115

Key Takeaways:

- The estimated 10 year DSM potential assumes that all cost effective DSM programs are fully funded and implemented
- The range of DSM potential estimates in the Low, Reference and High scenarios are driven by the key assumptions that define these scenarios as shown on the previous slide
- These DSM potential estimates are derived from a bottoms up engineering analysis and actual results may vary based on regional market forces that may only be identified through DSM program pilots and full scale program implementation

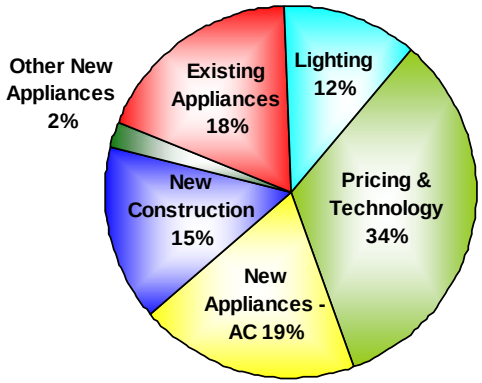
ENOI - Cumulative Energy/Demand Saved Over 10 Yrs

	Low Scenario	*Reference Scenario*	*High Scenario*
Energy mWh			
	57,829 mWh	**114,565 mWh**	**171,499 mWh**
Demand mW			
	40 mW	**73 mW**	**102 mW**

