MEETING NOTICE
AND AGENDA

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

Thursday, July 26, 2007
11:30 a.m. – 2:00 p.m.
SANDAG, 7th Floor Board Room
401 B Street, Suite 800
San Diego, CA  92101-4231

Staff Contact:  Susan Freedman
(619) 699-7387
sfr@sandag.org

AGENDA HIGHLIGHTS

• REGIONAL ENERGY INFRASTRUCTURE STUDY UPDATE
• SUNRISE POWERLINK PROCEEDINGS
• SUBCOMMITTEE STRUCTURE

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<table>
<thead>
<tr>
<th>ITEM #</th>
<th>RECOMMENDATION</th>
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<tbody>
<tr>
<td>1. WELCOME AND INTRODUCTIONS</td>
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<tr>
<td>+2. SUMMARY OF MAY 24, 2007, EWG MEETING</td>
<td>APPROVE</td>
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<tr>
<td>The Energy Working Group (EWG) should review and approve the attached meeting summary.</td>
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<tr>
<td>+3. SUMMARY OF JUNE 14, 2007, EWG RETREAT</td>
<td>APPROVE</td>
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<td>The EWG should review and approve the attached retreat summary.</td>
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<td>4. PUBLIC COMMENTS AND COMMUNICATIONS</td>
<td>COMMENT</td>
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<td>Anyone who would like to address the EWG on a topic not on the agenda should do so at this time.</td>
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<td>+5. EWG SUBCOMMITTEE UPDATES: STRUCTURE</td>
<td>RECOMMEND</td>
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<td>A) Structure: The Chairs of the Policy and Resources subcommittees will present recommendations regarding a restructuring of the EWG subcommittees, for consideration by the full EWG.</td>
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<td>+6. REGIONAL ENERGY INFRASTRUCTURE STUDY UPDATE—2007 INVENTORY</td>
<td>DISCUSSION</td>
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<td>The California Center for Sustainable Energy (CCSE) and SANDAG will present updated regional infrastructure data and solicit feedback from EWG members.</td>
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<td>7. SUNRISE POWERLINK PROCEEDINGS</td>
<td>INFORMATION</td>
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<td>CCSE will provide an update of the Sunrise Powerlink transmission project proceedings, including information about recent hearings in San Diego County.</td>
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<td>+8.</td>
<td><strong>SENATE BILL 451 – ENERGY: GOVERNMENTAL ENERGY PRODUCERS</strong></td>
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<td>INFORMATION</td>
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<td>SANDAG will provide an update on the status of SB 451 (Kehoe), which was amended on July 16, 2007. The amended bill is attached.</td>
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<td>9.</td>
<td><strong>LETTER TO CPUC ON CALIFORNIA SOLAR INITIATIVE (CSI) FUNDING RECOMMENDATIONS</strong></td>
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<td>INFORMATION/RECOMMEND</td>
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<td>Henry Abarbanel will provide information regarding CPUC staff recommendations on the disbursement of CSI research funds. The EWG should discuss and consider recommending that SANDAG send a letter to CPUC expressing its position on the CSI funding policy.</td>
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<td>10.</td>
<td><strong>SUGGESTED MEETING TOPICS FOR NEXT MEETING</strong></td>
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<td>DISCUSSION</td>
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<td>EWG members should suggest items to be discussed at the next or future meeting.</td>
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<td>11.</td>
<td><strong>ADJOURN</strong></td>
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<td>INFORMATION</td>
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<td>The next EWG meetings are scheduled for August 23, 2007, and September 27, 2007, from 11:30 a.m. to 2:00 p.m.</td>
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+ next to an item indicates an attachment
SUMMARY OF MAY 24, 2007 EWG MEETING

AGENDA ITEM #1: WELCOME AND INTRODUCTIONS

Co-chair Art Madrid, City of La Mesa, called the meeting to order at 11:35 a.m.

AGENDA ITEM #2: SUMMARY OF APRIL 26, 2007, MEETING

Paul O’Neal, North County Economic Development Council, moved to approve the EWG minutes from April 26, 2007, and the motion was seconded by Mike Evans, San Diego Chamber of Commerce. There were no additions.

AGENDA ITEM #3: PUBLIC COMMENT AND COMMUNICATIONS

Jack Flynn made public comment about his experiences and perspectives on renewable and non-renewable energy. He formed the first Renewable Energy Trade Association in the U.S in 1977. His opinion was renewable energy is readily available throughout California yet we still choose to buy and consume fossil fuels from hostile countries. Furthermore, 70 percent of US pollution is generated by transportation and energy generation that burns fossil fuels. He mentioned his role is promoting public awareness about renewable energy and he will be presenting on the topic at town hall meetings throughout the summer.

