



# Food Service Project Team Breakout Sessions



# DAY 1

## May 29

# Logistics

- ▶ Forum agenda
- ▶ Rest rooms
- ▶ Call-ins

<p><b>1:30-2:45</b> Project Team Breakout I</p>	<p><b>Technology Solutions</b></p>		
<p><b>2:45-3:00</b></p>	<p><b>Break</b></p>		
<p><b>3:00-4:15</b> Project Team Breakout II Continuation of morning discussion.</p>	<p><b>Technology Solutions</b></p>		
<p><b>4:15-4:30</b></p>	<p><b>Break</b></p>		
<p><b>4:30-5:15</b></p>	<p><b>Plenary Session</b> <b>Breakout Session Report Back</b> <b>Closing Remarks</b></p>		
<p><b>5:30-6:30</b> See Table 1 below for detailed descriptions.</p>	<p><b>Optional Tours</b> On-site tours available for interested attendees to observe energy efficient and renewable in development.</p>		
<p><b>7:00-TBD</b></p>	<p><b>Optional Dinner</b> RSVP to <a href="mailto:BBA@ee.doe.gov">BBA@ee.doe.gov</a> if you would like to attend. Please specify Day 1.</p>		

<p><b>Refrigeration:</b> Review of Existing Projects and Identify Deployment Barriers</p>	<p><b>Laboratories:</b> Laboratory Team Activities and Member Implementation Stories</p>	<p><b>Plug and Process Loads</b> Overcoming Barriers to Reducing Plug and Process Loads</p>
<p><b>Space Conditioning:</b> Review Existing Projects and Identify Barriers</p>	<p><b>Lighting:</b> Introductions and "Quick takes" on Lighting Projects</p>	<p><b>Food Service:</b> Review Existing Projects and Identify Deployment Barriers</p>

<p><b>Refrigeration:</b> Moving Toward Standardization of Compressor Rack Design, Operation &amp; Maintenance</p>	<p><b>Energy Management &amp; Information Systems:</b> Making the Most of Energy Data: Technologies for Operational Efficiency and Energy Management</p>	<p><b>Plug and Process Loads:</b> Plug Load Measurement and Controls to Overcome Barriers</p>
<p><b>Space Conditioning:</b> Identify Solutions and Potential New Projects</p>	<p><b>Lighting:</b> Focused Discussion on Barriers and Opportunities</p>	<p><b>Food Service:</b> Identify Solutions and Potential New Projects</p>

## Agenda for Breakout I

- ▶ **Project Successes, Barriers, and Next Steps**
  - Welcome and introductions
  - Benchmarking (with ENERGY STAR and in general)
  - Energy Management Systems
  - Activities with Utilities

# Welcome and Introductions

## ▶ Welcome to the second BBA Efficiency Forum

- Last year we were “CBEA”
- This year we are Better Buildings Alliances (... plus Challenge, Plants, Case Competition, Information, Training, and Neighborhoods)

## ▶ Introductions

- Members, please mention your goals and needs from the Food Service Project Team
- Call-in folks, too



# Benchmarking

- ▶ ENERGY STAR building Performance Rating for food service
  - BBA-led development of Food Service Building Energy Survey: January – June 2013
  - Deployment of Food Service Building Energy Survey: July – September 2013
  - Portfolio Manager and Building Certification release: [Date TBD]
  - Provide food service data collection needs to CBECS: For incorporation into the CBECS survey for reference year 2016 [Date TBD]

- ▶ Latest draft of survey:

## 2013 Food Service Energy and Water Survey

Welcome to the Food Service Energy and Water Research Survey. This survey is being conducted by the National Restaurant Association (NRA) and the Restaurant Facility Management Association (RFMA), in collaboration with:

- U.S. Environmental Protection Agency (EPA), ENERGY STAR Commercial and Industrial Branch
- U.S. Department of Energy (DOE), Better Buildings Alliance (BBA) Food Service Project Team
- PG&E Food Service Technology Center (FSTC)

