MEETING NOTICE AND AGENDA

REGIONAL ENERGY WORKING GROUP
The Regional Energy Working Group may take action on any item appearing on this agenda.

Thursday, September 26, 2013
11:30 a.m. to 1 p.m.

SANDAG 7th Floor Conference Room
401 B Street, Suite 800
San Diego, CA 92101-4231

Staff Contact: Allison King
(619) 699-1973
allison.king@sandag.org

AGENDA HIGHLIGHTS

• REGIONAL ENERGY STRATEGY TECHNICAL UPDATE: DRAFT GOAL REPORTS
• CALIFORNIA ENERGY COMMISSION GRANT OPPORTUNITY: ALTERNATIVE FUEL READINESS PLANS

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# REGIONAL ENERGY WORKING GROUP

Thursday, September 26, 2013

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<thead>
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<th>ITEM #</th>
<th>RECOMMENDATION</th>
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<tbody>
<tr>
<td>1.</td>
<td>WELCOME AND INTRODUCTIONS</td>
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<td>APPROVAL OF MEETING SUMMARIES</td>
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<td>3.</td>
<td>PUBLIC COMMENTS/MEMBER COMMENTS</td>
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<td>4.</td>
<td>REPORTS ON MEETINGS AND EVENTS ATTENDED ON BEHALF OF SANDAG REGIONAL ENERGY WORKING GROUP</td>
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<td>REGIONAL ENERGY STRATEGY TECHNICAL UPDATE: DRAFT GOAL REPORTS</td>
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<td>CALIFORNIA ENERGY COMMISSION GRANT OPPORTUNITY: ALTERNATIVE FUEL READINESS PLANS</td>
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<td>UPDATE ON 2013 ENERGY LEGISLATION</td>
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The Regional Energy Working Group (EWG) is asked to approve two meeting summaries: a) June 27, 2013, meeting summary and b) July 25, 2013, meeting summary.

Members of the public shall have the opportunity to address the EWG on any issue within the jurisdiction of SANDAG that is not on this agenda. Public speakers are limited to three minutes or less per person. EWG members also may provide information and announcements under this agenda item.

**CHAIR’S REPORT**

Regional Energy Working Group members appointed to represent the EWG outside of SANDAG will provide brief reports orally or in writing on external meetings and events attended on behalf of the working group since the last EWG meeting.

**REPORTS**

Two subcommittees were formed to allow for more in depth discussions surrounding the Regional Energy Strategy (RES) Technical Update, RES goals, and the current recommended actions in the RES. Attached are the draft goal reports based on input from the subcommittees.

The California Energy Commission is seeking proposals for "Alternative Fuel Readiness Plans." Staff will provide an overview of the grant, and initial ideas for an application from the San Diego region. The EWG is asked to provide input on possible tasks to complete under this grant.

A summary of relevant energy legislation is included. Scott Anders, University of San Diego Energy Policy Initiatives Center, will provide an update on Assembly Bill 327. The EWG is asked to provide comments and suggest bills that SANDAG and/or EWG stakeholders could support to help implement the RES.
8. DRAFT SAN DIEGO REGIONAL PLUG-IN ELECTRIC VEHICLE READINESS INFORMATION PLAN

The Draft Plug-In Electric Vehicle (PEV) Readiness Plan is available online at: www.energycenter.org/pluginready. EWG members are invited to submit comments on the plan and attend a Public Workshop on the plan on October 9, 2013, at SDG&E Energy Innovation Center.

9. UPCOMING MEETINGS

The next meeting of the EWG is scheduled from 11:30 a.m. to 1 p.m. on Thursday, October 24, 2013.

+ next to an agenda item indicates an attachment
Action Requested: APPROVE

JUNE 27, 2013, MEETING SUMMARY

ITEM #1: WELCOME AND INTRODUCTIONS

Chair Carrie Downey called the meeting to order at 11:32 a.m.

ITEM #2: MAY 23, 2013, MEETING SUMMARY

Thomas Brill, San Diego Gas & Electric (SDG&E), motioned to approve the meeting summary from May 23, 2013, and Greg Newhouse, San Diego Clean Cities Coalition, seconded the motion. The motion carried without opposition. Michelle White, Unified Port District of San Diego, was absent from the May 23, 2013, meeting and; therefore, abstained from voting.

ITEM #3: PUBLIC COMMENTS/MEMBER COMMENTS

Chair Downey shared that in the California Energy Commission’s (CEC) 2013 Integrated Energy Policy Report Proceedings there was a request to have the CEC undertake societal cost benefit evaluations of Net Energy Metering (NEM) programs. A few Energy Working Group (EWG) members were signatories to that request. This may be something that the EWG is interested in keeping track of and comparing to the San Diego Solar Stakeholder study that is evaluating the costs and benefits to the system of NEM.

Dave Weil, University of California San Diego (UCSD), announced that UCSD released a Request for Proposal for a 2.5 MW advanced energy storage project. The pre-bid conference was held on Friday, June 28, 2013. Anyone in the community that is interested should contact him.

Mike Evans, San Diego Regional Chamber of Commerce, announced that the Western Electricity Coordinating Council (WECC), a regional coordinating entity for the Western grid, recently voted to bifurcate the organization into the Regional Entity (WECC) and the Reliability Coordinating Company (RCCo). WECC will look at real time flows of power across the west and manage overloads, and RCCo will create and maintain standards and maintain transmission planning functions. The blackout on September 8, 2011, was the defining point that led to the bifurcation. The vote in favor of bifurcation occurred on June 27, 2013, and the change is effective January 1, 2014.

John Wotzka, member of the public, discussed energy-related news and provided written comments that are summarized here: there are 31 other nuclear power plants in the United States with the same design as San Onofre Nuclear Generating Station (SONGS); SONGS was closed by the owner and is now in the process of being decommissioned; the former Japanese Prime Minister explained
what happened in Japan with Fukushima; the Tennessee Valley Authority has been taking German spent fuel rods for years and reprocessing them; Pacific blue fin tuna are safe from nuclear disaster; there is an environmental study in Shizugawa Bay in Japan after the nuclear disaster; General Electric has a gas turbine with a combination condenser that could balance the grid; Japan is harvesting methane hydrates; melting glaciers are sending iron to the ocean and causing massive plankton blooms; the first U.S. National Ocean Policy, established by President Obama’s 2010 executive order, was released in February 2013.

ITEM #4: REPORTS ON MEETINGS AND EVENTS ATTENDED ON BEHALF OF SANDAG REGIONAL ENERGY WORKING GROUP

Chair Downey announced that Scott Anders, University of San Diego Energy Policy Initiatives Center (EPIC), sent an email announcing that Black and Veatch expect a draft of the Solar Stakeholder Study out by June 30, 2013. As soon as the study is out staff with distribute it to the EWG.

Mr. Brill added that the study will be posted on EPIC’s website and a webinar will follow. At the webinar Black and Veatch will walk through the study and let stakeholders participate with comments or questions.

Chair Downey shared that the webinar is scheduled for July 17, 2013, and will be open to the public. The study will be released before the webinar and any questions can be sent to Allison King, SANDAG, or Chair Downey.

ITEM #5: SAN DIEGO GAS & ELECTRIC PEAK DEMAND PRESENTATION

Robb Anderson, SDG&E, presented on SDG&E’s resource planning. Mr. Anderson explained that the state’s clean energy goals and greenhouse gas (GHG) reduction goals drive energy planning in the state.

Mr. Anderson shared California’s loading order for energy:

1) Energy Efficiency: reduce overall energy consumption
2) Demand Response: reduce energy consumption during periods of high demand
3) Renewable (Green) Power: 33 percent of energy needs met by renewable power by 2020
4) Electricity Adequacy, Reliability, and Infrastructure: new conventional plants, combined heat and power plants, and transmission and distribution facilitates

Mr. Anderson went on to describe the current status of distributed generation in San Diego. Currently, he explained that there are more than 21,000 rooftop solar installations in San Diego that produce 160 MW of energy and that by 2020, it is expected to grow to 500-600 MW of clean energy. Mr. Anderson added that 500 MW of rooftop solar would equal about one quarter of the energy load, which creates many operational issues. This means that, in the future, a quarter of the power plants will need to be able to turn on or turn off depending on the weather.

Next, Mr. Anderson discussed the large-scale renewable resources. In 2002, prior to Senate Bill 1078, renewable energy accounted for approximately 1 percent of retail sales. That has increased to about 20 percent in 2013, and it is expected to be 33 percent by 2020. SDG&E has established all contracts for meeting the 33 percent renewable energy goal in 2020. He further explained that in 2012, 50 percent of renewable energy was produced by wind and 30 percent was by geothermal. In 2017, it is predicted that about 50 percent renewables will be wind and about 50 percent renewables will be solar.
Then, Mr. Anderson presented a graph that illustrated what a typical August peak day in 2020 would look like with the inclusion of these renewable energy resources. Mr. Anderson explained that the peak is estimated around 8 p.m. when solar energy production drops off. He furthered that resource needs will be driven by what is happening in the evening rather than the afternoon and that SDG&E will look into programs that will target that time of day. He added that in the evening, business energy load is dropping off and residential is ramping up.

Paul Manasjan, San Diego Regional Airport authority, asked if this predicted peak demand includes commercial and industrial energy use. He also asked whether or not the peak for those industries was different.

Mr. Anderson answered that the graph is a combination of energy uses including the commercial and industrial sectors, but there is also a separate graph for those sectors that can be viewed.

Next, Mr. Anderson showed a graph for a typical peak day in March 2020 and highlighted that in contrast to the summer day, the lowest loads of the day in March would be in the middle of the day. He explained that people will need to look and think about things much differently in the future to reduce the need for infrastructure. He provided the example of electric vehicle charging. Currently, SDG&E is encouraging everyone to charge their electric vehicles at night, but in a few years daytime electric vehicle charging may be encouraged.

Mr. Anderson then presented on the hourly net load charge for March 2010 compared with March 2020, which is used to determine the resources that are needed to follow the ramp ups of energy. He explained that by 2020, energy storage and flexibility will be needed to accommodate the ramp ups.

Finally, Mr. Anderson described the volatility in wind and solar generation and explained that storage and resources will be needed to help smooth out the volatility of the renewable resources.

The EWG members provided several questions and comments:

- Mr. Evans asked if the data on the ramp ups is close to the International Standard Organization needs or more accentuated due to their being more solar photovoltaic in San Diego service areas. Mr. Anderson explained that San Diego uses solar more than the state as a whole does, so the ramps are more accentuated. The prices have not been quite as dramatic in the rest of the state.

- Mr. Wotzka asked if the Huntington Beach unit is on with the balancing synchronous condenser. Mr. Anderson answered that the Huntington Beach unit is in place for the summer and may be in place for three to four years in-between Edison service territory and San Diego, but none are in place in San Diego.