Sharon Firooz announced the formation of the Distributed Generation Association, a San Diego-based non-profit organization which promotes the development and sale of additional energy from distributed generation, both renewable and non-renewable. They will also advocate legislative policies that support distributed generation by demonstrating its economic and environmental benefits.

AGENDA ITEM #4: ASSEMBLY BILL 1064 – SELF-GENERATION INCENTIVE PROGRAM

Alan Ball, Qualcomm, presented a review of AB 1064, which was designed to create incentives for self-generation other than photovoltaics. The bill had been revised in the State Legislature, removing the incentive for combined heat and power applications. The recommendation of the Public Policy Subcommittee was to support the Bill as originally introduced.

Jack Burke, California Center for Sustainable Energy (CCSE), reminded the group that the bill as initially introduced would have extended incentives from 2008 to 2012 for CHP applications. He
noted that CHP translates to greater efficiency and less emissions than the same energy generated by fossil fuel burning power plants.

In discussion Scott Anders, EPIC, noted that waste gas for energy generation is narrowly defined in the bill as a byproduct of petroleum production, which ignores its potential from landfills, wastewater treatment plants, and other sources.

Tom Blair noted that qualifying facilities (QF) rules under PURPA have been eliminated so that co-generation facilities would not be eligible to have their power purchased by the utility company in an open supply, fixed price situation, thus reducing incentives for independent production.

Mr. Ball motioned to recommend support by the RPC of the bill as originally introduced (seconded by Patti Krebs, IEA). The motion was approved by a majority vote.

AGENDA ITEM #5: REGIONAL ENERGY STRATEGY TASKS AND PROGRESS REPORT

Susan Freedman, SANDAG, noted the work done on agenda items 5 and 6 was in collaboration with CCSE (formerly SDREO).

On agenda item 5a Ms. Freedman reviewed the work done on the Regional Energy Infrastructure Study (REIS) to update the region’s energy inventory. The updated REIS will be designed to provide a snapshot of current energy issues in the region and be a facts-based document that will be used as a tool for subsequent policy decisions.

Changes in the regulatory environment since the last REIS will be taken into consideration in the RES update, including the loading order, greenhouse gas emissions, California Solar Initiative, and utility procurement. Proposed content includes demographics, natural gas infrastructure, electricity infrastructure, peak load reduction, energy efficiency, distributed generation, renewable energy resources, and regulatory issues of impact. The next steps are creating a draft inventory update to be discussed at Resources Subcommittee meetings, anticipate bringing the draft report to full EWG for discussion at the July 27th meeting, and to use the updated infrastructure inventory for the RES update.

Alan Sweedler, SDSU, noted he would like to see issues related to border energy with Mexico and neighboring states included in the REIS update.

Mr. Anders asked why transportation was not included in the document and noted that the REIS appears confined to electricity and natural gas and should be broadened. Ms. Freedman noted that transportation energy was not included because the CEC partnership will produce a transportation energy infrastructure assessment in another study. Also, the SANDAG RTP is currently undergoing its four year revision and the associated Environmental Impact Report will include a greenhouse gas impacts element. A transportation energy component will also be included in the Regional Energy Strategy policy document.

Ms. Freedman reviewed item 5b. Approval for collaboration with CEC was given on April 27, 2007, but the contract agreement has been delayed to a June 15, 2007, start date for a two year projects. The Rebuild America Grant is delayed until June or July.
As part of the RES update and the CEC partnership, SANDAG is conducting research and reviewing energy plans from other parts of the state and country with the help of CEC.

Item 5c addresses a new element to the RES: the research and review of municipal energy elements for general plans. The goal is to create a model addressing land use planning and energy that can be used by local jurisdictions in the region. This will be included in the RES update and a report to CEC is due June 29.

Mr. Madrid inquired about funding provided to the City of Carlsbad for an energy saving program for local governments. Ms. Freedman noted that the experience gained with the City of Carlsbad would be used as a model for local government energy management.

Mr. O'Neal noted the City of San Marcos should be considered.

Mr. Sweedler recommended there be formal inclusion of the EWG at critical decision points in the process and that there be a specific mechanism for input. Ms. Freedman noted that the Policy Subcommittee and the Resources Subcommittee fulfill this role and the EWG itself provides a forum for consensus and review. She also mentioned that a State Advisory Committee provides further direction in the planning process.

