Bay Area Air Quality Management District 939 Ellis Street San Francisco, CA 94109 (415) 749-5073

APPROVED MINUTES

Advisory Council Regular Meeting Wednesday, October 8, 2014

Note: Audio and video recordings of the meeting are available on the website of the Bay Area Air Quality Management District at http://www.baaqmd.gov/The-Air-District/Board-of-Directors/Advisory-Council/Agendas-and-Minutes.aspx.

1. CALL TO ORDER:

Chairperson Sam Altshuler called the meeting to order at 9:05 a.m.

Roll Call:

Present: Chairperson Sam Altshuler, P.E.; Vice-Chairperson Liza Lutzker, M.P.H.; and

Members Robert Bornstein, Ph.D., Harold Brazil, Jonathan Cherry, A.I.A., Heather Forshey, Stan Hayes, John Holtzclaw, Ph.D., Rick Marshall, P.E.,

P.L.S., Bruce Mast and SaraT L. Mayer, M.P.P.

Absent: Secretary Jessica Range, LEED A.P.; and Members Ana M. Alvarez,

D.P.P.D., Benjamin Bolles, Jeffrey Bramlett, M.S., C.S.P., Frank Imhof, Kraig Kurucz, Timothy O'Connor, Esq., Estes Al Phillips (resigned) and Laura E.

Tam.

Also Present: None.

Opening Comments:

Chairperson Altshuler provided an update on Senate Bill 1415 and made brief statements regarding today's agenda.

- 2. PUBLIC COMMENT ON NON-AGENDA ITEMS: No requests received.
- 3. APPROVAL OF THE MINUTES OF THE ADVISORY COUNCIL (COUNCIL) MEETING ON SEPTEMBER 10, 2014

Council Comments: None.

<u>Public Comments:</u> No requests received.

Council Action:

Member Holtzclaw made a motion, seconded by Member Mast, to approve the minutes of the Council meeting on September 10, 2014; and the motion carried by the following vote of the Council:

AYES: Altshuler, Bornstein, Brazil, Cherry, Hayes, Holtzclaw, Lutzker, Marshall

and Mast.

NOES: None.

ABSTAIN: Forshey and Mayer.

ABSENT: Alvarez, Bolles, Bramlett, Imhof, Kurucz, O'Connor, Phillips, Range and

Tam.

Opening Comments (Continued):

The Council discussed the composition of the work group that will prepare the draft Council report on the upcoming presentation.

DISCUSSION

4. Discussion of Draft Report on the Council's Meeting on September 10, 2014

Council Comments:

The Council deliberated upon proposed revisions to the draft report on the Council meeting on September 10, 2014.

PRESENTATION

5. Energy Storage and Smart Grid Technologies and Their Relationship to the 2050 Greenhouse Gas (GHG) Goals

Chairperson Altshuler introduced Haresh Kamath and provided a brief description of his background and that of the Electric Power Research Institute (EPRI).

Energy Storage and Smart Grid Technologies and Their Relationship to 2050 GHG Goals

Haresh Kamath Program Manager, Energy Storage EPRI

Mr. Kamath gave a presentation entitled *The Integrated Grid: Energy Storage and Smart Grid Technologies and their Relationship to 2050 GHG Goals* (a copy of which is available on the website of the Bay Area Air Quality Management District at http://www.baaqmd.gov/The-Air-District/Board-of-Directors/Advisory-Council/Agendas-and-Minutes.aspx).

Council Comments:

The Council and Mr. Kamath discussed the funding sources for EPRI; the psychology of the increase in photovoltaic installations; the role of state and federal regulations in spurring industry deployment of sustainable technology; the adequacy of the current deployed grid storage worldwide and need for solutions to uneven demand and production including, but not limited to, storage; who pays for installations of the various devices and systems being discussed; the viability of the California goal to have an additional 2% storage capacity by 2020; primary challenges to integrated grid approach; possible solutions to issues of limited lifecycle and waste generation relative to battery storage; recommendations Mr. Kamath would make to the Board of Directors if given the opportunity; why phone batteries were alluded to in the presentation as a resource instead of a demand; reconciliation of seemingly competing claims about the energy demand of consumer electronics as a percentage of total energy demand; the complexity of the interplay between meteorological conditions and energy demand; the source of seemingly unattainable estimates of necessary storage capacity and possible solutions; the need for research on the differences in the reliability of sustainable energy sources in Germany and California; the role of demand response in examining and achieving storage capacity needs; whether there is a significant role to be played by a regional agency, such as the Air District, in the current phase of the larger dialogue at the state and federal levels; and whether the Council should invite Amory Lovins to present on the subject of negawatts.

Public Comments:

Mark Roest, SeaWave Battery, Inc., addressed the Council regarding estimated megawatt storage capacity needs; projections about renewable energy becoming less expensive than fossil fuel-generated energy; expected battery capacity from emerging technologies utilizing materials of decreased toxicity; and the inconsistency of the wind patterns at the Suisun and Tehachapi wind farms compared to prevailing generalizations about wind power generation.

Council Action: None; receive and file.

DISCUSSION (CONTINUED)

6. Discussion of Draft Report on the Council's Meeting on September 10, 2014 (Continued)

Council Comments:

The Council continued to deliberate upon proposed revisions to the draft report on the Council meeting on September 10, 2014.

<u>Public Comments:</u> No requests received.

Council Action: None; receive and file.

OTHER BUSINESS

7. Future Topics for the Current Council

The Council and staff discussed potential directions the Council may go with future topics and invited the submission of suggestions for further discussion at the next Council meeting.

8. Chairperson's Report

Chairperson Altshuler called for nominations for the slate of officers for 2015; nominated Member Cherry for Secretary; and asked whether the Council would consider extending the term of the slate of officers for 2014 through the first half of 2015.

The Council discussed extending the term of the slate of officers for 2014 through the first half of 2015; the appointment or reappointment of members whose terms are expiring at the end of 2014; and concerns regarding the Council's ability to achieve a quorum in 2015.

9. Council Member Comments/Other Business

Member Hayes commended Air District staff on their appearance at a recent, local Air & Waste Management Conference and for the ultrafine particulate matter presentation on display in the Air District's seventh floor lobby.

10. Time and Place of Next Meeting:

Wednesday, November 12, 2014, Bay Area Air Quality Management District Headquarters, 939 Ellis Street, San Francisco, CA 94109 at 9:00 a.m.

11. Adjournment: The meeting adjourned at 12:24 p.m.

Sean Gallagher Clerk of the Boards

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