

2018 BTO Peer Review Agenda

Monday, April 30, 2018

Crystal Ballroom		Washington Ballroom		Commonwealth		Jackson		Harrison/ Wilson	
Time	Presentation and Speaker	Time	Presentation and Speaker	Time	Presentation and Speaker	Time	Presentation and Speaker	Time	Presentation and Speaker
8:30-8:50	Welcome and Opening Remarks David Nemtzw, Building Technologies Office								
8:50-10:20	Programs in Action Panel Karma Sawyer, Emerging Technologies; Amy Jiron, Commercial Buildings Integration; Joan Glickman, Residential Buildings Integration and invited speakers								
10:20-10:50	BREAK								
10:50-11:00	Opening Remarks Kathleen Hogan, Deputy Assistant Secretary for Energy Efficiency								
11:00-12:30	National Laboratories in Action Panel Moderator: David Nemtzw Panelists: Ramamoorthy Ramesh, Lawrence Berkeley National Laboratory; Jud Virden, Pacific Northwest National Laboratory; Mohammad Khaleel, Oak Ridge National Laboratory; Johny Green, National Renewable Energy Laboratory; and Jeffrey Binder, Argonne National Laboratory								
12:30-1:30	LUNCH (Crystal Ballroom)	12:30-1:30	LUNCH (Crystal Ballroom)	12:30-1:30	LUNCH (Crystal Ballroom)	12:30-1:30	LUNCH (Crystal Ballroom)	12:30-1:30	LUNCH (Crystal Ballroom)
		1:30-2:00	HVAC Overview Tony Bouza, DOE	1:30-2:00	Sensors & Controls Marina Sofos, DOE			1:30-2:00	CBI Overview Energy Performance and Tools Amy Jiron, DOE
		2:00-2:30	Optimized Thermal Systems, Inc. - Advanced Serpentine Heat Exchangers Daniel Bacellar, Optimized Thermal Systems, Inc.	2:00-2:30	PARC, a Xerox Company - Passively-Powered Adaptively-Located Flexible Hybrid Sensors David Schwartz, Palo Alto Research Center	1:30-3:00	Connected Communities: EV, PV and GEB Session	2:00-2:30	Seventhwave and NREL (as sub to Seventhwave) - Accelerate Performance Ben Heymer, Seventhwave
		2:30-3:00	Trane - Improved Braze Joint Quality Through use of Enhanced Surface Technologies Brian Westfall, Trane	2:30-3:00	Clemson University - All-Digital Plug and Play Passive RFID Sensors for Energy Efficient Building Control Hai Xiao, Clemson University			2:30-3:00	IMT - Boosting Energy Efficiency and Economic Development through Chambers of Commerce Lotte Schlegel, The Institute for Market Transformation
		3:00-3:30	NOT REVIEWED UMD College Park - Design and Manufacturing of High Performance, Reduced Charge Heat Exchangers Vikrant Aute, University of Maryland	3:00-3:30	ORNL - Energy-harvesting, Self-calibrating Wireless Sensors for Improving EE in Buildings Teja Kuruganti, ORNL			3:00-3:30	RILA - Financial Management for Retail Energy Efficiency Erin Hiatt, Retail Industry Leaders Associations
		3:30-4:00	BREAK	3:30-4:00	BREAK	3:30-4:00	BREAK	3:30-4:00	BREAK
		4:00-4:30	UTRC - High Efficiency Low GWP Compressor Parmesh Verma, United Technologies Research Center	4:00-4:30	NOT REVIEWED UVA - Improving Energy Efficiency of Wireless Communication Circuitry in Miscellaneous Electric Loads Brad Campbell, University of Virginia			4:00-4:30	LBNL - Energy Factors in Commercial Building Finance Paul Mathew, LBNL
		4:30-5:00	NOT REVIEWED UTRC - High-efficiency Low Global-Warming Potential (GWP) Packaged Rooftop System Ahmad Mahmoud, United Technologies Research Center	4:30-5:00	NOT REVIEWED PARC, a Xerox Company - Ultra-Low SWaP CO2 Sensing for Demand Control Ventilation Clinton Smith, PARC	4:00-5:30	Cross-Cutting Project Medley with BTO Fellows	4:30-5:00	PNNL - Commercial Building Energy Asset Score Nora Wang, PNNL
		5:00-5:30	HVAC Wrap-up (Reviewers Only)	5:00-5:30	Intelligent Optical Systems - Optical Humidity Sensors for Building Energy Performance and Air Quality Control (SBIR) Jesus Delgado, Intelligent Optical Systems			5:00-5:30	LBNL - CERC Systems, Economic Analysis, and Modeling Carolyn Szum, LBNL
				5:30-5:45	Sensors & Controls Wrap-up (Reviewers Only)			5:30-5:45	CBI Wrap-up (Reviewers Only)
5:30 7:00	POSTER SESSION (Crystal Ballroom)	5:30 7:00	POSTER SESSION (Crystal Ballroom)	5:45 7:00	POSTER SESSION (Crystal Ballroom)	5:30 7:00	POSTER SESSION (Crystal Ballroom)	5:45 7:00	POSTER SESSION (Crystal Ballroom)