**AGENDA ITEM #6: REGIONAL CLIMATE CHANGE TASKS AND PROGRESS TO DATE**

Ms. Freedman reviewed various climate change events and activities. Items of interest included Al Gore’s presentation on May 21st at the University of California, San Diego (UCSD), a climate change exhibit at the Birch Aquarium, and the San Diego Foundation’s Climate Smart campaign. Climate change oriented activities planned by SANDAG include the CEC partnership, which will result in the Regional Climate Action Plan (RCAP). Although some municipalities have climate change plans, they cannot account for the major freeways and the RCAP will allow for this important inclusion. The results will be brought forward to the Subcommittees and EWG for review. Also, a report will be submitted to CEC on the findings by June 29, 2007 so information can be included in their Land Use Chapter of the 2007 Integrated Energy Policy Report.

Mr. Madrid inquired about how to increase collaboration and solicit more input from UCSD. He also suggested inviting the King County Supervisor to present to the group. Mr. Sweedler stated he would be willing to provide scientific and technical material such as reports, briefings, workshops, overviews on some of the major climate change issues. Mr. Anders mentioned University of San Diego (USD) in conjunction with EPIC has an educational component in addition to their research as part of the USD School of Law and its “Energy Law and Policy” course. They will also be starting a Climate Change and Law course and are considering starting a journal on the same. In addition, they received a grant to complete a regional greenhouse gas inventory. Dave Weil, UCSD, reiterated that a chairperson on climate change has been established at the university. They have their own energy and sustainability policies that they would be willing to share in the studies being undertaken and the group in general. Mr. Sweedler mentioned San Diego State University (SDSU) and UCSD have signed a Memorandum of Understanding regarding working together to advance new energy technologies and research.

Mr. Madrid noted 7 of 17 cities in the region have signed on the US Conference of Mayors Global Climate Change Initiative and that those remaining should be encouraged to do so.
Michael Meacham, City of Chula Vista, noted the caliber of university professors in the area is among the highest, with several serving on the International Panel on Climate Chula Vista and San Diego have been involved in United Nations Climate Change Framework programs since 1999. State government and several private businesses have also made significant steps in addressing climate change and should be looked at as examples of what is working.

Jim Svedeman, San Diego Renewable Energy Society, noted that his organization now has 50 members; they can be a good resource.

Mr. Madrid mentioned there has been no publicity of the good news about the EWG & SANDAG / CEC partnership and funding as well as the resulting work to be done. Ms. Freedman responded that she would follow up on the issue.

Patti Krebs, IEA added that under AB32, an Economic and Technological Advancement Committee was established.

AGENDA ITEM #7: EWG SUBCOMMITTEE UPDATES

The group met during the first Wednesday of the month, which immediately followed the Chamber of Commerce Energy Committee meeting on May 2, 2007.

A strong presentation on Resource Adequacy was provided by Mike Evans at the meeting. The subcommittee then discussed future workshops with a focus on a Climate Change Workshop scheduled for September and a Transportation and Energy Conference with a date to be determined.

Mr. O’Neal reviewed the work of the Resources Subcommittee. In response to an earlier comment by Mr. Madrid he noted the importance of water agencies playing a role in the EWG because they are developing projects with significant energy implications. At their last meeting Scott Debenham returned to provide information on wind energy. A discussion on wind energy and related technology resulted and the issue will be addressed further.

Mr. Sweedler mentioned Energy and Security has not been addressed in the subcommittees or EWG and that there is a role for local governments and the group in this capacity. Topics are transmission lines, natural gas facilities, source locations, dependency, etc. He urged that this become an item in upcoming year’s EWG agenda.

AGENDA ITEM #8: EWG RETREAT

The EWG will hold a retreat on Thursday, June 14, at the Chula Vista Council Chambers at Chula Vista City Hall from 9 a.m. to 1 p.m. Agenda items for the retreat include an overview the EWG and SANDAG in terms of structure and roles, a review of EWG accomplishments since the last retreat, a plan of action for into FY 2008, and mini resource presentations. Possible topics include: peak load, renewable energy parks, economic development and clean energy clusters, region’s generation footprint mix, tariff structures, and transportation energy. Ms. Freedman encouraged feedback about what mini resource topics should be focused on and if there are any proposed additions.
Mr. Madrid noted the retreat should be unique in steering the direction of the EWG and not repeat the same items as normal EWG meetings. Mr. Sweedler added that it should be focused on agenda setting for the coming year. Sharon Cooney, Metropolitan Transit System, suggested the retreat be as focused as possible on a few topics because in her experience retreats with a broad range of topics are less successful, thus she recommended no new items be added.

