



ZERO ENERGY COMMERCIAL BUILDINGS CONSORTIUM

Mechanical Systems, Plumbing, and Controls Working Group

Zero Energy Commercial Buildings Consortium (CBC) 1st Call NOTES April 9, 2010 2:00-3:30 pm EDT

Key Conclusions

- Identifying technologies that aren't quite ready is one part of the report
- Identifying strategies to encourage adoption of new technologies and methods will be important too
- Removing barriers to utilizing existing, under-utilized technologies
- The group will need to be mindful of interactions with other building systems and components and coordinate with other groups as needed
- Web conferencing for the next calls may be better for this group

Next Steps

- Send relevant resources and literature (hyperlinks preferred) to Drake Erbe and Diana Lin to give the group a starting point. These resources will be uploaded to the file-sharing site once it's live.
- Reach out to six DOE hubs (Penn State, Purdue, and Stanford) to get information about what they are working on—send Drake Erbe and Dick Lord (copy Diana Lin and Kate Marks) these contacts if you know them.

Meeting Minutes

Introduction

Drake Erbe from Airxchange (and representing ASHRAE) moderated the call with assistance from Dick Lord (representing AHRI). Opening remarks included a review of the agenda, consortium objectives, the WG process and expectations, and the report due in September.

The ZECBC and 2010 Deliverables

Mr. Erbe began by stating that one thing to be sure to do is get feedback on the structure, as well as back and forth communications with chairs and members.

Many individuals have signed up for the WGs, and it was noted that this consortium is not only complex, but also a commitment. There are deliverables that must be executed. The steering committee is led by NASEO and consists of Task 2 and Task 3:

- Task 2-Technologies and Practices
- Task 3-Market and Policy

Report and Scope

In reviewing the scope, Mr. Erbe asked participants to look over all items on their own. Mechanical systems all work together and the scope of the consortium will examine long term steps. There are certain technologies that are in the scope (and not), that are being used but not actively. Although there hasn't been much discussion about interaction i.e. the systems, Mr. Erbe stated its importance within this WG.

One participant then mentioned that some Nordic countries are almost at net-zero energy and that a purely American view should be broadened. How other countries are approaching this should be explored. While heating in Europe is ahead, the cooling system approach is not. A holistic approach to buildings is another key methodology that is being developed.

Identifying technologies that aren't quite ready is one part of the report. Next generation (and other **technologies** that are already here and not used as frequently) should be focused on. One thing to keep in mind is that generally, adoption of methods is slow in our country. How to encourage methods that aren't in the mainstream remains a challenge.

One participant, John Swift, stated we should have a section on the report that addresses technologies already in use and the interaction of systems happening in a building project.

This report will include 5 chapters, each supported by a working group:

- Building Envelope
- Mechanical Systems, Plumbing and Controls
- Lighting/Daylighting and Controls
- Process, IT, and Miscellaneous Equipment
- CHP, Multi-Building Systems, and Grid Integration

There has to be some integration; a suggested building control side could be WG 6. Mr. Lord discussed the need to be aware of the work of the other WG's since they may impact this one. Ms. Marks then mentioned that there would be file sharing system available by DOE, which will enable access to each WG.

Maximum input is important. NASEO is running a literature review, which was required under the grant, and will be providing this shortly. Additionally, it is broken down by WGs.

A master list was also suggested for methods and practices; what is current, what is short term, what has been adopted, etc. would be specific items formatted into a spreadsheet.

One question which arose was should this report have 1) readily available technologies, 2) short term technologies and 3) long term technologies? Ms. Marks stated that there have been discussions with DOE about what their definition of next generation technologies is. A response from DOE should help to clarify how to respond to the above. Mr. Erbe concluded by stating that all documents that are already available need to be gleaned so we are not reinventing the wheel.

Reaching Out

There are six DOE hubs; Penn State, Purdue, and Stanford are a few (these are through DOE and Secretary Chu and are separate from the national labs; whoever has access to these, needs to reach out

to get information about what they are working on. It was suggested that NASEO see that the appropriate contacts are reached regarding this.

Questions, Suggestions, and Feedback

Mr. Erbe continued to review the WG scope document. On each call, key issues will be discussed.

Q and A:

- Will all have access to posting and modifying documents?
 - Yes, Ms. Marks and Ms. Lin will have to monitor this and look into how this will be handled. Also, on the file sharing site, there will be a calendar showing calls, meetings, times, etc.

- Was the members contact information spreadsheet sent out to everyone?
 - It was sent out to WG chairs only, but can be sent to additional people.

In closing the call, ground rules of the agenda were reviewed and the possibility of modifying the scope was suggested. It might be too specific, which limits the ability to broaden ideas.