In an effort to understand the energy performance of restaurants and other food service establishments, these organizations have initiated the process to establish an ENERGY STAR Performance Rating for this commercial building segment. Creating this nationwide performance scale will allow restaurants to understand how the energy consumption of their

- ▶ **Four-part Food Service EMS guidance package:**
  1. Corporate-level guidance document
  2. Franchisee/independent-level guidance document
  3. Case studies
  4. Vendor database
- ▶ **Guidance package development is well along:**
  - Educate users on the benefits, costs, and nature of the technology
  - Identify attributes of EMS technology that are critical for optimal performance and success in food service applications
  - Compile a database of vendors that offer systems meeting the desired attributes
  - Guide users through the process of selecting and implementing an EMS
  - Document best practices for food service EMSs
- ▶ **CKE experience – presentation**

- ▶ **Collaboration with Consortium for Energy Efficiency**
  - Demand Control Ventilation
  - Measures to encourage & facilitate increased energy efficiency incentive utilization
  - Information on utility incentive programs (e.g., lists, descriptions)
  - Exchange of information about needs, programs
  - Central point of information to utilities about BBA tools and specs
  - Provide input on BBA tech specs during development process



## ▶ Forum agenda

<p><b>3:00-4:15</b> Project Team Breakout II Continuation of morning discussion.</p>	<b>Technology Solutions</b>		
<p><b>4:15-4:30</b></p>	<p><b>Refrigeration:</b> Moving Toward Standardization of Compressor Rack Design, Operation &amp; Maintenance</p>	<p><b>Energy Management &amp; Information Systems:</b> Making the Most of Energy Data: Technologies for Operational Efficiency and Energy Management</p>	<p><b>Plug and Process Loads:</b> Plug Load Measurement and Controls to Overcome Barriers</p>
	<p><b>Space Conditioning:</b> Identify Solutions and Potential New Projects</p>	<p><b>Lighting:</b> Focused Discussion on Barriers and Opportunities</p>	<p><b>Food Service:</b> Identify Solutions and Potential New Projects</p>
<p><b>4:30-5:15</b></p>	<b>Break</b>		
<p><b>5:30-6:30</b> See Table 1 below for detailed descriptions.</p>	<b>Plenary Session</b>		
	<b>Breakout Session Report Back</b>		
<p><b>7:00-TBD</b></p>	<b>Closing Remarks</b>		
<p><b>5:30-6:30</b> See Table 1 below for detailed descriptions.</p>	<b>Optional Tours</b> On-site tours available for interested attendees to observe energy efficient and renewable in development.		
	<b>Optional Dinner</b> RSVP to <a href="mailto:BBA@ee.doe.gov">BBA@ee.doe.gov</a> if you would like to attend. Please specify Day 1.		

## Agenda for Breakout II

- ▶ **Project Successes, Barriers, and Next Steps (cont'd)**
  - Possible solutions to accelerate efficiency improvement
  - Key issues facing members
  - Brainstorming session on new project ideas
- ▶ **Questions and concerns to discuss with stakeholders on Day 2**
- ▶ **Wrap-up and summary for report out**

- ▶ Continue ENERGY STAR food service building project
- ▶ Demand Control Ventilation technology spec (“tech spec”)
  - FSTC presentation
  - [Discussion result: Guidance is better at this time]
- ▶ EMS:
  - Food Service information analytics toolbox tech spec
    - [Discussion result: Tech spec or guidance are both acceptable]
  - Building re-tuning methods/training
    - [Discussion result: Too early for this activity – not enough EMS implementation]
- ▶ Other ideas presented in session:
  - Look into small-box, high-efficiency walk-in refrigeration technology

Speaker: Greg Tomsick, Boston Market

### Summary of new project ideas:

- ▶ Continue ENERGY STAR food service building project
- ▶ Educational guidance around Demand Control Ventilation (DCV)
  - Possible collaboration with the Consortium for Energy Efficiency (CEE)
- ▶ Analyze walk-in refrigeration components (consider restaurant applications separate from grocery)
- ▶ Develop a guidance document or tech spec on data analytics software (EMS overlays - user interface)