**AGENDA ITEM #9: EWG CALENDAR ITEMS**

Ms. Freedman asked the group to take note of the updated calendar attached to the agenda and that all dates have been pushed back due to delays in contract completion. Not included on the calendar are requests made by the SANDAG Board for the EWG to again address the Sunrise Powerlink issue and other infrastructure changes in the region.

Mr. Sweedler inquired if the EWG would be asked to render decisions or recommendations on these major projects. Ms. Freedman replied the Board has only solicited recommendations on Sunrise. Mr. Sweedler asked if recommendations should be put forward on other items. Mr. Zolezzi said that this has been difficult due to a conflict of interests and Ms. Freedman said that staff resources to complete sound research on every issue is an obstacle.

Rob Rundle, SANDAG, indicated the SANDAG Board designed the working group to respond to its needs and direction with guidance provided on fields where they request recommendations. The approach of the EWG providing ‘take it or leave it’ contributions on various energy issues is not advised nor considered to be the purpose of the EWG.

Mr. Ball reminded the group that last year the EWG decided there was insufficient information to put forth a sound recommendation on the Sunrise Powerlink and therefore the EWG’s recommendation to the Board was to not take a position without more information.

Mr. Madrid mentioned that the circumstances under which the EWG was created have changed and the EWG should consider a recommendation to the Board to expand the issues on which the EWG reports. Mr. Anders said the discussion should not be about Sunrise but rather focused on the determining the role and direction of the group.

Ms. Cooney inquired about the initial creation of the EWG and whether its scope or function had changed. Ms. Freedman responded that the role of working groups at SANDAG is to advise and shepherd the work programs established by the Board.

David Geier, SDG&E, noted in his experience the group has matured significantly and it used to be difficult for SDG&E to have access to any public interest groups. He encouraged the EWG and the public as a whole to provide feedback on projects.

**AGENDA ITEM #10: ADJORN**

The meeting was adjourned at 1:35 p.m.
Opening Comments

Susan Freedman, SANDAG, welcomed the members and attendees of the Energy Working Group (EWG), and introduced the EWG Co-Chairs, Henry Abarbanel and Art Madrid. Ms. Freedman briefly highlighted the purpose of the retreat, which was to discuss the progress that the EWG has made to date as well as the EWG’s proposed Plan of Action through June 2009.

Overview of SANDAG

Rob Rundle, SANDAG, presented a slide on the purpose of SANDAG as an agency, explaining the organization’s responsibilities as well as committee structure. Mr. Rundle also discussed the functions of the various committees at SANDAG and how the EWG advises these committees and other activities.

EWG Activities to Date

Staff provided a list of EWG’s activities to date, which highlighted monthly meetings, discussion and input on the Long Term Procurement Plan proceeding, other regulatory and legislative activity, as well as the educational outreach. Chair Abarbanel solicited feedback on the activities list, and areas of weakness.

Steve Zolezzi noted that in the opinion of some, there has been a lack of meaningful outcomes and overall effectiveness with the EWG. Laura Hunter, Environmental Health Coalition, suggested that as the EWG continues to evolve, it should shift its focus on local level issues that are tangible and can lead to specific actions in our region. On this same note, it was later suggested that the committee should collectively define the necessary steps that would allow the EWG to produce more constructive results. This possibly could be accomplished through three-step process consisting of: (1) presenting one issue to the group, (2) discussing the specifics, and (3) deciding on a specific action. Members also discussed creating a timeline and prioritizing issues, as well as how to better engage SANDAG as an agency with the issues.

Members discussed whether future increased involvement in CPUC proceedings was warranted, especially with regard to the LTPP. Members noted that this would be a heavy undertaking, but that the EWG has the expertise, and should get more involved.
EWG Plan of Action

Susan Freedman provided the EWG Plan of Action for FY 2008 - FY 2009, outlining goals for the fiscal year and ways the EWG could be proactive in our region. This plan included an update to the Regional Energy Infrastructure Study (REIS or the 2007 Inventory), which is currently in progress by staff at the California Center for Sustainable Energy (CCSE). Ms. Freedman mentioned that the EWG will be presented a draft this summer.

