ENERGY WORKING GROUP

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

Thursday, March 26, 2009

11:30 a.m. to 1:30 p.m. (This meeting is scheduled for 2 hours)

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

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

AGENDA HIGHLIGHTS

• RCAP MODELING RESULTS
• 2009 REGIONAL ENERGY STRATEGY GOALS
• CCSE’S REGIONAL ENERGY EFFICIENCY ASSESSMENT

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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 FEBRUARY 26, 2009, ENERGY WORKING GROUP (EWG) MEETING</td>
<td>APPROVE</td>
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<td>The February 26, 2009, meeting summary is attached for the EWG review and approval.</td>
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<td>3. PUBLIC COMMENT</td>
<td>COMMENT</td>
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<td>Members of the public who would like to address the EWG on a topic not on the agenda should do so at this time. Speakers are limited to three minutes each.</td>
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<td>4. POSSIBLE CHANGE TO EWG MEETING TIME (10 MIN)</td>
<td>DISCUSSION</td>
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<td>The Chair will seek input from members on whether to keep the monthly EWG meeting time at 11:30 a.m., with attendees bringing their own food if they would like lunch. The meeting will remain on the fourth Thursday of every month. The starting time can shift as early as 9 a.m. and end as late as 2:30 p.m.</td>
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<td>5. CALIFORNIA LEGISLATIVE UPDATE (10 MIN)</td>
<td>DISCUSSION</td>
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<td>The EWG is asked to review the attached bill summaries provided by the Energy Policy Initiatives Center. The Chair seeks input on bills that members think SANDAG should support. The identified bills will be discussed in detail at the April EWG meeting.</td>
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<td>6. REGIONAL CLIMATE ACTION PLAN (RCAP) POLICY MEASURES AND GUIDING PRINCIPLES (30 MIN)</td>
<td>DISCUSSION</td>
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<td>The GHG reduction policies discussed at the past three EWG meetings have been run in the SANDAG transportation demand model and CARB’s emissions model (EMFAC). <strong>The results were not ready at time of agenda processing and will be emailed prior to the EWG meeting.</strong> Handouts will be provided at the meeting. The Guiding Principles that were presented last month have been condensed and are attached for EWG review and feedback.</td>
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<td>ITEM #</td>
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<td>+7.</td>
<td>DISCUSSION</td>
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<td>2009 REGIONAL ENERGY STRATEGY (RES) GOALS AND GUIDING PRINCIPLES (30 MIN)</td>
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<td>EWG members are asked to provide input and feedback on the proposed 2009 RES goals and guiding principles. Updates to the 2003 measures are based on discussions at the January and February EWG meetings, staff analyses, and state policy.</td>
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<td>+8.</td>
<td>DISCUSSION</td>
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<td>2009 RES: REGIONAL ENERGY EFFICIENCY ASSESSMENT (30 MIN)</td>
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<td>As follow-up to the January EWG meeting discussion on energy consumption and updating the 2003 goal, SANDAG asked CCSE to provide an analysis of projected energy use by sector and recommended energy efficiency measures. Andrew McAllister and Jennifer Green will present the findings for the EWG to discuss for use in the 2009 RES.</td>
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<td>INFORMATION</td>
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<td>CITY OF SAN DIEGO GREEN STUDENTS PROGRAM AND 2009 YOUTH FORUM (8 MIN)</td>
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<td>San Diego Green Students 2009 Youth Forum &quot;Planning Our Future: TAG! You’re It!&quot; will be April 25th at the Reuben H. Fleet Center. It is FREE and open to high school students throughout San Diego County. Pre-registration is required. The City of San Diego’s Green Students Program is in its ninth year and has served over 4,500 high school students. The program explains the link between resource use and impacts both locally and globally. Please see the attached informational flyers.</td>
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<td>10.</td>
<td>DISCUSSION</td>
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<td>SCHEDULING AGENDA ITEMS FOR FUTURE MEETINGS</td>
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<td>EWG members are invited to suggest topics for the upcoming meeting on April 23, 2009. The 2009 RES and RCAP development continue to be primary agenda items.</td>
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<td>ADJOURN</td>
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+ next to an item indicates an attachment
Summary of February 26, 2009, EWG Meeting

Agenda Item #1: Welcome and Introductions

Energy Working Group (EWG) Chair Carrie Downey, City of Coronado, called the meeting to order at 11:30 a.m. and thanked members and attendees for arriving on time.