ENOI - *Reference Scenario* – DSM Energy/Demand Saved Over 10 Yrs

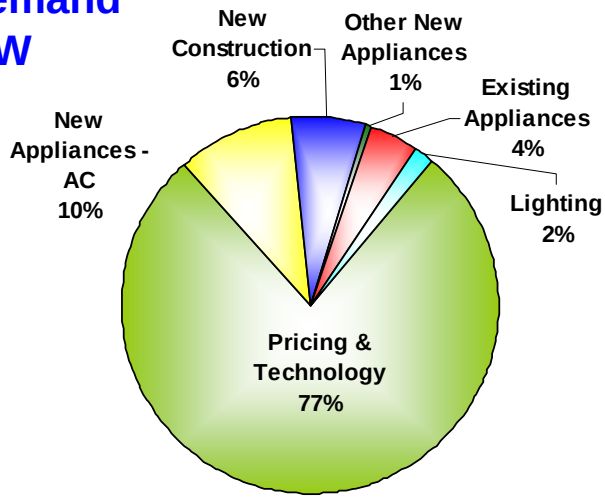
Residential

Energy mWh



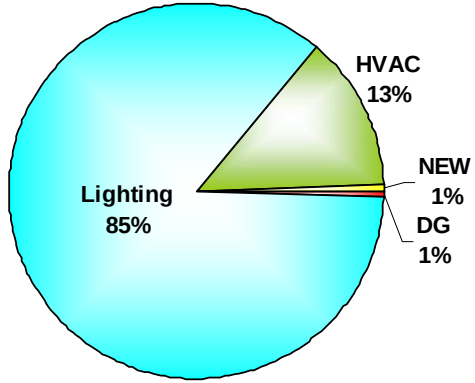
64,156 MWH

Demand mW

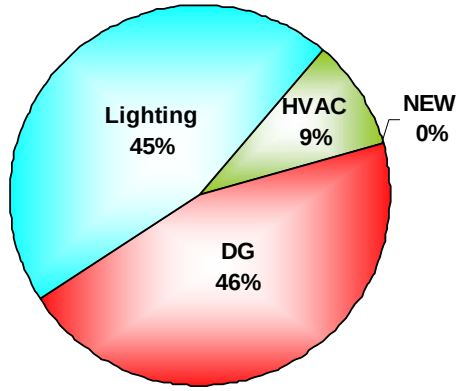


55 MW

Commercial

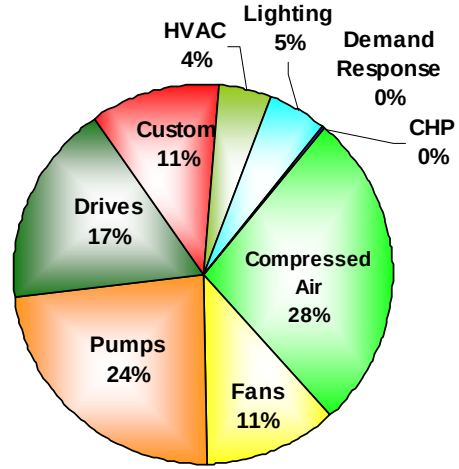


34,370 MWH

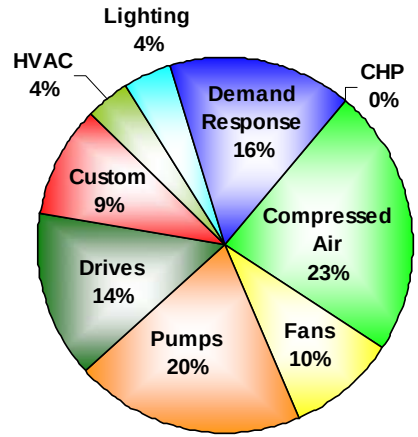


15 MW

Industrial



16,039 MWH



3 MW

ENOI - 10 Year Programs Ranked by Energy MWh Potential

Reference Scenario

	Program	Energy mWh Potential	Shared %	TRC	PCT	RIM	UCT	10 Year Cumulative Program Cost (Thousands)
Residential	In-Home Display	10,133	15.9%	4.1	0.0	0.7	4.0	$2,194
	DHW System - Setpoint, Insulation, Low Flow	9,931	15.5%	6.9	18.2	0.6	17.3	$270
	New Construction	9,813	15.4%	1.2	1.9	0.8	6.3	$2,042
	Appliances - Window AC	7,571	11.8%	1.6	3.2	0.7	3.1	$1,728
	Lighting	7,440	11.6%	2.6	12.0	0.6	4.0	$248
	TOU - Enabling	6,785	10.6%	2.2	0.0	0.7	1.3	$4,983
	HVAC Equipment	4,626	7.2%	1.0	2.3	0.6	1.3	$4,741
	TOU - No Enabling	3,393	5.3%	1.4	0.0	0.3	0.7	$2,152
	HVAC System - AC Tuneup	1,793	2.8%	2.2	3.2	0.9	5.6	$245
	Performance Benchmarking	1,080	1.7%	1.6	0.0	0.4	1.5	$306
	Refrigerator Turn-In	854	1.3%	2.5	3.0	0.3	2.1	$121
	DHW Equipment	497	0.8%	2.3	5.5	0.6	6.7	$51
	DR	0	0.0%	1.9	0.0	1.1	1.1	$11,477
	Total	**63,917**						**$30,559**
Commercial	Lighting	29,322	85.4%	2.9	6.8	0.6	5.8	$3,496
	HVAC	4,550	13.3%	3.7	7.2	0.8	6.0	$802
	NEW	231	0.7%	5.1	10.0	0.7	15.1	$15
	DG	219	0.6%	7.6	3.0	2.9	6.1	$902
	Total	**34,322**						**$5,215**
Industrial	Compressed Air	4,452	27.3%	4.5	8.7	0.7	13.2	$173
	Pumps	3,828	23.4%	3.3	6.4	0.7	9.6	$207
	Drives	2,804	17.2%	2.6	5.0	0.7	7.2	$213
	Fans	1,838	11.3%	2.0	3.9	0.7	5.3	$180
	Custom	1,819	11.1%	2.3	5.0	0.7	4.4	$266
	Lighting	832	5.1%	3.4	6.2	0.7	7.1	$75
	HVAC	722	4.4%	2.1	4.0	0.7	5.7	$81
	Demand Response	32	0.2%	6.0	4.2	1.9	3.1	$76
	CHP	0	0.0%	0.0	0.0	0.0	0.0	$0
	Total	**16,327**						**$1,270**

The high lighted measures overlap with the 2009 ENO energy efficiency programs.