- Mr. Manasjan asked if SDG&E was looking at ways to encourage large scale, on-site energy generation. Mr. Brill informed that there are net energy metering programs for rooftop solar, fuel cells, and others. Mr. Weil commented that most of the programs that UCSD has used are run by California Center for Sustainable Energy.
Mr. Brill commented that many people in the rate design proceedings are talking about the need to have price signals that encourage customers to make investments that help to address these issues.

Pete Hasapopoulos, Sierra Club, commented that there was a study co-authored by SDG&E that estimated a 4,000 MW potential for rooftop solar in the region, and asked why the number in the presentation was so much lower. Mr. Anderson responded that the SDG&E predicted solar energy generation was lower due to technical potential and that the previous study may have been done long ago when economics were not considered. It is not just the estimated potential, but also an estimate to what would be installed.

Mr. Evans commented that energy efficiency and demand response are priorities in the loading order. He shared that the work that SDG&E is doing would work really well with on-bill property type financing that has been recently approved. Energy efficiency, demand response compensation, and other SDG&E programs could influence a homeowner’s thoughts on what they could afford.

ITEM #6: REGIONAL ENERGY STRATEGY TECHNICAL UPDATE

Allison King, SANDAG, explained to the working group the purpose of the Regional Energy Strategy (RES) technical update:

- Extend forecasting from 2030 to 2050 to line up with other regional planning efforts
- Demonstrate progress towards goals and assign metrics for those goals
- Identify priorities for achieving goals
- Describe monitoring and tracking methods moving forward
- Inform development of San Diego Forward: The Regional Plan

Ms. King described the draft outline for the RES, which includes the introduction, existing conditions, RES goals, summary table for the implementation of policy measures, and a conclusion/next steps. She explained that the introduction would frame the technical update in the context of the six early actions and five broad strategies.

Next, she described the layout for each goal, which includes the statement of the goal itself, a brief overview, a table on the progress of the goal, identification of planning needs going forward, key data and reports to support the progress, and key recommendation highlights for the regional plan.

Ms. King asked the EWG for feedback on the overall approach for the update and the draft outline:

- Chair Downey voiced that she would like goals to be more specific. There should be a way to measure all goals to see if they have been met.
- Mr. Brill commented that the more specific a goal is, the more robust the process will be. He was not sure if the EWG meetings get into that type of detail, so he suggested an additional process and meeting.
- Chair Downey added that the EWG members have some input on land use, transportation, and climate change, but they are not necessarily the experts in that area, nor do they have the resources. There are other committees within SANDAG or groups that can provide ideas on methods to monitor goals.
• Mike Nagy, San Diego Regional Chamber of Commerce, voiced that it would be good to compare the San Diego region to other regions around California.

• Mr. Manasjan asked if there will be performance indicators based on topics such as energy reduction goals, including water, and tracking CO2 emissions that are related to the energy reductions. He offered that SANDAG could work with EPIC on these indicators, which would allow everyone to better understand the impact of decisions made. He added that measuring cost reductions would also help.

• Mr. Newhouse offered assistance from the coalition on transportation fuels information.

• Ms. King shared that staff has been working with EPIC to see what data they can provide and added that any feedback and suggestions are appreciated.

• Chair Downey suggested that the EWG work with other groups to come up with goals. They could find a way to put some teeth in the goals and give feedback as to whether or not the goal should be refined or replaced.

• Mr. Nagy commented that adding teeth to the goals would help. When he looks at the borders section he is not sure if that means international borders or borders with other states. Also he felt that the topic of energy in trade goes well with importing and exporting energy and the rate of return.

ITEM #7: CLIMATE CHANGE WHITE PAPER

Ms. King presented the overview of the Climate Change White Paper. The climate change white paper is to support the development of San Diego Forward: the Regional Plan. Over the last six months staff have presented at other working groups’ meetings and held public workshops aimed at discussion around the Regional Plan. They have presented a lot of information on what the current SANDAG climate change efforts are and wanted to make sure that the EWG received that information as well as the feedback from those groups.

Ms. King shared with the working group the draft outline for the white paper and a summary of the comments that have been heard at the meetings and workshops. She described the elements of the outline, including an emissions inventory that covers all sectors, existing efforts, strategies for addressing climate change through mitigation and adaptation, integration of climate change into other planning efforts, ongoing collaborations, potential funding sources, and recommendations to fill gaps and provide direction moving forward.

Ms. King also explained that other planning efforts, including the RES technical update and plug-in electric vehicle readiness plan, will inform elements of the climate change white paper. She added that staff will be referencing the California Air Resources Board Scoping Plan Update and local government climate action planning efforts in development of the white paper. In addition, Ms. King explained that staff are working closely with the authors of white papers on other topics to make sure that they are consistent and integrating their subject matters.

EWG members had the following comments and questions on the climate change white paper:

• Mr. Manasjan asked if there is a tracking and reporting component within the document to measure progress. Ms. King informed that there is Regional Comprehensive Plan (RCP) monitoring is done every two years. Previously, staff monitored renewable portfolio
standard progress, per capita energy use, and overall energy use by sector. She encouraged input on performance monitoring as well.

- Mr. Manasjan asked if there is any effort to evaluate the region’s progress towards the AB 32 20 percent reduction goal. Chair Downey answered that the EPIC studies have produced the GHG inventory and SANDAG could certainly include that in the paper as one of the measures to be evaluated.

- Crystal Crawford, Ygrene Energy, asked about the potential funding resources and what the funding would be used for if SANDAG were to receive it. Ms. King answered that the funding sources could be any program that supports the goals, such as local government partnerships. Anna Lowe, SANDAG, added that the funding would offer the opportunity to implement the identified goals.

- Chair Downey and Mr. Manasjan encouraged SANDAG to use EPIC’s tools for analyzing regional GHG emissions. Nilmini Silva-Send, EPIC, commented that EPIC has completed inventories for 2008 and 2010. In 2014, she added that EPIC will update its inventory again for 2012 emissions. She explained that all cities completed inventories for 2005 emissions and some have updated them since.

- Mr. Manasjan asked if EPIC had a complete inventory for 1990 levels so that a goal could be set. Ms. Silva-Send answered that the 1990 levels are known, but the data is not excellent.

- Chair Downey suggested that all inventories should be included in the white paper in order to demonstrate progress over time.

- Ms. White asked if EPIC’s strategy has a process for prioritizing. Ms. Silva-Send shared that EPIC has a tool that determines costs, cost effectiveness, and societal costs. That tool can compare the amount of reductions a measure creates and the associated costs.

- Mr. Nagy suggested that the paper include information on the economic impact of the costs, jobs, and impacts from climate change.

- Mr. Kot added that the California Natural Resources Agency released a report that included personal stories of the effects to business and suggested that the white paper include examples so that the document was not all about numbers.

- Jason Anderson, CleanTECH, commented that the dashboard provided by the Equinox Center could be helpful. Noelle Phares, Equinox Center, shared that Equinox is looking to update the dashboard soon.

- Don Mosier, City of Del Mar, commented that the 2020 goals are minimal and that the 2050 goals are going to be irrelevant if nothing is done by 2030. Dr. Mosier encouraged staff to look at near term implementation in addition to long range planning.

- Ms. Silva-Send added that there is a goal for an 80 percent reduction from 1990 levels by 2050, and all cities must show how they will get to that level with changes in energy use.
ITEM #8: UPDATE ON 2013 ENERGY LEGISLATION

Ms. Lowe presented on changes in state legislation since the last meeting. She explained that many of the GHG and climate change related bills have been held in the Assembly Appropriations Committee. Ms. Lowe highlighted Assembly Bill 177 (Perez) that would create another goal for the RPS of 50 percent renewable energy resources by 2030.

Next, Ms. Lowe described the draft action plan for Assembly Bill 758 (Skinner), the Comprehensive Energy Efficiency Program for Existing Buildings. She added that the draft is out for public review and comments are due to the California Energy Commission by July 12, 2013. Chair Downey suggested that EWG members read the draft and determine if there is anything to incorporate into the regional strategy.

Then, Ms. Lowe provided information on the participation by SANDAG in the cap and trade investment plan. She explained that SANDAG is a member of the statewide Transportation Coalition for Livable Communities and the coalition has supported the investment of cap and trade revenues for transportation projects and opposed the Governor’s budget proposal that loans cap and trade funds to the general fund.

ITEM #9: UPCOMING MEETINGS

The next meeting of the EWG is scheduled from 11:30 a.m. to 1 p.m. on Thursday, July 25, 2013.

Chair Downey adjourned the meeting at 1:04 p.m.
## ENERGY WORKING GROUP MEETING ATTENDANCE
### June 27, 2013

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<th>REPRESENTATION</th>
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<td>Len Hering</td>
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<td>Energy Policy Initiatives Center, University of San Diego School of Law</td>
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OTHER ATTENDEES:
Robb Anderson, SDG&E
Crystal Crawford, Ygrene Energy
Scott Gallic, RECON
Mike Grim, City of Carlsbad
Chris Ing, First Note Financing
Amanda Jenison, SDG&E
Kurt Kammerer, KDRA
Douglas Kot, SDGBC
Cheryl Laskowski, AECOM
Devin Muto, ICF
Claudia Valenzuela, SDG&E
John Wotzka, member of public
Allison King, SANDAG
Anna Lowe, SANDAG
Sarah McCutcheon, SANDAG
Rob Rundle, SANDAG
JULY 25, 2013 MEETING SUMMARY  
File Number 3200300

ITEM #1: WELCOME AND INTRODUCTIONS

Chair Carrie Downey, called the meeting to order at 11:35 a.m.

ITEM #2: JUNE 27, 2013 MEETING SUMMARY

A few changes were requested to the June 27, 2013, meeting minutes. Because the meeting minutes included in the agenda did not reflect the minor edits Chair Downey asked that the approval of the meeting minutes be included in the next EWG meeting on September 26, 2013, when a final version would be available.

Chair Downey motioned to rearrange the order of the agenda items to allow more discussion. Pamela Bensoussan, City of Chula Vista, seconded the motion. The motion carried without opposition.

ITEM #3: PUBLIC COMMENTS/MEMBER COMMENTS

John Wotzka, member of the public, discussed energy-related news and provided written comments that are summarized here: San Onofre Nuclear Generating Station (SONGS) is left with a $10.7 billion debt and San Diego Gas & Electric (SDG&E) warns customers about a pending rate-hike starting September 1, 2013; the prime ministers of Turkey and Japan agreed to build four ATMEA 1 reactors; China wants to use hydrogen bombs to blow up part of the Himalayas to reroute the Brahmaputra River to water the desert; the Yucca Mountain nuclear waste dump program that was shut down in 2009 may move to a salt deposit site in Carlsbad, New Mexico where they have been storing the waste from nuclear weapons for over a decade; the United Arab Emirates will begin construction on a second APR 1400 reactor with Korea Electric Power Corp., Emirates Nuclear Energy Corp., and Bechtel; there is a Japanese processing facility for high-level waste; rooftop solar is cutting into SDG&E and Pacific Gas & Electric (PG&E) profits and causing grid issues; Scotland approved Aquamarine Powers 40-MW wave farm; the United States now uses 25 trillion cubic feet of natural gas per year and has a reserve of 2.7 quadrillion cubic feet that could last 108 years; thermo-electric plants are having a problem with cooling water due to climate change; the United Kingdom will be using work ships from the United States due to the carbon tax; Indonesia will be the next big energy producer.

