

Buildings Technology Research and Development Subcommittee
July 19, 2007

Location: NEOB 5104
Time: 2:00-4:00

Attendees	Agency/Office
Shyam Sunder	DOC/NIST
Jerry Dion	DOE/EE-Buildings
Kevin Hurst	EOP/OSTP
Dana Bres	HUD/PD&R
Dru Crawley	DOE/EE-Buildings
James Villarrubia	EOP/OSTP
Donna McIntire	DOS/OBO
Ed Pinero	EOP/CEQ/OFEE
Mike Ritter	USDA Forest Service
Ken Sandler	EPA/Green Buildings
Cyndi Vallina	EOP/OMB
Calvin Kam	GSA/Office of Chief Architect
Kevin Kampschroer	GSA/Applied Science
Charles Matta	GSA/Office of Chief Architect
John T Weber	Architect of the Capitol
Steve Bushby	DOC/NIST
Bobbie Lippiatt	DOC/NIST
Lloyd H. Siegel	DVA/CFM
Paul Domich	DOC/NIST
Camille Villanova	DOL/OSHA
Dhyana Giesler	DOS

Introductions: Subcommittee Co-chair Shyam Sunder (NIST) opened the first meeting of the Buildings Technology Research and Development (BTRD) Subcommittee welcoming the agency representatives and thanking them for their participation. Sunder briefly described the history of the Subcommittee through the Construction and Building Subcommittee and the Physical Structures and Systems Interagency Working Group. Co-chair Jerry Dion (DOE) then followed with an overview of the Energy Policy Act of 2005 which mandated development of a report describing the federal strategy for improving energy technology systems and materials and the energy efficient automated operation of buildings and building systems. OSTP analyst Kevin Hurst thanked both DOE and NIST for taking a leadership role in the Subcommittee activities and the agency representatives for serving on the Subcommittee. Agency representatives then

introduced themselves and briefly described their respective roles and responsibilities related to building technology.

Overview of Subcommittee Charter and Scope – Kevin Hurst began by providing an overview of the OSTP roles in supporting the President and his advisors in the area of science and technology and in implementing administration policy objectives. Central to OSTP activities is developing interagency collaborations and cooperation through the National Science and Technology Council (NSTC). Referring to the NSTC handout, Hurst described the roles and hierarchy within the NSTC structure and the role of the Committee on Technology (COT). Through the COT and the NSTC, technology policy can be communicated to the senior leadership at the department level that influences technical programs and budgets. Kevin Hurst described the draft BTRD Federal Inventory developed at OSTP with input from several agencies as a tool that the Subcommittee can use as a baseline of federal activity in buildings technology. Agencies are encouraged to provide edits to the draft document. While the scope of the subcommittee focuses on research and development, the Subcommittee should support the deployment and adoption of buildings technology by the federal government, industry and the private sector.

ACTION ITEM: Paul Domich will send members the current Draft BTRD Inventory document for membership review. Agencies are encouraged to provide edits the draft document.

Energy Related Legislation - Jerry Dion provided an overview of Section 913 of Energy Policy Act of 2005. The Act mandates that OSTP will establish an interagency forum and that this group has responsibility to develop a written Report to Congress covering the research, development, and deployment of technologies for improving commercial and residential building energy systems, automation systems, and the dissemination of information to industry, government, and the public. The Act also mandates creation of an Advisory Committee to review the summary report and provide recommendations on the role of the private sector in this initiative. The report will identify priorities and gaps in the federal program.

Kevin Hurst clarified that reference to “commercial application” that appears in the legislation by explaining that the Subcommittee can engage in necessary R&D related activities that facilitate the commercial application of the technologies. Lloyd Siegel (VA) mentioned that a reduction goal of 30% had been identified for Federal agencies (in another section of the EPACT 2005). This estimate is believed to have been drawn from previous NGO estimates.