ENOI - 10 Year Program Ranked by Demand MW Potential

Reference Scenario

	Program	Demand mW Potential	Shared %	TRC	PCT	RIM	UCT	10 Year Cumulative Program Cost (Thousands)
Residential	DR	27	48.8%	1.9	0.0	1.1	1.1	$11,477
	TOU - Enabling	9	15.8%	2.2	0.0	0.7	1.3	$4,983
	In-Home Display	5	9.6%	4.1	0.0	0.7	4.0	$2,194
	New Construction	4	6.3%	1.2	1.9	0.8	6.3	$2,042
	Appliances - Window AC	3	5.2%	1.6	3.2	0.7	3.1	$1,728
	HVAC Equipment	3	4.9%	1.0	2.3	0.6	1.3	$4,741
	TOU - No Enabling	1	2.4%	1.4	0.0	0.3	0.7	$2,152
	DHW System - Setpoint, Insulation, Low Flow	1	2.4%	6.9	18.2	0.6	17.3	$270
	HVAC System - AC Tuneup	1	2.1%	2.2	3.2	0.9	5.6	$245
	Lighting	1	1.5%	2.6	12.0	0.6	4.0	$248
	Refrigerator Turn-In	0	0.4%	2.5	3.0	0.3	2.1	$121
	Performance Benchmarking	0	0.4%	1.6	0.0	0.4	1.5	$306
	DHW Equipment	0	0.1%	2.3	5.5	0.6	6.7	$51
	Total	**56**						**$30,559**
Commercial	Lighting	6	45.4%	2.9	6.8	0.6	5.8	$3,496
	DG	6	45.1%	7.6	3.0	2.9	6.1	$902
	HVAC	1	9.3%	3.7	7.2	0.8	6.0	$802
	NEW	0	0.2%	5.1	10.0	0.7	15.1	$15
	Total	**14**						**$5,215**
Industrial	Compressed Air	1	23.0%	4.5	8.7	0.7	13.2	$173
	Pumps	1	19.8%	3.3	6.4	0.7	9.6	$207
	Demand Response	0	15.8%	6.0	4.2	1.9	3.1	$76
	Drives	0	14.5%	2.6	5.0	0.7	7.2	$213
	Fans	0	9.5%	2.0	3.9	0.7	5.3	$180
	Custom	0	9.4%	2.3	5.0	0.7	4.4	$266
	Lighting	0	4.3%	3.4	6.2	0.7	7.1	$75
	HVAC	0	3.7%	2.1	4.0	0.7	5.7	$81
	CHP	0	0.0%	0.0	0.0	0.0	0.0	$0
	Total	**3**						**$1,270**

DSM Potential Study – Key Takeaways

- The estimated DSM potential numbers resulting from this study are developed for planning purposes and represent all identified cost- effective achievable potential.

