

DOCKETED

Docket Number:	15-IEPR-11
Project Title:	Climate Change
TN #:	205328
Document Title:	Notice of Joint Agency Workshop on Climate Adaption Opportunities for the Energy Sector
Description:	Public Notice of the July 27, 2015 Joint Agency IEPR Workshop at the CPUC (Agenda included)
Filer:	Laura Laurent
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CALIFORNIA ENERGY COMMISSION1516 Ninth Street
Sacramento, California 95814Main website: www.energy.ca.gov

In the matter of,)	Docket No. 15-IEPR-11
)	
<i>2015 Integrated Energy Policy Report (2015</i>)	NOTICE OF WORKSHOP
<i>IEPR)</i>)	
)	RE: Climate Change: Development
)	of a Research Agenda to Identify
)	Adaptation Measures for California's
)	Energy System

Notice of Joint Agency Workshop on Climate Adaptation Opportunities for the Energy Sector

The California Energy Commission will jointly conduct a workshop with the California Public Utilities Commission (CPUC) on climate adaptation for California's energy system. This workshop will provide information for the *2015 Integrated Energy Policy Report (2015 IEPR)* on climate adaptation actions at the local, state, and national level and will present information on how science has and will continue to inform the implementation of adaptation measures.

Chair Robert B. Weisenmiller will conduct the meeting jointly with CPUC Commissioner Liane M. Randolph. Chair Weisenmiller is the Energy Commission's Lead Commissioner for Research and Development, including climate science. Commissioner Andrew McAllister is the Lead Commissioner for the *2015 IEPR*. Other Commissioners at the Energy Commission and the CPUC may also attend and participate in the workshop. A quorum of Commissioners from the CPUC and/or the Energy Commission may be in attendance, but no CPUC or Energy Commission business will be discussed, and no votes will be taken.

Monday, July 27, 2015

9:30 a.m.

CALIFORNIA PUBLIC UTILITIES COMMISSION

505 Van Ness Avenue
CPUC Auditorium
San Francisco, California
(Wheelchair Accessible)

Remote Access Available by Computer or Phone via WebEx™
(Instructions below)

Since there will be a concurrent IEPR workshop conducted at the Energy Commission in the afternoon of July 27, the Energy Commission is making a meeting room available for those interested in viewing the Climate Adaptation workshop remotely. Interested parties are welcome to view the workshop starting at 9:30 a.m. at the Energy Commission's Charles Imbrecht Hearing Room (Hearing Room B). The Energy Commission is located at 1516 9th Street, Sacramento, California.

Background

The electricity and natural gas sectors are major contributors of greenhouse gas emissions in California and scientific research has shown that they are also vulnerable to climate change impacts. This workshop will provide an opportunity for Commissioners, stakeholders, and interested parties to examine and discuss the physical vulnerabilities in the energy system due to climate change and the actions that the largest utilities in California are taking to adapt to those changes.

Agenda

Presentations will cover adaptation efforts in the electric sector nationally and in California. Additionally, preliminary discussions about the natural gas system and relevant applied scientific research will be highlighted. A detailed agenda is attached.

Public Comment

Oral Comments: Commissioners will accept oral comments during the workshop. Public comments may be limited to three minutes or less per speaker. Any comments will become part of the public record in this proceeding.

Written Comments: Written comments should be submitted to the Dockets Unit by **August 10, 2015**. All written comments will become part of the public record of this proceeding.

For the 2015 IEPR, the Energy Commission is using a new electronic commenting system. Visit the website at www.energy.ca.gov/2015_energyypolicy/ and click on the "Submit e-Comment" link in the "Proceeding Information" box. From the drop down menu, please select the appropriate docket number, 15-IEPR-11 - Climate Change.

This will take you to the page for adding comments to that docket. Please enter your contact information and comment title. Under "subject(s)," select the appropriate IEPR workshop date and "IEPR public comments." You may include comments in the box titled "Comment Text" or attach a file with your comments. Attached comments must be in a Microsoft® Word (.doc, .docx) or Adobe® Acrobat® (.pdf) formatted file.