Tuesday, May 1, 2018

Washington Ballroom		Commonwealth		Jackson		Harrison/ Wilson		Madison	
Time	Presentation and Speaker	Time	Presentation and Speaker	Time	Presentation and Speaker	Time	Presentation and Speaker	Time	Presentation and Speaker
9:00-9:20 Opening Remarks (Crystal Ballroom) Daniel Simmons, Principal Deputy Assistant Secretary in the Office of Energy Efficiency and Renewable Energy									
9:20-10:30 Get Smart: How Will Connected Buildings Change the Future? (Crystal Ballroom) Moderator: Maggie Molina, ACEEE Panelists: Sue Coakley, Northeast Energy Efficiency Partnerships; David Nemtsov, Building Technologies Office; Tariq Samad, University of Minnesota; Tracy West, Southern Company									
10:30-10:45		10:30-10:45		10:30-10:40		10:30-11:00		10:30-11:00	
BREAK		BREAK		BREAK		BREAK		BREAK	
10:45-11:00	HVAC Recap Tony Bouza, BTO	10:45-11:00	Sensors & Controls Recap Marina Sofos, BTO	10:40-11:10	Transactive Energy Management Sven Mumme, BTO	11:00-11:30	RBI Overview Eric Werling, BTO	11:00-12:30	What is the value of Grid-interactive Efficient Buildings?
11:00-11:30	ORNL - Adhesive Bonding of Aluminum and Copper in HVAC&R Applications Patrick Geoghegan, ORNL	11:00-11:30	LBNL - CERC – DC Power Richard Brown and Bruce Nordman, LBNL	11:10-11:40	PNNL- GMLC - Connected Homes & Neighborhoods Nora Wang, PNNL	11:30-12:00	HIRL - Durability of Windows In Walls with Continuous Insulation Vladimir Kochkin, Home Innovation Research Laboratories		
11:30-12:00	ORNL - Innovative, Low-Cost Ground Heat Exchanger (GHX) for Geothermal Heat Pump Systems Xiaobing Liu, ORNL	11:30-12:00	NOT REVIEWED NREL - Energy Design and Scoping Tool for DC Distribution Systems Stephen Frank, NREL	11:40-12:10	ORNL - Transactive Whole Homes as Integrated Assets (Connected Homes Task) Helia Zandi, ORNL	12:00-12:30	CEE - Aerosol Sealing in New Construction Dave Bohac, Center for Energy and Environment		
12:00-12:30	ORNL - HVAC&R Research Collaboration through IEA (and IIR activities) Van Baxter, ORNL	12:00-12:30	NOT REVIEWED PNNL - Improving Characterization of Miscellaneous Energy Loads in Residential and Commercial Buildings Joshua Butzbaugh, PNNL	12:10-12:40	ORNL - Transactive Whole Homes as Integrated Assets (Connected Neighborhoods Task) Michael Starke, ORNL				
12:30-1:30		12:30-1:30		12:40-1:30		12:30-1:30		12:30-1:30	
LUNCH		LUNCH		LUNCH		LUNCH		LUNCH	
1:30-2:00	ORNL - Novel Solar Absorption Cooling System to Reduce Peak Loads Moonis Ally, ORNL	1:30-2:00	NOT REVIEWED UC Berkeley - Low-Cost Identification and Monitoring of Diverse MELs in Residential and Commercial Buildings with PowerBlade Prabal Dutta, LBNL	1:30-2:00	PNNL- Virtual Batteries Di Wu, PNNL	1:30-2:00	UMN – Affordable, Solid Panel "Perfect Wall" System Patrick Huelman, University of Minnesota	12:30-2:30	What's New in Building Energy Codes? Jeremy Williams, BTO
2:00-2:30	ORNL - Peel & Stick Sensor for Refrigerant Leak Detection Pooran Joshi, ORNL	2:00-2:30	University of California, Berkeley - Flexible, Open Source \$10 Wireless Sensor System for EE Building Operation David Culler, University of CA, Berkeley	2:00-2:30	ORNL- Virtual Battery-based Characterization Jeffrey Munk, ORNL	2:00-2:30	NREL - Science Research Technical Quality Management Stacey Rothgeb, NREL		
2:30-3:00	ORNL - Design/Optimization of Heat/Mass Exchangers (HMX) using Membrane Technologies Van Baxter, ORNL	2:30-3:00	ANL - Low Cost Submetering Theodore Bohn, ANL	2:30-3:30	PNNL- Transactive Signal Methodologies Srinivas Katipamula, PNNL	2:30-3:00	PNNL - Building America Research Dissemination Chrissi Antonopoulos, PNNL		
3:00-3:30	ORNL - Fuel Cell Cooling, Heating, and Power (CHP) Moonis Ally, ORNL	3:00-3:30	ORNL - Experimental Validation of a New Cost-Effective and Nonintrusive BTU Meter Xiaobing Liu, ORNL			3:00-3:30	NREL - Race to Zero Student Design Competition Stacey Rothgeb, NREL		
3:30-4:00		3:30-4:00		3:30-4:00		3:30-4:00		3:30-4:00	
BREAK		BREAK		BREAK		BREAK		BREAK	
4:00-4:30	ORNL - Validate Performance of Existing Pre-Commercial Gas-Fired Equipment Ahmad Abu-Heiba, ORNL	4:00-4:30	Columbia University - Reducing plug-load electricity footprint of residential buildings through low-cost, non-intrusive sub-metering and personalized feedback technology Christoph Meinrenken, Columbia University	4:00-4:30	PNNL- Improving Transformer Efficiency and Lifetime through Product Selection, Systems Integration and Dynamic Control Jianming Lian, PNNL and Klaehn Burkes, SRNL	4:00-4:30	ORNL – Building America Envelope Research & Roadmap Support Andre Desjarlais, ORNL		
4:30-5:00	ORNL - Residential Gas-fired Cost-effective Triple-state Sorption Heat Pump Kyle Gluesenkamp, ORNL	4:30-5:00	PNNL - Economic Dispatch - Transactive Whole Buildings Srinivas Katipamula, PNNL	4:30-5:00	Transactive Wrap-up (Reviewers Only)	4:30-5:00	NREL - Residential Building Comfort Systems Research Jon Winkler, NREL		
5:00-5:30	HVAC Wrap-up (Reviewers Only)	5:00-5:30	NREL – Home Battery System Dane Christensen, NREL			5:00-5:30	RBI Wrap-up (Reviewers Only)		
		5:30-6:00	Sensors & Controls Wrap-up (Reviewers Only)						