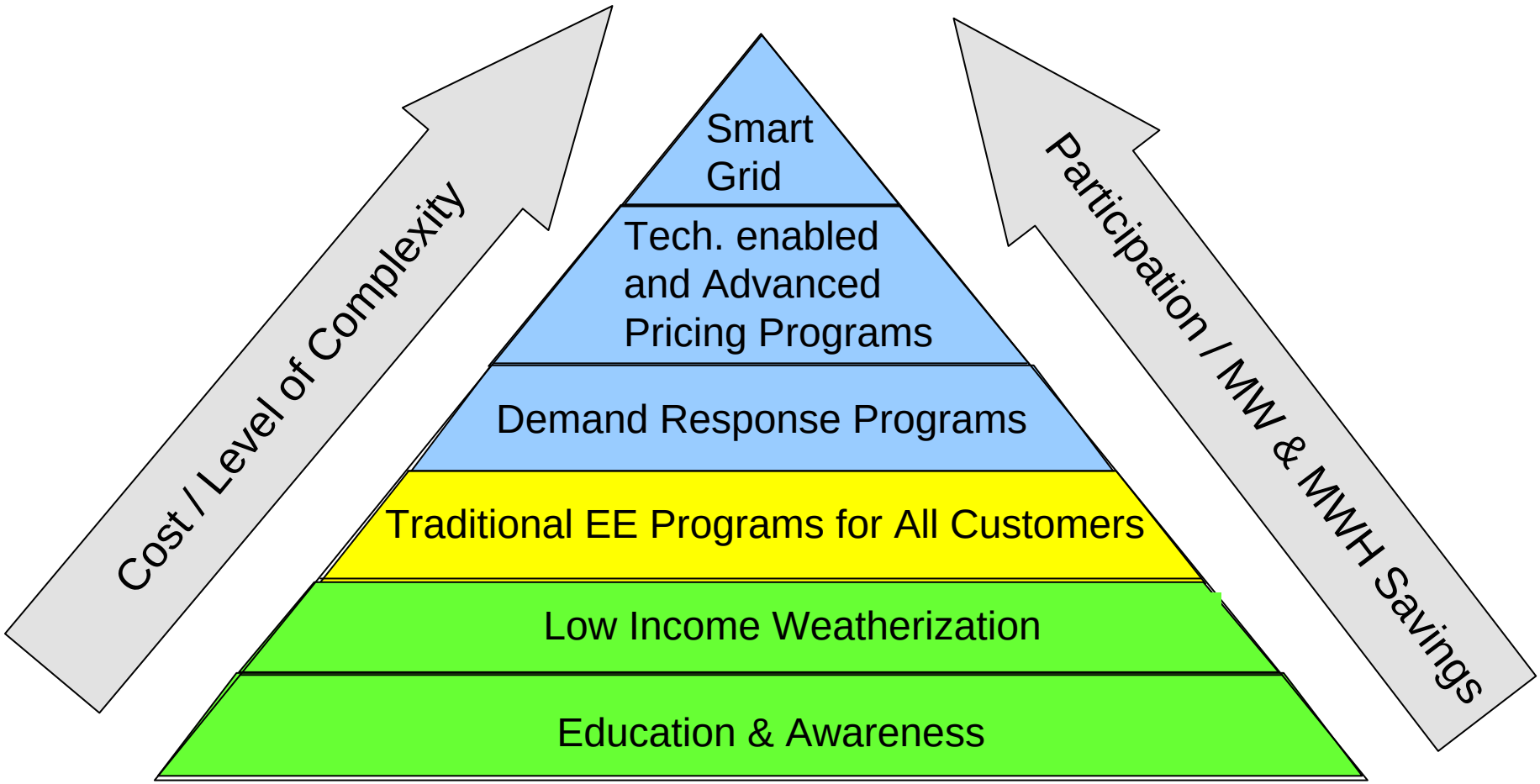
- The study also assumes that all cost effective measures across all customer classes are implemented in year one and run for ten years.

- It is more likely that DSM programs will be implemented in phases to better manage program design, market roll out, education and awareness and to maintain a manageable number of DSM programs

- A scaled approach to DSM implementation has several benefits:

    1. Allows the proper level of focus on new programs to drive greatest probability of success
    2. Limits customer confusion of having too many DSM programs introduced at the same time
    3. Provides opportunities to incorporate implementation learning's from previous program roll outs
    4. It doesn't overwhelm potential partners such as trade allies and allows for appropriate training / certification
    5. Provides the opportunity to scale or ramp DSM funding requirements

Building a Comprehensive DSM Platform



Underway

Planned – Limited Scale in 2009

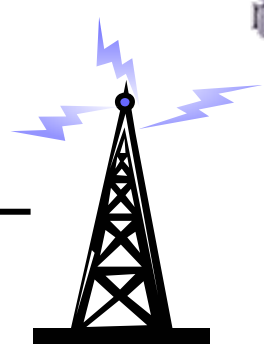
Future Programs – Timing Based on Investment Approval and the Rate of Technology Development

