

## CBEA Executive Exchange with Commercial Building Stakeholders

May 24 • National Renewable Energy Laboratory (NREL) in Golden, CO

**Objectives:** **Collaborate** across stakeholder groups – from building owners to suppliers – to maximize the impact of current energy-efficiency activities, **announce** new DOE opportunities targeting the commercial building sector, and **vet** CBEA ideas for future projects.

8:00 MDT	Security Check-in	NREL Visitors Center
8:30–9:00	Registration and Coffee	RSF 4th floor lobby
9:00–10:30	Opening Plenary Session	San Juan room
	<ul style="list-style-type: none"><li>• <b>Welcome</b></li><li>• <b>Keynote Address:</b> Kathleen Hogan, U. S. Department of Energy (DOE) Deputy Assistant Secretary for Energy Efficiency</li><li>• <b>Partnerships–Maximizing the Impact of Public Resources:</b> Arah Shuur, DOE Commercial Buildings Lead</li><li>• <b>CBEAs, the Efficiency Forum, and the Supplier Community:</b> Brian Holuj and Kristen Taddonio, DOE CBEA Coordinators</li><li>• <b>CBEA Projects in Action:</b> Jim McClendon, Walmart, REA Chair; HEA Rep; John K. Scott, Colliers International, CREEA Chair</li><li>• <b>Q&amp;A and Protocol for Breakout Discussions:</b> Doug Brookman, Facilitator</li></ul>	
10:30–10:45	Break	
10:45–12:00	Project Team Breakout Discussions	
	<i>Overview of Project Team strategy and members; public launch of each 2012 Project</i> <ul style="list-style-type: none"><li>• <b>Lighting and Electrical:</b> Chris Magee, MGM Resorts International, and Jeff McCullough, Pacific Northwest National Laboratory (PNNL)</li><li>• <b>Space Conditioning:</b> CBEA Project Team Rep and Michael Deru, National Renewable Energy Laboratory (NREL)</li><li>• <b>Refrigeration and Food Service:</b> CBEA Project Team Rep and Bill Goetzler, Navigant Consulting</li><li>• <b>Plug and Process Loads:</b> CBEA Project Team Rep and Feitau Kung, NREL</li><li>• <b>Market Transformation:</b> CBEA Project Team Rep and Diane Vrkic, Waypoint Building Group</li></ul>	
12:00–1:00	Lunch	San Juan room
	<ul style="list-style-type: none"><li>• <b>Cutting-Edge Building Technologies and Best Practices:</b> Speaker to be confirmed</li></ul>	
1:00–2:30	Project Team Breakout Discussions	
	<i>Assess project deployment barriers and opportunities, and vet potential 2013 work</i> <ul style="list-style-type: none"><li>• <b>Lighting and Electrical:</b> Ralph Williams, Walmart, and Jeff McCullough, PNNL</li><li>• <b>Space Conditioning:</b> CBEA Project Team Rep and Michael Deru, NREL</li><li>• <b>Refrigeration and Food Service:</b> CBEA Project Team Rep and Bill Goetzler, Navigant Consulting</li><li>• <b>Plug and Process Loads:</b> CBEA Project Team Rep and Feitau Kung, NREL</li><li>• <b>Market Transformation:</b> CBEA Project Team Rep and Diane Vrkic, Waypoint Building Group</li></ul>	
2:30–2:45	Break	
2:45–4:00	Closing Plenary Session	San Juan room
	<ul style="list-style-type: none"><li>• <b>Report Back from Each Project Team:</b> Technical Leads and CBEA Project Team Reps</li><li>• <b>Closing Remarks:</b> Brian Holuj and Kristen Taddonio, DOE CBEA Coordinators</li></ul>	
4:15–TBD	Optional NREL Tours	
	<ul style="list-style-type: none"><li>• See attached list for options</li></ul>	
6:30–TBD	Optional Dinner	

## NREL Tour Options

All tours are optional, located within a short walk on NREL's campus, and will take about 45-60 minutes. Since guests at the laboratory must be accompanied by NREL staff, tour participants are required to stay with the tour for its duration. If you would like to participate, please select one of the following tour options:

- **Option A: Research Support Facility – Net Zero Energy Office Building**  
The RSF is a 222,000 ft<sup>2</sup> LEED Platinum office building with a nominal target EUI of 25 kBtu/ft<sup>2</sup>/year. Discussion points during the tour will include the procurement process and owner vs. tenant responsibilities, innovative plug and process load management, daylighting, natural ventilation, a high efficiency data center, radiant heating and cooling, and building-integrated PV systems.
- **Option B: Thermal Test Facility – Advanced Space Conditioning Research**  
The TTF is home to NREL's innovative space conditioning systems research. The tour will include an overview of rooftop unit testing, transpired collectors, desiccant-enhanced evaporative air conditioner (DEVap), and advanced evaporative cooling technologies.
- **Option C: High Efficiency Parking Garage**  
The tour of NREL's new, high efficiency parking garage will highlight multiple, integrated strategies that can be replicated within CBEA members' parking garage structures. The procurement was an energy-goal-based, design-build structured to minimize energy consumption at a fixed price. Features include: daylighting to reduce lighting loads, occupancy sensors to turn lights on when needed, high-efficiency LED lighting, natural ventilation, PV panels on rooftop and south facade.
- **Option D: LEED Gold-Designed Cafeteria**  
The tour of NREL's cafeteria includes an overview of its best-in-class commercial kitchen equipment, indirect/direct evaporative cooling system, greater than 50% kitchen ventilation energy savings over typical designs, efficient lighting systems, daylighting and lighting controls, monitoring and verification of energy use for continual energy performance improvement, and the contractual energy performance improvement plan for vendors and operators.
- **Option E: PV and Solar Thermal R&D, Testing and Commercialization**  
The tour will include a combination of world-class laboratories, such as the Outdoor Testing Facility, Field Test Lab, Science and Technology Facility, and Solar Energy Research Facility, where NREL, industry, and universities collaborate on advanced solar technologies and manufacturing methods in order to accelerate commercialization. It will address topics ranging from the latest research on lifecycle testing of PV panels, accreditation standards, testing of PV and solar thermal components, and innovative approaches to manufacture low-cost solar hot water heater materials.