Wednesday, May 2, 2018

Washington Ballroom		Commonwealth		Jackson		Harrison/ Wilson		Madison	
Time	Presentation and Speaker	Time	Presentation and Speaker	Time	Presentation and Speaker	Time	Presentation and Speaker	Time	Presentation and Speaker
8:15-8:30	HVAC Recap Tony Bouza, BTO	8:15-8:35	Sensors & Controls Recap Marina Sofos, BTO	8:00-8:30	SSL Overview Jim Brodrick, BTO	8:15-8:30	RBI Overview Eric Werling, BTO		
8:30-9:00	Xergy: Advanced Hybrid Water Heater using Electrochemical Compressor William Parmelee, Xergy	8:35-9:05	LBNL – Automated Fault Detection and Diagnostics Data Curation and Benchmarking Jessica Granderson, LBNL	8:30-9:00	Penn State University - Catastrophic OLED Failure and How to Fix it Chris Giebink, Penn State University	8:30-9:00	LBNL - Healthy Efficient Homes Research & Standards Support Iain Walker, LBNL		
9:30-10:00	ORNL - Mechanical Dehumidification Using High-Frequency Ultrasonic Vibration Ayyoub Momen, ORNL	9:05-9:35	NREL - An Open, Cloud-Based Platform for Whole-Building Fault Detection and Diagnostics Stephen Frank, NREL	9:00-9:30	USC - Combining Fluorescence and Phosphorescence to Achieve Very Long Lifetime and Efficient White OLEDs Mark Thompson, University of Southern CA	9:00-9:30	LBNL - CERC - Optimized Ventilation via IAQ Brett Singer, LBNL	9:00-10:30	BTO Evaluation: Recent Results and a Discussion of Future Analysis Session Jack Mayernik, NREL
10:00-10:30	ORNL - Magnetocaloric Refrigerator Ayyoub Momen, ORNL	9:35-10:05	PNNL – Advancements in Building Controls for Energy Efficiency: Adaptive Control Draguna Vrabie, PNNL	9:30-10:00	Iowa State University - Enhanced Light Extraction from Low Cost White OLEDs Ruth Shinar, Iowa State University	9:30-10:00	LBNL – Residential PACE Energy Savings Project Jeff Deason, LBNL		
10:30-11:00	BREAK	10:05-10:35	PNNL - JouleSmart (NorthWrite) Small Business Voucher Project Michael Brambley, PNNL	10:00-10:30	University of Michigan - Eliminating Plasmon Losses in High Efficiency White Organic Light Emitting Devices for Lighting Applications Stephen Forrest, University of Michigan	10:00-10:30	NREL - Residential Building Energy Modeling & Data Analytics Scott Horowitz, NREL		
11:00-11:30	BREAK	10:35-11:00	BREAK	10:30-11:00	BREAK	10:30-11:00	BREAK	10:30-11:00	BREAK
11:00-11:30	ORNL - Thermoelectric Clothes Dryer Kyle Gluesenkamp, ORNL	11:00-11:30	Drexel University - VOLTTRON Compatible Whole Building root-Fault Detection & Diagnosis Jin Wen, Drexel University	11:00-11:30	GA Tech - Stable White Organic Light-Emitting Diodes Enabled by New Materials with Reduced Excited-State Lifetimes Bernard Kippelen, Georgia Tech	11:00-11:30	NREL and PNNL - Home Energy Score Gateway Noel Merket, NREL and Dave Millard, PNNL	11:00-11:30	CBI Overview - Field Validation & Data Frameworks
