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HOSPITAL BUILDING SAFETY BOARD
Energy Conservation and Management Committee

Wednesday, April 2, 2025
10:00 a.m. – 4:00 p.m.

Locations:

2020 West El Camino Ave, Conference Room 930, Sacramento, CA 95833
355 South Grand Avenue, Conference Room 2000, Los Angeles, CA 90071

Committee Members Present

Cody Bartley, Committee Chair
John Griffiths, Vice-Chair
Louise Belair
Janice Cheung
Jennifer Cox
Gary Dunger
Michael Foulkes
Scott Mackey
Carl Newth

Consulting Member Present

David Lockhart

HCAI Staff Present

Chris Tokas, FDD Deputy Director
Richard Tannahill
Arash Altoontash
Mia Marvelli
Jamie Schnick
Nanci Timmins
Andia Faraneh

HBSB Staff Present

Veronica Yuke, Executive Director
Marcus Palmer
Evet Torres

1 **1. Call to order and Welcome**

2 **Facilitator:** Cody Bartley, DPR Construction; Committee Chair (or designee)
3 Cody Bartley called the meeting to order at 10:00 a.m., on April 2, 2025.

5 **2. Roll Call and Meeting Advisories/Expectations**

6 **Facilitator:** Veronica Yuke, Manager, HCAI; Executive Director (or designee)
7 Veronica Yuke conducted roll call, and a quorum was established. She reviewed
8 meeting expectations, including rules for participation, muting, and voting via roll call.

10 **3. Evolution of Microgrid Technologies to Support Healthcare Facilities in
11 California**

12 **Facilitator:** Ryan De La Cruz, CEM, PMP, Vice President, Microgrid
13 Development, Endurant Energy (or designee)

14 **Discussion and Input:**

15 Ryan De La Cruz opened the session by defining microgrids based on the U.S.
16 Department of Energy's standard. He described microgrids as interconnected loads and
17 DERs that can operate independently or in tandem with the main electrical grid.

18 Ryan traced the origin of healthcare resilience to key events—the 1965 Northeast
19 blackout and the 1971 San Fernando Earthquake—which led to regulatory reforms like
20 SB 519 and the Alfred E. Alquist Hospital Facilities Seismic Safety Act. These
21 regulations initiated the requirements for hospitals to maintain structural and power
22 integrity during emergencies.

23 He outlined how diesel generators became the standard for emergency power due to
24 seismic certification, fuel stability, cost-effectiveness, and familiarity. He highlighted that,
25 although many DERs such as CHP, solar, and fuel cells are already deployed for cost-
26 saving or sustainability goals, they are rarely used for emergency power due to two
27 main challenges:

- 28 • Lack of seismic certification.
- 29 • Perceived reliability concerns compared to diesel generators.

30 Ryan De La Cruz shared that manufacturers have shown limited urgency to pursue
31 seismic certification due to the complexity and cost of shake-table testing. He
32 emphasized the need for healthcare providers and regulators to advocate for seismic
33 compliance and noted progress in specific projects like Kaiser Permanente Ontario.

1 He forecasted broader adoption of microgrids over the next decade, driven by:

- 2 • Technological advancements (e.g., smarter controllers and AI).
- 3 • New funding models (e.g., energy-as-a-service).
- 4 • Multiple value streams such as demand response and energy arbitrage.

5 He concluded with the Department of Energy's vision: by 2035, microgrids will be critical
6 to resilience, decarbonization, and affordability in healthcare infrastructure.

7 **Committee and Public Comments:**

- 8 • Cody Bartley asked why more manufacturers aren't pursuing seismic
9 certification.
- 10 • Ryan De La Cruz explained it's due to cost and lack of demand signals; he
11 suggested education and pilot project funding as key solutions.
- 12 • Jamie Schnick informed the group that one microturbine had achieved OSP
13 seismic certification and optimism exists that more will follow.
- 14 • John Griffiths praised the timeline analysis and shared concerns about long-term
15 infrastructure compatibility.
- 16 • A member of the public confirmed that demand response is a leading driver for
17 microgrid adoption nationwide.

18 **Action Items:**

- 19 • None during this agenda item.

21 **4. Impact and opportunity of Assembly Bill (AB) 2208 ban of fluorescent lamp 22 sales in California**

23 **Facilitator:** John Griffiths, PE, Electrical Engineer, CONTECH-CA;
24 Committee Vice-Chair (or designee)

25 **Discussion and Input**

26 The committee engaged in an in-depth discussion following presentations by Sean
27 Eyler and Jamie Schnick.

- 28 • Sean Eyler introduced the HEFI, explaining how healthcare facilities could
29 receive utility rebates and no-cost energy audits.
- 30 • He outlined the program structure, described the on-bill financing model and
31 emphasized benefits like energy savings, lower maintenance costs, and project
32 implementation support.

