



Thompson Conference Center, University of Texas at Austin  
Thursday, September 13, 2007

## Workshop Schedule

•This workshop is jointly sponsored by Public Citizen, with the Texas Energy Efficiency Partnership, and the Electrical Utility Marketing Managers of Texas (EUMMOT).

8:30 -- 9:00	Registration/Coffee
9:00 -- 10:15	<b>Opening/Introduction</b> <i>Welcome:</i> Alan Ahrens, Chairman, EUMMOT <i>Views of the Challenge and Opportunity</i> <ul style="list-style-type: none"><li>• Theresa Gross, Energy Efficiency Lead, Electric Division, Public Utility Commission of Texas</li><li>• Dub Taylor, Director, State Energy Conservation Office</li><li>• Tom "Smitty" Smith, Texas Director, Public Citizen</li><li>• Regional Potential of Energy Efficiency and On-site Renewable Energy - R. Neal Elliott, Ph.D., P.E., Industrial Program Director, ACEEE</li></ul>
10:15 -- 10:30	<b>--- Break ---</b>
10:30 -- 12:00	<b>"Outside the box":</b> <i>Session Chair: Price Robertson, Oncor</i> <u>A Public Example</u> – Fred Yebra, Director, Demand Side Management, Austin Energy. <u>Advanced Buildings: Core Performance</u> - Mark Cherniack, Senior Program Manager, New Buildings Institute. <u>Utility DSM Programs and Federal Tax Incentives</u> - Harry Misuriello, Manager, Energy Efficiency Strategies, Owens Corning, <i>representing</i> NAIMA. <u>Non-Transmission Industrial Compressed Air</u> - Scott Stroup, President, Airometrix.
12:00 – 1:00	<b>--- Lunch --- (box lunches provided)</b>
1:15 – 2:45	<b>Commercial Programs:</b> <i>Session Chair: Jay Zarnikau, Frontier Associates</i> <u>Comprehensive Design Support for High Performance New Construction</u> - Jay Pilliod, Director of Business Energy Services, Vermont Energy Investment Corp. <u>Data Centers</u> - Derrick Rebello, Principal, QuEST. <u>Grocery Stores &amp; Big Box</u> – Jim Stimmel, Executive Vice President, Engineering, CLEAResult Consulting. <u>Vendor-Based Delivery Mechanisms for Recommissioning and Prescriptive DSM</u> - Chris Schroeder, Vice President- Energy & Carbon Management, Nexant.
2:45 – 3:00	<b>--- Break ---</b>
3:15 – 4:45	<b>Residential Programs:</b> <i>Session Chair: Tom Fitzpatrick, Public Citizen</i> <u>Peak Alerts and Peak Time Rebates</u> - David Pickles, Vice President, ICF International. <u>Residential Rules-Based Audit</u> – Jonathan Baty, Vice President of Technology, Enerpath. <u>Residential Audit</u> - Steve Saunders, CEO, TexEnergy Solutions, Inc., <i>representing</i> Texas Home Energy Raters Organization (TX HERO). <u>Appliance Replacement and Recycling</u> – Bruce Wall, Vice President, Resource Efficiency Programs, Appliance Recycling Centers of America.
4:45 – 5:00	<b>Closing</b>
5:00 – 7:00	<b>Reception</b> hosted by <i>Frontier Associates and CLEAResult Consulting --- in the Lobby</i>

**JIM STIMMEL**, Executive Vice President  
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Jim Stimmel is an Executive Vice President at CLEAResult Consulting, Inc. He has worked on a wide range of energy-related programs and projects over his long tenure in the energy efficiency industry. During his 27-year career he has founded and operated a mechanical contracting company specializing in high performance HVAC systems, geothermal and solar energy; managed hundreds of residential and commercial construction projects; taught hundreds of workshops; provided cutting edge lighting consulting and design; provided strategic management consulting on procurement and acquisitions; and supported numerous government, utility and non-profit energy efficiency and market transformation programs.

Among his most significant achievements, Jim assembled and managed a large team of energy professionals who provided program development, implementation and consulting support to the EPA ENERGY STAR programs, directly involved in the development of ENERGY STAR initiatives from their inception in 1991 and over the next 12 years, helping develop ENERGY STAR into the most effective national energy efficiency program and the most highly recognized symbol for energy efficiency in the nation. Jim also played a key role in creating the Texas SCORE Program, and currently leads school district SCORE Partners through Energy Efficiency Master Planning Workshops to help them analyze their energy use, identify improvement opportunities, and implement industry best practices. Jim holds a B.S. in Environmental Design from North Carolina State University.