With recent budget constraints, Ms. Downey announced the SANDAG Board has decided to validate parking for up to 2½ hours and lunch will no longer be provided for the EWG meetings. In light of these changes, Ms. Downey asked Working Group members to consider changing the meeting time.

Agenda Item #2: Summary of January 22, 2009, Meeting

Donna Frye, City of San Diego motioned to approve the summary. Mike Evans, Shell Energy, seconded the motion, but noted the misspelling of David Geier’s last name (not Grier as written) in the summary. The motion passed without opposition.

Agenda Item #3: Public Comment and Communications

Members of the public were given the opportunity to address the EWG on any topic not on the agenda.

It was announced that the County of San Diego adopted a zoning amendment to streamline permitting of meteorological testing facilities for wind power.

Paul Cleary, GRID Alternatives, announced that GRID Alternatives is launching a program in San Diego to install solar systems for low-income households.

Lesa Heebner, City of Solana Beach representing the North County Coastal subregion, announced that the City has partnered with Nature and Culture International to create a carbon offset program in which City residents can offset their carbon footprint or a portion thereof by purchasing tropical forest in Ecuador at a price of $50 per acre. The goal of the program is to preserve an area of forest equivalent to the size of Solana Beach (approximately 2,000 acres). For more information on this program please contact Mike McColm at (858) 259-0903.
AGENDA ITEM #4: 2009 REGIONAL ENERGY STRATEGY (RES) UPDATE GOALS: DISTRIBUTED GENERATION (DG)/RENEWABLE ENERGY

Jennifer Green, California Center for Sustainable Energy (CCSE), presented an analysis of regional DG potential by technology along with associated barriers, policies, and actions. SANDAG requested that CCSE perform a DG analysis for the RES Update and to recommend new DG goals. She provided a list of DG technologies, discussed the DG market in San Diego, and explained the cost and benefits of DG and renewable energy (small and large scale). Ms. Green reported that the region has not meet Goal 3 of the 2003 RES to increase total electricity supply from renewable resources to 15% by 2010, 25% by 2020, and 50% by 2030. To achieve this goal, new targets have been identified in the 2009 Renewable Goal that would increase renewable resource penetration to 20% by 2010 and 33% by 2020. The renewable energy goal would complement the DG goal, which addresses in-county renewable and non-renewable DG technologies under 20MW. Additionally, Ms. Green discussed the policies and actions necessary in implementing and achieving these goals, as provided in the analysis included with the agenda item, and asked EWG for input on the recommended goals and policies.

Questions/Comments:
Andrew McAllister, CCSE, said there will be more potential for combined heat and power (CHP) and solar photovoltaic (PV) energy in the region and noted that the CSI goal is 183.3 MW of power for small scale PV.

Michael Meacham, City of Chula Vista, asked how tariffs would interplay with the renewable goals because it might be indicative of DG investment potential.

A member of the public inquired if SANDAG will take a position on net metering. Ms. Downey responded that no position has been taken on net metering at this point.

AGENDA ITEM #5: ASSEMBLY BILL (AB) 811 FINANCING PROGRAM

Frank Spasaro, SDG&E, provided information on AB 811, which authorizes cities and counties to designate areas within which willing property owners could enter into contractual assessments to finance the installation of distributed renewable generation, as well as energy efficiency improvements, that are permanently fixed to real property. The financing arrangements would allow property owners to finance distributed renewable generation and energy efficiency improvements through low-interest loans that would be repaid as an item on the property owner’s property tax bill. This new law is expected to dramatically increase the amount of distributed renewable generation and energy efficiency improvements in the region.

Mr. Spasaro stressed the importance of including energy efficiency improvements in an AB 811 program. He continued to state that he worked with the City of Palm Desert on its program.

Questions/Comments:
Ms. Downey asked how SDG&E will work with the region to implement this legislation. Mr. Spasaro replied that although there are no specifics at this time, a regional body like SANDAG could help the cities and county implement AB 811.
Kurt Kammerer inquired on how cost of energy efficiency would be quantified and that it would be extremely beneficial if SDG&E would provide a tool to help quantify energy efficiency improvements under an AB 811 program.

