MEETING NOTICE
AND AGENDA

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

Thursday, February 22, 2007
11:30 a.m. to 2 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

- SOLAR POWER OPPORTUNITIES FOR LOCAL GOVERNMENTS AND PUBLIC AGENCIES
- CALIFORNIA ENERGY COMMISSION (CEC) PARTNERSHIP PLAN
- DISTRIBUTED GENERATION (DG) LEGISLATION
- EWG DIRECT ACCESS WORKSHOP
- CLIMATE CHANGE UPDATE

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<table>
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<tr>
<th>ITEM #</th>
<th>RECOMMENDATION</th>
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<tbody>
<tr>
<td>1.</td>
<td>WELCOME AND INTRODUCTIONS</td>
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<tr>
<td>2.</td>
<td>SUMMARY OF JANUARY 25, 2007, EWG MEETING  APPROVE</td>
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<tr>
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<td>The EWG should review and approve the attached meeting summary.</td>
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<td>3.</td>
<td>PUBLIC COMMENT AND COMMUNICATIONS  COMMENT</td>
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<td>Anyone who would like to address the Energy Working Group on a topic not on the agenda should do so at this time.</td>
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<td>4.</td>
<td>SOLAR POWER OPPORTUNITIES FOR LOCAL GOVERNMENTS AND PUBLIC AGENCIES  INFORMATION</td>
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<td></td>
<td>Scott Reed with SunEdison will present what solar options various cities and the state have undertaken and what could be done in the San Diego region. Questions and next steps will be identified. This is the first in a series of solar presentations for the EWG.</td>
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<td>5.</td>
<td>CALIFORNIA ENERGY COMMISSION (CEC) PARTNERSHIP  INFORMATION</td>
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<td>Staff will provide a progress report on a partnership with the CEC on state and regional energy and climate change planning measures. This partnership will address regional energy planning and the state integrated energy policy report (IEPR) process.</td>
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<td>6.</td>
<td>DISTRIBUTED GENERATION (DG) LEGISLATION  RECOMMEND</td>
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<td>As follow-up to the Energy Legislative Forum held November 2006, legislative language has been discussed in the Policy Subcommittee to: 1) address added flexibility for public agency DG projects, and 2) continue a clean DG incentive program. The EWG is asked to make a recommendation on this language to be presented to the Executive Committee.</td>
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<td>7.</td>
<td>EWG DIRECT ACCESS WORKSHOP  INFORMATION</td>
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<td>As part of the educational workshop series sponsored by the EWG, a workshop on direct access is scheduled for the morning of April 11, 2007, at San Diego Regional Energy Office (SDREO). Please save the date and plan to attend.</td>
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8. **EWG POLICY SUBCOMMITTEE UPDATE**  
   DISCUSSION
   The Subcommittee Chair will lead discussion of follow-up activities to the Energy Legislative Forum held November 29 and other subcommittee activity.

9. **EWG RESOURCES SUBCOMMITTEE UPDATE**  
   DISCUSSION
   The Subcommittee Chair will lead discussion on meeting outcomes regarding SDG&E long-term resource plan, South Bay Power Plant and transmission.

10. **UPDATE ON PENDING TRANSMISSION PROJECTS**  
    INFORMATION
    An update on progression of transmission proceedings will be provided. Staff will seek feedback on a proposed independent regional energy infrastructure assessment.

+11. **CLIMATE CHANGE UPDATE**  
    INFORMATION
    The IPCC recently released its latest climate change report. The state has undertaken several climate change mandates and policies. Information on these items, ICLEI and the US Mayors Climate Agreement will be provided.

12. **SUGGESTED MEETING TOPICS FOR NEXT MEETING**  
    DISCUSSION
    Energy Working Group members should suggest items to be discussed at the next or future meeting. SDREO will present solar opportunities for the region through the California Solar Initiative.

13. **ADJOURN**
    The next EWG meeting is scheduled for March 22, 2007, from 11:30 a.m. to 2 p.m.

+ next to an item indicates an attachment
AGENDA ITEM #1: WELCOME AND INTRODUCTIONS

Councilmember Henry Abarbanel, City of Del Mar, and EWG Co-Chair, called the meeting to order.

AGENDA ITEM #2: SUMMARY OF NOVEMBER 16, 2006, MEETING

The EWG approved the meeting summary with revisions submitted by Don Wood.

AGENDA Item #3: PUBLIC COMMENT AND COMMUNICATIONS

Alan Sweedler, SDSU, introduced Professor Hal Guven who is working on energy issues in Turkey and Cypress.

Jack Flynn explained that he is organizing a series of “town hall” meetings across California regarding renewable energy.

AGENDA ITEM #4: WORKING GROUPS AT SANDAG

Julie Wiley, SANDAG, explained the roles of working groups within SANDAG. There are approximately 35 working groups and 5 policy committees currently active at the agency. A memo detailing the advisory function of working groups is attached to the agenda. Ms. Wiley outlined several measures to ensure that working groups remain as advisory rather than decision-making bodies. She stated that this was an important distinction to ensure that everyone at the table could continue to participate in current working groups.

Laura Hunter, Environmental Health Coalition, asked if it is acceptable to inform people that she serves on the EWG. Ms. Wiley stated that being a member of a working group is a statement of fact and acceptable. Ms. Wiley stated that a working group member would want to be cognizant that an opinion they may be stating is not portrayed as the position of SANDAG.
Art Madrid, City of La Mesa and EWG Co-Chair, asked if there was a specific incident that brought on this issue. Ms. Wiley explained that the EWG’s role had expanded in ways that caused her to question whether the EWG could be perceived as a decision-making body instead of an advisory body and that the Sunrise Powerlink project recommendation, thus, could trigger conflict of interest issues for some members.