# Energy Efficiency Market Transformation Opportunities for Texas:

## Grocery Store (including Big Box) Retailer Program

*Jim Stimmel*

*CLEAResult Consulting*

September 13, 2007

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# Why? Huge Potential in an underserved market

- Scale: Over 5,000 Grocery Stores and 9,000 Convenience Stores in Texas
- Customers: 350 chain-owners and 935 individual-owners
- Geography: 1038 cities have stores plus rural area
- Access: Thousands of stores approachable through chains - Wal-Mart, Safeway, HEB, Kroger, Albertsons, plus convenience store chains.

# Program Elements

- **Outreach** – Program offering - commitment.
- **Benchmarking** – to prioritize stores with greatest opportunities and motivate owners.
- **Analysis** – Audits to identify & recommend changes to current technologies and practices and “green” technologies.
- **Incentives** – After pre/post inspections, payments for the targeted incentive levels.

# Include Grocery Stores and Big Box in the Same Program

- Super grocery stores now have thousands of sq.ft. for big-box products.
- Super big-box stores now have refrigerated cases.
- Both groups respond to retail pressures (customers, lighting, comfort, sales volume, overhead costs).
- Both groups operate through chains.

# Projected Mix of Energy Reduction

- Coolers and cases: 50%
- Lighting: 26%
- Other refrigeration: 23%
- HVAC: 1%

(based on programs at PG&E, SCE, and SDG&E)

# Refrigeration:

## No-Cost, Low-Cost Options

- 50% of supermarket energy.
- Fine tune defrost controls, and try not to defrost during summer peak periods.
- Fine tune temperature settings.
- Insulate bare refrigeration suction lines.
- Install strip curtains & door auto-closers.
- Replace cracked/worn case door gaskets.
- Clean coils & check refrigerant charge.
- Install anti-condensate heater controls.

# Lighting: No-Cost, Low-Cost Options

- Turn off in unoccupied areas.
- Take advantage of daylight to turn down lighting.
- Install and/or ensure time clocks, photocells, and occupancy sensors work correctly.
- Replace incandescents with CFLs.

# HVAC:

## No-Cost, Low-Cost Options

- Make sure economizers are working properly.
- Fine tune thermostat settings.
- Turn off HVAC & exhaust fans when unoccupied.
- Follow maintenance schedules.
- Reduce/eliminate HVAC in storage rooms, warehouses when possible.
- Keep exterior doors closed as much as possible.
- Install programmable thermostats.

# Other Energy Upgrade Investments

- Refrigeration: glass doors on refrigerated cases; floating head pressure controls on compressors.
- Coolers: strip curtains, replace door gaskets, night covers, cycle anti-sweat heaters.
- Lighting: replace T12s with T8 or T5s; dimmable ballasts for daylighting; LEDs in display cases. (over 50% already have T8), daylighting/skylights.
- HVAC: VFDs on fan motors; EMS controls; high-efficiency equipment.
- Envelope: low-E windows.

# Emerging Technologies: LED Lighting

- Wal-Mart adding LEDs to refrigerated cases in over 500 stores.
- Saving \$2.6 million annually, \$5,000/store.
- LEDs perform better at cold temperatures.
- Easily combined with dimming/occupancy controls.
- Provides better product illumination = sales!

# How Cost Effective is this Program?

- Very cost effective.
- \$350-\$425/kW, of which over 60% is customer incentives.
- The first year of a program should launch in November-January to ensure first year cost-effectiveness.

# What Made the Program Successful Elsewhere?

- Market is currently underserved by other utility programs.
- Only the largest chains have robust in-house efficiency capabilities
- Providing a balance mix of motivations, audits, guidance, and cash incentives
- Profit-driven mind set produces action.

# What Factors Will Enhance Program Success?

- Recruiting: getting commitments to actions from chains and owners.
- Benchmarking
- High-quality, independent audits and advice
- Added focus on emerging technologies
- Support for independents and small chains (underserved, least efficient customers)
- Responsive, adaptive program management

# How Long Will It Take To Transform This Market?

- Most likely, 8-10 years depending on the program scale for outreach, audits and training.
- Unless there is a new jump in technologies, which could speed up investments.

# Does This Program Meet the Energy Efficiency Rule in Texas?

- Yes
- Any rule change needed? No

# For More Information ...

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