Buildings Technology Research and Development Subcommittee Meeting

August 20, 2009

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

Attendees[1]	**Agency/Office**	
Shyam Sunder	DOC/NIST	BTRD Co-chair
Jerry Dion	DOE/EE-Buildings	BTRD Co-chair
Kevin Hurst	EOP/OSTP	
Paul Domich	DOC/NIST	BTRD Ex-Sec
Dru Crawley	DOE/EE-Buildings	
Alan Schroeder	DOE/EE-Buildings	
Mark Halverson	PNNL	
Patrick Hughes	ORNL	
Dale Manty	EPA	
Diana Bauer	EPA	
M.P. Singh	NSF	
Diane Stewart	HHS	
Bobbie Lippiatt	NIST	
Robert Chapman	NIST	
Ewa Lewandowski	Smithsonian	
Bob Kollm (via telephone)	US Postal Service	
Renee Tietjen	VA	
Stephanie Shipp	STPI	
John Taggart	STPI	
Julio Arrocho	USACE	
Martin Sovoie	USACE	

Next Meeting: September 17, 2009, 1:30 - 3:30 PM, 950 L'Enfant Plaza DOE

October 15, 2009

November 19, 2009
December 17, 2009

[1] Active Members not attending identified in light gray

Introductions: Subcommittee Co-chair Shyam Sunder opened 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 July 16, 2009 was performed prior to the start of the meeting. Corrections were noted as identified by Renee Tietjen (VA).

Overview of the EOP Briefing with Susan Crawford - Subcommittee Co-chair Shyam Sunder (NIST) initiated contact with Susan Crawford, Special Assistant to the President for Science, Technology, and Innovation Policy and the National Economic Council. BTRD co-chairs Shyam Sunder (NIST) and Jerry Dion (DOE), BTRD Exec Sec Paul Domich, and Dru Crawley (DOE), and Kevin Hurst (OSTP) participated in briefing Crawford on August 6th.

The primary message for a briefing was our NSTC Subcommittee activities related to building energy technology and policy and that:

- President Obama's energy, recovery, and climate goals require dramatic improvements in the energy efficiency performance of buildings.
- Neither policy or technology advances alone are sufficient to achieve these goals - but new policies combined with new technology advances is sufficient,
- Federal leadership at the highest levels is critically required now for both; without sustained leadership the vision cannot be achieved.

In the presentation made by Sunder, the subcommittee requested that an effort be organized within the EOP to:

- Make building energy technology and policy a Presidential Priority/Initiative to achieve National energy, recovery, and climate goals.
- Establish an EOP-led Task Force to develop and implement policies for accelerating the pervasive adoption of energy efficient building technologies throughout the United States.
- Fully fund the Federal Green Building R&D Agenda and Implementation Plan in the FY 2011 and FY 2012 budget to ensure U.S. preeminence in innovative Green Building technologies.

Following the presentation, Crawford requested a brief 4-5 page whitepaper summarizing the proposal on what the nation needs, including policy issues such as goals, time frames, incentives, and R&D priorities. With this white paper, Crawford to follow up with the relevant White House offices to assess whether the proposals identified are sufficiently mature to warrant a focused coordinated effort to advance given the many priorities in the energy area. Crawford was specifically interested in budgets developed for the R&D Agenda, the policies proposed, the impacts, pros and cons for each, related international efforts, barriers, and the current status of the specific activity.

Sunder also covered a second briefing at DOE with Henry Kelly, Principal Deputy Assistant Secretary for EE&RE and invited other agency representatives to begin actively informing their leadership of our current activities. Sunder and Dion offered to participate in agency briefing if so requested.

Review of the draft Proposal for a Presidential Initiative – Sunder provided an summary overview of the draft proposal for a Presidential Initiative. Input to the whitepaper includes the BTRD documents and recent reports issued by McKinsey, the Congressional Research Service (CRS), ORNL technical reports, and others. The whitepaper was structured to address the impact of buildings on national energy consumption and CO2 emissions, proposed regulatory, incentive, and R&D/technology transfer policies, the economic impacts of these policies, and the rationale for advancing a Presidential Initiative in this area. If the proposal is accepted and advanced by the EOP offices, a full Presidential Initiative will be developed including other federal policy groups and will be require formal agency review and approval.

Discussion on the proposal elicited a number of important topics for consideration. The timeline for the developing both the proposal and the initiative was raised. Sunder would like to have a mature working draft document sent to Susan Crawford in approximately one week. The current proposal must be augmented by one-page descriptions of each of the eight policy alternatives. At such time that the proposal is reviewed and accepted by the affected EOP offices, the timeline for developing a formal proposal is ambiguous, and depends on the approach used to advance the Initiative within the Executive Branch.

To assist subcommittee members and the EOP reviewers, a schematic diagram of the policies proposals was suggested that highlights how these policy alternatives will advance the current technology and regulatory environments, and impact the development and transfer of effective energy efficiency tools and technologies. This schematic would also include a summary of any anticipated negative impacts related to the proposals. Pertaining to stakeholder consensus development and regulatory policies, the role of the federal government will need to be defined. This approach used should be cognizant of role of various state and local entities involved in energy conservation and building regulation. Given the acknowledged complexity of the issue, subcommittee members were requested to contact key policy and technology colleagues within their agency to review the initial policies and general assumptions contained in the whitepaper.

Caution was raised regarding the creation of prescriptive goals and timelines for the proposed changes to the mandatory regulatory requirements suggested. These goals and timelines must ensure that the tools, technologies, and implementation strategies are sufficiently mature, widely-available, and implementable prior to mandating energy conservation requirements in both residential and commercial buildings. Additional actions may also be necessary

to ensure that the supply chain for these technologies is adequately developed to support stricter mandatory regulatory requirements.

The issue was raised of viability of increasing the mandated performance requirements within the federal sector without providing for long-term facility budgets required to implement changes. Sunder suggested that a Presidential Executive Order maybe an appropriate vehicle to lay the foundation for future energy conservation goals for federal buildings. The federal leadership may also require additional efforts such as: 1) incentives be provided to encourage new cost-effective approaches to achieve energy performance, 2) private/public sector partnerships to identify present-day financial, regulatory, and procedural barriers to cost-effective high-performance green buildings, and 3) international information exchanges and building technology competitions.

Incentives contained in the whitepaper must also be clearly described as performance driven – financial rebates will be given when building upgrades identified by the building audit are fully implemented, and the improvements to the energy efficiency verified by certified performance methods and models. Incentive policies will be performance/outcome driven, and will avoid rebates focused solely upon selected and specific technologies or technology types.

The incentives for the proposed Audit Program apply to existing buildings while the Building Labeling program applies to both new and existing structures. In addition, the Audit program will initially be voluntary and, over time, may become a component to a mandatory building labeling program. Incentives of upgrades may also be provided when using certified components and appliances when these systems work semi-autonomously from other building functions and do not require integration. Incentive program such advancing the rollout of SmartGrid technologies must be coordinated with various utilities at the state and local levels.

The whitepaper fully endorses inclusion of the Federal R&D Agenda in future presidential budgets. Equally important is the promotion of education and certification programs for workforce development. Other issues raised included barriers to implementing energy conservation measures such as historic preservation, cost, and sustainability due to the lack of guidance in these areas.

Action Item: Diana Bauer (EPA) volunteered to produce a diagram illustrating the interactions between the R&D goals areas and the eight policies identified.

Action Items: Sunder requested that subcommittee members provide any additional comments by email by Friday August 21 for inclusion in the current draft document.

Closure: Sunder closed the meeting at 3:50 p.m. and thanked the agency representatives for their participation.