

## Buildings Technology Research and Development Subcommittee Meeting

September 17, 2009

Location: 950 L'Enfant Plaza DOE  
Time: 1:30-3:30 p.m.

### Attendees<sup>1</sup>

Shyam Sunder  
Jerry Dion  
Kevin Hurst  
Paul Domich  
Dru Crawley  
Alan Schroeder  
Mark Halverson  
Patrick Hughes  
Dale Manty  
Diana Bauer  
M.P. Singh  
Diane Stewart  
Bobbie Lippiatt  
Robert Chapman  
Ewa Lewandowski  
Bob Kollm  
Renee Tietjen  
Sarah Ryker  
Stephanie Shipp  
John Taggart  
Julio Arrocho  
Martin Sovoie

### Agency/Office

DOC/NIST  
DOE/EE-Buildings  
EOP/OSTP  
DOC/NIST  
DOE/EE-Buildings  
DOE/EE-Buildings  
PNNL  
ORNL  
EPA  
EPA  
NSF  
HHS  
NIST  
NIST  
Smithsonian  
US Postal Service  
VA  
STPI  
STPI  
STPI  
USACE  
USACE

BTRD Co-chair  
BTRD Co-chair  
BTRD Ex-Sec

**Next Meeting:** November 19, 2009 1:30 - 3:30 PM, 950 L'Enfant Plaza DOE

### Meeting Calendar:

November 19, 2009  
December 17, 2009  
January 21, 2010  
February 18, 2010  
March 18, 2010  
April 15, 2010  
May 20, 2010

June 17, 2010  
July 15, 2010  
August 19, 2010  
September 16, 2010  
October 21, 2010  
November 18, 2010  
December 16, 2010

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<sup>1</sup> Active Members not attending identified in light gray

**Introductions:** Subcommittee Co-chairs Jerry Dion (DOE) and Shyam Sunder (NIST) opened the monthly meeting of the Subcommittee for Buildings Technology Research and Development (BTRD) welcoming the agency representatives and thanking them for their participation. Participants provided self-introductions.

**Review of Minutes:** Informal review of Minutes for August 20, 2009 was performed prior to the start of the meeting.

**OMB-OSTP Directors' Memorandum on S&T Priorities:** Kevin Hurst (OSTP) provided an overview of the annual OMB - OSTP Directors' Memorandum on Science and Technology Priorities. Ideally, the memorandum is released in April/May of each year for the upcoming budget planning cycle. The goal of the memorandum is to help guide agency S&T budget submissions and assist OMB examiners in identifying agency programs aligned with the memorandum's priorities. NSTC interagency groups may voluntarily assist OSTP in the development of the memorandum by crafting a concise description of their highest priority R&D goals for the upcoming budget cycle. The description should identify the current shortcoming or gaps in existing technologies and specific areas requiring a focused federal investment.

Timing of the release of the memorandum is critical for agencies to provide departmental submissions highlighting the S&T priorities - if the release is delayed, program directors will have made their submissions without the guidance provided. NB: Program directors are already beginning the development of their FY2012 budgets.

For the work of this Subcommittee, the focus area could be on "Advanced technologies that enable net-zero energy, high-performance green buildings". The descriptor paragraph could include a budget crosscut relative to the total annual investment by the building and construction sector. The overall principles should be agreed upon by sector-specific interest groups. Such a description would be transmitted to OSTP through Kevin Hurst in March.

**Action Item:** Paul Domich will circulate the most current OMB-OSTP memorandum to the BTRD members.

**Draft EO "Federal Leadership in Environmental, Energy, and Economic Performance":** Kevin Hurst and Paul Domich provided a brief overview of the draft Executive Order "Federal Leadership in Environmental, Energy, and Economic Performance". The EO provides for increased focus and reporting requirements on federal agency sustainability activities to reduced greenhouse gas emissions and conserve energy, water, and material use. Additionally, the EO requires that federal agencies identify a Senior Sustainability Officer.