Peter Livingston, County of San Diego, shared that the County of San Diego is having an industry forum on photovoltaic power purchase agreements. The forum will be on August 5th from
1 to 3 p.m. at the County Operations Center in Kearny Mesa. Solar energy developers and other interested parties are invited to attend and give input on a photovoltaic county facility.

**ITEM #4: REPORTS ON MEETINGS AND EVENTS ATTENDED ON BEHALF OF SANDAG REGIONAL ENERGY WORKING GROUP**

Scott Anders, Energy Policy Initiatives Center (EPIC), informed that the draft Solar Impact Study on the SDG&E System was released in early July 2013. There was a webinar on July 17, 2013, to go over some of the findings. The comment period ends July 31, 2013, but it may be extended. The draft will be updated, and the final report will be available near the end of August 2013. The draft is available on the website for review and input.

Thomas Brill, SDG&E, explained that he and Mr. Anders discussed extending the deadline to ensure that they receive as many comments as possible.

Chair Downey reminded the working group that the comments will be made available to the public.

**ITEM #5: ENERGY ROADMAP PROGRAM PROGRESS REPORT**

SANDAG staff periodically update the EWG with progress on the Energy Roadmap Program (Program). The last progress report was presented to the EWG in January 2013 and Allison King, SANDAG, presented the newest progress report to the working group. The Program is a partnership with SDG&E and Energy Roadmap reports (Roadmaps) are being completed for all SANDAG member agencies. The Roadmaps address energy use at buildings, internal and community-wide facilities, and transportation. Staff also complete a fleet analysis and assess ways to incorporate smart growth and transportation planning into existing planning efforts.

Ms. King explained that the Program started in 2010 and, to date, there are 13 completed Roadmaps. Chula Vista, the County of San Diego, and City of San Diego are jurisdictions that have their own partnerships with SDG&E. SANDAG does not provide any facilities related services to those jurisdictions, but the services related to the transportation component are provided. The 2013-2014 cycle for the Roadmaps is more implementation focused.

Next, Anna Lowe, SANDAG, presented on the phase three efforts of the Program. She explained that phase three is focused on implementing the recommendations in the Roadmaps. Many cities have reached out to SANDAG for assistance in implementing energy efficient upgrades at their facilities. Ms. Lowe explained that these upgrades and associated cost savings can be achieved through new technologies, rebates, and incentives to assess further savings. EFM Solutions, an engineering firm, has been working with SANDAG staff to handle the project management of the retrofits for the cities. The firm is neutral and its sole purpose is to help the local governments complete their retrofits.

Mo Lahsaie, City of Oceanside, asked Ms. Lowe if SANDAG staff is trying to complete five cities at one time. Ms. Lowe informed that SANDAG staff will work with as many cities as they have funding for and are able to do. It is a first come first serve process.

Next, Ms. King presented on the South Bay Energy Action Collaborative, which is a pilot with the four South Bay cities. The City of Chula Vista is leading the effort in partnership with SANDAG. The
Brendan Reed, City of Chula Vista, added that the cities are six months into the collaborative, and progress is good. This collaborative is great for small cities that don’t have an in-house energy manager; a sub-regional plan is the way to do it. The collaborative is involved with solid waste and natural resources management. He added that he hopes the South Bay Energy Action Collaborative platform can be expanded to other sub-regions in the County.

**ITEM #6: PLUG-IN ELECTRIC VEHICLE READINESS PLAN OUTLINE**

Ms. Lowe presented the Plug-In Electric Vehicle (PEV) Readiness Plan Outline. First, she reminded the group that the San Diego Regional Electric Vehicle Infrastructure (REVI) Working Group is made up of SANDAG, the California Center for Sustainable Energy (CCSE), public agencies, public jurisdictions, private organizations, and non-profit organizations working to remove barriers related to the deployment, availability, and installation of electric vehicle charging facilities. An Energy Commission grant for 2012 to March 2014 awarded to SANDAG is the funding source and timeline that SANDAG is working with to develop case studies and templates and to develop a Plug-In Electric Vehicle Readiness Plan.

Members of the working group had several comments and questions:

- Mike Evans, San Diego Regional Chamber of Commerce, asked if service providers for charging vehicles were being analyzed or was only SDG&E considered. He thought that, ideally, drivers should be able to choose their energy provider. He asked if REVI was addressing this issue or just working with the local energy provider, SDG&E.

- Ms. Lowe responded that REVI is currently focused on infrastructure in general, but this issue is one that can be evaluated in the next steps of the plan.

- Mr. Brill informed that in this example it is a third party owned refueling station that is selling the electricity for charging and is different than a direct access station. The California Public Utilities Commission does not allow the utilities to own those facilities. Mr. Brill suggested that Mr. Evans may be talking about the availability of a tariff that would drive economically efficient charging behavior for electric vehicles.

- Chair Downey commented that there needs to be more maps of the electric vehicle charging stations locations. She wished there was a way to get the maps of the charging stations out of the commercial aspect since each individual provider will give you a map of their locations. The City of Coronado installed two chargers and is installing a third. Coronado is not charging anything extra to use the stations. She emphasized the need to stop relying so much on the people that are making money off of the charging stations to do the publicity.

Kayla Race, Environmental Health Coalition, asked if the plan looks at trucks at all or is it just addressing passenger vehicles. Ms. Lowe informed that only infrastructure and passenger vehicles are being assessed.

Mr. Brill added that heavy duty installations would be addressed in the commercial setting. Chair Downey asked if there is a market for heavy commercial vehicles.
• Joel Pointon, SDG&E, shared that Frito Lay uses distribution vehicles that are all electric, and Coco Cola uses hybrid delivery vehicles. He informed that there is more of a niche for natural gas when it comes to heavy duty vehicles.

• Cody Hooven, Unified Port District of San Diego, asked to verify that the larger the vehicle, the shorter the range. Mr. Pointon confirmed that she is correct and that each vehicle has its strengths.

• Chair Downey suggested that the EWG take this into consideration in reviewing the RES goals. For example, when issuing a Request for Proposals the local government could encourage extra points for alternatively fueled vehicles.

Ms. Lowe shared that REVI has been addressing each barrier through the preparation of a fact sheet or other type of deliverable. She encouraged everyone to review the Plan outline and voice any questions or comments so that they can be integrated into the Plan. She shared the timeline of the Plan with the working group. The Plan should be finalized in November/December and will be made available to the public. Ms. King added that the Plan will be incorporated in the RES update and the climate change white paper.

• Mr. Lahsaie commented that the electric vehicle training for first responders was very helpful. He passed that information along to the fire chief, who then shared training opportunities for staff. The fire chief said that it was a great resource.

• Ms. Lowe voiced that first responders have an interesting relationship with electric vehicles. When they pull up on the scene they should be aware of the components of the vehicles. Staff was able to bring a very detailed training to the drivers. At the training session, the first responders were shown many things, including where to hook things up on an electric vehicle. The trainings helped to de-mystify the vehicles.

• Mr. Pointon announced that the Plug-In 2013 Conference is September 30, 2013, to October 3, 2013, in San Diego. September 28, 2013 is National Plug-In Day. It will be a real opportunity for community members to participate and get real life experience with an electric vehicle.

• Mr. Evans asked whether or not SANDAG will have recommendations for electric vehicle permitting or electric vehicle charging stations at commercial facilities. He wanted to know if there would be recommendations would come from the Plan or if it would just be left up to the market.

• Ms. Lowe responded that there would be specific recommendations in some cases, and for those without specific recommendations, there would be explanations for why they could not come to a recommendation. For example, if a jurisdiction wants to provide specific parking spaces for chargers, the Plan shows where it is codified at the state level as well as what specific markings are needed. In some cases this cannot be done since there are additional barriers that need to be addressed.

• Dave Weil, University of California, San Diego (UCSD), asked if data was being collected from electric vehicle drivers. Information such as where the stations should be and what the
level of difficulty is for finding them. Ms. King informed that CCSE is conducting surveys of PEV owners and this information is being considered in the Plan.

- Chair Downey asked if staff have reached out to the automobile distributors for the surveys. Auto-makers are doing their own surveys and may have a good deal of data. Ms. Lowe answered that those surveys are on their radar and they are trying to get that data.

- Mr. Buck inquired what will happen to REVI when the Plan is done. Ms. Lowe informed that staff and REVI members are trying to determine the best way to continue the program.

**ITEM #7: REGIONAL ENERGY STRATEGY TECHNICAL UPDATE**

Ms. King presented on the Regional Energy Strategy (RES) Technical Update. She described the overall approach for the update.

There was much discussion from the working group members on the RES update:

- Mr. Buck asked if he was correct in assuming that if the plan is updated to 2050 then the goals will be updated as well. Ms. King answered that the forecasting goes to 2050, but only some of the goals have specific dates.

- Mr. Brill asked if the goals were already developed and if the process will update the goals or if it is just the means of achieving them. Ms. King answered that the goals in the current RES are from 2009, and informed that staff will not change the goals in this technical update. She added that the update will include metrics for determining the progress towards the goals. Having that information and metrics will aid in changing or updating the goals when we complete a comprehensive update in a couple years.

- Chair Downey asked if the goal of 33 percent renewable energy by 2020 and 45 percent by 2030 was in the RES. She asked how SANDAG staff plans on updating that goal for 2050. Ms. Race added how SANDAG staff plans to have metrics for the goals that do not have numbers. Chair Downey responded that SANDAG staff would like the EWG members to help come up metrics that would help to monitor.

- Ms. King answered that not all goals have numbers. An example of that is the transportation fuels goal to increase the use of alternative fuels. There is some monitoring under way with the Clean Cities Coalition and CCSE with PEV programs. They hope to capture what is happening in the region, put some numbers to it, and then develop goals based on that.

- Chair Downey commented that a goal such as, increasing alternative fueling stations, could have a number put to it. Currently, there are about forty and the goal should be to increase to 100. There needs to be a way to figure out how to measure some of the goals in numbers.

- Mr. Brill offered that, in terms of renewable energy, a lot has been learned and it could give rise to additional metrics as they move forward.
Ms. Race asked if there is an overall emissions reduction goal. She asked if they could use the State's Executive Order and the energy sector needs and extrapolate from there.

