



Snapshot of Industrial Natural Gas Energy Efficiency Programs

Southwest Regional Energy
Efficiency Workshop



November 15, 2007

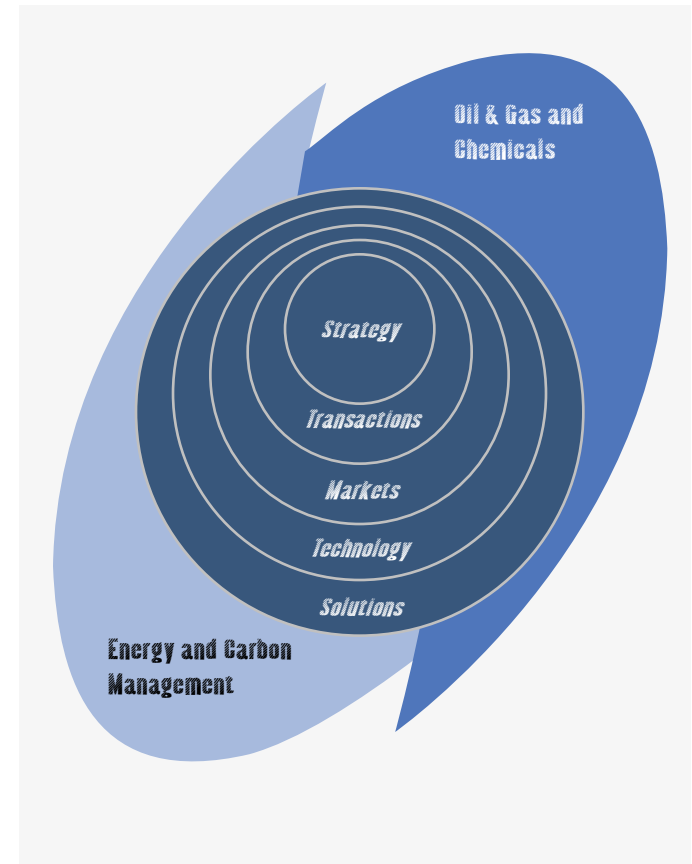


On Today's Agenda

- Overview of two utility gas energy efficiency programs
 - MidAmerican Energy's Non-Residential Energy Analysis Program
 - Pacific Gas & Electric Company's Refinery Energy Efficiency Program (REEP)
- Discussion of successes, challenges and lessons learned

Nexant Overview

- Energy Consulting and Products Firm with a staff of 300+ employees
- Completed over 1,500 energy industry assignments in more than 70 countries with nineteen offices around the world
- Nexant's Energy and Carbon Management business unit involved with utility energy-efficiency efforts since the 1980's
 - Market potential assessments
 - Program design activities
 - Turnkey program implementation support





MidAmerican Energy

- MidAmerican Energy is a combined fuel investor owned utility
 - Primary service territory in Iowa with some customers in South Dakota and Illinois
 - Approximately 700,000 electric and natural gas customers
- Implementation of DSM programs seek to meet the goals of their Energy Efficiency Plan filings with the Iowa Utility Board
- 2003 filing included their Non-Residential Energy Analysis Program
 - Targets customers with facilities $\geq 25,000$ square feet
 - Offers technical assistance and implementation incentives for cost-effective measures
- Program model is similar to many other utilities

Non-Residential Energy Analysis Program

After Applying, Customer Receives a Scoping Level Audit or Strategic Management Energy Efficiency Training

No cost for customer

- **Executes EE Action Plan**
 - Additional technical support
 - Implementation incentives

50% upfront, balance after implementation

Incentives to provide 1 yr SPB (max 4 year buy-down)

- **Prescriptive incentives for common measures**

~50% of customer cost

Program Results

■ Savings opportunities identified to date

	Demand (kW)	Energy (kWh/yr)	Energy (Therms/yr)
Commercial	2,364	21,951,544	591,504
Industrial	8,430	93,377,412	42,578
Total	10,794	115,328,956	634,082

■ Savings opportunities realized or in process to date

	Demand (kW)	Energy (kWh/yr)	Energy (Therms/yr)
Commercial	432	2,215,941	15,448
Industrial	1,683	20,102,106	11,850
Total	2,115	22,318,047	27,298

Pacific Gas & Electric

- PG&E is a combined fuel investor owned utility
 - Serves approximately 15 million customers, covering most of central and northern California
 - 5.1 million electric accounts
 - 4.2 million natural gas accounts
- CPUC orders 20% of utility DSM budget to be spent on 3rd party programs
 - PG&E bids out 3rd party programs to address markets with atypical barriers-to-entry
 - One resulting program is the Refinery Energy Efficiency Program (REEP)



Strategic Planning Meeting to Identify Needs and Opportunities

No cost for customer



Technical Analysis and Support

No cost for customer



Implementation Incentives

*Gas @ \$0.80/therm
(50% project cost limit)*

*Electric @ \$0.10/kWh
(6 month SPB limit)*



REEP Program Results

- Savings opportunities realized or in process to date
 - Electric – 45,275,000 kWh/yr
 - Gas – 3,900,000 therms/yr
- Average project savings
 - Electric – 2,650,000 kWh/yr
 - Gas – 230,000 therms/yr

What Has Worked Well

- Both utilities are combined fuel
 - Allows a seamless approach to assisting customer with energy efficiency opportunities
 - Economies of scale in fixed program delivery costs
- Support for key customer market barriers
 - External specialized engineering expertise
 - Comprehensive approach
 - Project management assistance
 - Owner's representative services
- Incentives help reduce paybacks

Where Some of the Challenges Lie

- Still some separation of electric and gas programs
- Transport customers often are not eligible
- Competition for internal funding
- Implementation timeframes can be long
 - Scoping of complex projects
 - Internal funding cycles
 - Coordination/competition with planned plant down-time
- Program marketing through account managers
 - Point of contact not always the right person
 - Focus on customer satisfaction

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