11:30-12:00	ORNL - Radiation Defrosting Technique Kashif Nawaz, ORNL	11:30-12:00	NOT REVIEWED UVA - The Building Adapter: Automatic Mapping of Commercial Buildings for Scalable Building Analytics Hongning Wang, University of Virginia	11:30-12:00	NCSU - Low Cost Corrugated Substrates for High Efficiency OLEDs Xiangyu Fu, NCSU	11:30-12:00	RBI Wrap-up (Reviewers Only)	11:30-12:00	City of Seattle - Building Tune-up Accelerator Nicole Ballinger, City of Seattle
12:00-12:30	HVAC Wrap-up (Reviewers Only)	12:00-12:30	LBNL - CERC - Hierarchical Occupancy Response Model Predictive Control at Room, Building and Campus Levels Mary Ann Piette, LBNL	12:00-12:30	OLEDWorks LLC - Mask-Free OLED Fabrication Process for Non-Tunable and Tunable White OLED Panels Jeff Spindler, OLEDWorks LLC			12:00-12:30	ORNL - Systems Technology R&D Support Brian Fricke, ORNL
12:30-1:30	LUNCH	12:30-1:30	LUNCH	12:30-1:30	LUNCH	12:30-1:30	LUNCH	12:30-1:30	LUNCH
1:30-2:00	Envelope Overview Sven Mumme, BTO	1:30-2:00	Carnegie Mellon University - Human-in-the-loop Sensing and Control for Commercial Building Energy Efficiency and Occupant Comfort Anthony Rowe, Carnegie Mellon University	1:30-2:00	ASU - Stable and Efficient White OLEDs Based on a Single Emissive Jian Li, ASU			1:30-2:00	ICAST - Scaling Energy Efficiency Retrofits for Small Commercial Apartment Buildings Ravi Malhotra, International Center for Appropriate and Sustainable Technology
2:00-2:30	Glint Photonics, Inc. - Stationary Concentrator Daylighting System Chris Gladden, Glint Photonics, Inc.	2:00-2:30	LBNL - OpenBuildingControl Michael Wetter, LBNL	2:00-2:30	UCSB - Identification and Mitigation of Droop Mechanism in GaN-Based Light Emitting Diodes (LEDs) James Speck, UC Santa Barbara			2:00-2:30	NREL - System Technology R&D Support: Software Motor Corp, Dynamic Water, Meazon Michael Deru, NREL
2:30-3:00	Fraunhofer - Development of Low-Cost Isocyanurate-Based Super Insulation Jan Kosny, Fraunhofer	2:30-3:30	Widgets that will Enable more Flexible Buildings	2:30-3:00	UCSB - High Performance Green LEDs for Solid State Lighting James Speck, UC Santa Barbara			2:30-3:00	LBNL - Advanced M&V ("M&V 2.0") Jessica Granderson, LBNL
3:00-3:30	ORNL - Ultra-high R/inch VIP with polymeric fibrous core material Kaushik Biswas, ORNL			3:00-3:30	Lumileds - Improved Radiative Recombination in AlGaInP LEDs Ted Chung, Lumileds			3:00-3:30	NREL - System Technology R&D Support (Tech to Utilities) Greg Barker, Energy Solutions
3:30-4:00	BREAK	3:30-4:00	BREAK	3:30-4:00	BREAK	3:30-4:00	BREAK	3:30-3:45	CBI Wrap-up (Reviewers Only)
4:00-4:30	LBNL - Robust Super Insulation at a Competitive Price Ravi Prasher, LBNL	4:00-4:30	SLAC - GRID BTO - Message Bus Bob Barclay, Kisensum	4:00-4:30	Lumenari - Narrow Emitting Red Phosphors for Improving pcLED Efficacy Daniel Bugaris, Lumenari			3:45-4:00	BREAK
4:30-5:00	CERC - Passive Envelope Advancement: Integrated Design, Construction, and Industrialized Buildings Diana Hun, ORNL	4:30-5:00	SLAC - VOLTTRON Testing Tool Kit (VTTK) Bob Barclay, Kisensum	4:30-5:00	SSL Wrap-up (Reviewers Only)				
5:00-5:30	Envelope Wrap-up (Reviewers Only)	5:00-5:30	Sensors & Controls Wrap-up (Reviewers Only)						

