

Climate Change Adaptation

Kathy Jacobs of the U.S. Global Change Research Program (USGCRP) presented on the National Climate Assessment initiative (<http://globalchange.gov>):

- USGCRP, supported by a collaboration of 13 different Federal agencies, integrates the best available climate science information for decision makers. USGCRP is mandated to prepare a National Climate Assessment every 4 years on the state of knowledge on climate science, impacts to Federal sectors, and present and future trends.
- Among the many findings of the NCA:
 - Scientists can now statistically attribute extreme events to climate change;
 - Climate impacts vary significantly by region;
 - Heavy precipitation events have increased significantly;
 - Health impacts include more pollen, increasing allergies and asthma.
- The NCA is provided to many stakeholders who conduct risk assessments and make planning and investment decisions.
- The latest NCA is currently in draft review. When completed, USGCRP will develop an engagement strategy to share the outcomes of the assessment.

National Climate Assessment – Committee Comments:

- The government should begin using shadow pricing for all building design decisions to monetize short and long-term damage and effects of climate change and make rational investment decisions.
- Improve communication of NCA findings to support decision making at the national, regional, state and local levels.

Ann Kosmal and Katie Miller of GSA presented on GSA's Climate Change Adaptation Plan (<http://www.gsa.gov/portal/content/162843>):

- The Government Accountability Office (GAO) has designated climate change as a major fiscal risk to the government.
- GSA is working across its real property portfolio and supply chain to ensure that it is resilient and robust in responding to climate change. This planning effort is not focused on extreme weather events (which are covered by GSA's Office of Emergency Response and Recovery), but rather on response to incremental changes (e.g. sea level rise, drought).
- Of GSA's 5 identified climate change adaptation actions, a major priority has been educating staff on basic climate literacy.
- GSA conducted "threshing sessions" in Regions 6 (Heartland) and 11 (National Capital Region) to gather information to help GSA and its customers adapt, targeting specific customer agencies (USDA in Region 6, focused on a mission critical data center, and IRS in Region 11, focused on its HQ). The sessions outlined scenarios of climate related challenges in the year 2063. Participants, representing major federal stakeholders, were asked to go through a 7 step process to assess climate risks in respect to the customer agency's facility and information technology/telecommunications service assets and to develop strategies to prepare for these risks.
- GSA is drawing from the pilots' findings and partnerships to incorporate lessons learned into its business processes. Strategies include partnering with customers at a portfolio

level, scoring real property investments, and using climate factors to inform risk and cost avoidance.

- GSA is developing a Request for Information (RFI) to assess the marketplace's ability to provide support services related to climate adaptation, with the goal to release it by this September.
- GSA asked 3 questions of the committee for insight into:
 - How members are addressing incremental climate change impacts and resiliency in their organizations or design practice;
 - Major liabilities and opportunities for the real estate and construction industries;
 - Valuation of climate protection levels or monetization of cost avoidance in adapting to climate risks.

GSA's Climate Change Adaptation Plan – Committee Comments:

- Share the RFI with the Infrastructure Security Partnership, an umbrella organization of many Federal agencies and organizations.
- GSA should document its process with the threshing sessions and climate adaptation to serve as a model and training tool for other agencies and organizations.

GBAC member Projjal Dutta presented on the impacts of superstorm Sandy to the New York Metropolitan Transit Authority (MTA):

- While public transportation is a major carbon-reducing strategy, it is also vulnerable to climate change impacts (e.g. severe storms and hurricanes, extreme heat).
- MTA is adopting strategies to adapt to and mitigate climate change, including technologies to limit flooding of the subway system (e.g. sealing or raising grates).
- Thus far MTA has invested close to \$34 million in these strategies to manage storm water. This is a trade-off, as it means less funding to invest in new transportation infrastructure to reduce GHG emissions.

GSA Climate Change Adaptation – Final Committee Comments:

- Important to balance focus on climate change adaptation with mitigation approaches.
- Powerful to build a case around the cost of doing nothing about climate change, including health costs.
- We need a more comprehensive approach to climate change adaptation among existing buildings, perhaps including an existing building code.
- GSA is well ahead of the private sector on climate adaptation. Education and outreach is essential for these efforts to succeed.
- More consideration needs to be given to regional variation in climate change response and adaptation, for example in green building certification systems.

GBAC Member Dan Burgoyne presented on a Net Zero Energy proposal:

An increasing number of Federal, state, and international directives are setting net zero energy goals or mandates for new and existing buildings. Dan and Greg Kats proposed that GSA put more emphasis on achieving net zero energy goals above and beyond what is required by current law and Executive Orders.