- 1 • Sean Eyler detailed available utility incentives through PG&E's Healthcare
2 Energy HEFI:
 - 3 ○ \$0.10/kWh and \$1/therm savings-based incentives.
 - 4 ○ Free audits, project engineering, and support.
 - 5 ○ On-bill financing (0% interest loans up to \$4 million per site) structured for
6 bill neutrality.
- 7 • Sean Eyler highlighted lighting retrofits in response to AB 2208 and described
8 project types like retro commissioning, equipment replacement, and HVAC
9 optimization.
- 10 • He stated that the program services are free and funded by utility surcharges
11 already paid by customers.
- 12 • Sean Eyler also reviewed examples of successful lighting and central plant
13 upgrade projects and reiterated the opportunity to stack multiple efficiency
14 projects with phased loans.
- 15 • Jamie Schnick discussed that PIN 13 on LED Lighting Retrofit has been
16 incorporated into the FREER manual, where it is meant to help streamline the
17 processes of permitting and changing out the fixtures.
- 18 • Jamie Schnick explained that the FREER manual clarifies which category LED
19 lighting retrofits projects fall into: Excluded work, which may not require
20 submission to HCAI; Field Review, which requires submission but may only
21 require review by field staff; or Expedited Review, which requires submission for
22 plan review, but is put at the front of the list.

23 **Committee and Public Comments:**

- 24 • John Griffiths asked if other utilities like SoCal Edison offered similar programs.
25 Sean Eyler confirmed that SoCal Edison is preparing to launch its own version of
26 the program.
- 27 • David Lockhart clarified that while engineering services are free, construction
28 costs would be financed through the utility bill.
 - 29 ○ He asked about competition among vendors and questioned why more
30 hospitals weren't using the program despite its benefits.
 - 31 ○ David emphasized that hospitals already pay into this program and should
32 be taking advantage of it. He described it as a "no-brainer" and asked how
33 outreach efforts were being conducted.

- Sean Eyler responded that participation has recently surged, noting that the program's launch in 2021 was slowed by COVID-related disruptions. He confirmed that outreach is ongoing and includes CSHE meetings and direct contact with facilities.
- John Griffiths asked when the streamlined lighting retrofit permit process would be readily available and if there was a webinar planned. Chris Tokas reported that a guide would be created, explaining how to submit and execute projects expeditiously and that a webinar might be considered for late summer.
- John Griffiths asked if part of the roll out included educating inspectors and field staff. Jamie Schick affirmed that there are monthly in-house technical meetings on this topic and the information is shared with engineers and field staff to ensure consistency of knowledge across the regions.
- Carl Newth asked if the fixture retrofit process applied to lighting controls. Jamie Schnick explained that changing out light controls "one for one" is fine, but if lighting control is being changed in order to change the control system, OSHPD would need to look at the design.

Informational and Action Items

Sean Eyler provided details on:

- AB 2208 and its impact on lighting systems.
- HEFI program structure, rebate levels, and technical assistance.
- Specific examples of past healthcare facility projects with:
 - Energy savings (kWh and therms),
 - On-bill financing amounts,
 - Payback periods,
 - Types and quantities of LED installations.
- Integration of energy savings with broader microgrid planning, referencing previous agenda items.

5. Microgrids Update

Facilitator: Jamie Schnick, Senior Electrical Engineer, HCAI (or designee)

Discussion and Input

Jamie Schnick provided a comprehensive update on the current status and future direction of microgrids in California healthcare facilities. He explained that the mission of

1 the OSHPD Microgrid Task Force is to accelerate the implementation of compliant
2 microgrids by streamlining regulatory processes, providing consistent project review,
3 and increasing awareness across the healthcare sector.

4 Jamie Schnick discussed key demonstration projects that illustrate how healthcare
5 facilities are deploying Distributed Energy Resources as alternatives to diesel
6 generators. These included:

- 7 • Kaiser Permanente San Marcos Campus: Installed a 1.7 MW fuel cell to supply
8 100% backup power alongside traditional emergency generators.
- 9 • Kaiser Permanente Ontario: Developed one of the largest renewable energy
10 microgrids for a 224-bed hospital. The system includes 2 MW of solar, 9 MWh of
11 battery storage, 1 MW of fuel cell power, and 6 MW of diesel generation.
- 12 • Valley Children's Healthcare and five SNFs in Northern California: Designed to
13 fully back up critical loads using alternate power sources in compliance with
14 Assembly Bill 2511.

15 Jamie Schnick emphasized that these projects aim to prove that microgrids can be
16 code-compliant and as reliable as diesel-based emergency power systems. He
17 highlighted the regulatory progress made to legitimize healthcare microgrids:

- 18 • 2021 NFPA 99 introduced the term "health care microgrid."
- 19 • 2023 NEC added healthcare microgrids as acceptable EPS.
- 20 • 2022 CEC incorporated 2023 NEC language ahead of schedule, effective July 1,
21 2024.