Rob Rundle, SANDAG, commented that the efforts are all being done in the context of SANDAG's Regional Plan effort. SANDAG is not looking to do a comprehensive RES update due to all of the other efforts that will be occurring between now and 2015 when the SANDAG Board of Directors (Board) adopts the Regional Plan. Staff would like to look at the RES goals and assess those that can be updated. Staff understands that a comprehensive update cannot be done since the Board does not have the capacity to review it all in addition to their other efforts. The Board is already working on the Executive Order issue. The EWG can recommend, but they need to keep in mind that the Board wants consistency. There has been robust discussion on the issue and the Board has taken a position on the ongoing lawsuit.

Chair Downey voiced that there are other recommendations that they can make short of that. The State has adopted a measureable percentage goal for biomethane, and she suggested that SANDAG staff use the numbers from that plan for the goals.

Paul Manasjan, San Diego County Regional Airport Authority, asked if the EWG was going to identify those fundamental changes necessary to meet greenhouse gas (GHG) reduction goals out to 2050.

Ms. Lowe voiced that the group may want to utilize the discussion on the climate change white paper to help inform some of the policy recommendations or thoughts in that capacity. That will funnel directly through the channels and institute discussion on how some things will affect the others, and that will be integrated in to the plan itself. If metrics and goals can be identified for the technical update, then they can be utilized and tracked for a later update to the RES. Staff will be able to compare the goals that they started with to see what is working.

Mr. Manasjan explained that, in his opinion, government needs to take a leadership role when it comes to energy goals. He described the Airport's efforts to clean ground transportation and commented that SANDAG could identify what other government entities in the state have been able to achieve low-carbon fuel goals through similar requirements.

Mr. Rundle agreed with Mr. Manasjan, but informed him that while SANDAG can recommend and encourage it cannot make requirements. Identifying the measures that could be implemented would be helpful.

Ms. Bensoussan commented that she felt that there should be incentives for agencies adopting certain policies, and they should be treated more favorable for meeting those goals. Chair Downey added it is already done for housing, but agreed the EWG could recommend SANDAG add that consideration to the weighting of applications.

Mr. Manasjan asked if the SANDAG recommendations come from EPIC’s recommendations based on their inventory. Mr. Anders explained the recommendations were originally broad based, but now they have developed a tool for cities that is a little more specific. The work
EPIC does tend to be higher level. For example, EPIC may quantify replacing half the vehicles with electric vehicles, but it doesn’t exactly say how to do it.

- Chair Downey explained SANDAG could offer a toolbox for the cities on climate change. If SANDAG gives the cities a toolbox, it will tell the communities how much GHG emissions will be reduced if the measures are adopted. San Diego is recognizing the need to meet the 2050 goal, and the toolbox provides ways to meet those goals.

- Mr. Manasjan introduced the idea of creating a subcommittee to work on making recommendations for the RES. Chair Downey agreed with Mr. Manasjan’s idea and offered the EWG create two subcommittees: one to address transportation-related goals, and another to cover the other sections.

The City of Chula Vista, EPIC, Clean Cities Coalition, the Airport Authority, CCSE, SDG&E, and UCSD all volunteered to have a representative in the transportation subcommittee.

SDG&E, San Diego Regional Chamber of Commerce, the Unified Port District of San Diego, City of Chula Vista, UCSD, Environmental Health Coalition, County of San Diego, CCSE, and EPIC all agreed to have a representative participate in the multiple-issue focused subcommittee.

**ITEM#8: UPDATE ON 2013 ENERGY LEGISLATION**

Ms. Lowe presented the update on 2013 energy legislation. She informed the group that Congress was on a break so very little had changed since the June EWG meeting.

Assembly Bill 758 (Skinner), the Comprehensive Energy Efficiency Program for Existing Buildings, is the last piece of legislation listed in the agenda. The draft action plan was out for review and comment, but the comment period is now closed. Ideally the plan will be finalized in the fall and will lay the groundwork for energy efficiency programs and mandates. When the finalized plan is available, an in-depth conversation with the EWG will take place.

**ITEM #9: UPCOMING MEETINGS**

Note: The August Regional Energy Working Group (EWG) meeting has been cancelled. The next meeting of the EWG is scheduled from 11:30 a.m. to 1 p.m. on Thursday, September 26, 2013.

Chair Downey adjourned the meeting at 12:57 p.m.
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<td>Len Hering</td>
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OTHER ATTENDEES:
Brendan Reed, City of Chula Vista
Crystal Crawford, Ygrene Energy
Dustin Reilich, HERO Financing
Gretchen Crowson, City of Del Mar
Jeff Wyner, City of Escondido
Jennifer Domeier, County of San Diego
Joel Pointon, SDG&E
John Wotzka, member of public
Josh Brock, SDG&E
Lianna Rios, SDG&E
Michael Koncuran, AECOM
Mo Lahsaie, City of Oceanside
Sandy Windbigler, CPUC
Allison King, SANDAG
Anna Lowe, SANDAG
Sarah McCutcheon, SANDAG
Rob Rundle, SANDAG
Overview

Energy efficiency is the first priority in the state’s preferred loading order for meeting new energy demands, and several state energy policies and programs work to reduce energy use through building and appliance efficiency.

Progress since RES Adoption

| SDG&E Local Government Partner Programs | The City of Chula Vista, City of San Diego, and County of San Diego have had Local Government Energy Efficiency Partnerships (LGP) with SDG&E since 2006. In 2010, the Port of San Diego and SANDAG became partners with the utility as well. Through this partnership, SANDAG created the Energy Roadmap Program to assist member agencies with energy planning and implementation. In addition to their individual programs, the LGPs collaborate on energy efficiency initiatives and programs, such as:
| • San Diego Regional Climate Collaborative
| • Regional Energy Mapping Project
| • San Diego Regional Energy Partnership |

| Energy Upgrade California | Energy Upgrade California (EUC) is a residential whole-house energy upgrade program for existing homes. SDG&E’s EUC program launched in December 2010. As of February 2013, the following projects and savings have been achieved:
| • 87 Basic Path projects – average 10 percent savings per project
| • 308 Advanced Path projects
  | • Savings of 445,452 kWh and 49,195 therms
  | • Average savings of 1,450 kWh and 160 therms per project |

| Financing | Financing programs help to enable property owners to retrofit their buildings by overcoming the hurdle of upfront cash.
| • Commercial and residential customers are able to utilize Property Assessed Clean Energy (PACE) Programs
| • On Bill Financing from SDG&E offers zero percent financing for eligible commercial and government customers |

Planning Needs Going Forward

- Support energy efficiency policies in local and regional plans
- Facilitate permitting streamlining and consistency across the region
- Advance energy disclosure and access to programmatic data
- Support implementation of Assembly Bill (AB) 758: Comprehensive Energy Efficiency Program for Existing Buildings
Monitoring

- Evaluate progress on statewide energy efficiency goals:
  - Zero net energy for new homes by 2020
  - Zero net energy for new commercial buildings by 2030
  - Reduce energy consumption in existing residential by 40 percent by 2020
  - 50 percent of existing commercial buildings to be zero net energy by 2030
- Track building retrofit rates, compare to SDG&E goal, and identify successful outreach efforts
  - SDG&E 2013-2014 goal: 3,250 retrofits
- Track regional electricity and GHG reductions from EE programs

Resources

- Statewide Energy Efficiency Strategic Plan
- Energy Upgrade California
- California Energy Commission AB 758 Implementation: [http://www.energy.ca.gov/ab758/](http://www.energy.ca.gov/ab758/)

Recommendations

- Assist local governments in retrofitting their own facilities
- Evaluate effectiveness of current energy efficiency programs and expand successful components
- Support whole-house and other retrofit opportunities to implement AB 758: Comprehensive Energy Efficiency Program for Existing Buildings
Overview

After energy efficiency and demand response, the state’s preferred loading order calls for meeting electricity needs and reducing greenhouse gas emissions with renewable resources. The renewable energy goal specifically focuses on utility-scale renewable energy projects.

Progress since RES Adoption

| SDG & E Renewable Energy Procurement | During 2012, SDG & E served 20.31 percent of their retail electricity sales with renewable power. The percentage is up from 10.2 percent in 2009. |
| County of San Diego | The County of San Diego has been working closely with SDG & E and other local stakeholders to identify areas in the County for the development of large scale renewable energy projects. |
| Desert Renewable Energy Conservation Plan | The purpose of the Desert Renewable Energy Conservation Plan (DRECP) is to conserve and manage plant and wildlife communities in the desert regions of California while facilitating the timely permitting of compatible renewable energy projects. The DRECP is being prepared by a collaboration of state and federal agencies, with input from local governments, environmental organizations, industry, and other interested parties. |

Planning Needs Going Forward

- Facilitate permitting streamlining and identification of locations for renewable energy projects across the region
- Advance renewable energy technologies in addition to solar

Monitoring

- Track SDG & E renewable energy procurement
- Monitor projects since 2009
Recommendations

• Continue to advance efforts to site infrastructure in the San Diego region and streamline permitting processes for large-scale renewable energy.
Overview
Distributed generation (DG) includes resources on the customer’s side of the meter, including: solar, combined heat and power, fuel cells, energy storage advancements.

Progress since RES Adoption

<table>
<thead>
<tr>
<th>Project Financing</th>
<th>The following financing programs have increased the uptake of both residential and commercial DG installations:</th>
</tr>
</thead>
</table>
|                                                                                   | • Self-Generation Incentive Program  
|                                                                                   | • California Solar Initiative  
|                                                                                   | • Property Assessed Clean Energy programs  
|                                                                                   | • California Energy Commission loans |

<table>
<thead>
<tr>
<th>Net Energy Metering and Feed-in Tariff</th>
<th>Net Energy Metering (NEM) is a rate program for customers with solar electric or wind generating systems that do not exceed 1 MW. NEM allows customers to earn credit for the excess power produced by their systems.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>As a result of AB 510 (2010), the NEM cap was raised from 2.5 percent to its current cap of 5 percent of each utility's aggregate customer peak demand. For SDG&amp;E, the NEM cap is 606.7 MW. Current installed MW is 184.1 MW, or 1.52 percent of the aggregate customer peak demand.</td>
</tr>
</tbody>
</table>

| Solar PV Installations                  | Currently, there are more than 21,000 rooftop solar installations in the San Diego region, producing over 160 MW. This is triple the 49 MW of installed solar PV in 2008. |

| UCSD Microgrid                          | The microgrid at UC San Diego serves a campus community of more than 45,000 people, 13 million square feet in 450 buildings, 1,200 acres, and generates more than 90 percent of the electricity used on campus annually. The campus has 2, 13.5 MW gas turbines, a 3MW steam turbine, 1.2 MW of solar, and a 2 MW PPA contract for fuel cell power that uses methane from a wastewater treatment plan. |