Net Zero Energy – Committee Comments

- Although other parts of the world are ahead, the Federal Government has some of the best examples of new and existing net zero energy facilities.
- Other agencies, such as DoD, have already committed to net zero goals, so GSA should be encouraged to set its own aggressive net zero targets.
- It's also important for this committee to be briefed on GSA's progress to date towards meeting its existing Federal mandates.

Bryan Steverson presented a Green Building Certification System (GBCS) Update (<http://www.gsa.gov/portal/content/131983>):

- Since the briefing provided to the GBAC at its November 27, 2012 meeting, GSA published a notice in the February 5th *Federal Register* on the four major findings of the GBCS Interagency Ad Hoc Discussion Group. This initiated a 60-day public comment period, ending April 8th.
- During that period, GSA received over 400 comments from over 160 individuals and organizations. GSA will publish a formal comment summary and post all comments publicly this summer. A general summary of comments on the four findings follows:
 - Finding 1: Commenters generally agreed that the government should use third party certification system(s), although some felt that the government should create its own system for Federal buildings.
 - Finding 2: Many commenters agreed that agencies should have the flexibility to select the system that best meets their unique portfolio needs.
 - Some suggested that the Federal government select one system to meet most government needs and identify strategies to fill remaining gaps.
 - There was disagreement re: specific credits or points for agencies to pursue when using a particular system; many commenters favored giving agencies flexibility.
 - Comments suggested additional tools and standards to be used in lieu of or in concert with certification systems (e.g. ASHRAE 189.1, International Green Construction Code, and individual component-level systems).
 - Finding 3: Commenters generally agreed that agencies should maintain currency with the evolution of certification systems and that the government should review any system revisions or updates.
 - Some voiced concern over whether the government should automatically adopt updates, instead favoring a thorough and vetted review of any changes before deciding on adoption.
 - Finding 4: Commenters generally agreed that the Federal government should engage with certification system owners to help certification systems better align with Federal requirements.
 - Some comments cautioned that the needs and influence of the government should not outweigh private sector needs.
- GSA also received comments aligning with other major themes and stakeholder concerns including:
 - Consensus-based development of certification systems;
 - How certification systems treat certain building products and components; and
 - The level of support and resources required to implement certification systems.
- GSA plans to submit its final recommendations to the Secretary of Energy this summer. The recommendations will be based on the Interagency Ad Hoc Discussion Group's findings as well as the public comments to those findings.

- GSA has interpreted EISA to allow recommendation of one or multiple systems.
- We intend rating systems to be used to measure whether agencies meet Federal requirements, as they were intended to be used, not as a specification tool.
- Certification systems are just one tool, not a requirement, which can be useful in meeting Federal building requirements. Our proposed recommendations come into play when agencies do choose to use a system.

Green Building Certification System (GBCS) Update – Committee Comments:

- Committee comments roughly broke out into the following categories:
 - **Agencies should retain flexibility**
 - GSA should allow agencies the flexibility to choose a system that best meets their diverse mission and portfolio needs. Many agencies have already identified systems, certification levels and required credits.
 - The findings should not preclude agencies from innovation or experimentation.
 - GSA's approach is appropriately nuanced. The systems generally meet the government's needs, and where gaps exist, the findings allow agencies to work with system owners to address them or identify other approaches.
 - GSA's study found that none of the systems alone meets all Federal criteria. This is why DOD has adopted mandatory minimum standards based on ASHRAE 189.1 and incorporated in the Unified Facilities Criteria (UFC) as the "floor" but still uses certification systems as a check and balance.
 - **LEED should be recommended as the preferred system**
 - LEED has been the best in flexibility, market penetration and rigor.
 - LEED has been largely developed, piloted, and staffed by Federal Agencies, and therefore, should have preference as a Federal system.
 - The government should not recommend multiple systems, as it would lower performance, create confusion and add costs, e.g., for training.
 - Encourage use of LEED, but allow agencies to use other systems.
 - **Additional comments**
 - The Federal government should follow New York City's model of using a third party system but establishing requirements beyond what the system requires.
 - The rating systems lack comprehensive health components. More systems are being developed to address this issue and GSA should engage with and assess these systems.
 - When a system is updated, it should not be adopted until fully reviewed.
 - **Committee vote**
 - The committee voted on the following motion, proposed by Greg Kats and seconded by Patrick Tyrell: "This committee recommends that GSA should identify the U.S. Green Building Council's current version of LEED as the recommended (not required) system to be used by the Federal Government."
 - The committee voted 10 in favor, 6 opposed, with 1 abstention, to make this recommendation to the GSA.

