

1 **1. Welcome and Introductions**

2 Committee Chair Eric Johnson opened the meeting and invited the participants to
3 introduce themselves.

4

5 Ms. Janssen stated that a quorum was not yet present so motions would have to wait.

6

7 **(3.) Discuss the possible name change of the committee**

8 Mr. Coleman proposed to simplify the committee name to “Technology Committee” in
9 order to include current technology in the committee’s scope.

10

11 (The arrival of an additional committee member resulted in a quorum.)

12

13 **MOTION:** (M/S/C/) [Scheuerman/Monson]

14 The committee voted unanimously to change the name of the Advanced

15 Technology Committee to “Technology Committee.”

16

17 **(2.) Review and approve March 6, 2014 meeting report**

18 Committee members needed a little more time to review the report.

19

20 **4. Presentation of “CEC Micro Grid Technology Demonstration Project” by David**

21 **Bliss, M.D. and Peter Spadia, Charge Bliss, Inc.**

22 Project Manager Peter Spadia of Charge Bliss shared his perspective on developments

23 in the industry and how they might affect hospitals, via a PowerPoint presentation.

- 1 • Per the Energy Information Administration website, hospitals consume almost
2 5% of energy of all buildings.
- 3 • Mr. Spadia listed some of the American Society of Heating, Refrigerating and Air
4 Conditioning Engineer's (ASHRAE's) goals pertaining to energy.
- 5 • He gave a broad overview of the components of typical Building Management
6 Systems (BMSs). They have very limited inputs, as they control temperatures
7 using HVAC systems, and they tend to use a standard script.
- 8 • BMSs will soon have to have multiple and dynamic input, which allow the control
9 system authorization of the building environment and energy consumption.
- 10 • Lighting is one of the biggest energy charges – for commercial buildings, up to
11 60% of energy use; for hospitals, a little less.
- 12 • The biggest question for standards and codes committees regarding hospital use
13 is making onsite generation a part of normal operating power systems.
- 14 • For emergency power systems, the code does not allow for diversity – everything
15 is very large capacity.
- 16 • Mr. Spadia discussed electrical management demand response on critical
17 branch systems, language protocols between medical systems and building
18 control systems, and IT system security.
- 19 • Mr. Spadia recommended presentations and workshops on energy for hospitals.
20 He was particularly interested in automatic command response opportunities
21 within a hospital—systems allowed to drive themselves versus systems that need
22 manual input.

23

1 Mr. Johnson stated that his goal for the day had been to utilize Mr. Spadia to introduce
2 the committee to the changes happening in the industry, and for the committee to align
3 itself to work with them. The HBSB always seeks to align itself to understand these
4 changes enough to steer in a direction that enhances the facilities.

5
6 Mr. Johnson also hoped to build excitement about a future workshop – to get industry
7 vendors to step up and showcase what is happening on the commercial side.

8
9 Dr. Bliss gave a second presentation on microgrids: renewable energy systems, energy
10 storage, and smart inverters and converters (which can change the nature of the energy
11 being made or stored and deploy it in safe, optimal ways).

- 12 • Microgrids do not supplant existing systems, but operate in addition to them.
- 13 • In July the California Energy Commission (CEC) issued an Opportunity Notice for
14 demonstrating secure, reliable microgrids at critical facilities, which include
15 hospitals.
- 16 • In health care centers in the state, the current BMS algorithms limit facilities in
17 what they can achieve. Also, CoGen is grid-tied and cannot operate when the
18 grid goes down.
- 19 • Microgrid controllers treat the building as a connected organism.
- 20 • With new technology, we have the ability to study every load item in a building –
21 not just its operational parameters and descriptors, but also the circumstances
22 under which it runs.
- 23 • Dr. Bliss listed the regulatory expectations for OSHPD and PGE/CAISO. There
24 are areas of clearcut governance for OSHPD and others that are uncertain.