Ms. Wiley identified several measures going forward that would ensure that working group members do not trigger a change in their role as an advisory body and potentially lead to exclusion of some members from participation in the EWG’s discussions. The Working Group, as an advisory body, may make recommendations on items but it does not vote to approve particular agenda items except for meeting summaries. Only the decision-making committees at SANDAG are empowered by the Board to approve SANDAG actions. In addition, SANDAG staff must provide a staff recommendation that is independent of the Working Group recommendation when items are recommended to be addressed by a decision-making committee. At that committee, which in the case of the EWG would typically be the Regional Planning Committee, recommendations would not be placed on the agenda as consent items but rather be given as reports for discussion and public comment. This would provide an intervening review that had not been occurring consistently with items brought forward from the EWG.

Mayor Madrid suggested disbanding the Energy Working Group due to the added levels of process.

Donna Frye, City of San Diego, questioned why only a controversial issue raised the conflict of interest concern. Ms. Wiley explained that the issue of the EWG’s status as an advisory body was ripe for discussion whether or not the controversial issue had arisen, but as it turned out, since there are many working groups at SANDAG and only two attorneys to review all agendas, it happened to be a controversial item that called the issue to the attention of the Office of General Counsel.

Mr. Abarbanel stated that the EWG will continue and suggested that Ms. Wiley and the elected officials on the EWG should energize the RPC about what they need to do as part of the intervening review.

**AGENDA ITEM #5: EWG MEMBERSHIP**

Paul O’Neal, representing San Diego North Economic Development Council (SDNEDC), recommended adding a voting seat on the EWG for independent power producers, and further recommended Steve Hoffmann of NRG. The recommendation is attached to the agenda.

Dave Carey, Port of San Diego, raised the concern that different power producers in the region might have competing interests and had concerns with who the EWG should decide who to include. Dr. Sweedler stated that there needed to be a definitive process for deciding who is on the Working Group. Mr. Madrid stated that he felt there are enough members currently on the Working Group and there are more pressing issues to deal with at this time.

Mr. O’Neal made a two-part motion to add a voting seat for independent power producers, and to recommend Steve Hoffmann as the person to fill that position. Ms. Hunter seconded the motion. Dr. Sweedler explained that the Working Group cannot recommend a specific person or company. Seven members voted in favor, the motion failed.
Mr. Ball recommended an amendment to the original motion which states that the EWG will only consider adding independent power producers who have facilities in the San Diego region. Mr. Madrid suggested restricting appointees to producers whose primary source of business is in San Diego County. Ms. Frye stated there is a definition of independent power producers in the agenda as questions were raised on the potential member category.

Mr. Ball made a motion to add a seat for an independent power producer who has a significant presence in our region using the definition of independent power producers found on page 17 of the agenda. The EWG approved the motion unanimously.

Rich Caputo petitioned the EWG to invite his organization, the San Diego Renewable Energy Society (SDRES), to become a member of the Working Group. His membership request is attached to the agenda. The SDRES is a chapter of the American Solar Energy Society (ASES). Ms. Hunter motioned to add the SDRES as a member of the EWG. The Working Group approved the motion.

Irene Stillings, San Diego Regional Energy Office (SDREO), suggested forming a membership subcommittee to address questions of regional and stakeholder representation. The subcommittee will consist of Ms. Hunter, Ms. Stillings, Linda Wagner, Dave Geier, and Paul O’Neal.

AGENDA ITEM #6: 2007 ENERGY PLANNING ACTIVITIES

This agenda item was omitted by Councilmember Abarbanel to allow time for other presentations.

AGENDA ITEM #7: EWG POLICY SUBCOMMITTEE UPDATE

Alan Ball gave a presentation on the policy subcommittee’s recent activities. The subcommittee had two meetings in the past month. It has been identifying and developing legislative actions in follow-up to the November legislative energy forum with Senator Kehoe. Mr. Ball also announced proposed educational workshops on direct access (April) and transportation energy (summer).

Alan Sweedler stated that next week he will be meeting with a Senator in Washington, D.C., as well as the Senate Energy Committee. Henry Abarbanel suggested inviting the Senator to the summer transportation energy workshop in San Diego.

Mr. Ball announced a change in time and location for the Policy Subcommittee meetings. They will generally be held on the third Wednesday of every month from 8-10 a.m. at SDREO.

AGENDA ITEM #8: EWG RESOURCES SUBCOMMITTEE UPDATE

Paul O’Neal stated that the Resources Subcommittee meeting will be moved from 11:30 to 11 a.m. and is generally held on the first Monday of every month at SDREO. At the last meeting, the Working Group discussed the SDG&E LTPP (see next agenda item), the Sunrise Powerlink, Lake Elsinore Pump Storage Plan (LEAPS), the Regional Energy Park concept, and renewable energy credits.

Dr. Sweedler recommended educating decision-makers on renewable energy credits in Mexico.
AGENDA ITEM #9: SDG&E 2006 LONG-TERM RESOURCE PLAN (LTRP)

Jennifer Porter, SDREO, presented an overview of the state’s LTPP process and timeframe, along with SANDAG’s recommendations to SDG&E’s plan, which can be found attached to the agenda. Following this, Rob Anderson, SDG&E, gave a detailed explanation of his organization’s LTPP submittal for 2007 – 2016 to the California Public Utilities Commission (CPUC). This also can be found as an attachment to the agenda.

AGENDA ITEMS #10-12

These items were omitted by Councilmember Abarbanel due to time constraints.