# DAY 2

## May 30

- ▶ Forum agenda
- ▶ Rest rooms
- ▶ Call-ins

<p><b>10:15–11:45</b> <b>Project Team Breakout III</b> Review current activities and assess deployment barriers and opportunities.</p>	<b>Technology Solutions</b>			
	<p><b>Refrigeration:</b> Review of current projects and key issues facing industry</p>	<p><b>Laboratories:</b> Strategies for Collaborating with Laboratory Users and Environmental Health and Safety Personnel</p>	<p><b>Plug and Process Loads:</b> State of the Industry as it Applies to PPL Measurement and Control</p>	
	<p><b>Space Conditioning:</b> Review of current projects and barriers to implementation</p>	<p><b>Lighting:</b> Introductions and Lighting Projects Overview</p>	<p><b>Food Service:</b> Review of Current Projects and Key Issues Facing Industry</p>	
<p><b>11:45–1:15</b></p>	<p><b>Lunch and Networking (provided), Room X344</b> <b>Better Buildings Challenge</b>, Opportunity to speak with U.S. DOE</p>			
<p><b>1:15–2:30</b> <b>Project Team Breakout IV</b> Continuation of morning discussion focused on actionable outcomes.</p>	<b>Technology Solutions</b>			
	<p><b>Refrigeration:</b> Compressor Rack Standardization (Design, Operation, Maintenance)</p>	<p><b>Energy Management &amp; Information Systems:</b> Existing Resources and Future Activities</p>	<p><b>Plug and Process Loads:</b> Open Discussion and Wrap-up</p>	
	<p><b>Space Conditioning:</b> New Project Ideas and Open Discussion</p>	<p><b>Lighting:</b> Focused Discussion on Barriers and Opportunities Identified on Day 1</p>	<p><b>Food Service:</b> Discuss New Project Ideas, Impact, and Deployment Path</p>	
<p><b>2:30–2:45</b></p>	<b>Break</b>			
<p><b>2:45–3:30</b> <b>Sector Breakout II</b> Choose 1 of 5. Efficiency Forum digest and priorities moving forward.</p>	<p><b>Healthcare:</b> 2013 Efficiency Forum Digest and Priorities for 2014</p>	<p><b>Commercial Real Estate &amp; Hospitality:</b> The Rubber Meets the Road- Bridging Sector Focus Areas with Alliance Activities</p>	<p><b>Higher Education:</b> Barriers and Opportunities</p>	<p><b>Residential Services:</b> 2013 Forum</p>
<p><b>3:30–3:45</b></p>	<b>Break</b>			
<p><b>3:45–4:30</b></p>	<p><b>Closing Plenary Session</b> <b>Report Back from Each Project Team:</b> Breakout Session Representatives <b>Closing Remarks</b></p>			
<p><b>4:45–6:00</b> See Table 1 below for detailed descriptions.</p>	<p><b>Optional Tours</b> On-site tours available for interested attendees to observe energy technologies in practice and in development.</p>			
<p><b>6:30–8:00</b></p>	<p><b>Optional Dinner</b> RSVP to BBA@ee.doe.gov if you would like to attend. Please specify</p>			

## Agenda for Breakout III

- ▶ Welcome and introductions
- ▶ Overview of FY13 projects, member identified barriers, brainstorm solutions
  - Benchmarking (with ENERGY STAR and in general)
  - Energy management systems (EMS)
  - Activities with utilities

# Welcome and Introductions

- ▶ **Welcome to the second BBA Efficiency Forum**
  - Last year we were “CBEA”
  - This year we are Better Buildings Alliances (... plus Challenge, Plants, Case Competition, Information, Training, and Neighborhoods)
- ▶ **Introductions**
  - Call-in folks, too

# Overview of FY13 Projects, Member Identified Barriers, Brainstorm Solutions

- ▶ Benchmarking (with ENERGY STAR and in general)
- ▶ Energy management systems (EMS)
- ▶ Activities with utilities