Shyam Sunder outlined the timeline for the development of the “Section 913” Report (referring to the EPACT 2005 mandate). This includes availability of a mature draft document in the spring of 2008 for use by agencies in their 2010 budget development and a final document available by August 2008 for OMB

and OSTP in their budget decision-making activities. Agency roles and R&D activities will be identified in the report. Jerry Dion indicated that DOE has earmarked in FY2008 \$300k for the development of the Section 913 Report.

Focus Areas The group discussed the value of investments in building and construction on a national scale and highlighted the importance of advancing the R&D foundations across a broad range of buildings technology areas. Following the completion of the 913 Report, potential areas of Subcommittee focus may include: construction productivity and the role of information, communication, automation, and sensing technologies as well as infrastructure renewal and the role of advanced materials including nanotechnology for new and existing structures, among other areas.

Review of BTRD Charter Paul Domich reviewed the final draft Charter reiterating the goals and objectives for the Subcommittee. Subcommittee members offered suggested changes to the current draft document.

Questions were raised regarding how much of the site/urban infrastructures are to be included within the scope of the 913 report. Baseline development for such an effort is also difficult and requires use of a broad performance metric. The issue of the metrics for energy conservation was also discussed. Jerry Dion clarified that the goal should be measured both monetarily and with respect to reduced energy consumption in order for the reduction metric to be effective. Sunder added that the CO₂ footprint may be included in this metric as well.

For commercial facilities, the current goal is to have an economic payback within 5 years. Full life cycle costing should be used to more accurately measure costs/benefits. Finally, Camille Villanova (OSHA) offered that improved productivity should be measured across the entire life cycle of the buildings and how environmental factors affect workers, first responders, and clean-up personnel. Finally it was stressed that membership on the Subcommittee was to be broadly inclusive of all federal agencies with R&D interests in buildings technology.

ACTION ITEM: Paul Domich will circulate a revised Charter to the members.

Ken Sandler (EPA) raised the issue of indoor air quality and whether it was included within the scope of the 913 report. Cyndi Vallina (OMB) pointed out that indoor air quality is recognized in Presidential Executive Orders as is water conservation (**Executive Order 13423** Strengthening Federal Environmental, Energy, and Transportation Management). The Subcommittee agreed that the scope of the report should include topics covered by the Executive Order in addition to Section 913 of the Energy Policy Act.

Agency Discussions: Agency representatives then provided a more in-depth description of their agency activities in buildings technologies. These agency

summaries highlighted the diverse missions and interest areas of the various agencies included in the Subcommittee.

ACTION ITEM: Subcommittee members will send Paul Domich the address of documents available online that will be useful for BTRD activities (e.g., the Green Building Guide).

Subcommittee Meeting Schedules and Execution Plan: Currently, the BTRD Subcommittee is scheduled to convene meetings every quarter. Following the development and review of a draft outline for the 913 Report, agencies will be asked to identify representatives to serve on informal interagency working groups. It is anticipated that a majority of the report activities will be performed by the working group and that this group will need to meet on a monthly basis. The group also discussed whether invited presentations will be organized similar to those of the Physical Structure and Systems Interagency Working Group. The consensus opinion of the subcommittee was to initially focus solely on the 913 report and revisit the invited presentations at a later date. Workgroup activities may include overviews of agency activities and may serve as a viable venue for invited presentations. The Subcommittee may also consider at some point sponsoring a public-private workshop that would serve as an external “advisory committee” to the group.

The next meeting of the full Subcommittee will be held in September.

ACTION ITEMS: DOE and NIST will prepare a draft outline for the 913 report. Paul Domich/Gail Crum will circulate the outline to members and solicit nominations for work group participants.

Administrative Details: BTRD Executive Secretary Paul D Domich raised several administrative issues. 1) The location for future meetings will need to be finalized quickly as will the dates for these meetings. 2) The subcommittee may assess participating agencies an annual fee that will be used to provide administrative support, fund technical studies, and cover invited speaker costs, if needed.

ACTION ITEM: Gail Crum will request from each member times and days of the month for which previously scheduled meetings are already established. Once a day and time are established, Domich will confer with VA, DoL, GSA, and DOE on possible venues in their facilities.

Closure: Shyam Sunder and Jerry Dion thanked the agency representatives.