Regional Needs
- Planning for DG systems in the context of net zero buildings
- Incorporation of DG policies into local government plans for both internal operations and the community
- Beyond solar PV, highlighting opportunities for distributed energy resources in general, including energy storage, interconnection with electric vehicles, and utilizing smart communication technology with DG
Distributed Generation

SDG&E Distributed PV Fleet Capacity over time


Self-Generation Incentive Program Capacity Installed and Reserved by Technology (SDG&E Territory)

Source: CA Center for Sustainable Energy, as of July 2013

Resources

- San Diego Distributed Solar PV Impact Study, 2013

Recommendations

- Support local governments’ efforts to set cost-effective DG goals and streamline permitting processes.
- Support policies to facilitate increased cost-effective installations of small-scale renewable energy systems.
Overview

In the San Diego region, water and energy resources are closely connected. The amount and ways water is used in the region require large amounts of energy. Water-related energy uses include:

- End uses: heating, cooling, on-site pumping
- Upstream uses: surface conveyance, pumping, treatment, distribution
- Downstream uses: waste water pumping and treatment

Progress since RES Adoption

<table>
<thead>
<tr>
<th>CPUC energy-water nexus</th>
<th>The CPUC recently authorized a series of programs exploring whether energy savings may be realized through water conservation measures. The Energy Division is currently analyzing whether an increase in energy efficiency portfolio emphasis on measures that maximize energy savings in the water sector may be warranted. The Energy Division is also currently considering how cost effectiveness should be analyzed for water/energy nexus programs.</th>
</tr>
</thead>
</table>
| SDG&E-SDCWA programs   | SDG&E and SDCWA have a long-standing relationship on collaborating for energy and water savings. Activities have included:  
  - High-efficiency clothes washer rebates (more than 100,000 residential and more than 9,100 commercial installs)  
  - Energy efficiency assessments for water agencies (103 facilities)  
  - Showerhead distributions (more than 500,000)  
  - Pre-rinse spray valve installations at more than 300 restaurants  
  
  2013-2014 programs include:  
  - WaterSmart Landscape Efficiency Program  
  - Leak Loss Detection Program  
  - Detention Facility Retrofits Program |
| San Diego County Water Authority Planning | The San Diego County Water Authority (SDCWA) is working to complete an Energy Management Report to identify long-term actions that would ensure efficient energy use of SDCWA facilities. SDCWA is also working to complete a Climate Action Plan in conjunction with their 2013 Master Plan to address climate change as it relates to activities within their jurisdiction. |

Planning Needs Going Forward

- Include water savings measures in Climate Action Planning.
- Implement policies to increase gray-water re-use, efficient landscape design, and low-flow water fixtures.
- Diversify water supply to reduce energy-intensive imported sources.
Energy and Water

<table>
<thead>
<tr>
<th>Water Supply</th>
<th>Average Energy Intensity to Supply Southern California (kWh/AF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groundwater</td>
<td>593</td>
</tr>
<tr>
<td>Central Plan Recycled Water</td>
<td>1,129</td>
</tr>
<tr>
<td>Colorado River Aqueduct</td>
<td>1,976</td>
</tr>
<tr>
<td>State Water Project</td>
<td>2,839</td>
</tr>
<tr>
<td>Desalination</td>
<td>4,000</td>
</tr>
</tbody>
</table>


Monitoring
- Total annual water-related energy use
- Energy intensity of water
- Embedded energy of water end uses in San Diego region
- Energy Efficiency and water program metrics

Resources
- San Diego County Water Authority
- California Sustainability Alliance Energy-Water Toolkit

Recommendations
- Simplify permitting processes for graywater systems across the region.
- Coordinate planning and evaluative intersections among energy, water, and climate change.
Overview
After energy efficiency, demand response is the next priority in the state’s preferred loading order for meeting new energy needs and reducing greenhouse gas emissions. Addressing peak demand can offer additional consumer benefits like cost savings and little or no environmental impact.

Progress since RES Adoption

| SDG&E Demand Response Programs | Reduce Your Use: SDG&E alerts customers on “Reduce You Use” days, and customers are rewarded for saving energy between 11 a.m and 6 p.m. SDG&E has a number of programs to encourage businesses to reduce use during peak hours on high demand days:
| Base Interruptible Program | Capacity Bidding |
| Critical Peak Pricing | Summer Saver Program |
| Technology Incentives | Permanent Load Shifting |

| Time-of-Use Rates for EV Charging | SDG&E offers two electric vehicle time-of-use (EV-TOU) rates for customers to receive lower rates for charging their vehicles during off-peak hours, between midnight and 5 A.M. Customers that sign up for the EV-TOU can either use their existing household meter to track electricity of both the home and EV, or they can install a separate meter for the EV. |

| Energy Storage targets | Assembly Bill 2514 (Skinner, 2010) directed the CPUC to adopt an energy storage procurement target, if determined to be appropriate, to be achieved by each load-serving entity by December 15, 2015, and a 2nd target to be achieved by December 31, 2020. CPUC opened a rulemaking in 2010, and plans to adopt an Energy Storage Procurement Framework and Design Program in October 2013. |

Planning Needs Going Forward
- Advancement of retrocommissioning projects
- Utilize Green Business Networks and similar programs to advance demand response programs
- Prepare for changes to peak demand due to the onset of renewable resources
- Utilize smart communication technology to advance demand response programs and reduce peak demand
Monitoring

- Current and forecasted changes to Peak Demand
- Average demand
- Load factor

Resources

- CPUC Electric Energy Storage Targets: [http://www.cpuc.ca.gov/PUC/energy/electric/storage.htm](http://www.cpuc.ca.gov/PUC/energy/electric/storage.htm)

Recommendations

- Evaluate ways to incentivize investments that help to address variability and changes to peak demand due to renewables.
- Assess the use of energy storage and use of electric vehicles in addressing peak demand.
Overview
The smart grid enables two-way communication between an electricity user and the utility. Newer appliances and communication networks can give the energy consumer control over their appliances when away from home. Smart technologies and utility programs can enable consumers to find out their electricity costs based on the time of day being used, and utilities can electronically communicate with end users and/or their equipment to power them down when the grid is in high use.

Progress since RES Adoption

| **SDG&E Smart Meter Rollout** | SDG&E completed the region wide installation of smart meters for all electricity customers. The utility undertook a widespread education and outreach program preceding and during the installation process, reducing confusion and uncertainty about smart meters. |
| **SDG&E Electric Vehicle Charging, Storage, Solar PV to Grid Demos** | Demonstration projects currently researching applications with EV charging and solar PV at the San Diego Zoo, UCSD, and transit facilities. |
| **SDG&E Local Area Networks** | Devices available for residents and businesses to connect with smart meters to manage appliances and monitor energy use. |
| **UCSD Micro-grid Zero Net Energy** | University of California San Diego (UCSD) micro-grid, connections with EV charging. |
| **SANDAG Activities** | SANDAG provided information to local governments and stakeholders through the Regional Energy Working Group and Energy Roadmap Program about smart meters during the installation period. |

Regional Needs
- Demonstration projects that integrate energy storage, onsite generation, electric vehicle charging and smart communications
- Interactive communication technologies to best utilize smart grid capabilities
- Rate structures that reflect the real time price of electricity
Studies and Findings

- SDG&E Smart Grid Deployment Plan estimates the cost of Smart Grid deployments for the years 2006 to 2020 are approximately $3.5 to $3.6 billion, while total benefits (including societal and environmental benefits), are estimated to be between $3.8 and $7.1 billion.

Monitoring

- Investments in the region to modernize electricity grid
- Benefits realized from smart grid technologies

Resources

- SDG&E Smart Grid Deployment Plan, 2011.
- UCSD Sustainability efforts: [http://sustainability.ucsd.edu/](http://sustainability.ucsd.edu/)

Recommendations

- Expand goal to include development of micro-grids
- Utilize the smart grid and advanced technologies to better inform decision making at the utility level and consumer level
- Continue to explore opportunities for emerging technology demonstration projects
Natural Gas Power Plants

Increase overall efficiency of electricity production and support replacement of inefficient power plants consistent with the state’s preferred loading order

Overview

The RES goal for natural gas power plants is focused on using natural gas in electricity generation most efficiently.

Progress since RES Adoption

<table>
<thead>
<tr>
<th>Natural Gas Plants in the Region</th>
<th>South Bay Power Plant shut down and demolished in 2013.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Carlsbad Energy Center project approved by California Energy Commission in 2012.</td>
</tr>
</tbody>
</table>

| Natural Gas Vehicles | Compressed natural gas as a transportation fuel is primarily seen in the commercial light duty vehicle class. The demand for natural gas in commercial vehicles in the San Diego region has grown from 785,256 therms in 2009, to 1,928,079 therms in 2012. It is anticipated to continue to grow at an accelerated rate due to state goals and programs to promote alternative fuel vehicles. |

Monitoring

- Current and forecasted changes to natural gas demand
Resources

- Clean Cities Annual Report
- San Diego Gas & Electric
- NRG – Carlsbad Energy Center info

Recommendations

- Assess impacts of natural gas vehicles on supplies for power plants
- Evaluate natural gas supply needs due to SONGS shutdown and large renewable energy projects coming online
Overview
Alternatives to petroleum-based fuels include biofuels, electricity, hydrogen, natural gas, and liquefied petroleum gas (LPG or propane). The SANDAG Regional Alternative Fuels, Vehicles, and Infrastructure Report has a detailed assessment and comparison of petroleum-based and alternative fuels, vehicle technologies, and infrastructure. There is policy support and funding opportunities for alternative fuels at the state and federal levels.

Progress since RES Adoption

| The Electric Vehicle (EV) Project | In Winter 2010, the Nissan Leaf was released, and infrastructure deployment through the EV Project began. As of March 2013, infrastructure from the EV Project in the San Diego region totaled 731 residential Level 2, 64 nonresidential Level 2, 302 publicly available, and 3 DC Fast chargers. The Project will continue to collect data from the chargers and the 725 EV Project vehicles in the region through the end of 2013. |
| San Diego Regional Electric Vehicle Infrastructure Working Group (REVI) | Through the AB 118 program, the California Energy Commission awarded grants to metropolitan planning organizations throughout the state to create regional groups to address barriers to Plug-in Electric Vehicle (PEV) deployment. In the San Diego region, REVI is comprised of public agencies, SDG&E, the California Center for Sustainable Energy, universities, equipment manufacturers, and workforce partners. The group is tackling barriers through the development of best practice fact sheets and a PEV Readiness Plan for the region. |
| San Diego Regional Clean Cities Coalition | The Clean Cities Coalition develops public/private partnerships to encourage energy efficiency in transportation, reduction of petroleum usage and conversion of vehicles to alternative fuels where economically practical. The Clean Cities Coalition Board includes representatives from public agencies, fuel providers, workforce development partners, and SDG&E. |
| San Diego Airport Clean Vehicle Conversion Program (AVRP) | San Diego Airport policy to convert all ground transportation to alternative fuel vehicles by 2017. AVRP program stats: 181 vehicles converted, 12 percent of total fleet. |

Planning Needs Going Forward
- Continued regional planning for infrastructure
- Public-private partnerships and communication of economic benefits
- Opportunities for goods movement
- Incentives at all points: production, stations, vehicles
San Diego Region’s Fueling Infrastructure and Vehicles

San Diego has leveraged public-private partnerships and efforts such as the Clean Cities Coalition to expand the alternative fueling station network in the region, and increase the number of alternative fuel vehicles on the road.