One-Way Demand Response System

Digital Cap Bank Controller

Superstat

Load Management System (LMS)



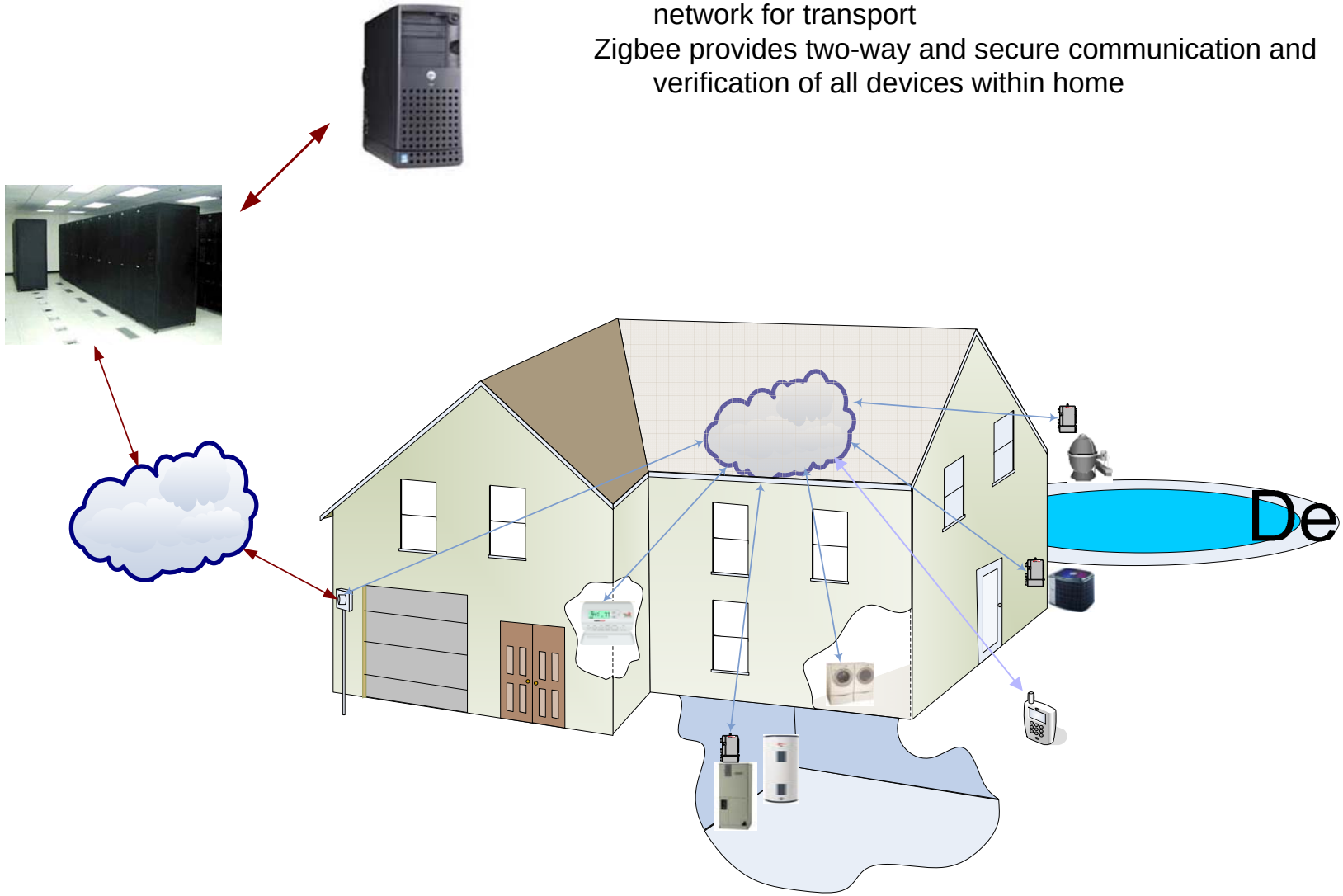
Service Reconnect Disconnect (SRD)