The Energy Commission encourages use of its new electronic commenting system, but written comments may also be submitted by handing them directly to the Public Adviser, by e-mailing them to the Dockets Office, or by U.S. Mail to:

California Energy Commission
Dockets Office, MS-4
Re: Docket No. 15-IEPR-11
1516 Ninth Street
Sacramento, CA 95814-5512

If you choose not to use the electronic filing system, please include the appropriate docket number on any e-mailed or written comments. Comments may be e-mailed to docket@energy.ca.gov and copy the technical lead, Guido Franco, at guido.franco@energy.ca.gov.

Please note that your electronic, e-mailed, written, and oral comments, attachments, and associated contact information (for example, address, phone, and e-mail) become part of the viewable public record. Additionally, this information may become available via Google, Yahoo, and other search engines.

Public Adviser and Other Commission Contacts

The Energy Commission's Public Adviser's Office provides the public assistance in participating in Energy Commission proceedings. If you want information on how to participate in this forum, please contact the Public Adviser, Alana Mathews, by e-mail at PublicAdviser@energy.ca.gov or (916) 654-4489, or toll free at (800) 822-6228.

If you have a disability and require assistance to participate, please contact Lou Quiroz by e-mail at lou.quiroz@energy.ca.gov or (916) 654-5146 at least five days in advance. Media inquiries should be sent to the Media and Public Communications Office by e-mail at mediaoffice@energy.ca.gov or (916) 654-4989.

If you have questions on the technical subject matter of this meeting, please contact Guido Franco, Team Lead for Environmental Research, at (916) 327-2392 or guido.franco@energy.ca.gov. For general questions regarding the IEPR proceeding, please contact Raquel Kravitz, IEPR project manager, at (916) 651-8836 or by e-mail at raquel.kravitz@energy.ca.gov.

The service list for the *2015 IEPR* is handled electronically. Notices and documents for this proceeding are posted to the Energy Commission website at www.energy.ca.gov/2015_energypolicy/.

When new information is posted, an e-mail will be sent to those on the energy policy e-mail list server. We encourage those who are interested in receiving these notices to sign up for the list server through the website at www.energy.ca.gov/listservers/index.html. The listserve is titled "energypolicy."

Remote Attendance

You may participate in this meeting through WebEx, the Energy Commission's online meeting service. Presentations will appear on your computer screen, and you may listen

to the audio via your computer or telephone. Please be aware that the meeting may be recorded.

To join a meeting:

VIA COMPUTER: Go to <https://energy.webex.com> and enter the unique meeting number: **924 991 855**. When prompted, enter your information and the following meeting password: **meeting@930**.

The "Join Conference" menu will offer you a choice of audio connections:

1. To call into the meeting: Select "I will call in" and follow the on-screen directions.
2. International Attendees: Click on the "Global call-in number" link.
3. To have WebEx call you: Enter your phone number and click "Call Me."
4. To listen over the computer: If you have a broadband connection, and a headset or a computer microphone and speakers, you may use VoIP (Internet audio) by going to the Audio menu, clicking on "Use Computer Headset," then "Call Using Computer."

VIA TELEPHONE ONLY (no visual presentation): Call (866) 469-3239 (toll-free in the U.S. and Canada). When prompted, enter the unique meeting number: **924 991 855**. International callers may select their number from <https://energy.webex.com/energy/globalcallin.php>.

VIA MOBILE ACCESS: Access to WebEx meetings is now available from your mobile device. To download an app, go to www.webex.com/overview/mobile-meetings.html.

If you have difficulty joining the meeting, please call the WebEx Technical Support number at (866) 229-3239.