## ▶ 2013 Project

- BBA-led development of Food Service Building Energy Survey: January – June 2013
- **Deployment of Food Service Building Energy Survey: July – September 2013**
- Portfolio Manager and Building Certification release: [Date TBD]
- Provide food service data collection needs to CBECS: For incorporation into the CBECS survey for reference year 2016 [Date TBD]

## ▶ Barriers

- Survey participation
- Technical (rating system)

## ▶ Discussion

## ▶ 2013 Project

- Four-part Food Service EMS guidance package:
  - Corporate-level guidance document
  - Franchisee/independent-level guidance document
  - Case studies
  - Vendor database

## ▶ Barriers

- Significant effort required
- Doesn't always meet promised savings without a lot of effort
- Technology still evolving

- ▶ Powerhouse Dynamics presentation
- ▶ Manitowoc presentation
- ▶ Discussion

▶ **2013 (informal) Project**

- Collaboration with Consortium for Energy Efficiency
- Piecemeal contacts and efforts

▶ **Barriers**

- No established, regular, dedicated mechanism for utility-user interaction
- High diversity in programs and customer needs

## ▶ Forum agenda

<p><b>1:15–2:30</b>  <b>Project Team Breakout IV</b>          Continuation of morning discussion focused on actionable outcomes.</p>	<b>Technology Solutions</b>		
<b>2:30–2:45</b>	<p><b>Refrigeration:</b>          Compressor Rack Standardization (Design, Operation, Maintenance)</p>	<p><b>Energy Management &amp; Information Systems:</b>          Existing Resources and Future Activities</p>	<p><b>Plug and Process Loads:</b> Open Discussion and Wrap-up</p>
<p><b>2:45–3:30</b>          Sector Breakout II          Choose 1 of 5. Efficiency Forum digest and priorities moving forward.</p>	<p><b>Space Conditioning:</b>          New Project Ideas and Open Discussion</p>	<p><b>Lighting:</b> Focused Discussion on Barriers and Opportunities Identified on Day 1</p>	<p><b>Food Service:</b> Discuss New Project Ideas, Impact, and Deployment Path</p>
<b>3:30–3:45</b>	<b>Break</b>		
<p><b>3:45–4:30</b></p>	<p><b>Healthcare:</b> 2013 Efficiency Forum Digest and Priorities for 2014</p>	<p><b>Commercial Real Estate &amp; Hospitality:</b> The Rubber Meets the Road- Bridging Sector Focus Areas with Alliance Activities</p>	<p><b>Higher Education:</b> Barriers and Opportunities</p>
<p><b>4:45–6:00</b>          See Table 1 below for detailed descriptions.</p>	<b>Break</b>		
<b>6:30–8:00</b>	<b>Closing Plenary Session</b>		
	<b>Report Back from Each Project Team:</b> Breakout Session Representatives		
	<b>Closing Remarks</b>		
	<p><b>Optional Tours</b> On-site tours available for interested attendees to observe energy technologies in practice and in development.</p>		
	<p><b>Optional Dinner</b> RSVP to <a href="mailto:BBA@ee.doe.gov">BBA@ee.doe.gov</a> if you would like to attend. Please specify</p>		

## Agenda for Breakout IV

- ▶ New project ideas, impact, and deployment path
- ▶ Wrap up and summary for plenary report out

- ▶ Continue ENERGY STAR food service building project
- ▶ Demand Control Ventilation guidance
- ▶ EMS:
  - Food Service information analytics toolbox tech spec
- ▶ Small-box, high-efficiency walk-in refrigeration technology
- ▶ Other ideas presented in session:
  - EMS study and demos to quantify non-energy benefits
    - [Discussion: Good idea, if perhaps difficult to implement]
  - Food Service better building showcases & Challenge participation
    - [Discussion: Good idea; what are realistic goals for Food Service?]

Presenter = Adam Jarboe, Yum! Brands

- ▶ Continue ENERGY STAR benchmarking project
- ▶ DCV guidance
- ▶ EMS data analytics toolbox for Food Service
- ▶ Walk-in cooler/freezers for Food Service (with Refrigeration team)
  
- ▶ EMS study and demos to quantify non-energy benefits
- ▶ Food Service better building showcases & Challenge participation