Lunch / Committee Membership and Operations Issues

During lunch, Bob Fox led a brief discussion on renewing membership on the committee. Committee members noted that they were impressed with the work of GSA and enthusiastic to continue their participation beyond their current terms, though they also mentioned the value of bringing in fresh perspectives. Suggestions included that the group aim to be less reactive and

more proactive, and that the committee should form task groups to flesh out proposed motions and bring them back to the full committee.

Bob suggested that the committee vote at the next GBAC meeting on a new committee chair to allow another member the opportunity to lead this committee. Kevin and Ken agreed to come back with specific proposals to renew the membership and chairmanship of this committee.

Guest Speaker: Jon Powers, Federal Environmental Executive

Jon Powers, the Federal Environmental Executive, spoke on Executive Branch progress in setting and meeting its environmental goals and mandates.

- The President wants the government to lead in energy efficiency and renewables. In the State of the Union address, he pledged to cut energy waste in half by 2030, and we are planning a “Race to the Top” program to spur state competition in energy efficiency.
- The Federal government has already doubled its use of renewable energy since 2008, and has set a goal to further double by 2020. Each of the military services has pledged to install one gigawatt of renewable power supply by 2030.
- On climate change adaptation, the government is ahead of the private sector: e.g., analyzing the implications of sea level rise at military bases in Hampton Roads, Virginia.
- Each agency now has a senior sustainability officer charged with developing their agency’s sustainability and climate adaptation plans and identifying and implementing strategies to achieve significant energy savings and promote sustainability.
- We are engaging more with the private sector to exchange best practices and highlighting “Spotlight Communities” where agencies are demonstrating key innovations. An area of progress has been in metering and benchmarking our buildings. The challenge now is looking at this data and acting upon it in effective ways.
- Some key Federal strategies include: Green Proving Ground; using the government’s purchasing power to advance sustainable products; the Better Buildings Challenge; and increasing Federal use of Energy Savings Performance Contracts (ESPCs).

Federal Environmental Executive – Committee Comments:

- CEQ should push agencies to incorporate human health and wellness needs into Federal building design and standards.

Public Comment Period

The committee heard comments from Melissa Hockstad of the Society for the Plastics Industry (SPI), Kevin Morrow of the National Association of Home Builders (NAHB), and Bill Hall of the Resilient Floor Covering Institute, focused on the GBCS review.

Concluding Discussion

Committee members proposed the following draft motions to GSA:

- 1) Recommend: Strengthen net zero energy commitments for new and existing federal buildings and federal leased buildings, including targets for 2020, 2025, 2030.
- 2) OSTP provides cost estimates for mitigation and cost impacts from climate change, including health costs for several climate change thresholds.

- 3) In order to ensure more rational design and investment decisions, CO2 shadow price will be incorporated into all federal building and building-related design and investment decisions.
- 4) Use location efficiency factors - walk score, bike-friendliness and access to public transportation - to evaluate candidate spaces, whether for leasing or building. Preference ought to be given to locations with good access to bicycle-pedestrian and transit.

After a short discussion on these recommendations, committee members put forth a motion to vote on the first recommendation. Committee members voted 11 in favor, 2 opposed, with 2 abstentions.

For the remaining recommendations, committee members proposed that task groups of the committee convene prior to the next GBAC meeting to discuss them and develop a more specific set of vetted recommendations.

Closing Comments

Numerous members praised GSA's work on climate adaptation and called this a particularly productive meeting.

- GSA and the Federal Government are leading in the area of climate adaptation, but keep in mind the importance of climate mitigation as well.
 - Important to partner with NGOs to develop adaptation standards.
 - We can learn from Canada, which is working to bring climate change and national security planning together.
- GSA should send meeting reminders a month or two in advance so that committee members can provide input on meeting agenda topics.
- Reiterate the importance of including health outcomes in buildings.

Kevin Kampschroer thanked the committee for a vibrant discussion, and noted that GSA is planning to convene a workshop to discuss putting research on indoor environmental quality and health in buildings into practice. This committee's recommendation to increase our emphasis on these issues will add greater weight to this initiative.

Bob Fox closed the meeting noting that the group has evolved significantly since its first meeting, and thanking members for their devotion to this committee.