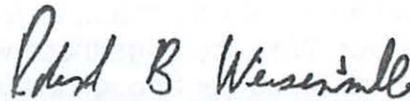
Availability of Documents

Documents and presentations for this meeting will be available online at: www.energy.ca.gov/2015_energypolicy/

Date: July 13, 2015



ANDREW McALLISTER, Ph.D.
Lead Commissioner
2015 Integrated Energy Policy Report



ROBERT B. WEISENMILLER, Ph.D.
Chair
California Energy Commission

Mail Lists: [energypolicy](#), [climatechange](#), [research](#)



CPUC/CEC Workshop on Climate Adaptation Opportunities for the Energy Sector

July 27, 2015

CPUC Auditorium

Agenda:

This workshop will provide an opportunity for Commissioners, stakeholders and interested parties to examine and discuss the physical vulnerabilities in the gas and electric systems due to climate change and the actions that the largest investor-owned utilities in California are taking to adapt to those changes. "Climate Adaptation," "Readiness," and "Resilience" are all terms used to describe taking deliberate and considered actions to avoid, manage or reduce the consequences of a hotter, drier and more extreme climate and to take advantage of the opportunities that such changes may generate. Presentations will cover adaptation efforts in the gas and electric sectors nationally and in California. A quorum of Commissioners from the CPUC and/or the CEC may be in attendance, but no CPUC or CEC business will be discussed, and no votes will be taken.

Executive Director Tim Sullivan will convene the meeting.

9:30 am – 10:00 am Welcome and Introductions

Liane M. Randolph, Commissioner, California Public Utilities Commission

Robert B. Weisenmiller, Chair, California Energy Commission

10:00 am – 10:30 am California's Changing Climate

Dr. William Collins, Director, Climate Readiness Institute and Senior Scientist & Head of Climate Sciences Department, Lawrence Berkeley National Lab

10:30 am – 11:00 am National and Regional Approaches to Adaptation in the Energy Sector

Dr. Craig Zamuda, Senior Policy Advisor, Climate Resilience Partnership, U.S. Department of Energy

11:00 am – 11:30 am Methods for Developing Robust Adaptation Plans in the Energy Sector

Dr. David Groves, Co-director, RAND Water and Climate Resilience Center

11:30 am – 12:00 pm Regional Collaborative Approach to Climate Readiness

Kathleen Ave, Climate Program Manager, Sacramento Municipal Utility District

Noon to 1 pm Lunch Break

1:00 pm – 2:15 pm California Adaptation Efforts

Moderator:

Marzia Zafar, Director, Policy & Planning Division, CPUC

Overview of California Adaptation Efforts, Louise Bedsworth, Deputy Director, Governor's Office of Planning and Research

Research Efforts for the Energy System, Guido Franco, Team Lead for Climate and Environmental Research, CEC

Consideration of Climate Adaption in Renewable Energy Planning and Permitting, Scott Flint, Desert Renewable Energy and Conservation Plan (DRECP) Program Lead, CEC

Science and Tools for Understanding Coastal Vulnerability of Energy Facilities, Dr. Susan Fischer Wilhelm, Research Lead on Climate Change, CEC and Dr. Li Erikson, CoSMoS Lead Modeler, USGS

2:15 pm – 4:00 pm California Utilities' Adaptation Efforts: A Panel Discussion

Moderator:

Kristin Ralff-Douglas, Senior Policy Analyst, Policy & Planning Division, CPUC

Utility Presentations by Panelists

Diana Day, Vice President of Enterprise Risk Management, San Diego Gas & Electric

Doug Schneider, Vice President of Gas Engineering and System Integrity, Southern California Gas Company

Paul Grigaux, Vice President of Transmission Substations & Operations, Southern California Edison

Patrick Hogan, Vice President, Electric Operations Asset Management, Pacific Gas & Electric

4:00 pm – 4:30 pm Public Comment

4:30 pm – 5:00 pm Concluding Remarks

CPUC/CEC Commissioners

Speaker Bios (in order of appearance)

Dr. William Collins, Director, Climate Readiness Institute and Senior Scientist & Head of Climate Sciences Department, Lawrence Berkeley National Lab

Dr. William (Bill) Collins is an internationally recognized expert in climate modeling and climate change science. He serves as a senior scientist, head of the Climate Sciences Department, and director of the Center at LBNL for Integrative Modeling of the Earth System (CLIMES) at the Lawrence Berkeley National Laboratory (LBNL); a Professor in Residence in the Department of Earth and Planetary Science at the University of California, Berkeley; and chief scientist for the Department of Energy's Enterprise in Climate and Earth System Modeling. He was a Lead Author on both the Fourth and Fifth Assessment of the Intergovernmental Panel on Climate Change (IPCC).