AGENDA ITEM #13: ADJOURN

The meeting was adjourned at 2 p.m.
ATTENDANCE
ENERGY WORKING GROUP MEETING - January 25, 2007

MEMBERS

Henry Abarbanel, City of Del Mar, Co-Chair
Art Madrid, City of La Mesa, Co-Chair
Donna Frye, City of San Diego
Linda Wagner, City of Chula Vista
Scott Anders, EPIC
Laura Hunter, Environmental Health Coalition
Paul Blackburn, Sierra Club
Irene Stillings, San Diego Regional Energy Office
Dave Weil, UCSD
Patti Krebs, IEA
Paul O’Neal, SDNEDC
David Carey, Port of San Diego
Steve Zolezzi, Food and Beverage Association, Small Business
Alan Ball, Qualcomm, Large Business
Sharon Cooney, MTS
Mike Evans, San Diego Chamber of Commerce
David Geier, SDG&E
Alan Sweedler, SDSU

OTHERS

Rob Rundle, SANDAG
Diane Eidam, SANDAG
Julie Wiley, SANDAG
Susan Freedman, SANDAG
Ryan Sotirakis, SANDAG
Greg Parks, San Diego Chamber of Commerce
Jack Flynn
Hal Guven, University of Cypress
David Grueb, Sierra Club
Michael Shames, UCAN
Derek D. Turbine, Clean Energy
Don Wood, C-3/PEPC
Melanie McCutchan, EHC
Alexandra Hart, IBEW 569
Julie Gelfat, IBEW 569
Risa Baron, SDG&E
Bob Resley, Resley Consulting
J.C. Thomas, SDG&E
Jim McCollum, SolarTurbines, IEA
MaryAnn Kempczenski, City of San Diego
Dan Cruz, M&M
Al Figueroa, ESC
Cheryll Stewart, SDCWA
J. William Nash, San Diego Unified School District
Keith Battle, Battle Strategies
Erin Letsch, City of Carlsbad
Jim Svedeman, SDRES
Rich Caputo, SDRES
Jeanette Deris, ClearDome Solar Thermal
Joe Steinberger, SDRES
Sephra Ninow, SDREO
Jennifer Porter, SDREO
John Westerman, Energized Solutions
Matthew Dickey, SunEdison
Scott Reed, SunEdison
Jaleh Firooz, AES Consulting
Roberta Lee, UCSD
Kylene McGee, UCSD
Nikole Fortier, UCSD
Scott Crider, SDG&E
SOLAR POWER OPPORTUNITIES FOR LOCAL GOVERNMENTS
AND PUBLIC AGENCIES

This item has been carried forward from the January 25, 2007, EWG meeting.

Recent changes in the solar power industry have led to Power Purchase Agreements becoming the standard for commercial-sized solar projects. In addition to making solar power a good economic bargain today (for all types of entities, including public and private sector), they provide a unique set of benefits to electricity users including zero capital outlays and none of the risks inherent to owning and operating solar technology.

Scott Reed develops solar power projects for public and private sector clients throughout California and has offered seminars on solar power economics in Southern California at both the residential and commercial level. His company, SunEdison, is North America's largest solar energy service provider. He will present information on solar power opportunities.

Attachment: 1. Presentation on Solar Energy Power Purchase Agreements

Key Staff Contact: Susan Freedman, (619) 699-7387, sfr@sandag.org
Solar Energy
Power Purchase Agreements

Scott Reed
Project Development
SunEdison

949-289-0194
SReed@SunEdison.com

Cash Flows for Solar Energy
Power Purchase Agreement

Host Customer
(electricity end-user)

Solar Services Firm

Utility

State and Federal Gov’t

Transaction Structure Influences Solar Firm’s Economic Incentives

Direct Ownership
("cash-buy")

Power Purchase Agreement

Transaction Structure Influence Solar Firm’s Economic Incentives

Direct Ownership
("cash-buy")

Parts Selection

Use least expensive permitted

Parts Selection

Highest quality, not cheapest

Labor

Cut available corners

Labor

Build it right the first time

Project Design Horizon

Contractor’s warranty period

Project Design Horizon

Expected lifetime of system

Customer Service

Build project and be done with it

Customer Service

Be there whenever needed

Warranty

Minimum possible in marketplace

Warranty

Longest available in marketplace

Contractor's Business Horizon

Short-term relationships

Contractor's Business Horizon

Long-term relationships

Cost Incentives

Paid over 5 years

Cost Incentives

Paid out in 1-5 years

CSI Rebate

Invoiced only for Solar kW's Actually Produced

CSI Rebate

Tax Incentives

Utility Bill Savings

(over 20-40 year system life)

Utility Bill Savings

(over 20-40 year system life)

Renewable Power Services
For Commercial & Government Institutions

Predictable Long-Term Pricing
Starting rates equal to or below existing utility prices
Contractually fixed rate schedule up to 20 years

Immediate ROI versus “Build & Buy” Model
Cash flow positive...immediately
No capital outlays

Solar Power Contract Structure Comparison

Advantages

Disadvantages

Direct Ownership
("cash-buy")

May have own use for ITCs

• Gov't/Non-profits can’t use ITCs
• O&M costs, inefficiencies
• Contractor incentives are opposite owner interests
• New PBI rebates not compatible
• Non-performance risk

Lease

• ITC appetite not required
• Compatible with PBI rebates

• ITC costs, inefficiencies
• Contractor incentives opposite of owner interests
• Non-performance risk

Power Purchase Agreement

Contractor incentives aligned with owner interests

• Contractor incentives aligned with owner interests
• ITC appetite not required

• Contractor incentives opposite of owner interests
• Non-performance risk

May not want long-term contract

May prefer to own system

Buyers’ Questions for Solar PPA Firms

• How strong is the financial backing they bring to the table?
• Who are their investors and what is their key motivation? (the answers can tell you how strongly their business model will commit them to you over the long haul)
• How strong is supply chain, given global shortage issues?
• Do they build their own projects or do they subcontract?
• Do they operate and maintain their own projects, or do they subcontract?
• What are their capabilities and relationship to new technologies?
• How many PPAs have they signed?
• How experienced are they with “true” PPAs?
• What is their overall balance of PPAs to Cash-sales?
• Can I talk to their existing clients?
• How long have they been in business?
• How deep is their management talent in finance, as well as the project delivery, operations, and maintenance side?
**A Possible SanDag Solar Projects Development Process**