The federal agencies will be encouraged to implement high performance sustainable Federal building design, construction, operation and management, maintenance, and deconstruction by:

- (i) beginning in 2020 and thereafter, ensuring that all new Federal buildings that enter the planning process are designed to achieve zero-net-energy by 2030;
- (ii) ensuring that all new construction, major renovation, or repair and alteration of Federal buildings complies with the Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings (Guiding Principles);
- (iii) ensuring that at least 15 percent of the agency's existing buildings (above 5,000 gross square feet) and building leases (above 5,000 gross square feet) meet the Guiding Principles by fiscal year 2015 and that the agency makes annual progress toward 100-percent conformance with the Guiding Principles for its building inventory;
- (iv) pursuing cost-effective, innovative strategies, such as highly reflective and vegetated roofs, to minimize consumption of energy, water, and materials;
- (v) managing existing building systems to reduce the consumption of energy, water, and materials, and identifying alternatives to renovation that reduce existing assets' deferred maintenance costs; (vi) when adding assets to the agency's real property inventory, identifying opportunities to consolidate and dispose of existing assets, optimize the performance of the agency's real-property portfolio, and reduce associated environmental impacts; and
- (vi) ensuring that rehabilitation of federally owned historic buildings utilizes best practices and technologies in retrofitting to promote long-term viability of the buildings;

OMB Director and the CEQ Chair will also establish an interagency Steering Committee on Federal Sustainability composed of the Federal Environmental Executive, and Agency Senior Sustainability Officers. A Senior Sustainability Officer designated by each agency will be accountable for agency conformance with the requirements of this order. An integrated Strategic Sustainability Performance Plan is also required by each agency that will prioritize agency actions based on lifecycle on investment and will be approved by the OMB Director.

The Subcommittee discussed possible roles for the BTRD in assisting in the implementation of the EO. Potential roles included: 1) serving as an ambassador to the interagency steering group 2) providing technical guidance on operations and maintenance (O&M) priorities. Additional comments included the need for adequate levels of appropriated funds to meet improved building performance requirements and to develop the baseline measurement and metrics required to assess agency building performance improvements. (NB: The EO was signed and released on Oct 5, 2009.)

The EO can be found online at [http://www.whitehouse.gov/the\\_press\\_office/President-Obama-signs-an-Executive-Order-Focused-on-Federal-Leadership-in-Environmental-Energy-and-Economic-Performance/](http://www.whitehouse.gov/the_press_office/President-Obama-signs-an-Executive-Order-Focused-on-Federal-Leadership-in-Environmental-Energy-and-Economic-Performance/) )

**Action Item:** Paul Domich will contact CEQ and invite a representative to discuss the practical considerations related to the EO.

**Review of the BTRD Proposal for a Presidential Initiative** – Sunder provided a summary overview of the draft proposal for a Presidential Initiative. The current draft proposal has been sent to interested individuals in the EOP. Further action on this item will be contingent upon future EOP directives regarding the proposal. Sunder, Dion, and Dru Crawley (DOE) briefed Michelle Moore (the Federal Environmental Executive/CEQ) and Juan Lopez (OFEE/CEQ) on the proposal September 23, 2009.

**Environmental Factors in the School Environment Influencing Children's Health and Performance:** Dale Manty (EPA) reintroduced an EPA research opportunity on environmental factors in the school environment influencing children's health and performance. EPA is looking for federal partners in this research endeavor. The research objectives would improve understanding of links between school buildings, O & M and human outcomes (e.g. health, learning and productivity). There is a special interest in understanding the impacts of sustainability objectives including energy efficiency, water reuse and materials recycling. Listed in the research opportunity announcement are four levels of participation: 1) Joint-Solicitation where co-funding and MOU is required 2) Joint-Solicitation Silent Partner where co-funding is required but the contributing agency is anonymous 3) Silent Partner where an agency participates in the program on an advisory basis but does not contribute funds, and 4) Project Participant where the federal agency partners with a academic institution in the research program. Subcommittee members provided names of possible collaborators for the project. For more information, please contact Dale Manty at [manty.dale@epamail.epa.gov](mailto:manty.dale@epamail.epa.gov).

**Future Meetings:** Sunder and Dion outlined a number of possible invited presentations for future BTRD meetings. These include invited talks on Energy Star for Homes, the DOE Residential Building program, and current private-sector activities in sustainable design and construction.

**Action Item:** Paul Domich will contact potential speakers for the November 19, 2009 meeting.

**Senior Leader Briefing and Workshop on Net-Zero Energy, High-Performance Green Buildings:** Dale Manty (EPA) fielded a suggestion that the Subcommittee organize a full day senior leader briefing and workshop covering recent report releases, implementation plans, and proposals. Envisioned is a 75-

150 participant workshop covering the full range of issues relevant to high performance buildings. A number of possible venues and organizational schemes were discussed.

**Action Item:** Dale Manty will coordinate with Paul Domich to develop a more detailed scope and outline for such a briefing. Lynda Stanley will be contacted and queried regarding potential Federal Facility Council co-sponsorship.

**Closure:** Sunder closed the meeting at 3:30 p.m. and thanked the agency representatives for their participation.