

## 2-17-12 Email to Green Building Advisory Committee

TO: The Green Building Advisory Committee  
FROM: Kevin Kampschroer, Director, Office of Federal High Performance Green Buildings

In our last conference call, we asked for your advice on where to focus our Levers for Change effort in this fiscal year. The Levers were identified in a National Academies of Science report commissioned by the OFHPGB (*Achieving High Performance Federal Facilities*). As follow-on to the report, NAS sponsored an expert convening on performance based contracting in October 2011. The two day event focused on how to overcome significant barriers to performance based contracting in the federal government. One result of that meeting is GSA's "ESPC Challenge" which will use Energy Service Companies to achieve deep energy retrofits in 30 GSA buildings across the US. This is the first round of retrofits. What we learn from this effort will guide future building renovations and serve as a model to demonstrate how the public and private sector can work together to achieve significant progress on our shared environmental goals.

The OFHPGB identified three topic areas for potential NAS events this fiscal year and would like the Advisory Committee's advice on which topic is of greatest value to the federal government. The intent is to bring together experts from the federal and private sectors with agency personnel to generate bold, aggressive approaches to transform the federal building stock to a high performance level. This can be done in many ways, and we would like you to think about the process as well as the topic to address. We can bring in experts, develop ideas and models, test these with federal and private sector audiences, develop educational modules, and much more. What we want to hear from you is what do you think we should do next with the National Academies? How do we best use their capability for bringing people together? How do we keep up the momentum and have an impact beyond the convening?

We would also like you to think about the topic area. Through discussions with various federal partners and collaborators, we have identified the following three topics as potential NAS convenings for this fiscal year.

1. **Portfolio based management.** A convening on this topic would address how and when to use a portfolio based management approach to create replicable and scalable strategies to reduce the overall costs and achieve aggressive federal environmental goals in existing buildings. This would address the aggregate effects of more intensive use of portfolios, such as data center consolidation and the President's initiatives to reduce overall space consumption through more effective use of existing buildings. This may involve technology bundling strategies, lessons learned from new construction that could be applied to existing buildings, performance metrics, and approaches to drive adoption of new technologies and strategies.

2. **Business case for high performance green buildings.** Despite findings from various studies about the economic and environmental benefits of sustainable buildings, there is a lingering doubt about their costs. This convening would focus on the consolidation of evidence to build a strong, convincing business case that would integrate economic, environmental and social factors including opportunities for innovative financing and barrier reduction.
3. **Behavioral Commissioning/Ongoing commissioning.** While much work has been done with initial systems commissioning, and legal requirements for re- and retro-commissioning have yielded some improvements in performance, the areas of on-going commissioning and behavioral commissioning need considerable development and a greater understanding of how buildings learn, how buildings teach people how best to use them and how best to avoid the need for periodic re-commissioning by keeping buildings at their optimum performance.
4. **Life Cycle Analysis and Life Cycle Cost Analysis for complex systems.** This convening would address the disparity between the theoretical and mandated use of LCA and LCCA compared to the practical use of these techniques in capital decision-making, wherein today a continued emphasis on first costs impeded the broader application of life-cycle based decisions. Further, most application today of LCCA is not conducted on an integrated basis, but on parts, individual technologies and rarely on entire building integrated design options.
5. **Building certification – present and future.** Building on OFHPGB's current review of existing green building certification systems, as mandated in EISA, this convening would address how to use certification systems more effectively, especially identifying better ways to measure and validate building performance across a broader range of outcomes than are used now (e.g., human factors such as occupant health and community impacts as well as environmental performance). This convening would also address the future of certification systems in the context of regenerative and resilient design strategies.

You may want to suggest other topic areas, or combine the above in creative ways. We would like to fully explore options on our next conference call scheduled for February 27.

To prepare for that call, could you please send an email to Bob Fox and me in the next week, by February 23 with your ideas and ranking of the top three topic area, in your priority order.

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