1. Form aggregating entity
2. Decide broad project scope (e.g. 5MW in 5 years in certain cities; a.k.a. "Hunting License")
3. Issue RFQ
4. Award
5. Specific projects identified ("D&E I")
6. Project contracts negotiated
7. "D&E II"
8. Construction
9. Operation and Maintenance

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**Solar Energy Power Purchase Agreements**

**Q&A**

Scott Reed  
Project Development  
SunEdison

949-289-0194  
SReed@SunEdison.com
Over the past year, Councilmember Abarbanel, EWG Co-Chair; Gary Gallegos, SANDAG Executive Director; and additional staff have been meeting with Senator Kehoe and CEC leadership to identify partnership opportunities. SANDAG staff is now working with CEC staff to develop a specific proposal for a multi-year agreement that would provide financial support from CEC to SANDAG to conduct planning activities. The partnership will address regional energy and climate planning and the CEC’s Integrated Energy Policy Report (IEPR) recommendations. The EWG will be receiving regular progress reports on this and will be asked to provide advice over the course of this partnership.

The scope of activities is outlined in the attached document, “Do We Have the Energy.” This document was used at an energy session for the Annual SANDAG Board Retreat on February 1, 2007.

Attachment: 1. Do We Have the Energy Report

Key Staff Contact: Susan Freedman, (619) 699-7387; sfr@sandag.org
DO WE HAVE THE ENERGY?

- Which energy topics discussed in this report are most important to our region?
- How can the SANDAG Regional Energy Planning Program help member agencies address their energy needs and environmental goals and policies?
- What if jurisdictions are mandated to put energy elements in general plans?

INTRODUCTION

The San Diego region is unique in its long history of developing strategies and plans to meet our energy needs in a sustainable way. The most recent Regional Energy Strategy was prepared by the San Diego Regional Energy Office (SDREO) and adopted by the SANDAG Board of Directors in 2003. The strategy was incorporated into the SANDAG Regional Comprehensive Plan in 2004. Since that time, the SANDAG Energy Working Group has been providing input to the Regional Planning Committee and the Board on a wide range of regional energy issues.

At the same time, the State of California has begun to recognize the importance of sound energy planning not only to meet consumer needs and economic development goals, but also to help reduce greenhouse gas emissions that are associated with climate change. In addition, California is now looking to expand the role of local and regional governments in meeting energy and climate change goals. Therefore, the San Diego region has a unique opportunity to partner with the state to advance mutual goals of maximizing energy efficiency and reducing energy-related pollutants that degrade the environment. This report highlights state energy policies most relevant to SANDAG and areas for collaboration.

CALIFORNIA ENERGY PLANNING

Several state agencies have authority over energy planning and policies, and related air quality issues. The California Energy Commission (CEC) is the state's primary energy planning agency. The California Public Utilities Commission (CPUC) regulates privately owned electric and natural gas companies, including San Diego Gas and Electric (SDG&E).

The California Air Resources Board (CARB) is the lead agency for implementing Federal and State laws pertaining to air quality. These agencies coordinate and collaborate on various interrelated issues, including the implementation of strategies to meet California's greenhouse gas emission reduction targets, established by the Governor in an Executive Order and codified in Assembly Bill 32. It also should be noted that CARB works with the San Diego County Air Pollution Control District (APCSD) to implement many of the specific plans and policies pertaining to air quality in the San Diego region.
Every two years, the California Energy Commission publishes an energy policy blueprint for the state called the Integrated Energy Policy Report (IEPR). The IEPR is the foundation of energy policies and decisions affecting California. In alternate years, CEC publishes an IEPR “Update,” which focuses on specific statewide energy policy issues not covered in sufficient detail in the IEPR. In the 2006 IEPR Update, one of the topics that was addressed was the relationship between land use and energy planning. The CEC wants to place a greater emphasis on the land use planning/energy planning relationship and take advantage of its significant potential to help meet state energy and greenhouse gas reduction goals. The commission considers “smart growth” to be the most significant opportunity to meet those goals. Therefore, it is recommending several state policy changes that will enhance the role of smart growth in meeting many state energy goals, including legislation requiring energy elements in local government general plans.

It should be noted that SANDAG already has partnered with the CEC to utilize the urban simulation model PLACE3S (Planning for Community Energy, Economic, Environmental Sustainability) which can help to evaluate the energy use and pollutant emission impacts of various land use and transportation planning scenarios. In addition, SANDAG is working with CEC staff to look at how “regional blueprint plans” like the SANDAG Regional Comprehensive Plan can be used to integrate land use, transportation, and energy policies on a regional scale.

SANDAG Energy Planning Program

In April 2006, the SANDAG Board of Directors discussed the future of the SANDAG Regional Energy Planning Program. The Board acknowledged the significant accomplishments made by SANDAG through its Regional Energy Strategy and Energy Working Group. Directors agreed that the agency should make a long-term commitment to this program. The Board also agreed that SANDAG staff should continue to pursue external funding sources in support of its regional planning activities. This Board direction was incorporated into the FY 07 SANDAG Overall Work Program and Budget.

Opportunities for State/Regional Collaboration

Since that time, in addition to implementing the activities outlined in the OWP, SANDAG staff and EWG members have been pursuing various outside funding sources to support Regional Energy Program activities. One of the most promising opportunities appears to be a collaborative effort between SANDAG and the CEC.