The Plan of Action also included the Regional Energy Strategy (RES) update, which will look at the original goals adopted in 2003 as well new issues of land use planning choices, transportation, and climate change in relation to energy. Ms. Freedman explained the active role that the EWG will play in the RES update, which includes reviewing and potential update of current goals and midcourse corrections. Ms. Freedman reminded members to propose recommendations at the EWG monthly meetings, via e-mail or other correspondence.

It was noted that the original goals of the RES do not effectively address peak demand issues. It was also suggested that further examination be made into the costs involved in obtaining these goals to decide if they could result in a true cost savings.

EWG Structure

Members discussed the current EWG structure and how it meets, or would better meet, EWG needs in carrying out the update of the Regional Energy Strategy and other CEC partnership tasks, including the 2007 inventory update. They were presented with five options for future subcommittee structure:

1) **Status Quo.** Continue with 3 monthly meetings. 1 full EWG (attendance policy enforced), 1 Policy Subcmt and 1 Resources subcmt (attendance voluntary for subcmts)

2) **Staff Recommendation:** 1 monthly full EWG meeting (attendance policy enforced). 1 supplemental EWG meeting, as needed.
   a. The extra meeting would occur to address unresolved items in RES development or items that the Chair determines need to be vetted by membership.
   b. Attendance voluntary at any supplemental meeting.
   c. Members could choose a standing meeting time as a placeholder.
   d. This meeting would be public and in compliance with Brown Act Rules.

3) **Subcommittee Option B:** Continue with 3 monthly meetings. 1 full EWG (attendance policy enforced), 1 “Regional Energy Strategy” subcmt and 1 “Climate Change” subcmt instead of “Policy” and “Resources” (attendance voluntary for subcmts)

4) **Standard Working Group:** 1 Monthly EWG Meeting (attendance policy enforced). No additional meetings. All recommendations and considerations are vetted at the monthly meeting by all members. This is how the majority of working groups are structured at SANDAG.

5) **Other.** Recommendations will be taken from the group.
After lengthy discussion, where staff heard preferences from all members, Chair Abarbanel determined the best course of action was to turn the decision over to the subcommittee chairs for a report at July 26th EWG meeting.

**Focus Areas on Regional Planning**

Four presentations were made to the EWG on issues regarding aspects of the region’s energy structure as well as important policy issues for the committee to consider in their energy planning recommendations for the RES Update.

Dr. Heather Honea gave a presentation on the economic development of clean energy clusters that focused on a net-metered option as a funding mechanism for energy costs. This net-metered option would eventually recapture funds and promote regional self-sufficiency and possibly even profit.

Dr. Alan Sweedler presented on energy security and focused on the vulnerability of our region due to the petroleum dependent nature of our transportation systems. Dr. Sweedler explained that as our nation continues to import over 65 percent of foreign fuels, any disruption in the global energy market will significantly impact our region. He discussed the power of solar energy and the possibility of new technologies for storing solar energy for when the sun is not shining.

Greg Newhouse of the San Diego Regional Clean Fuels Coalition gave a presentation on alternative transportation fuels in the San Diego region. He gave a brief background on the Coalition and reviewed a few noteworthy projects they have been involved with. Mr. Newhouse focused on the issues with energy planning, pointing out that accomplishments within region are unknown therefore every action is seen as complicated and uncertain in outcome. He also noted that fuel infrastructure planning programs and projects are not integrated, and there has been no consistent policy directive for using alternative fuels since December 2000. Mr. Newhouse mentioned that within public agencies there is no incentive to improve transportation efficiencies causing monies go back to the general fund.

Rich Caputo of the San Diego Renewable Energy Society presented on the possibility of implementing energy parks to help meet SANDAG’s goal of obtaining 50 percent of the region’s renewable energy from in-county sources. Mr. Caputo provided a brief background on the effectiveness of renewable energy parks and the types of technologies associated with the practice. He then outlined the steps that City and County members can take directly, as well as highlighted actions that SANDAG can take, including petitioning the CPUC to direct SDG&E to perform studies of the East County power line capabilities as well as release funds for establishing renewable energy parks in SD County. Both a copy of his PowerPoint presentation as well as a 2 page handout was included to every EWG member with their meeting materials.
EWG SUBCOMMITTEE UPDATES: STRUCTURE

Introduction

At the Energy Working Group (EWG) retreat, committee members discussed potential future subcommittee structures. Subsequently, EWG Chair Abarbanel requested a recommendation from the subcommittee chairs at the July EWG meeting. At their June 27 meeting, Chairs Alan Ball and Paul O’Neal agreed that there is value in continuing with a subcommittee.

