

**Retailer Energy Alliance (REA) Roundtable
National Building Museum, Washington, D.C.
February 21, 2008**

EXECUTIVE SUMMARY

Goals and Participants

On February 21, 2008, the Department of Energy's (DOE) Building Technologies Program (BTP) convened a roundtable to launch its new Retailer Energy Alliance (REA), the first of three initiatives aimed specifically at improving energy efficiency in commercial buildings. The REA is intended to become a national forum for retail building owners and operators, in which best practices in energy efficiency are continually documented and publicized, DOE research and knowledge of emerging technologies can be offered, and peers can share practical experience and insights.

Attended by retail industry leaders (participant list attached), the goal of the meeting was to bring together charter partners to help identify REA's first year objectives. These included:

- Setting membership goals and developing a plan to build awareness of REA
- Holding a "Supplier Summit" to connect Retailer energy saving objectives with vendor research and product offerings
- Identifying one or two activities that would produce almost immediate results.

Participants introduced themselves, discussed how their organizations are currently managing energy use, where they see the biggest challenges and opportunities, and how the REA can be positioned to lead the retail industry in energy-efficient initiatives.

In addition, participants explored how REA could be structured to attract membership and support specific goals. Areas of interest where REA could add value included:

- Descriptions of current energy programs, energy-efficiency goals, and how payback calculations influence energy decisions
- Programs currently in place to collect energy use data
- Methods used to encourage managers, staff, and (in some instances) customers to select energy-efficient strategies and products
- Selecting key technologies for promotion throughout the retail industry and how those technologies could be tested for efficiency and payback
- How data about the use of innovative technologies could be shared among REA members.

Facilitation questions and detailed comments are captured in the attached discussion notes.

1. What has your company articulated as energy and environmental policy?

Comment
Zero waste is our goal. By 2009, all new buildings will improve energy efficiency by 25 to 30 percent when compared to current buildings. There is a two-year payback on LEDs. What if all of us bought LED parking lot lighting?
We are looking at energy use of building components, commissioning, and creating the business case for energy efficiency. Typically, we require a two-year payback on energy-efficiency improvements but some three-year payback projects are approved. It is difficult to quantify intangibles; how do you quantify improved light levels?
In some regions, there's a desire for LEED compliant buildings.
Our business is changing; we currently have 2,024 stores, and we're shifting from large stores to smaller ones. Major improvements are expected.
We always ask the question "What impact does it have on our customers?" We have to be experts on the products we sell. In addition to the products we carry in our stores, we try to influence the supply chain's sustainability
We are happy to share information with other retailers.

2. What energy efficiency activities have your companies engaged in?

- **What have been your motivations to pursue them?**
- **What are your major lessons learned?**

Comment
We visit stores on a periodic basis. Education and training are critical issues to maintaining an energy efficient building, and we do some testing and training of facilities staff. We try to motivate customers and associates to do the right thing.
We monitor where energy is going (remote monitors are in place), and life-cycle cost is important. Our employees ... deliver the message about saving the environment. Suppliers need to understand energy loads in the various types of retail stores.
Energy champions in stores are identified. We give incentives to stores to improve efficiency. When you educate associates on the value of turning off lights, they will do it.
Many stores want to be LEED Gold, but LEED certification is really costly, about \$40,000. Making the business case is critical to getting individual managers to make energy efficiency improvements. People must be trained.
Most stores are centrally controlled. We can remotely tell if a freezer case has been left open.