One idea is having the CEC provide funding to SANDAG which would be used in the future updating of the Regional Energy Strategy, with a specific focus on the relationship between regional energy planning and smart growth land use/transportation planning as set forth in the SANDAG Regional Comprehensive Plan. The idea would be for SANDAG to update its Regional Energy Strategy, using the PLACE3S model as a tool for evaluating the energy use and greenhouse gas emission impacts of alternative land use/transportation scenarios. The results of this analysis and planning would then be incorporated into future updates of the RCP and Regional Transportation Plan. SANDAG would agree to share its methodology and results with the CEC and with other Metropolitan Planning Organizations in California. In addition, the updated RES and PLACE3S model would be available to local governments in the San Diego region to be used in the updates of their general plans and implementing programs.
In addition, CEC representatives have expressed an interest in providing support to continue the development of the “Sustainable Region” energy conservation program, which was initiated jointly by SANDAG, SDREO, and SDG&E, and was implemented on a pilot basis with the City of Carlsbad last year. This program would enable local jurisdictions to help meet state and regional energy goals through implementation of energy efficiency measures, demand response capabilities, and distributed generation applications in municipal facilities and services. The Carlsbad pilot program resulted in identifying 32 energy saving recommendations that if implemented would save the City about $200,000 per year on its energy bills. For three projects it is currently implementing, Carlsbad has qualified for about $75,000 in incentives and could save $43,000 per year on its electric bills.

SANDAG also has discussed the idea of working with CEC in the evaluation of the use of alternative fuels in the transportation sector. Here again SANDAG regional plans and modeling capabilities could be used to help evaluate options for the use of alternative fuels, with the results being reported by the CEC in its 2007 IEPR, and incorporated into the next update of the SANDAG Regional Energy Strategy.

SANDAG and CEC representatives have discussed the idea of SANDAG studying the feasibility of co-locating electric transmission and distribution facilities within the rights-of-way of transportation corridors. This study, which would be prepared in cooperation with SDG&E and Caltrans, would identify opportunities that exist within the San Diego region to use this approach, and would also identify issues and obstacles that may need to be overcome. The results of this study would be transferable to other MPOs in the state.

**NEXT STEPS**

SANDAG staff is now working with CEC staff to develop a specific proposal for a multi-year agreement that would provide financial support from CEC to SANDAG to conduct planning activities such as those outlined above.
February 22, 2007

AGENDA ITEM NO.: 6

ACTION REQUESTED: RECOMMEND

DISTRIBUTED GENERATION (DG) LEGISLATION

File Number 3003000

Introduction

For a second year, Senator Kehoe hosted the SANDAG Energy Legislative Forum on November 29, 2006. Two of the legislative items addressed ways to meet the Regional Energy Strategy goal for increased distributed generation (DG). Subsequent to the forum, language has been developed by interested parties for consideration in the California Legislature.

The proposed language is attached to this report. The first attachment addresses municipal DG projects and measures to increase flexibility for public agency DG projects. The second addresses continuation of an incentive program for self-generation systems of combined heat and power (CHP). The San Diego Regional Energy Office forwarded potential bill language to Assemblymember Lieber’s office that would extend the Self-Generation Incentive Program for CHP technologies. An updated version of this bill language will be forwarded to members and interested parties when it becomes available.

Recommendation

The EWG is asked to discuss each of the legislative items and make a recommendation to the Executive Committee on whether SANDAG should take a position.

Discussion

Please see attached bill language.

Attachments:
1. Municipal DG Legislative Language
2. CHP Incentive Program Legislative Language

Key Staff Contact: Susan Freedman, (619) 699-7387; sfr@sandag.org
THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

SECTION 1. Chapter 8 (commencing with Section 2840) is added to Part 2 of Division 1 of the Public Utilities Code, to read:

CHAPTER 8. GOVERNMENTAL ENERGY PRODUCERS

2840. (a) As used in this section, the following terms have the following meanings:

(1) "Benefiting account" means an electricity account, or more than one account, mutually agreed upon by a governmental entity and an electrical corporation.

(2) "Bill credit" means credits calculated based upon the electricity generation component of the rate schedule applicable to a benefiting account, as applied to the quantities of electricity generated by an eligible renewable generating facility.

(3) "Eligible renewable generating facility" means a generation facility that is an eligible renewable energy resource pursuant to the California Renewables Portfolio Standard Program that is owned or operated by a city, county, city and county, or joint powers agency formed by a city, county, or city and county.

(4) "Environmental attributes" associated with an eligible renewable generating facility include, but are not limited to, the credits, benefits, emissions reductions, environmental air quality credits, and emissions reduction credits, offsets, and allowances, however entitled resulting from the avoidance of the emission of any gas, chemical, or other substance attributable to the eligible renewable generating facility.
(b) A city, county, city and county, or joint powers agency formed by a city, county, or city and county may elect to designate a benefiting account, or more than one account, to receive bill credit for the electricity generated by an eligible renewable generating facility, if all of the following conditions are met:

(1) A benefiting account receives service under a time-of-use rate schedule.

(2) The electrical output of the eligible renewable generating facility is metered for time of use to allow allocation of each bill credit to correspond to the time of use period of a benefiting account.

(3) All costs associated with the metering requirements of paragraphs (1) and (2) are the responsibility of the city, county, city and county, or joint powers agency formed by a city, county, or city and county.

(4) All electricity delivered to the electrical grid by the eligible renewable generating facility is the property of the electrical corporation that provides for interconnection.

(5) The city, county, city and county, or joint powers agency formed by a city, county, or city and county does not sell electricity delivered to the electrical grid to a third party.