Recommendation

1. The two subcommittees (resources and policy) should be consolidated into one subcommittee called the “Regional Strategy” subcommittee.

2. Meetings should be two hours in length and held once per month, on the first Wednesday of the month, 9:00-11:00 a.m. The goal of each subcommittee meeting will be to address resource, policy, legislative and infrastructure issues that are pertinent to meeting the goals of the EWG.

3. The two subcommittee chairs should now co-chair the new subcommittee.

Discussion

At the June 14 EWG retreat, members discussed the current EWG structure and how it meets, or would better meet, EWG needs in carrying out the update of the Regional Energy Strategy and other CEC partnership tasks, including the 2007 inventory update. They were presented with five options for future subcommittee structure:

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5) **Other**: Recommendations will be taken from the group.

After lengthy discussion, where staff heard preferences from all members, Chair Abarbanel determined the best course of action was to turn the decision over to the subcommittee chairs for a report at July 26th EWG meeting.

Key Staff Contact: Susan Freedman, (619) 699-7387; sfr@sandag.org
Regional Energy Infrastructure Study Update - 2007 Inventory

Introduction

SANDAG has contracted with the California Center for Sustainable Energy (CCSE) to update the Regional Energy Infrastructure Study (REIS or 2007 Inventory Update) as part of SANDAG’s contract with the California Energy Commission (CEC). Staff will present an Excel spreadsheet to accompany this narrative of the region’s current energy infrastructure resources to be used in energy planning. Members are encouraged to provide feedback on this overview as well as the Excel spreadsheet.

Discussion

Major Contracted or Utility Owned Resources

South Bay Power Plant (SBPP)

The South Bay Power Plant is a 706 MW natural gas powered, ocean water cooled facility located in Chula Vista. Its turbines were built from 1960-1971, and currently consists of four single cycle combustion turbines. The land the facility is located on is owned by the Port of San Diego and leased to Dynegy until 2009.

Palomar Energy Center

The Palomar Energy Center is a 540 MW natural gas powered, closed system water cooled facility located in Escondido. It came online in 2006, and consists of two combined cycle natural-gas powered turbines and a smaller waste heat steam turbine. The facility is owned and operated by San Diego Gas and Electric.

Encina Power Station

The Encina Power Station is a 965 MW natural gas powered, ocean water cooled facility located in Carlsbad. The facility was built in 1954, and has five single cycle steam turbines and is owned by NRG Energy. It is licensed to run until 2011 or later.
San Onofre Nuclear Generating Station (SONGS)

SONGS is a 2200 MW nuclear powered, ocean water cooled facility owned and operated by Southern California Edison, San Diego Gas and Electric, the City of Anaheim and the City of Riverside. It commenced generating electricity in 1968, and consists of three generating towers (one currently being decommissioned). The plant is licensed to run until 2020, at which point its license may be extended.

Qualifying Facilities (QFs)

QFs are a distinct class of energy producer which consists of either small-scale producers of commercial energy who normally self-generate energy for their own needs but may have occasional or frequent surplus energy, or incidental producers who happen to generate saleable electric energy as a byproduct of other activities. When a facility of this type meets the Federal Energy Regulatory Commission's requirements for ownership, size and efficiency, utility companies are obliged to purchase energy from these facilities based on a pricing structure referred to as avoided cost rates. These rates tend to be highly favorable to the producer, and are intended to encourage more production of this type of energy as a means of reducing emissions and dependence on other sources of energy. Qualifying facilities were first classified in 1978 with the establishment of the Public Utility Regulatory Policies Act, a piece of legislation which was intended to encourage more efficient and environmentally friendly energy production in the United States.

The San Diego region has a number of Qualifying Facilities, totaling 225.4 MW Facilities range from landfill gas recovery to cogeneration plants to small hydroelectric facilities.

Distributed Generation

San Diego region IOU customers are eligible to receive funding from the Self-Generation Incentive Program or SGIP. Distributed generation technologies, which include those listed below, account for 111 MW of customer side (non-grid connected) capacity. As well, there is 25 MW of grid-connected PV capacity serving the region.

Microturbines/Internal Combustion Turbines

Reciprocating IC engines are reliable, efficient and relatively inexpensive to buy and install; however, the cost to operate and maintain is typically higher than with most renewable technologies. IC engines are usually used in CHP applications.