Source: U.S. Department of Energy Alternative Fuels Data Center

Monitoring
- Clean Cities reporting
- CARB Low Carbon Fuel Standard

Resources (available online)
- Clean Cities Annual Report
- The EV Project data and reports

Source: California Clean Vehicle Rebate Project

<table>
<thead>
<tr>
<th>Rebates Issued</th>
<th>Rebate Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Zero Emission Vehicles</strong></td>
<td>2,133</td>
</tr>
<tr>
<td><strong>Plug-in Hybrid Electric Vehicles</strong></td>
<td>939</td>
</tr>
<tr>
<td><strong>Zero Emission Motorcycle</strong></td>
<td>13</td>
</tr>
<tr>
<td><strong>Neighborhood Electric Vehicle</strong></td>
<td>15</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>3,100</td>
</tr>
</tbody>
</table>

Recommendations
- Broaden the Transportation Fuels Goal Recommended Actions to include all alternative fuels
- Support local governments in transitioning municipal and contracted fleets to alternative fueled vehicles
- Continue public-private partnerships and collaboration on funding opportunities for alternative fuels
Overview
Land Use and Transportation Planning (LUTR) was a new topic area and goal for the 2030 Regional Energy Strategy (2009). The primary planning mechanism to reduce the region’s LUTR related energy and fuel consumption is the Sustainable Communities Strategy (SCS). The primary local government mechanisms are Climate Action Plans (CAPs) and General Plan Updates (GPUs).

Progress since RES Adoption

<table>
<thead>
<tr>
<th>Regional Lead</th>
<th>SANDAG SCS</th>
<th>Sets greenhouse gas (GHG) reduction targets for 2020 and 2035. Places priority on mixed uses, smart growth and mobility.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy Roadmaps</td>
<td>SANDAG has completed X Roadmaps with local governments and Y are underway. LUTR planning is a primary piece of each Roadmap and can be used in General Plan updates and CAPs.</td>
<td></td>
</tr>
<tr>
<td>Local Lead</td>
<td>General Plan Updates</td>
<td>As local jurisdictions update their General Plans, energy demand reduction in land use and transportation planning has become a component.</td>
</tr>
<tr>
<td>Climate Action Plans</td>
<td>19 local governments completed GHG inventories, 7 adopted CAPs, and 5 are under development.</td>
<td></td>
</tr>
<tr>
<td>Free for All</td>
<td>Collaboration and Outreach</td>
<td>The San Diego Foundation’s Climate Network provided peer to peer forums to discuss climate measures, and most recently the San Diego Regional Climate Collaborative.</td>
</tr>
</tbody>
</table>

Planning Needs Going Forward

- Local climate planning assistance
  - Climate Action Plans, CAP Implementation Plans, Inventories, and Projects
  - Accessible energy and emissions data for GHG inventories
  - Climate considerations for local Housing Elements
  - Sources of funding

- Regional climate planning
  - Develop guidance materials for above needs
  - Prepare CEQA thresholds guidance for development projects
  - Find sources of funding
Per Capita GHG Reductions from SCS Planning
2020, 2035 and 2050 Estimates

What impacts SCS emissions?
- Walking, biking and public transit travel
- Travel by passenger vehicles with number of occupants
- Telecommuting and congestion pricing
- Types of land uses and locations – travel needs to get from home to work, school, leisure activities, and shopping

Monitoring
- Track regional LUTR GHG reductions every 4 years from SCS
- Track local GHG reductions expected from CAPs and GPUs
- Compare GHG reductions from LUTR planning to state targets

Resources
- Adopted SCS Actions
- Energy Roadmap Planning Chapter and Appendices
- Adopted Climate Action Plans

Recommendations
- Provide data to support climate action planning
- Provide guidance on CEQA thresholds for GHG emissions
Overview
Energy supply, use, and conservation challenges and opportunities aren’t confined to jurisdictional, agency, tribal or international borders. The SANDAG Borders Committee has identified energy as one of six critical planning areas around which to focus its collaborative efforts and the Military Working Group has acknowledged energy as an area of mutual interest. Opportunities for cross-border coordination and collaboration exist.

Progress since RES Adoption

<table>
<thead>
<tr>
<th>Event Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010 Tribal Summit</td>
<td>On April 9, 2010, SANDAG, SCTCA, RTA, Caltrans, the County of San Diego, and the 17 federally recognized tribal governments in the San Diego region came together to identify policy level issues of mutual concern and to discuss priority areas that could be jointly addressed over the next few years.</td>
</tr>
<tr>
<td>2010 Binational Event: Crossborder Climate Change Strategies</td>
<td>In June 2010, at the annual binational seminar, experts discussed the challenges for binational climate change and adaptation strategies being evaluated on both sides of the border to create opportunities to share information and learn from each other’s experiences.</td>
</tr>
<tr>
<td>CARB New Truck Regulations</td>
<td>SANDAG collaborated with California Air Resources Board to conduct outreach/information sessions about new clean truck regulations impacting border truckers.</td>
</tr>
<tr>
<td>Intelligent Transportations System Pre-Deployment Strategy</td>
<td>SANDAG is conducting an Intelligent Transportations System Pre-Deployment Strategy for the proposed Otay Mesa East Port of Entry and accompanying State Route 11, which includes a wait time detection system for all three border crossings and tolling system for the new border crossing. This information is expected to enhance the efficiency of truck flows across the border.</td>
</tr>
<tr>
<td>SCTCA Energy Cooperative</td>
<td>Southern California Tribal Chairmen's Association is creating an energy cooperative for tribes located in the San Diego region.</td>
</tr>
</tbody>
</table>

Planning Needs Going Forward
- Communication among all border communities
- Coordination on energy and alternative fuel planning efforts
- Public-private and public-public partnership opportunities
**Monitoring**
- Tribal governments transportation policies and energy planning / implementation
- Military installation transportation policies and energy planning / implementation
- Inter-county and inter-jurisdictional transportation policies and energy planning / implementation
- Binational transportation, climate and energy planning

**Resources (available online)**
- 2010 Tribal Summit summary
- 2010 Binational Event summary

**Recommendations**
- Expand the Energy and Borders Goal Recommended Actions to include Military, Tribal, jurisdictional and regional borders
- Support stakeholder coordination to explore opportunities for the integration of complementary electric vehicle charging and other alternative fuel infrastructure
- Consider public-private and public-public partnerships for funding opportunities and planning efforts
Overview
The Clean Energy Sector goal focuses on opportunities and advantages to the region from expanding the clean energy sector. In 2009, the clean energy economy was seeing an injection of investment from the American Recovery and Reinvestment Act (ARRA), which supported workforce training programs and job creation.

While the focus in the RES is on workforce development and job placement activities, another goal for advancing the clean energy economy is to attract clean technology companies to the region.

Progress since RES Adoption

<table>
<thead>
<tr>
<th>ARRA-funded programs</th>
<th>Energy Upgrade California workforce training programs:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• County of San Diego GETUP Program</td>
</tr>
<tr>
<td></td>
<td>• Regional contractor trainings</td>
</tr>
<tr>
<td></td>
<td>• Home Energy Rater and building performance trainings at CCSE and SDG&amp;E</td>
</tr>
</tbody>
</table>

| CleanTECH San Diego Cluster Database | CleanTECH San Diego is a private, non-profit member organization formed in 2007. Their mission focuses on stimulating innovation and advancing the adoption of clean technologies and sustainable industry practices. CleanTECH San Diego maintains a Cluster Database that catalogs over 800 clean tech companies in the San Diego region. Having this database for the region has helped to establish the clean tech sector as an industry cluster for regional economic analyses. |

<table>
<thead>
<tr>
<th>SANDAG Clean Tech Economic Studies</th>
<th>In 2011, CleanTECH San Diego commissioned SANDAG to prepare economic impact reports for six key clean tech sectors:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Biofuels</td>
</tr>
<tr>
<td></td>
<td>• Clean Transportation</td>
</tr>
<tr>
<td></td>
<td>• Clean Energy Storage</td>
</tr>
<tr>
<td></td>
<td>• Energy Efficiency</td>
</tr>
<tr>
<td></td>
<td>• Smart Grid</td>
</tr>
<tr>
<td></td>
<td>• Solar Energy Generation</td>
</tr>
</tbody>
</table>
SANDAG - CleanTECH San Diego Economic Impact Studies

The table below summarizes the direct economic impact from six clean tech industry sectors. The direct impacts reflect jobs and expenditures that are directly related to each sector. The economic activity from these industries also supports other local industries; these are the indirect impacts that are reported in the full reports.

<table>
<thead>
<tr>
<th>Clean Tech Sector</th>
<th>Jobs</th>
<th>Wages</th>
<th>Economic Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algal Biofuels</td>
<td>466</td>
<td>$41.1 million</td>
<td>$80.9 million</td>
</tr>
<tr>
<td>Clean Transportation</td>
<td>1,050</td>
<td>$92.6 million</td>
<td>$311.3 million</td>
</tr>
<tr>
<td>Clean Energy Storage</td>
<td>561</td>
<td>$56.3 million</td>
<td>$133.9 million</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>1,013</td>
<td>$89.6 million</td>
<td>$299.8 million</td>
</tr>
<tr>
<td>Smart Grid</td>
<td>460</td>
<td>$37.2 million</td>
<td>$91.5 million</td>
</tr>
<tr>
<td>Solar Energy Generation</td>
<td>1,133</td>
<td>$143.2 million</td>
<td>$517.6 million</td>
</tr>
</tbody>
</table>

**Monitoring**
- Job placement
- Job creation by energy sector
- Economic impact of clean tech industry

**Resources**
- SANDAG/CleanTECH San Diego Economic Impact Studies
- SANDAG Traded Industry Clusters in the San Diego Region

**Recommendations**
- Continued job placement mechanisms in absence of ARRA funding
- Collaborate on economic development opportunities by attracting clean technology industries in addition to workforce training programs
CALIFORNIA ENERGY COMMISSION GRANT OPPORTUNITY:
ALTERNATIVE FUEL READINESS PLANS File Number 3200300

Introduction

The California Energy Commission (CEC) is seeking proposals for the development of “Alternative Fuel Readiness Plans” (Plans). This grant offers the opportunity to continue the efforts begun by SANDAG through the San Diego Regional Electric Vehicle Infrastructure Working Group (REVI), address alternative transportation fuels more broadly, and help implement the transportation fuels goal of the Regional Energy Strategy. EWG is asked to review the opportunity and provide input on the key tasks. The full solicitation is available at www.energy.ca.gov/contracts/.