(6) The right, title, and interest in the environmental attributes associated with the electricity delivered to the electrical grid by the eligible renewable generating facility are the property of the electrical corporation.

(c) A benefiting account shall be billed on a monthly basis, as follows:

(1) For all electricity usage, the rate schedule applicable to the benefiting account shall be the rate schedule of the benefiting account, including any cost-recovery
surcharge or other cost recovery mechanism, as determined by the commission, to reimburse the Department of Water Resources for purchases of electricity, pursuant to Division 27 (commencing with Section 30000) of the Water Code.

(2) The rate schedule for the benefiting account shall also provide credit for the generation component of the time-of-use rates for the electricity generated by the eligible renewable generating facility that is delivered to the electrical grid. The generation component credited to the benefiting account may not include the cost-responsibility surcharge or other cost recovery mechanism, as determined by the commission, to reimburse the Department of Water Resources for purchases of electricity, pursuant to Division 27 (commencing with Section 30000) of the Water Code.

(3) If in any billing cycle, the charge pursuant to paragraph (1) for electricity usage exceeds the billing credit pursuant to paragraph (2), the city, county, city and county, or joint powers agency formed by a city, county, or city and county shall be charged for the difference.

(4) If in any billing cycle, the billing credit pursuant to paragraph (2) exceeds the charge for electricity usage pursuant to paragraph (1), the difference shall be carried forward as a credit to the next billing cycle.

(5) After the electricity usage charge pursuant to paragraph (1) and the credit pursuant to paragraph (2) are determined for the last billing cycle of a calendar year, any remaining credit resulting from the application of this section shall be reset to zero.

(d) Not more frequently than once per year, and upon providing the electrical corporation with a minimum of 60 days' notice, the city, county, city and county, or
joint powers agency formed by a city, county, or city and county may elect to change a benefiting account. Any credit resulting from the application of this section earned prior to the change in a benefiting account that has not been used as of the date of the change in the benefit account, shall be applied, and may only be applied, to a benefiting account as changed.

(e) A city, county, city and county, or joint powers agency formed by a city, county, or city and county shall provide the electrical corporation to which the eligible renewable generating facility will be interconnected with not less than 60 days’ notice prior to the eligible renewable generating facility becoming operational. The electrical corporation shall file an advice letter with the commission, that complies with this section, not later than 30 days after receipt of the notice, proposing a rate tariff for a benefiting account. The commission, within 30 days of the date of filing, shall approve the proposed tariff, or specify conforming changes to be made by the electrical corporation to be filed in a new advice letter.

(f) The city, county, city and county, or joint powers agency formed by a city, county, or city and county may terminate its election pursuant to subdivision (b), upon providing the electrical corporation with a minimum of 60 days’ notice. Should the city, county, city and county, or joint powers agency formed by a city, county, or city and county sell its interest in the eligible renewable generating facility, or sell the electricity generated by the eligible renewable generating facility, in a manner other than required by this section, upon the date or earlier event, and the earliest date if both events occur, no further bill credit pursuant to paragraph (2) of subdivision (b) may be earned. Only credit earned prior to that date shall be made to a benefiting account.
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.
Rationale: Under the state’s Energy Action Plan II, one of the Key Actions is to “provide for the continued operation of cost-effective and environmentally-sound existing generation needed to meet current reliability needs, including combined heat and power generation” 1

In most parts of the U.S. and the world, distributed energy technology is recognized as efficient and environmentally advantageous. If adopted, it can benefit institutional and business adopters, the electricity grid, and society.

Clean distributed energy technologies:

- Achieve combined electric and thermal efficiencies from 60 to 90 percent
- Avoid and or defer the need to build costly electric transmission and distribution infrastructure
- Eliminate or reduce transmission and distribution losses, reduce or eliminate grid congestion
- Significantly decrease greenhouse gas (GHG) emissions
- Provide California businesses with an option to curb energy costs
- Boost power reliability for business adopters
- Meet or exceed the same air emission standards as modern natural gas central station combined cycle power plants
- Provide ultra-high natural gas use efficiencies, conserving natural gas resources and enhancing utilization of California’s gas distribution system

Distributed energy technologies, including combined heat and power (CHP) technologies are included as a priority in the state’s approved loading order, which is the state’s guiding principles and order of priorities for resource procurement.

Senate Bill 1 (SB 1) established a robust incentive program for solar electric technologies beginning in January 2007. Assembly Bill 2778 (AB 2778) created a like program for fuel cells and wind technologies beginning in 2008. Upon signing AB 2778, Governor Schwarzenegger added the following note, “I look forward to working with the legislature to enact legislation that returns the most efficient and cost effective technologies (clean combustion technologies) to the program.” However, these bills excluded all other currently eligible technologies, including:

1 California State Energy Action Plan, p. 8
• Internal Combustion Engines, Microturbines & Gas Turbines, operating on renewable fuel.
• Internal Combustion Engines, Microturbines & Gas Turbines Combined Heat and Power Systems

This bill would require the Commission, in consultation with the CEC, to continue to administer an incentive program, until January 1, 2012. The bill, commencing January 1, 2008, until January 1, 2012, would include nonsolar technologies, specifically technologies that meet or exceed the emissions standards required under the distributed energy certification program adopted by the State Air Resources Board, in the program.