Dr. Craig Zamuda, Senior Policy Advisor, Climate Resilience Partnership, U.S. Department of Energy

Dr. Craig Zamuda is a senior policy advisor for Climate and Environmental Analysis in the U.S. Department of Energy's (DOE) Office of Energy Policy and Systems Analysis, and provides policy and technical advice on energy technology development and deployment programs related to climate change and energy security. Craig represents DOE in domestic and international fora for the advancement of climate change resilience activities, including the White House Council on Climate Preparedness and Resilience, and the Interagency Infrastructure Resilience Working Group. He served as a lead author on the report "U.S. Energy Sector Vulnerabilities to Climate Change and Extreme Weather."

Dr. David Groves, Co-director, RAND Water and Climate Resilience Center

Dr. David Groves is co-director of the RAND Water and Climate Resilience Center, a senior policy researcher at the RAND Corporation, and a professor at the Pardee RAND Graduate School. He specializes in improving the long-term planning and decision-making of natural resource planning agencies through the application of innovative analytic methods and decision support tools. David has worked water utilities and coastal planning agencies across the U.S. and abroad, helping them to address climate change in their long-term plans. He has also worked with the California Energy Commission's Electricity Supply Analysis Division exploring new methods for planning under uncertainty.

Kathleen Ave, Climate Program Manager, Sacramento Municipal Utility District

Kathleen Ave is the Climate Program Manager in Energy Research & Development at the Sacramento Municipal Utility District, a publicly owned electric utility. A former Coro Fellow, she directs SMUD's greenhouse gas research strategy, including climate readiness, water and local carbon sequestration initiatives. She represents SMUD on the steering committee of the Capital Region Climate Readiness Collaborative and the Alliance of Regional Collaboratives for Climate Adaptation. She also manages research projects with local water and wastewater agencies and solar projects intended to utilize marginal land resources, including a proposed solar canal installation designed to offset pumping load and reduce evaporative water loss.

Dr. Louise Bedsworth, Deputy Director, Governor's Office of Planning and Research

Dr. Louise Bedsworth is the Deputy Director at the Governor's Office of Planning and Research (OPR). Prior to joining OPR, she was a Research Fellow at the Public Policy Institute of California where she focused on climate action at the local level, adaptation to climate change, and transportation and air quality. She has also held positions at the Union of Concerned Scientists, Redefining Progress, and the International Institute for Applied Systems Analysis.

Guido Franco, Team Lead for Climate Change and Environmental Research, CEC

Guido Franco is the Team Lead for Climate Change and Environmental Research in the Energy Commission's Research Division. Guido led the preparation of the 1998 inventory of greenhouse gases for California, he was the main author of the 2003 Climate Change Research Plan, and he has been one of the main forces behind the three California Climate Assessments. He has been an Editor of two special issues of the prestigious journal Climatic Change on climate impacts and adaptation options for California. Guido was a member of an Advisory Committee created by NASA for its Applied Sciences Program. More recently, he was a member of the federal advisory committee that produced the National Climate Assessment delivered to the President and the US Congress on May 6, 2014.

Scott Flint, Desert Renewable Energy and Conservation Plan (DRECP) Program Lead, CEC

Scott Flint works in the California Energy Commission Siting, Transmission, and Environmental Protection Division. From 2008 to present, Scott has led the development of the Desert Renewable Energy and Conservation Plan, initiating this planning effort first at the California Department of Fish and Game (now Department of Fish and Wildlife), and then continuing at the Energy Commission. Scott is also a working member of the Natural Resource Agency's Renewable Energy Action Team, which focuses on developing workable solutions to accelerate the deployment of renewable energy while ensuring the long-term protection of California's natural resources.