Discussion

Grants will be awarded for projects to develop Plans that will provide strategies for the deployment of alternative fuel infrastructure and encourage the adoption of alternative fuel vehicles.

About the grant:

- Non-competitive and to be awarded on a first-come, first-served basis to public agencies
- Maximum award will be $300,000
- Twenty-percent match required (cash or in-kind from non-state source)
- Applicant is encouraged to partner with stakeholders to obtain input and feedback on the development of the Plan
- Proposals accepted until April 30, 2014, or until funds are exhausted

Grants will be awarded for the development of Plans which must include all of the following activities:

- Analyze existing and potential incentives for increased usage of alternative fuels.
- Identify challenges and sharing best practices for planning, permitting, deployment, maintenance, and inspection of AFI.
- Develop training materials or classes for fleet operators, planners, first responders, and decision-makers regarding AFI development if no training materials are available.
- Develop strategies and best practices to increase procurement and commercialization of alternative fuels.
- Develop marketing analysis, materials, and outreach strategies that communicate the benefits of alternative fuel usage to targeted groups such as fleet owners/operators.
- Develop strategies to assist alternative fuel wholesalers/retailers, with the intent of increasing the availability and/or reducing the cost of alternative fuels.

SANDAG plans to submit an application for the San Diego region and has been discussing the opportunity with key partners including the San Diego Regional Clean Cities Coalition (Clean Cities) and San Diego County Air Pollution Control District (APCD). Attachment 1 summarizes a potential framework for an application, including key participants, overall goal for the project, and tasks to address each of the required activities listed above. Staff plans to submit an application by the end of September.

Key Staff Contact: Allison King, (619) 699-1973, allison.king@sandag.org

Attachment:
1. CEC PON-13-603: Alternative Fuel Readiness Plan
San Diego Regional Project Partners:

SANDAG, San Diego County Air Pollution Control District, San Diego Regional Clean Cities Coalition, Miramar College ATTE, Local governments, regional agencies, fleet operators, fuel suppliers, vehicle dealers

Goal:

Develop a strategic plan that identifies immediate needs as well as long-term planning objectives in order to prepare the San Diego region for the increased use of alternative transportation fuels.

Grant Activities and Key Tasks:

Analyze existing and potential incentives for increased usage of alternative fuels.

- Address the challenge of accessing available state funds
- Evaluate opportunities to better position the region for state funds
- Identify ways to incentivize purchasers, fuel providers, station owners (what works for each)

Identify challenges and sharing best practices for planning, permitting, deployment, maintenance, and inspection of AFI.

- Build upon the experiences with REVI and create a forum for alternative fuel stakeholders
- Develop materials (best practices, case studies) to aid local governments, fleet operators

Develop training materials or classes for fleet operators, planners, first responders, and decision-makers regarding AFI development if no training materials are available.

- Determine key skill sets and training needed in relation to different audiences
- Acquire/modify/create curriculum to address those skill sets
- Develop strategy for targeting key audiences and engaging in training.

Develop strategies and best practices to increase procurement and commercialization of alternative fuels.

- Use regional planning based on knowledge from Energy Roadmap fleet assessments and Clean Cities Annual Report to demonstrate potential “hot spots” for stations
- Identify data sources and monitoring methods
- Support Local Governments in procuring alternative fuel vehicles/infrastructure

Develop marketing analysis, materials, and outreach strategies that communicate the benefits of alternative fuel usage to targeted groups such as fleet owners/operators.

- Assess current outreach efforts and identify gaps/needs for various target audiences: hard to reach smaller fleets, larger fleets that are not making the change, engage providers and vehicle dealers
- Use cost calculators, Ride and Drives, and peer-to-peer experience sharing

Develop strategies to assist alternative fuel wholesalers/retailers, with the intent of increasing the availability and/or reducing the cost of alternative fuels.

- Engage wholesalers/retailers and identify key barriers to providing alternative fuels
- Connect fuel suppliers with potential customers, demonstrate demand
Introduction

The Regional Energy Working Group (EWG) was presented with the 2013 SANDAG Legislative Program in March 2013. Goals 2B and 10B prioritized energy related legislation. The following bills have been identified as relevant or of interest for the EWG. A short description and status of each bill is included. The EWG is asked to comment on the legislation and inform staff of additional bills to monitor.

2013 Legislation of Interest

ALTERNATIVE FUELS AND VEHICLES

Assembly Bill (AB) 8 (Perea) Alternative Fuel and Vehicle Funding Programs
This bill would provide that the State Air Resources Board (ARB), until January 1, 2024, has no authority to enforce any element of its existing clean fuels outlet regulation or other regulation that requires or has the effect of requiring any person to construct, operate, or provide funding for the construction or operation of any publicly available hydrogen fueling station and require the California Energy Commission (CEC) to allocate $20 million each fiscal year, and up to $20 million each fiscal year thereafter, for purposes of achieving a hydrogen fueling network sufficient to provide convenient fueling to vehicle owners, and expand that network as necessary to support a growing market for vehicles requiring hydrogen fuel, until there are at least 100 publicly available hydrogen fueling stations. Authorize the CEC to design grants, loan incentive programs, revolving loan programs, and other forms of financial assistance, for purposes of assisting in the implementation of these provisions, and require the ARB to evaluate how the use of new and existing investment programs could be used to increase the state alternative transportation fuels use, and evaluate how the impact of federal fuel policies and existing state policies will help increase the use of alternative transportation fuels in the state. Require the CEC and the ARB, on or before November 1, 2015, and every two years thereafter, to report in the integrated energy policy report the status of the state alternative transportation fuels use and make specified evaluations and require the ARB to include a finding on the effect of proposed regulations on state alternative transportation fuels use and extend vehicle registration fees, vessel registration fees, service fees for identification plates, and smog abatement fees in the amounts until January 1, 2024, and would extend the current authorization for the Carl Moyer Memorial Air Quality Standards Attainment Program to fund a range of projects that reduce emissions until January 1, 2024.

Status: To Enrollment
**AB 278 (Gatto) Criteria for Determining Carbon Intensity of Fuels Under Low Carbon Fuel Standard**

This bill would require the ARB, in determining the carbon intensity of fuels under the Low Carbon Fuel Standard regulations or another scoring system, to consider the following: the life-cycle carbon intensity impacts of potential or actual deforestation; the environmental laws and practices of the jurisdiction from which the fuel originates; any disruptions or other effects upon food supply, food costs, and food shipping that could occur as a result of California policy; and changes to the local economy, including job loss or worker displacement resulting from changes in the production of a fuel.

*Status: Senate Inactive File*

**AB 1079 (Bradford) Energy Management Zones**

This bill would amend the Enterprise Zone Act to authorize a city, county, or city and county to propose one or more energy management plans; developed jointly with an electrical or gas corporation, local publicly owned electric utility, or rural electric cooperative; in order to reduce air emissions and to promote economic development, the addition of new business, and the retention of existing businesses in that enterprise zone. It would require the Public Utilities Commission (PUC) to provide expedited review of the proposed jointly developed elements and would prohibit the commission from limiting the role of the electrical or gas corporation that was cooperatively developed in the energy management plan and would make a project defined by the plan eligible for funding through California Infrastructure and Economic Development Bank.

*Status: Senate Appropriations 8/12/13*

**Senate Bill (SB) 11 (Pavley) Alternative Fuel and Vehicle Funding Programs**

This bill would provide that the ARB, until January 1, 2024, has no authority to enforce any element of its existing clean fuels outlet regulation or other regulation that requires or has the effect of requiring any person to construct, operate, or provide funding for the construction or operation of any publicly available hydrogen fueling station. Require the CEC to allocate $20 million each fiscal year and up to $20 million each fiscal year thereafter for purposes of achieving a hydrogen fueling network sufficient to provide convenient fueling to vehicle owners, and expand that network as necessary to support a growing market for vehicles requiring hydrogen fuel, until there are at least 100 publicly available hydrogen fueling stations. Authorize the CEC to design grants, loan incentive programs, revolving loan programs, and other forms of financial assistance for purposes of assisting in the implementation of these provisions and, no later than July 1, 2013, require the ARB and air districts to jointly evaluate the specified policies and goals of specified programs, and measure the progress of alternative fuel use, and evaluate how the use of new and existing investment programs could be used to increase the state alternative transportation fuels use and how the impact of federal fuel policies and existing state policies will help increase the use of alternative transportation fuels in the state. Require the CEC and the ARB, on or before November 1, 2015, and every two years thereafter, to report in the integrated energy policy report the status of the state alternative transportation fuels use and make specified evaluations and include a finding on the effect of proposed regulations on state alternative transportation fuels use and extend existing vehicle registration fees, vessel registration fees, specified service fees for identification plate, and smog abatement fee in the amounts required until January 1, 2024, at which time the fees would be reduced by those amounts. Extend the current authorization for the Carl Moyer Memorial Air Quality Standards Attainment Program to fund a broader range of projects that reduce emissions until January 1, 2024; and on January 1, 2015, increase the California tire fee to $1.50 per tire until January 1, 2024, and reduce the tire fee to $0.75 per tire on and after January 1, 2024, and is to take effect immediately as an urgency statute.

*Status: Assembly Transportation*
SB 459 (Pavley) Financial Incentives for Middle-Income Households to Adopt Fuel Efficiency Vehicles
This bill would require the ARB, in consultation with the CEC; air pollution control and air quality management districts; and the Bureau of Automotive Repair; to submit a specified plan to the Legislature that identifies opportunities to utilize existing legal authorities to reduce fuel expenditures by middle income households by accelerating the adoption of more fuel efficient vehicles, and require the ARB to convene an advisory board to provide guidance in developing the plan.

Status: To Enrollment

ELECTRIC VEHICLES

AB 266 (Blumenfield) High Occupancy Vehicle Lanes
Extends the operation of existing law that authorizes the Department of Transportation to designate certain lanes for the exclusive use of high-occupancy vehicles (HOV), which lanes may also be used by certain low-emission or alternative fuel vehicles not carrying the requisite number of passengers otherwise required for the use of an HOV lane for certain low-emission vehicles, and extends those provisions for other specified low-emission vehicles or, in either case, until a specified notice is received.

Status: To Enrollment

AB 1092 (Levine) Electric Charge Station Requirement for New Construction Projects
This bill would require a new construction project with four or more offstreet parking spaces to include one electric vehicle charge station per every four offstreet parking spaces included in the project, and provide that, if the Commission on State Mandates determines that the bill contains costs mandated by the state, reimbursement for those costs shall be made pursuant to the California Constitution requirement that the state reimburse local agencies and school districts for certain costs mandated by the state.