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

Section 379.6 of the Public Utilities Code is amended to read:
The Commission, in consultation with the CEC, shall administer, until January 1, 2012, an incentive program for distributed energy resources. Commencing January 1, 2008, all combustion-operated distributed energy projects using fossil fuel shall meet an emission rate standard that complies with AB 2778. Eligibility of fossil-fueled CHP for the incentive would be subject to the same efficiency and emission criteria as stated in Section 379.6 of the Public Utilities Code for calendar year 2007 and follow the proposed environmental and size standards, including:

• Minimum combined electric and thermal efficiency of 60 percent
• NOx emissions no greater than 0.07 lbs/MWh
• A thermal credit one MWh for each 3.4 million BTUs of heat recovered is allowed to be added to the total energy production at the facility for purposes of calculating the effective NOx emission level
• Eligible size range should be increased to 20 MW
  • The CPUC should partition funding to ensure adequate funds for all size classes
• Establish tiered funding levels by size that take into account capital cost and economic tipping points
• Include other eligibility criteria for waste gas currently contained in Section 379.6 of the Public Utilities Code
• Amend the Public Utilities Code as appropriate
Introduction

Various global, national, state, and regional efforts are outlined below. There are a multitude of climate change programs, activities, and efforts underway by numerous parties. The Cities of Chula Vista, Del Mar, and San Diego have made commitments to reduce greenhouse gas emissions (GHG). SANDAG is partnering with the CEC on a regional approach to addressing GHG emissions. This report does not attempt to address the breadth of climate activities but rather touch upon a handful.

Discussion

Global: The Intergovernmental Panel on Climate Change (IPCC)

Working Group I of the IPCC adopted the summary for policymakers of the first volume of “Climate Change 2007,” also known as the Fourth Assessment Report (AR4). “Climate Change 2007: The Physical Science Basis,” assesses the current scientific knowledge of the natural and human drivers of climate change, observed changes in climate, the ability of science to attribute changes to different causes, and projections for future climate change.

The report was produced by some 600 authors from 40 countries. Over 620 expert reviewers and a large number of government reviewers also participated. Representatives from 113 governments reviewed and revised the summary line-by-line during the course of this week before adopting it and accepting the underlying report.

The report and additional information is found on the IPCC Web site at www.ipcc.ch. The direct link to the report in PDF is www.ipcc.ch/SPM2feb07.pdf.

Global and Local: ICLEI

ICLEI—Local Governments for Sustainability is an international association of local governments and national and regional local government organizations that have made a commitment to sustainable development. It sponsors the Cities for Climate Protection (CCP) Campaign and enlists cities to adopt policies and implement measures to achieve quantifiable reductions in local GHG emissions, improve air quality, and enhance urban livability and sustainability.
Timothy Burroughs, ICLEI, presented to the EWG in 2006 on its services. More than 650 local governments participate in the CCP, integrating climate change mitigation into their decision-making processes. ICLEI runs this highly successful and widely recognized campaign either regionally or nationally in Australia, Canada, Europe, Japan, Latin America, Mexico, New Zealand, South Africa, South Asia, Southeast Asia, and the U.S.. For more information, visit www.iclei.org.

**National and Local: U.S. Mayors Climate Protection Agreement**

Climate disruption is an urgent threat to the environmental and economic health of our communities. Many cities, in this country and abroad, already have strong local policies and programs in place to reduce global warming pollution, but more action is needed at the local, state, and federal levels to meet the challenge. On February 16, 2005, the Kyoto Protocol, the international agreement to address climate disruption, became law for the 141 countries that have ratified it to date. On that day, Seattle Mayor Greg Nickels launched this initiative to advance the goals of the Kyoto Protocol through leadership and action by at least 141 American cities. Mayor Nickels, along with a growing number of other U.S. mayors, is leading the development of a U.S. Mayors Climate Protection Agreement. Under the Agreement, participating cities commit to take the following three actions:

1. Strive to meet or beat the Kyoto Protocol targets in their own communities, through actions ranging from anti-sprawl land-use policies, to urban forest restoration projects, to public information campaigns;
2. Urge their state governments, and the federal government, to enact policies and programs to meet or beat the GHG emission reduction targets suggested for the U.S. in the Kyoto Protocol -- 7 percent reduction from 1990 levels by 2012; and
3. Urge the U.S. Congress to pass the bipartisan GHG reduction legislation, which would establish a national emission trading system.

The U.S. Mayors Climate Protection Agreement and a signature page are attached to this report.

**California and the Region:**

California has declared that global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of the state. Potential adverse affects include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snow-pack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems, and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.

In September 2006, the California Global Warming Solutions Act of 2006 (AB 32) was signed into law. The law calls for statewide GHG emissions limit equivalent to the statewide GHG emissions levels in 1990 to be achieved by 2020. (Follows June 2005 Executive Order calling for GHG emissions cap and reductions.) It designates the California Air Resources Board (CARB) as lead oversight agency. It requires all state agencies to consider and implement GHG emission reduction strategies.
Local government protocols are to be developed. SANDAG staff is participating in discussions with the CEC, CARB, ICLEI, the local government commission, and other agencies and organizations on their development. The Cities of Chula Vista, Del Mar, and San Diego have already signed on to the U.S. Mayors Climate Protection Agreement and are at different degrees of assessing their emissions and implementing climate protection plans. SANDAG staff is coordinating with efforts already underway.

In the 2006 Update of the Integrated Energy Policy Report (IEPR), the CEC recognized the relationship between land-use and energy. It identified smart growth as a method to reduce our GHG impact. Several recommendations were included in the IEPR Update, including one calling for legislation to require local governments to develop and implement GHG reduction plans. As part of the proposed CEC-SANDAG partnership, we will identify ways to achieve the goal of this recommendation for our region.