- 1 • He pointed out that the Charge Bliss microgrid is grid-interactive: when the grid
2 sags or disappears, the systems can turn back on, regulate themselves, create
3 their own signals, and continue to produce energy.
- 4 • He showed a schematic of how the Charge Bliss Controller works in generating,
5 storing, and deploying energy.
- 6 • He showed an example of how the controller creates plateaus in loads where
7 there are peaks, simply by altering Lanware; and how devices cycle without
8 changing the tolerance of the building.
- 9 • The bottom line is that the key to continuity of systems in any building (and
10 specifically a hospital) is power quality and power supply. Microgrid systems
11 have the ability to look outward from the building as well as inward, stabilizing the
12 power quality coming in to the building, and potentially stopping the Automatic
13 Transfer Switches from tripping.
- 14 • Dr. Bliss asked OSHPD to consider the discretionary load that OSHPD will be
15 willing to allow a hospital to regulate on an automated basis. For example, OR
16 lighting is 100% essential while hallway or basement lighting can vary.

17
18 Mr. Coleman addressed the topic of OSHPD's jurisdiction. There is a Code Application
19 Notice (CAN) that states that for electrical, it is the point of connection – wherever the
20 meter is located.

21

22 **5. FDD presentation on Electronic Plan Review by Paul A. Coleman, FDD Deputy**
23 **Director**

1 Mr. Coleman first reviewed the committee's goals, particularly in terms of FDD's
2 involvement. Two items stood out:

3 "FDD staff will share with the committee what they see in Electronic Plan
4 Review."

5 "The committee will assist FDD in determining how technology can be used to
6 improve plant review processes."

7
8 Mr. Coleman then gave a presentation.

- 9 • Although models are now done in 3D on the computer, OSHPD still requires
10 them to be printed out again on paper and shipped to the Office for review, where
11 staff marks them up in pen or pencil and returns them. The designer then puts
12 them back into 3D and makes the changes.
- 13 • In 2012, with the agreement of the HBSB, OSHPD moved forward with electronic
14 document processing. This has reduced printing and shipping costs.
- 15 • Mr. Coleman reviewed the process of Electronic Plan Review, in which all the
16 disciplines can concurrently review the plan electronically.
- 17 • He reviewed the Rapid Review Unit for projects up to \$75,000 excluding fixed
18 equipment costs.
- 19 • OSHPD is doing pilot programs using Electronic Plan Review, where design
20 teams collaborate with owners to do work with more capabilities than we
21 currently have.
- 22 • A new program under development combines Electronic Plan Review with Over-
23 the-Counters, for "Virtual Over-the-Counters" (or "Over-the-Computers"). This

1 allows the design team to work in different locations and to use different types of
2 media.

- 3 • OSHPD is developing the protocols for another pilot program in which an Accella
4 program combines EPLAN Solve with the Electronic Services Portal (eSP).

- 5 ○ OSHPD is developing the standard comments and updating them to the
6 current code.

- 7 ○ The pilot program does measurements, comparison overlays, and final
8 comment reports.

- 9 ○ It allows electronic stamping of documents, facilitating approvals to be
10 sent instantaneously.

- 11 ○ Each hospital can have an approved set of plans sent to an assigned
12 printer while OSHPD can have a paper set for its archives. (By law,
13 OSHPD must keep a paper set of all plans for its archives. Currently,
14 OSHPD has more than 2,000 projects for which it has never received the
15 printed sets back. These projects are getting very close to being closed
16 for non-compliance.)

- 17 ○ Because the program ties in with Accella, it automatically advances
18 workflow. As the designer completes the checking, the program does the
19 workflow and updates everything in Accella, which then updates it
20 automatically on the website for the client and designers to look at.

- 21 ○ The designer must submit in a pdf format. The program then changes it
22 into a PNG format; going through the drawings, and refreshing and
23 regenerating them, is very rapid.

- 1 ○ If the pilot program is successful, OSHPD hopes to roll it out office-wide by
- 2 the end of 2015.
- 3 • OSHPD is working on electronic review in which the program actually does the
- 4 review, resulting in consistency and accuracy of code review and eliminating
- 5 oversights.

6

7 **Questions and Public Discussion**

8 Mr. Monson asked what format is needed for the 3D checks; Mr. Coleman responded

9 that it is Revitt.