Dr. Susan Fischer Wilhelm, Research Lead on Climate Change, CEC

Dr. Susan Fischer Wilhelm manages energy-related environmental research with a focus on issues related to climate change and public health. She is also currently managing development of CalAdapt.org, a web-based interactive visualization tool designed to convey the risks of climate change for the benefit of local decision makers and Californians who live in affected communities. Susan has worked for the State of California since September 2006, when she joined the California Air Resources Board (ARB) as the Science, Technology, and Health Policy Advisor to the Chairman. While at ARB, she also served as staff lead on research planning and supported recreational vehicle regulations to address the federal 8-hour ozone standard as called for by California's 2007 State Implementation Plan.

Dr. Li Erikson, CoSMoS Lead Modeler, USGS

Dr. Erikson is a research oceanographer with the USGS Pacific Coastal and Marine Science Center in Santa Cruz where she has been working since 2005, focused on hydrodynamics, nearshore processes, coastal flooding, and shoreline change. Li previously worked as an Environmental Engineering consultant and for international aid agencies assisting with coastal planning.

Diana Day, Vice President of Enterprise Risk Management & Compliance, San Diego Gas & Electric

Diana Day is Vice President of Enterprise Risk Management & Compliance for San Diego Gas & Electric (SDG&E) and Southern California Gas Co. Day has held various positions with the Sempra companies since 1997, including Assistant General Counsel – Commercial of SDG&E, General Counsel of Sempra Energy Global Enterprises and Vice President and Associate General Counsel of Sempra Energy. Prior to joining Sempra Energy, Diana was with the San Diego office of Latham & Watkins, where she served on that firm's EEO Committee.

Doug Schneider, Vice President of Gas Engineering and System Integrity, So Cal Gas

Doug Schneider is Vice President, Gas Engineering and System Integrity for Southern California Gas Company and San Diego Gas & Electric. He is responsible for gas engineering and pipeline integrity policies and programs. Previously, Doug served as the director of pipeline integrity where he oversaw the development and management of the utilities' pipeline integrity programs. Doug joined SoCalGas in 1991 as an engineer. He has held a number of engineering and related roles including technical services manager, pipeline integrity manager, and engineering design manager. He left SoCalGas briefly, from 1997 to 2001, and during this time held the title of vice president of sales and marketing for Rohrbach Cosasco Systems, a manufacturer of corrosion control instrumentation and related systems.

Paul Grigaux, Vice President of Transmission, Substations & Operations, Southern California Edison

Paul Grigaux is Vice President of Transmission, Substations and Operations in the Transmission and Distribution (T&D) organization at Southern California Edison (SCE). Elected to that position in December of 2013, he is responsible for all grid operations, substation construction and maintenance, and transmission activities including system performance, reliability, compliance, and emergency response and restoration. Previously, Paul was director of Grid Operations in the Power Delivery unit at SCE, responsible for operating the company's transmission and distribution system. Paul also has served as director of T&D's Central Design and Field Accounting Division. He joined SCE in 2005 as director of the Shop Services and Instrumentation Division and senior vice president of Edison ESI, a wholly owned subsidiary of SCE.

Patrick Hogan, Vice President, Electric Operations Asset Management, Pacific Gas & Electric

Patrick Hogan is PG&E's Vice President of Electric Operations Asset Management. His responsibilities include all aspects of PG&E's electric transmission and distribution asset investment and reliability strategies, including the implementation of industry best practices in controls, systems and standards. He leads the development and deployment of technology and Smart Grid strategy for Electric Operations. Patrick's previous roles include the Vice President of Transmission and Distribution Engineering and Design for British Columbia Hydro, Vice President of Distribution Asset Management and Engineering for National Grid and Vice President of Transmission and Distribution for KeySpan.