Attachments: 1. U.S. Mayors Climate Protection Agreement
               2. U.S. Conference of Mayors Climate Protection Agreement – Signature Page

Key Staff Contact: Susan Freedman, (619) 699-7387; sfr@sandag.org
ENDORsing the U.S. Mayors Climate Protection Agreement

WHEREAS, the U.S. Conference of Mayors has previously adopted strong policy resolutions calling for cities, communities and the federal government to take actions to reduce global warming pollution; and

WHEREAS, the Inter-Governmental Panel on Climate Change (IPCC), the international community’s most respected assemblage of scientists, has found that climate disruption is a reality and that human activities are largely responsible for increasing concentrations of global warming pollution; and

WHEREAS, recent, well-documented impacts of climate disruption include average global sea level increases of four to eight inches during the 20th century; a 40 percent decline in Arctic sea-ice thickness; and nine of the ten hottest years on record occurring in the past decade; and

WHEREAS, climate disruption of the magnitude now predicted by the scientific community will cause extremely costly disruption of human and natural systems throughout the world including: increased risk of floods or droughts; sea-level rises that interact with coastal storms to erode beaches, inundate land, and damage structures; more frequent and extreme heat waves; more frequent and greater concentrations of smog; and

WHEREAS, on February 16, 2005, the Kyoto Protocol, an international agreement to address climate disruption, went into effect in the 141 countries that have ratified it to date; 38 of those countries are now legally required to reduce greenhouse gas emissions on average 5.2 percent below 1990 levels by 2012; and

WHEREAS, the United States of America, with less than five percent of the world’s population, is responsible for producing approximately 25 percent of the world’s global warming pollutants; and

WHEREAS, the Kyoto Protocol emissions reduction target for the U.S. would have been 7 percent below 1990 levels by 2012; and
WHEREAS, many leading US companies that have adopted greenhouse gas reduction programs to demonstrate corporate social responsibility have also publicly expressed preference for the US to adopt precise and mandatory emissions targets and timetables as a means by which to remain competitive in the international marketplace, to mitigate financial risk and to promote sound investment decisions; and

WHEREAS, state and local governments throughout the United States are adopting emission reduction targets and programs and that this leadership is bipartisan, coming from Republican and Democratic governors and mayors alike; and

WHEREAS, many cities throughout the nation, both large and small, are reducing global warming pollutants through programs that provide economic and quality of life benefits such as reduced energy bills, green space preservation, air quality improvements, reduced traffic congestion, improved transportation choices, and economic development and job creation through energy conservation and new energy technologies; and

WHEREAS, mayors from around the nation have signed the U.S. Mayors Climate Protection Agreement which, as amended at the 73rd Annual U.S. Conference of Mayors meeting, reads:

The U.S. Mayors Climate Protection Agreement

A. We urge the federal government and state governments to enact policies and programs to meet or beat the target of reducing global warming pollution levels to 7 percent below 1990 levels by 2012, including efforts to: reduce the United States’ dependence on fossil fuels and accelerate the development of clean, economical energy resources and fuel-efficient technologies such as conservation, methane recovery for energy generation, waste to energy, wind and solar energy, fuel cells, efficient motor vehicles, and biofuels;

B. We urge the U.S. Congress to pass bipartisan greenhouse gas reduction legislation that includes 1) clear timetables and emissions limits and 2) a
flexible, market-based system of tradable allowances among emitting industries; and

C. We will strive to meet or exceed Kyoto Protocol targets for reducing global warming pollution by taking actions in our own operations and communities such as:

1. Inventory global warming emissions in City operations and in the community, set reduction targets and create an action plan.
2. Adopt and enforce land-use policies that reduce sprawl, preserve open space, and create compact, walkable urban communities;
3. Promote transportation options such as bicycle trails, commute trip reduction programs, incentives for car pooling and public transit;
4. Increase the use of clean, alternative energy by, for example, investing in “green tags”, advocating for the development of renewable energy resources, recovering landfill methane for energy production, and supporting the use of waste to energy technology;
5. Make energy efficiency a priority through building code improvements, retrofitting city facilities with energy efficient lighting and urging employees to conserve energy and save money;
6. Purchase only Energy Star equipment and appliances for City use;
7. Practice and promote sustainable building practices using the U.S. Green Building Council's LEED program or a similar system;
8. Increase the average fuel efficiency of municipal fleet vehicles; reduce the number of vehicles; launch an employee education program including anti-idling messages; convert diesel vehicles to bio-diesel;
9. Evaluate opportunities to increase pump efficiency in water and wastewater systems; recover wastewater treatment methane for energy production;
10. Increase recycling rates in City operations and in the community;
11. Maintain healthy urban forests; promote tree planting to increase shading and to absorb CO2; and
Help educate the public, schools, other jurisdictions, professional associations, business and industry about reducing global warming pollution.

NOW, THEREFORE, BE IT RESOLVED that The U.S. Conference of Mayors endorses the U.S. Mayors Climate Protection Agreement as amended by the 73rd annual U.S. Conference of Mayors meeting and urges mayors from around the nation to join this effort.

BE IT FURTHER RESOLVED, The U.S. Conference of Mayors will work in conjunction with ICLEI Local Governments for Sustainability and other appropriate organizations to track progress and implementation of the U.S. Mayors Climate Protection Agreement as amended by the 73rd annual U.S. Conference of Mayors meeting.
You have my support for the US Mayors Climate Protection Agreement.

Date: __________

Mayor: _____________________________________________

Signature: __________________________________________

Address: _____________________________________________

City: ___________________ State: _______ Zip: _______

Mayor’s Email: _____________________________________________

Staff Contact Name: _____________________________________________

Staff Contact Title: _____________________________________________

Staff Phone: _____________________________________________

Staff Email: _____________________________________________

Please add my comments in support of the US Mayors Climate Protection Agreement. We will add these to the Website (optional):

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Please return completed form at your earliest convenience to:
US Mayors Climate Protection Agreement

By Mail: c/o City of Seattle
Office of Sustainability and Environment
Seattle Municipal Tower
PO Box 94729
Seattle, WA 98124-4729

By Fax: (206) 684-3013

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