Gas turbine engines extract energy from hydrocarbon fuels through compression, combustion and hot gas expansion through a turbine which drives the compressor. Gas turbines can be highly efficient when running at 100 percent load and recovering waste heat. Microturbines are gas turbines with less than 100 kW output and very low emissions.
Renewables under contract with utility

In the energy industry, these terms refer to source energy which is replenished either by nature or by natural processes which humanity can assist. Generally speaking, a resource is considered renewable only when it can be renewed at the same rate at which it is consumed. When this rate of renewal can be sustained, it is referred to as continuous yield. Wind, water, solar, tidal, and geothermal energy are all forms of renewable energy. Renewability does not necessarily correspond with environmental friendliness. Biomass fuels such as peat, wood and food processing byproducts, for example, may contribute substantial carbon dioxide emissions to the atmosphere, but they still qualify as renewable if they can be created as rapidly as they are consumed.

In the San Diego Gas and Electric territory, there is currently 87.3 MW of RA capacity under contract.

Wind

Large, modern wind turbines in wind farms produce renewable electricity for utilities. Small to medium sized wind turbines can be used by homeowners and small businesses in remote, windy locations to help meet their energy needs. SDG&E currently contracts with the Kumeyaay nation for 10 MW of wind power.

Geothermal

Heat can be obtained directly from the Earth from a shaft as shallow as 100 feet. Technologies such as heat exchangers and heat pumps can convert the heat from beneath the surface of the earth into usable energy. When this energy takes the form of hot water, steam or hot compressed air, it can be used to produce electricity in the exact same fashion as energy produced by steam turbines.

Fuel Cells

A fuel cell consists of two electrodes separated by an electrolyte. It produces power by passing ions through the electrolyte. Fuel cells are usually powered by natural gas, methane, or hydrogen and, because of their high operating temperatures, are frequently used in Combined Heath and Power applications, which make them highly efficient.

Solar

Solar energy, absent energy storage, is considered an intermittent resource. The production of energy from photovoltaic systems is constrained by the availability of sunlight. Photovoltaic systems produce power when the sun is shining proportional to the time of day and that day’s particular atmospheric conditions. It does not produce any energy after the sun has set; therefore, photovoltaic systems are not a dispatchable resource, unless energy storage devices are used. It cannot be called on to produce power at a given time of day on a particular day. Rather, it produces power in a predictable daily and seasonal pattern. The San Diego region currently has 25 MW of grid-connected PV installed.

\(^1\) Capacity from these sources is included within the DG category
DWR Contracts

Approximately 1390 MW of the region’s power comes from current California Department of Water Resources contracts. These contracts came about as a result of the energy crises of 2000-2001, when adequate electricity was not available to serve the customers of California. The state contracted at high electricity rates with the Department to secure a long-term energy supply and return the state to resource adequacy. All DWR contracts are scheduled to expire on or before 2014.

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SENATE BILL 451 – ENERGY: GOVERNMENTAL ENERGY PRODUCERS

Introduction

The SANDAG Energy Working Group worked with Senator Kehoe to introduce Senate Bill 451. This bill was amended on July 16, 2007. Attached is the amended bill language. Members are encouraged to discuss the amendments and determine whether further action is needed.

Bill Language


Under existing law, the Public Utilities Commission is vested with regulatory authority over public utilities, including electrical corporations. The Public Utilities Act imposes various duties and responsibilities on the commission with respect to the purchase of electricity and requires the commission to review and adopt a procurement plan and a renewable energy procurement plan for each electrical corporation pursuant to the California Renewables Portfolio Standard Program. The program requires that a retail seller of electricity, including electrical corporations, purchase a specified minimum percentage of electricity generated by eligible renewable energy resources, as defined, in any given year as a specified percentage of total kilowatthours sold to retail end-use customers each calendar year (renewables portfolio standard).

Existing law requires every electrical corporation to file with the commission a standard tariff for renewable energy output produced at an electric generation facility, as defined, that is an eligible renewable energy resource and meets other size, deliverability, and interconnection requirements. Existing law requires the electrical corporation to make this tariff available to public water or wastewater agencies that own and operate an electric generation facility within the service territory of the electrical corporation, upon request, on a first-come-first-served basis, until the combined statewide cumulative rated generating capacity of those electric generation facilities equals 250 megawatts. Existing law provides that the renewable energy output of an electric generation facility counts toward the electrical corporation’s renewables portfolio standard and resource adequacy requirements.