Status: On Governor's Desk

SB 454 (Corbett) Electric Vehicle Charging Stations Open Access Act
This bill would create the Electric Vehicle Charging Stations Open Access Act that would require that an electric vehicle charging station that is installed in a public parking space be made available for use by the general public and shall not require persons pay a subscription fee in order to use the station, and shall not require membership in any club, association, or organization as a condition of using the station. An electric vehicle charging station may require additional out-of-network charges if those charges are disclosed to the public and must require an electric vehicle charging station to provide one or more specified options of payment to the general public. Require the CEC, on or after January 1, 2015, to adopt interoperability standards for network roaming payment methods for electric vehicle charging stations, and would require, if the CEC adopts standards, all electric vehicle charging stations to meet those standards within one year.

Status: To Enrollment

ENERGY EFFICIENCY

AB 270 (Bradford) website for Energy Efficiency Program Information
This bill would require the PUC to require the electrical and gas corporations to cooperate in establishing, by June 1, 2014, a publicly available Internet website containing specified information regarding ratepayer-funded energy efficiency programs through the creation of a state-mandated local program (which indemnifies any violation a crime). This bill would require the PUC to prepare
and submit an annual report to the Governor and the Legislature on the costs of programs and activates conducted by each electrical and gas corporation. That report will include information on efforts to identify ratepayer-funded energy efficiency programs similar to those administered by other specified state agencies and require revisions to ratepayer-funded energy efficiency programs to ensure that those programs complement and do not duplicate the programs of other state agencies.

Status: To Enrollment

**AB 719 (Roger Hernández) Efficient Street Lighting Requirement for Electric Utilities**
This bill would require an electrical corporation to replace low-efficiency light bulbs with high-efficiency light bulbs in street light poles that the electrical corporation owns, at the same rate as the city, county, or city and county in which any of the electrical corporation’s street light poles are located. It is the intent of the Legislature that this program be funded through existing collection mechanisms of Section 384.5 to the Public Utilities Code, and that the implementation of this program not result in an increase in any amount collected.

Status: To Enrollment

**ENERGY STORAGE**

**SB 674 (Corbett) Payment for Electricity with Integrated Energy Storage**
Status: Senate Energy, Utilities & Communications Committee – no vote taken

**NATURAL GAS**

**AB 1257 (Bocanegra) California Energy Commission Natural Gas Report**
This bill would enact the Natural Gas Act and would require the CEC, every four years, to prepare and submit to the Legislature a report containing specified information identifying strategies to maximize the benefits obtained from natural gas as an energy source; and require the Governor to review that report and provide comment in support of, against, or suggest changes to the Legislature, and would declare the modified version of the report the state natural gas policy.

Status: To Enrollment

**PROPOSITION 39**

**AB 39 (Skinner) Proposition 39: Grants and Loans for Public K-12 Schools**
This bill would require the CEC to continually appropriate funds and administer grants, no-interest loans, or other financial assistance to an eligible institution (defined as a public school providing instruction in kindergarten or grades 1 to 12), for the purpose of projects that create jobs in California by reducing energy demand and consumption at eligible institutions; and require an eligible institution that receives funding to report the amount of energy saved to the CEC and to compute the cost of energy saved as a result of implementing projects funded by the grant, as prescribed. Require moneys for job training and workforce development to be available from the Job Creation Fund to the California Conservation Corps, Certified Community Conservation Corps, Youth Build, and other existing workforce development programs and require moneys for public-private partnerships to be available for assistance to certain local governments to establish and implement PACE programs or similar financial and technical assistance consistent with the requirements of the California Clean Energy Jobs Act.

Status: Senate Inactive File
**AB 114 (Salas) Proposition 39: Workforce Development Programs**
This bill would require the Employment Development Department, using funds made available from the Clean Energy Job Creation Fund for job training and workforce development purposes; to administer grants, no-interest loans, or other financial assistance for allocation to existing workforce development programs for the purposes of creating green energy jobs in California, and would require existing workforce development programs to give higher priority to disadvantaged youth and veterans who reside in an economically disadvantaged community or in a community with a higher unemployment rate than the statewide unemployment rate.

*Status: Senate Inactive File*

**SB 39 (De León) Proposition 39: Clean Energy Employment and Student Advancement Act of 2013**
This bill would enact the Clean Energy Employment and Student Advancement Act of 2013 and would require the Office of Public School Construction (OPSC) to establish a school district assistance program to distribute grants, on a competitive basis, for energy efficiency upgrade projects pursuant to the California Clean Energy Jobs Act; would require the OPSC, upon the approval of the State Allocation Board, to award a school district grants for energy efficiency upgrade projects, and give priority to applications to projects meeting specified criteria; and state the intent of the Legislature to appropriate moneys to the OPSC from the fund for the purposes of awarding energy efficiency grants to the most disadvantaged schools in need of modernization for the purposes of energy efficiency upgrades.

*Status: Senate Inactive File*

**SB 64 (Corbett) Proposition 39: Clean Energy on Schools, Universities, and Colleges**
This bill would state the intent of the Legislature to install clean energy at public schools, universities, and colleges, and at other public buildings and facilities consistent with the California Clean Energy Jobs Act.

*Status: Assembly Natural Resources 8/12/13*

**RATES AND TARIFFS**

**AB 327 (Perea) CPUC Authority to Change Residential Electric and Natural Gas Rates**
This bill would repeal the limitations upon increasing the electric service rates of residential customers, including the rate increase limitations applicable to electric service provided to California Alternate Rates for Energy (CARE) customers. When the PUC approves changes to electric service rates charged to residential customers, the bill would require that the changes are reasonable, including that the changes are necessary in order to ensure that the rates paid by residential customers are fair, equitable, and reflect the costs to serve those customers. The bill would require the PUC to consider specified principles in approving any changes to electric service rates, to report to the Legislature its findings and recommendations relating to tiered residential electric service rates in a specified rulemaking by January 31, 2014. The bill would delete the statement of Legislative intent that CARE program participants be afforded the lowest possible electric and gas rates and, to the extent possible, be exempt from additional surcharges attributable to the energy crisis of 2000-01.

*Status: To Enrollment*
**SB 43 (Patterson) Shared Renewable Energy Self-Generation Program**
This bill would repeal the local government renewable energy self-generation program, and enact the Shared Renewable Energy Self-Generation Program. It authorizes a retail customer of an electrical corporation to acquire an interest in a shared renewable energy facility for the purpose of receiving a bill credit to offset electricity usage, and provides that any corporation or person engaged in developing, owning, producing, delivering in such facility is not a public utility solely by reason of engaging in those activities. The customer's payment to the electrical corporation would be for only transmission and distribution services for the portion of electricity the customer purchases directly from a developer.

*Status: To Enrollment*

**SB 743 (Steinberg) Changes to CARE**
This bill would replace the existing authorization to increase CARE rates based upon the annual percentage increase in benefits under the CalWORKs program, and instead authorize the PUC to increase the rates in effect for CARE program participants for electricity usage up to 130 percent of baseline quantities by the annual percentage increase of the Consumer Price Index from the prior year (but not to exceed 4 percent per year), and subject to the limitation that the CARE rates not exceed 80 percent of the corresponding rates charged to residential customers not participating in the CARE program.

*Status: To Enrollment*

**RENEWABLE ENERGY**

**SB 124 (Corbett) Rules of Clean Energy Contracts for Public Entities**
This bill would require state agencies and the trustees of the California State University (CSU) that accept bids or proposals for a contract for the purchase or installation of a clean energy device; technology; or system, as defined; to provide a 5 percent preference to a bidder that certifies that all of the parts of the clean energy device, technology, or system to be installed have been manufactured or assembled in the state, and would authorize a public agency, including, but not limited to, the trustees of the CSU, to award a contract based on the fact that a clean energy device, technology, or system was manufactured or assembled in the state if the contract is an energy service contract determined to be in the best interest of the public agency.

*Status: Assembly Appropriations*

**AB 177 (Perez) California Renewables Portfolio Standard Program Updates**
Under existing law, the PUC has regulatory authority over public utilities, including electrical corporations, as defined. The Public Utilities Act requires the PUC, in consultation with the Independent System Operator, to establish resource adequacy requirements for all load-serving entities, including an electrical corporation.

The California Renewables Portfolio Standard Program requires a retail seller of electricity and local publicly owned electric utilities to purchase specified minimum quantities of electricity products from eligible renewable energy resources sufficient to ensure that the procurement of electricity products from eligible renewable energy resources achieves retail sales of: 20 percent for the period January 1, 2011, to December 31, 2013, inclusive; 25 percent by December 31, 2016; and 33 percent by December 31, 2020. This bill would extend the required retail sales to a target of 51 percent by December 31, 2030, and to achieve the 2050 goal for reducing emissions of greenhouse gases adopted by the State Air Resources Board.

*Status: Assembly Utilities and Commerce*
**AB 217 (Bradford) Low-Income Solar Homes Program**

This bill would require the PUC to adopt a program to provide monetary incentives for the installation of solar energy systems on low-income residential housing commencing January 1, 2015, to December 31, 2021; would require the program to be funded by charges collected from customers of specified investor-owned utilities; would prohibit the total cost of the program from exceeding $108,000,000; establish the Low Income Solar Energy Fund; would require the moneys collected to be deposited therein, and to be made available to the commission for the purposes of this bill upon appropriation by the Legislature; and would require that all moneys set aside for the purpose of funding the installation of solar energy systems on low-income residential housing, that are unexpended and unencumbered on January 1, 2022, be utilized to augment existing cost-effective energy efficiency measures in low-income residential housing that benefit ratepayers.

*Status: To Enrollment*

**Existing Legislation of Interest**

It is important to monitor existing legislation that continues to be pertinent due to the mandatory steps, phasing, or mechanisms required for full implementation. The following bills have already been adopted but may still impact or influence the region.

**AB 758 (Skinner) (October, 2009) Comprehensive Energy Efficiency Program for Existing Buildings**

This bill requires the CEC to develop and implement a comprehensive program to achieve greater energy savings in the state of California's existing residential and nonresidential building stock. The program is being developed over three distinct and overlapping phases:

- **Phase 1:** Infrastructure Development & Implementation Plan (2010 - 2012)  
  COMPLETED
- **Phase 2:** Market Development & Partnerships (2012 - 2014)  
  CURRENT
- **Phase 3:** Statewide Ratings & Upgrades Requirements (2014 - 2015 and beyond)  
  FUTURE

Information on the implementation of AB 758, including the Draft Action Plan, is available at: http://www.energy.ca.gov/ab758/. The CEC is addressing the progress of AB 758 efforts in the 2013 Integrated Energy Policy Report (IEPR). Commissioner Andrew McAllister is the lead on this proceeding. The 2013 IEPR Scoping Order and information about the status of the IEPR can be found here: http://www.energy.ca.gov/2013_energypolicy/.

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