

August 12, 2014

MEMORANDUM FOR: JOHN CONTI  
ASSISTANT ADMINISTRATOR FOR ENERGY  
ANALYSIS

PAUL HOLTBERG  
TEAM LEADER  
ANALYSIS INTEGRATION TEAM

JAMES TURNURE  
DIRECTOR  
OFFICE OF ENERGY CONSUMPTION AND EFFICIENCY  
ANALYSIS

FROM: BUILDINGS CONSUMPTION & EFFICIENCY ANALYSIS  
TEAM

SUBJECT: First AEO2015 Buildings Sector Working Group Meeting  
Summary, presented on 08-07-2014

Attendees: John Agan (DOE EPSA)  
Jack Mayernik (DOE EERE)  
David Daniels (EIA OEA)  
Cara Marcy (EIA OEA)  
Sam Napolitano (EIA OEA)  
Alan Swenson (EIA OES)  
Carol White (FERC)

Attending by WebEx/Phone: John Ackerly (Alliance for Green Heat)  
Roderick Jackson (ORNL)  
Xiaojing Sun (Georgia Tech)  
Matt Cox (Georgia Tech)  
Frances Wood (OnLocation)  
Kenneth Dubin (OnLocation)  
Robert Lorand (Leidos)  
David Belzer (PNNL)  
Katie Cort (PNNL)  
Andrew Nicholls (PNNL)  
Saleh Zakerinia (UC Davis)

Buildings Team Attendees: Erin Boedecker  
Owen Comstock  
Behjat Hojjati  
Kevin Jarzomski  
David Peterson

Steve Wade

**WORKING GROUP PRESENTATION FOR DISCUSSION PURPOSES ONLY  
DO NOT QUOTE OR CITE AS RESULTS ARE SUBJECT TO CHANGE**

The buildings presentation provided a discussion of the updates underway and anticipated for *AEO2015*. Updates to federal standards, end-use technology characterizations, and historical estimates were discussed, followed by a discussion of comments or suggestions for *AEO2016* and beyond. An overview of these topics is included in the presentation materials provided as a separate attachment.

Specific discussion/questions:

1. Discussion of the end-use technology update prompted a question about whether the new Leidos/Navigant report includes any indication of hours of use. The report covers equipment that serves major end uses. Typical unit capacity is provided in addition to cost and performance parameters and in some cases shipment quantities, but the report does not contain specific hours of use information.
2. As part of the discussion, EIA asked participants if they were aware of any recent research or analysis on approaches to incorporating water heating interactions for residential clothes washers and dishwashers. Some washers include elements to heat water internally while others draw hot water exclusively from the home water heater. EIA would like to better represent the impacts of these differences in energy use projections. Oak Ridge is currently working on an analysis addressing this topic which will be shared with EIA when publicly available.
3. Another topic of discussion was the availability of comprehensive information looking at energy impacts and costs of energy efficiency programs. A few participants mentioned work currently available or in progress on program specifics, impacts, and/or evaluation that may be useful to EIA. EIA analysts will follow up with participants to obtain these references.

Complete Listing of Invitees:

Ackerly, John (Alliance for Green Heat)  
Agan, John (DOE EPSA)  
Alex, Aileen (DOE)  
Alschuler, Elena (DOE EERE)  
Amann, Jennifer (ACEEE)  
Ames, Mark (ASHRAE)  
Anderson, David (PNNL)  
Antypas, Yanna (EIA OEA)  
Azevedo, Ines (Carnegie Mellon)  
Baca, Justin (SEIA)  
Bahei-Eldin, Ahmed (GE)  
Barbour, Edward (Navigant)  
Barker, Breton (DOE EERE)  
Bell, Mathias (Rocky Mountain Institute)

Belzer, Dave (PNNL)  
Bergman, Aaron (DOE EPSA)  
Berry, James (EIA OES)  
Boyd, Erin (DOE IA)  
Bredehoeft, Gwendolyn (EIA OEA)  
Brodrick, James (DOE EERE)  
Brown, Austin (NREL)  
Brown, Marilyn (Georgia Tech)  
Burns, Stephanie (IMT)  
Carroll, Ryan (Alliance for Green Heat)  
Chase, Alex (Energy Solutions)  
Cogan, Jonathan (EIA OC)  
Conti, John (EIA OEA)  
Cureg, Edgardo (EIA OES)  
Cymbalsky, John H (DOE EERE)  
Daniels, David (EIA OEA)  
deLaski, Andrew (Appliance Standards Awareness Project)  
Dion, Jerry (DOE EERE)  
Dirks, James A (PNNL)  
Doliner, JD (Alliance for Green Heat)  
Drury, Easan (NREL)  
Dubin, Kenneth (On Location)  
Feldman, Dave (NREL)  
Fireovid, James (SAIC)  
Friedrichs, Mark (DOE EERE)  
Frisch, Carla (DOE EPSA)  
Garg, Rishi (Office of the People's Counsel-DC)  
Giffin, Thomas (Leidos)  
Gruenspecht, Howard (EIA)  
Gumerman, Etan (Duke University)  
Harris, Jeff (ASE)  
Harvey, Stephen (EIA OES)  
Henry, Dave (DOC)  
Hodson, Elke (DOE)  
Holtberg, Paul (EIA OEA)  
Hunter, David (EPRI)  
Jackson, Roderick (ORNL)  
Kelso, Jordan (D&R International)  
Krall, Eric (EIA OEA)  
Kwatra, Sameer (ACEEE)  
Laitner, Skip (Economic and Human Dimensions Research Associates)  
Larsen, John (Rhodium Group)  
Leifman, Michael (GE)  
Lewis, Katie (EIA OES)  
Livingston, Olga V (PNNL)  
Lorand, Robert (SAIC)

Lu, Ruey-Pyng (EIA OES)  
Majersik, Cliff (IMT)  
Marcy, Cara (EIA OEA)  
Margolis, Robert (NREL)  
Marnay, Chris (LBNL)  
Marvin, Katie (EVA Inc.)  
Mayclin, Danielle (EIA OES)  
Mayernik, John (DOE EERE)  
Mayes, Fred (EIA OEA)  
McDonald, Sean (PNNL)  
McMillan, Colin (NREL)  
McNary, William (EIA OES)  
Meyer, John (Leidos)  
Michaels, Joelle (EIA OES)  
Mignone, Bryan (DOE EPSA)  
Namovicz, Christopher (EIA OEA)  
Narayanan, Raj (GE)  
Neff, Shirley (EIA)  
Neubauer, Max (ACEEE)  
Nicholls, Andrew (PNNL)  
Niebling, Charles (Alliance for Green Heat)  
Nordman, Bruce (LBNL)  
O'Brien, Eileen (EIA OES)  
Olsen, Jay (EIA OES)  
Palmer, Karen (RFF)  
Pearson, Gina (EIA)  
Ramea, Kalai (UC Davis)  
Rosenquist, Gregory J. (LBNL)  
Schuur, Arah (DOE EERE)  
Steinberg, Daniel (NREL)  
Stellberg, Sarah (IMT)  
Stokes, Kem (DOC)  
Stravinsky, Ben (EVA, Inc.)  
Sun, Xiaojing (Georgia Tech)  
Swenson, Alan (EIA OES)  
Taylor, Cody (DOE EERE)  
Ulrey, Peri (NGSA)  
Wang, Joy (Georgia Tech)  
Wang, Yu (Georgia Tech)  
White, Carol (FERC)  
Wiser, Ryan (LBNL)  
Wood, Frances (OnLocation)  
Yeh, Sonia (UC Davis)  
Zakerinia, Saleh (UC Davis)