10

11 An Interested Party asked whether Bluebeam Revu had been considered for Electronic

12 Plan Review. Mr. Coleman replied that OSHPD is in fact using it on another project. It

13 has some advantages and disadvantages over the pilot, which is more simplified than

14 Bluebeam resulting in a shorter learning curve for staff. Mr. Coleman said that more

15 than one platform could be offered.

16

17 The Interested Party commented that for an electrician, color is very helpful in checking.

18 The committee agreed.

19

20 **6. Discuss using a workshop for the next meeting to involve industry to**

21 **demonstrate future trends**

22 Mr. Johnson stated that a workshop could help draw interest. Presentations from the

23 OSHPD side could show the future of Electronic Plan Review as well as a sample

1 project in real time. Mr. Johnson noted, however, that it is difficult to secure speakers
2 from the industry.

3

4 Dr. Bliss offered to have a team of unaffiliated parties (such as GE) come and give a
5 presentation.

6

7 Mr. Johnson stated that he hoped for an informal format with open dialogue in order to
8 spark interest and have industry share what's coming in the future. This kind of
9 workshop could give a sense of future codes, policies, and even legislation, allowing the
10 committee to get ahead of the curve.

11

12 Mr. Scheuerman commented that he had heard three categories of technology thus far
13 in the meeting: building, clinical, and design. In a workshop, possibly the three could
14 be separated.

15

16 Mr. Coleman commented that with some building systems now being controlled by
17 some form of IT, their location and backup – redundant or manual – are questions he
18 would have.

19

20 The Interested Party suggested more topics: Electronic Plan Review and Evidence-
21 Based Medicine Reviews (EBMRs), which produce greater reliance on mobile devices
22 for patient care.

23

1 An Interested Party spoke about her husband's experience trying to share his individual
2 electronic health record (EHR) with the multiple doctors treating him. Mr. Scheuerman
3 commented on the need for portability.

4

5 Dr. Bliss noted that the major EHR vendors are basically down to Epic and Cerner. The
6 vendors now have a centralized service for the purpose of making records available to
7 all hospitals. Another problem is Health Insurance Portability and Accountability Act
8 (HIPAA) compliance.

9

10 Mr. Johnson stated that he would like to have users of the products speak at workshops
11 along with the vendors.

12

13 He continued that a three-part workshop would consist of building systems, clinical
14 systems, and design/Electronic Plan Review. People could attend the section that
15 interests them.

16

17 Dr. Bliss said that he and Roger Richter could find someone to speak on the EHR
18 industry.

19

20 Mr. Johnson envisioned a one-day workshop with three parts to be held early next year.

21

22 Mr. Coleman outlined the current code cycle schedule, should the committee come up
23 with anything it wanted to codify: OSHPD must have its regulations to the Building
24 Standards Commission by April 1; they have to go through a California Environmental

1 Quality Act (CEQA) process as well. With that in mind, the interim code cycle comes up
2 in 18 months; that would work very well for the committee rather than the current one.

3

4 Mr. Monson commented that the Electronic Plan Review portion of a workshop could
5 also engage construction.

6

7 The committee discussed the logistics of a workshop.

- 8 • They proposed a Sacramento venue with teleconferencing for L.A. attendees;
9 however, breakout sessions would complicate teleconferencing.
- 10 • A proposed date was Wednesday, February 11.
- 11 • To pull together speakers, Roger Richter volunteered to do the clinical system
12 side from the owner's viewpoint; OSHPD will do the design/construction/
13 Electronic Review side; Mr. Monson will help with the design side.

14

15 **(2.) Review and approve March 6, 2014 meeting report**

16 **MOTION:** (M/S/C/) [Monson/Scheuerman]

17 The committee voted unanimously to approve the March 6, 2014 meeting
18 report.

19

20 **8. Comments from Committee Members and the Public on issues not on this**
21 **agenda**

22 There were no comments from committee members or the public on issues not on the
23 agenda.

24

1 **9. Adjournment**

2 Mr. Johnson adjourned the meeting at 12:00 p.m.

DRAFT