Thursday, May 3, 2018

Commonwealth		Jackson		Harrison/ Wilson	
Time	Presentation and Speaker	Time	Presentation and Speaker	Time	Presentation and Speaker
			SSL Overview Jim Brodrick, BTO		
8:30-9:00	CBI Overview - Technology Systems & Packages	8:30-9:00	Columbia University - Graded Alloy Quantum Dots For Energy Efficient Solid State Lighting Jonathan Owen, Columbia University	8:30-9:00	ET - Modeling Overview Amir Roth, BTO
9:00-9:30	NOT REVIEWED LBNL Takeaways from the Smart Buildings Roundtable	9:00-9:30	General Electric - Highly Integrated Modular LED Luminaire Ramanujam Ramabhadran, General Electric	9:00-9:30	LBNL and NREL - BayREN Integrated Commercial Retrofits Tianzhen Hong, LBNL and Daniel Macumber, NREL
9:30-10:00	LBNL - The State of Building Commissioning Jessica Granderson, LBNL	9:30-10:00	USCD - Novel Lighting Strategies for Circadian and Sleep Health in Shift Work Applications Gena Glickman, University of CA, San Diego	9:30-10:00	LBNL and ORNL - THERMM Charlie Curcija, LBNL and Simon Pallin, ORNL
10:00-10:30	Navigant - High Impact Technology Matt Guernsey, Navigant	10:00-10:30	Virginia Tech - Investigating the Health Impacts of Outdoor Lighting Ronald Gibbons, Virginia Tech	10:00-10:30	UCB - Improving Data Center Energy Efficiency through End-to-End Cooling Modeling and Optimization Wangda Zuo, University of Colorado Boulder
10:30-11:00	BREAK	10:30-10:45	SSL Wrap-up (Reviewers Only)	10:30-11:00	BREAK
		10:45-10:50	BREAK		
11:00-11:30	LBNL - Getting Beyond Widgets Cindy Regnier, LBNL			11:00-11:30	LBNL - Accelerating Energy Savings in Commercial Buildings with CBES and Lucid Tianzhen Hong, LBNL
11:30-12:00	TRC - Integrated Solutions for Optimized Performance (ISOP) Packages Abhijeet Pande, TRC Energy Services			11:30-12:30	LBNL- Validation and Uncertainty Characterization for Energy Simulation Philip Haves, LBNL
12:00-12:30	PNNL - The State of Connected Lighting Michael Myer, PNNL				
12:30-1:30	LUNCH	12:30-1:30	LUNCH	12:30-1:30	LUNCH
1:30-2:00	NREL - Streamlining IoT Plug Load Controls into BAS and EMIS Platforms Kim Trenbath, NREL			1:30-2:00	OpenStudio (NREL, LBNL, ORNL, and PNNL) Luigi Gentile Polese, NREL
2:00-2:30	NREL - Zero Energy Buildings Initiative Shanti Pless, NREL			2:00-2:30	EnergyPlus (NREL, LBNL, and ORNL) Edwin Lee, NREL
2:30-3:00	CBI Wrap-up (Reviewers Only)			2:30-3:00	Spawn of EnergyPlus (LBNL, NREL, and ORNL) Michael Wetter, LBNL
				3:00-3:20	Modeling Wrap-up (Reviewers Only)
				3:30-4:00	BREAK
				4:00-5:00	Virtual Electric Power Board