This bill would instead require every electrical corporation to make the tariff available to customer-generators.
being a commercial, industrial, or agricultural entity, a city, county, or city and county, or a public water or wastewater agency that is a retail customer of the electrical corporation

any customer of the electrical corporation, upon request, on a first-come-first-served basis, until the electrical corporation meets its proportionate share of a combined statewide cumulative rated generating capacity of those electric generation facilities of 1,000 megawatts. The bill would provide that the electricity generated by an electric generation facility counts toward the electrical corporation’s renewables portfolio standard and resource adequacy requirements. The bill would delete an existing requirement that the electric generation facility be sized to offset part or all of the generator’s electricity demand. The bill would authorize a customer receiving electrical service pursuant to an alternative net metering program, as defined, to elect to receive service pursuant to the tariff filed by an electrical corporation pursuant to the bill’s requirements and would provide that a customer electing to receive service pursuant to the tariff waives any right the customer otherwise has to thereafter receive service pursuant to an alternative net metering program.

Under existing law, a violation of the Public Utilities Act or an order or direction of the commission is a crime. Because this bill would require an order or other action of the commission to implement its provisions and a violation of that order or action would be a crime, the bill would impose a state-mandated local program by creating a new crime.

The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for a specified reason.


THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

SECTION 1. Section 399.20 of the Public Utilities Code is amended to read:

399.20. (a) It is the policy of this state and the intent of the Legislature to encourage energy production from renewable resources in an amount commensurate with electricity demand.

(b) As used in this section the following terms have the following meanings:

(1) "Customer generator" means a commercial, industrial, or agricultural entity, a city, county, or city and county, or a public water or wastewater agency that is a retail customer of an electrical corporation.

(2) "Electric generation facility" means an electric generation facility that is owned and operated by a customer-generator, customer of an electrical
corporation that meets all of the following criteria:

(A) Has an effective capacity of not more than one megawatt and is located on property owned or under the control of the customer-generator.

(B) Is interconnected and operates in parallel with the electric transmission and distribution grid.

(C) Is sized to offset part or all of the electricity demand of the customer-generator.

(D) Is strategically located and interconnected to the electric transmission system in a manner that optimizes the deliverability of electricity generated at the facility to load centers.

(E) Is an eligible renewable energy resource, as defined in Section 399.12.

(2) "Alternative net metering program" means any program that requires an electrical corporation to purchase or credit electricity generated by a subscriber pursuant to Article 3 (commencing with Section 2821) of Chapter 7 of Part 2.

(c) Every electrical corporation shall file with the commission a standard tariff for electricity generated by an electric generation facility.

(d) The tariff shall provide for payment for every kilowatthour of electricity generated by an electric generation facility at the market price as determined by the commission pursuant to Section 399.15 for a period of 10, 15, or 20 years, as authorized by the commission.

(e) Every electrical corporation shall make this tariff available to customer-generators that own and operate an electric generation facility within the service territory of the electrical corporation, upon request, on a first-come-first-served basis, until the combined statewide cumulative rated generating capacity of those electric generation facilities equals 1,000 megawatts. An electrical corporation may make the terms of the tariff available to customer-generators in the form of a standard contract subject to commission approval. Each electrical corporation shall only be required to offer service or contracts under this section until that electrical corporation meets its proportionate share of the 1,000 megawatts based on the ratio of its peak demand to the total statewide peak demand of all electrical corporations.

(f) Every kilowatthour of electricity generated by the electric generation facility shall count toward the electrical corporation's renewables portfolio standard annual procurement targets for purposes of paragraph (1) of subdivision (b) of Section 399.15.

(g) The physical generating capacity of an electric generation facility shall count toward the electrical corporation's resource adequacy requirement for purposes of Section 380.

(h) Upon approval by the commission, any tariff or contract authorized by this section may be made available to an electric generation facility that has an effective capacity of not more than 1.5 megawatts if that electrical generation facility otherwise complies with all of the provisions of this section.
(1) A customer receiving electrical service pursuant to an alternative net metering program may elect to receive service pursuant to the tariff filed by an electrical corporation pursuant to this section.

(2) A customer that elects to receive electrical service pursuant to the tariff filed by an electrical corporation pursuant to this section waives any right that the customer otherwise has to thereafter receive service pursuant to an alternative net metering program.

SEC. 2. No reimbursement is required by this act pursuant to Section 6 of Article XIII B of the California Constitution because the only costs that may be incurred by a local agency or school district will be incurred because this act creates a new crime or infraction, eliminates a crime or infraction, or changes the penalty for a crime or infraction, within the meaning of Section 17556 of the Government Code, or changes the definition of a crime within the meaning of Section 6 of Article XIII B of the California Constitution.

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