22 He concluded by stating that these advancements signal a regulatory environment that
23 increasingly supports clean, resilient energy alternatives in healthcare infrastructure.

24 **Committee and Public Comments:**

- 25 • Jennifer Cox inquired as to why Skilled Nursing Facilities were excluded from the
26 CMS waiver. Nanci Timmins replied that CMS has a specific regulation for long-
27 term care that can't be superseded.
- 28 • Scott Mackey asked how long microgrids need to be in operation to be
29 determined as sufficiently reliable. Jamie Schnick replied that it needs to be long
30 enough to demonstrate that they are at least as reliable as generators, which is
31 where commissioning plans comes into play.

1 **Informational and Action Items**

2 Jamie Schnick presented the following as informational items:

- 3 • The status of microgrid demonstration projects across various healthcare
4 facilities in California.
- 5 • The regulatory progress in NFPA and NEC codes recognizing healthcare
6 microgrids as EPS.
- 7 • The ongoing work of the OSHPD Microgrid Task Force, which aims to reduce
8 approval barriers and promote code-compliant implementation of microgrids in
9 healthcare.

10 11 **6. Discussion on potential future meeting topics**

12 **Facilitator:** Cody Bartley (or designee)

13 Cody Bartley initiated the discussion by outlining the objective of identifying relevant
14 topics for future Energy Conservation and Management Committee meetings. He
15 introduced three key focus areas for committee consideration:

- 16 A. Removal from Acute Care Services (RACS): Cody Bartley explained that when
17 buildings are removed from acute care service, energy-saving opportunities often
18 go unrealized. He encouraged discussion around how facilities can reduce
19 energy consumption in unused or shelved spaces before returning them to local
20 jurisdiction.
- 21 B. Hospital Commissioning: Cody Bartley noted that healthcare building systems
22 are becoming increasingly complex. He posed a question to the committee about
23 identifying the most effective and efficient practices for commissioning hospitals,
24 both new and existing.
- 25 C. Impacts of Extreme Natural Hazard Events: Cody Bartley stated that high-
26 temperature events and equipment not rated for new environmental extremes
27 have led to system failures in some hospitals. He asked the committee to
28 consider best practices to strengthen existing and future building systems against
29 such hazards.

30 **Committee and Public Comments:**

- 31 • John Lockhart expressed the importance of topics B and C, Hospital
32 Commissioning and Impacts of Extreme Natural Hazard Events. As a hospital
33 operator, he explained that commissioning, if done at all, is often left for last
34 before the hand-off, and that fault detection analytics works well for taking a
35 building and its system through its paces. He added that the commissioning

process and understanding best practices could help mitigate the impacts from extreme weather.

- Chris Tokas agreed, citing that because of the increase of technological advancements being incorporated into hospital buildings, failure mode analysis has to play a more important role and suggested the Committee consider development of a white paper on the topic.
- Cody Bartley suggested getting a commissioning agent to come speak to the Committee.
- Chris Tokas explained the importance of first educating hospital owners on the importance of commissioning.
- John Griffiths disclosed that in his experience, hospital owners are reluctant to pay an agent to commission the building why they already paid an engineer to design it and a contractor to build it. Dave Lockhart suggested the solution is to make design engineers accountable for the performance of the design, because hospital owners are having to buy a product that has not been proven to meet the design criteria that was promised and agreed upon.

Informational and Action Items

Cody Bartley recorded the following informational items:

- The committee reviewed and discussed three preliminary topics for future meetings, which included energy-saving strategies during RACS, improved commissioning practices, and responses to extreme weather-related system failures.

7. Comments from the Public/Committee Members on Issues not on this Agenda

Facilitator: Cody Bartley (or designee)

Cody Bartley opened the floor for any final comments from committee members or members of the public regarding issues not listed on the current agenda. He reminded attendees that the Committee could not act on or discuss items outside the scope of the posted agenda but may consider such items for future meetings.

Committee and Public Comments

- Scott Mackey requested that the next Committee meeting be rescheduled because there is a Healthcare Facility Forum event scheduled for October 8, 2025, that David Bliss and Jamie Schnick have been invited to speak.
- Veronica Yuke suggested rescheduling it to October 9, 2025, and the Committee agreed.

1 **Informational and Action Items**

2 None.

3 **8. Adjournment**

4 Cody Bartley confirmed that all agenda items had been addressed. He thanked the
5 committee members, presenters, HCAI staff, and public attendees for their participation
6 and engagement throughout the meeting.

7 Cody Bartley adjourned the meeting at 1:00 p.m.

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