Digital Control Unit (Super switch)

Two-Way AMI DR Solution

Demand Response commands and responses use the AMI network for transport

Zigbee provides two-way and secure communication and verification of all devices within home

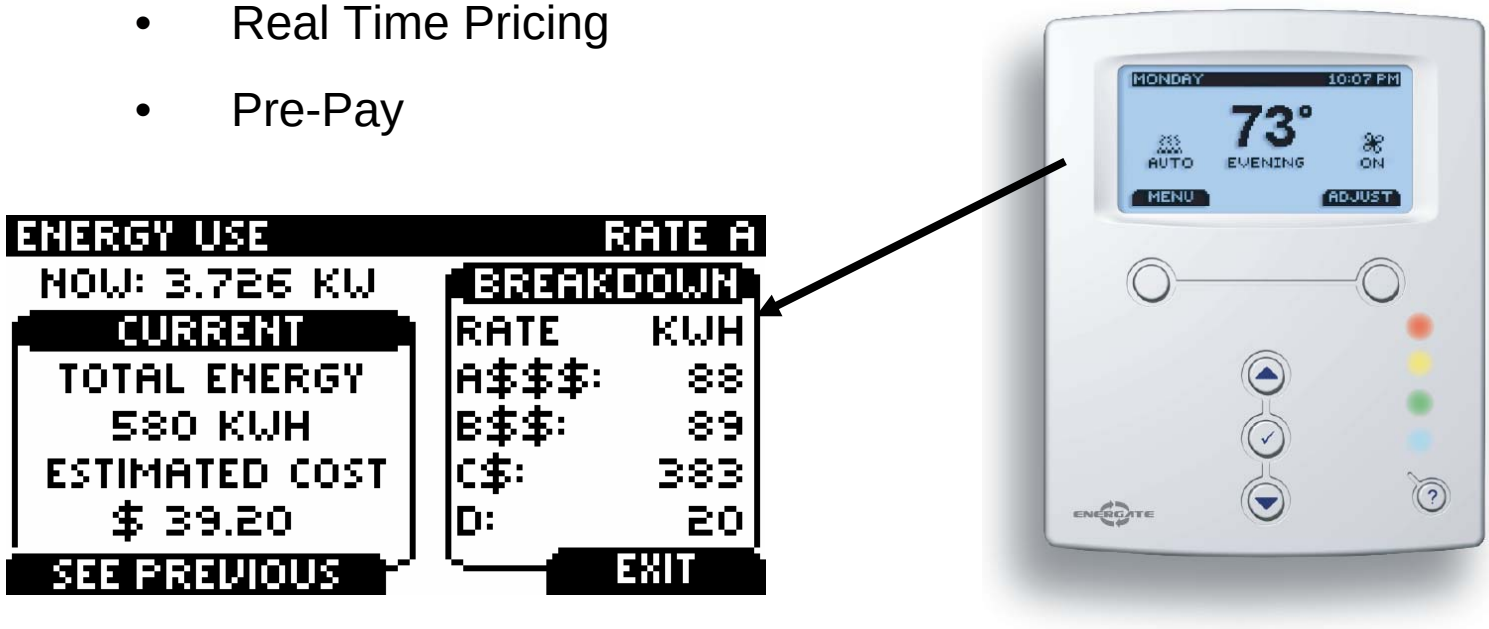


Demand Response Solution

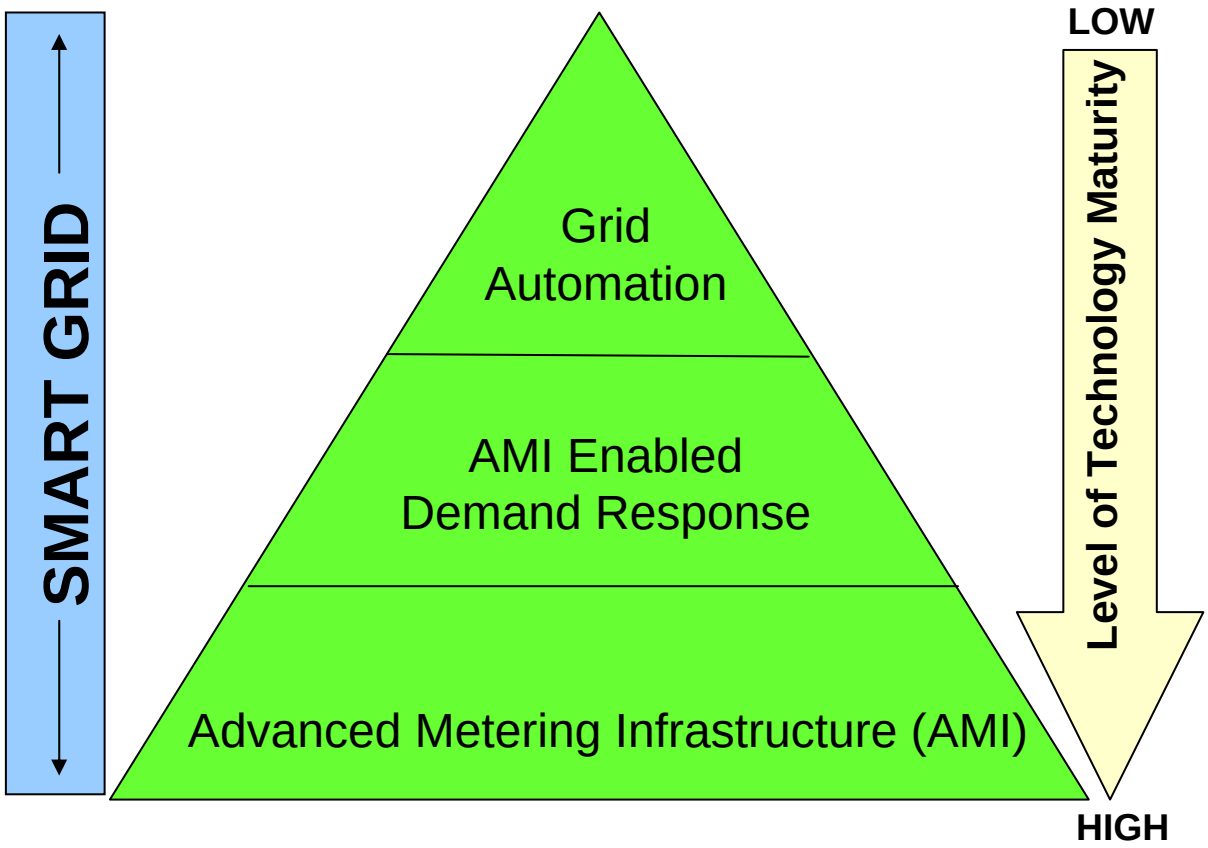
Technology Enabled and Advanced Pricing Programs

1. Traditional Time of Use (TOU)

2. In Home Device Enabled Pricing Programs
   - TOU with In Home Display
   - Critical Peak Pricing (buy through demand response)
   - Peak Time Rebates
   - Real Time Pricing
   - Pre-Pay



Components to Building a Smart Grid – Industry View



Grid automation hardware and software still in development and not fully tested

One way DR available today

Two way AMI enabled DR technology not mature today. Lead time approximately 18 months

Base Functionality for AMI available today:
- Remote Reads
- On Demand Reads
- Remote Connect and Disconnect
- Outage and Theft Detection

NEXT STEPS

- Continue to work with the City Council and other stakeholders to develop an integrated DSM approach and the regulatory framework to implement cost effective DSM programs on a larger scale
- Roll out initial energy efficiency programs that address low hanging fruit and the immediate needs of the Community
- Develop and implement rate designs that support DSM pricing program
- Continue to move forward with the development and implementation of enabling technologies (AMI / Smart Grid)