3. Are there specific technologies that you have extensively field tested?

Comment
Ceramic Metal Halide (CMH) lighting has cut our costs a lot. But if we had to do it again, we might have pushed to incorporate daylighting in addition to CMH. Daylighting is now not as attractive because we have already captured the low-hanging fruit (with CMH) and realized a two-year payback.
We monitor our stores and do retrocommissioning and can capture about 15 percent savings on any store. We have staff that does the surveys and our own protocols. We develop top-five lists and focus on the things that are biggest winners. Occupancy sensors are big winners.
We've retrofitted freezer cases with motion activated sensors. We realized a two-year payback and will do another 200 stores this year. LED parking lot lighting is a big winner since we won't have to relamp every two years – instead it will be every 12 years. We will retrofit 1,000 stores with LED parking lot lights over the next year. Energy Recovery Units on RTUs can save energy. Retracting skylights are an option in some stores. A fan company installed fans near the checkout stands to keep employees more comfortable and to reduce influence of outside air and drafts. There are soft benefits to daylighting.
We offer MS and HVAC training for staff. Staff who are energy-efficiency "All Stars" get their names on a "baseball card." This form of recognition works to motivate energy managers.
We're looking into purchasing 1-2 kw wind turbines for a store. We could use any info on evaluations done on these systems.
Ventilation is a big energy user, and our study shows that increasing ventilation at night can save money and energy use.
We removed foot-candle requirements from stores.

4. **What expectations do you have surrounding the launch of the Alliance: sharing success stories with other retailers and advancing practices in the commercial sector?**

By sharing info we can gain leverage with small/medium independent businesses. Discovery Channel is doing a year-long study on a small town in Kansas that was wiped out by a tornado. It is going to be a sustainable- design town, including one of our stores that was wiped out.

On March 19, we're opening our most energy-efficient store in Las Vegas, and you're invited to attend. We are looking at retrofitting produce lighting with LED spotlighting in Arkansas, and we'd like to see what can be done with price with the help of REA. We will install LED lights in parking lots at 1,000 stores this year and we want to be able to sell the message. We need people now saying this is the preferred lighting, and DOE should coordinate getting the message out. REA also can help get these products (such as LEDs) on the market.

General Discussion

- REA must communicate what is needed. What are the top five or so technologies to pursue? Independent testing of technologies is needed. We must develop some repository for information so members can go to the REA site for information, including validation and testing information. For example, what is the best rooftop unit to put on my stores? Everyone is skeptical of vendor claims and REA needs to share experience of other retailers of the products. Summary papers of all test results – “Did it work? If yes, under what approach?” — would be helpful.
- We need to look at regional needs and approaches: hot/humid, hot/dry climate solutions, etc. Collective knowledge and the reputation of an organization like REA may have influence with store/mall owners.

What's Next?

- Many of these have come up. Sharing and looking at the whole profile of the Alliance is important.
- There should be a “lessons learned” repository on an REA Web site. Information should be vetted through labs and posted on the REA Web site. Common denominators drive development on footprint.
- We should consider a supplier summit in spring and develop presentations and discussions. REA needs to challenge the supplier community.

Moving Forward

Supplier Summit

REA retailers have combined buying power sufficient to gain the attention and interest of OEMs and suppliers in terms of understanding what this segment of their customers needs are related to energy efficiency and building performance. The Summit would bring OEMs and suppliers together to learn from REA the needs of the retail community.

Ideas include:

- REA prepares general presentation on needs, including:
 - Overview of the footprint represented by REA (1.25+ billion sq.ft). Footprint according to retail building type, REA common needs, specific needs (HVAC, lighting, refrigeration, etc.), overarching need (i.e. specific issues related to economizer performance – or lack of) etc. DOE could make this presentation.
 - Subset of REA retailers representing various building types/sectors (i.e. food service, general merchandise, warehouse, etc.) offer presentation on their sector's needs and challenges.
 - A few REA retailers could form a panel to present some of the information in a discussion format.
- Individual REA members offer presentation on the specific needs driven by their operational and business requirements.
- Ideas for solutions would be kept fairly general so that attendees are not restricted in their solutions (encourage creativity). REA members could define 4-5 overarching needs to be sure to cover at the event.
- Central location, maybe the Midwest. May 7-8 were identified as possible dates. Try for a 9-3 schedule so people can fly in and out in a day. Need to settle on dates and venue by early March.

Action items

- Decide on quick win(s) to pursue, with the understanding that we will strive for something that brings value to all REA members while recognizing that there probably is not one project that will work for everyone.
- Develop a “members only” area on the REA Web site that restricts access to certain data to REA members only. The Alliance needs to identify and create material to populate this area of the site.
- As we move forward, REA may need to develop special project committees to address specific projects. This could align with specific retail building sub-groups, such as general merchandise, food service, or warehouse club.