Ms. Heebner said that AB 811 is a valuable vehicle in promoting sustainability in the region but expressed concerns over some unresolved issues. She stated that Solana Beach had an RFP out seeking an entity to implement the program for her city.

Mr. Spasaro noted that there is a non-taxable bonding issue that is currently being discussed.

Mr. McAllister said that CCSE is supporting local and statewide AB 811 implementation efforts.

Tom Blair, City of San Diego, said that the city’s program will be available by November 2009.

**AGENDA ITEM #6: 2009 RES DEVELOPMENT: GUIDING PRINCIPLES & GOALS**

Susan Freedman, SANDAG, discussed the staff recommendation to include additional goals and policies in the 2009 RES. The new goals and policies would address global climate change, transportation energy, and land use planning. Ms. Freedman provided an overview of the potential guiding principles, goals, and performance metrics that would be included in the 2009 RES. She noted that discussion of the RES will continue on a monthly basis, with a completed draft plan by June. The tentative date for a proposed public workshop for the 2009 RES will be on the evening of June 18 or daytime June 17, 2009, at CCSE.

Questions/Comments:
Ms. Downey recommended that the overall guiding principle for climate change apply to all sectors, not just passenger cars and light-duty trucks. She also asked if staff would like a recommendation from the EWG at this meeting. Ms. Freedman said the purpose of this discussion is to provide staff with input from the EWG so the principles and goals can be refined; no action is required at this meeting.

Mr. Evans suggested rephrasing the language of the overall guiding principle for climate change to emphasize efficient use of fossil fuels and to use words like cautious and responsible instead of describing climate change as an urgent problem. He also suggested that the 2009 RES promote natural gas as the replacement for petroleum fuels in the transportation sector. Donna Frye, City of San Diego, disagreed with Mr. Evans and does not believe that language should be amended because it is a statement of fact; other EWG members agreed with Ms. Frye. Ms. Heebner recommended revising the principle to state “reduce and mitigate” greenhouse gas emissions.

David Lloyd, Regional Economic Development Councils, expressed that he would like the RES Update to focus on reducing emissions from large power plants. Ms. Freedman said that the RES Update will continue to address electricity and natural gas, as the 2003 plan did, and that the discussion focused on these topics because they would be new areas in the plan update.

In response to a question about alternative fuel vehicles, Ms. Downey replied that the 2009 RES will encourage a transition of the region’s fleet to alternative fuel vehicles.
AGENDA ITEM #7: GUIDING PRINCIPLES FOR THE REGIONAL CLIMATE ACTION PLAN (RCAP)

Andrew Martin, SANDAG, gave an overview of the draft guiding principles for the RCAP. The principles identify priorities, behaviors, and actions necessary to achieve mandated greenhouse gas (GHG) reductions. The principles address two key areas: mitigation of impacts and adaptation to climate change. The guiding principles will inform the development of the RCAP.

Mr. Martin noted that the guiding principles will continue to be refined by staff and based on EWG input. Staff will continue monthly reporting to the EWG on the development of the RCAP until the draft plan is completed in July. A public workshop is proposed for July 16 at CCSE. The EWG was asked whether the public workshop should be held during the day or the evening.

Questions/Comment:
No questions or comments were made due to lack of time.

AGENDA ITEM #8: CALIFORNIA ENERGY COMMISSION (CEC) PARTNERSHIP PRODUCTS - UPDATED TIMELINE

This was an information item. The timeline was provided in the agenda packet.

AGENDA ITEM #9: SCHEDULING AGENDA ITEMS FOR FUTURE MEETINGS

None suggested.

AGENDA ITEM #10: ADJOURN

The meeting was adjourned at 1:05 p.m. The next meeting is scheduled for March 26, 2009, from 11:30 a.m. to 1:30 p.m.
## SANDAG ENERGY WORKING GROUP MEETING
### ATTENDANCE FEBRUARY 26, 2009

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<th>GEOGRAPHICAL AREA/ORGANIZATION</th>
<th>JURISDICTION</th>
<th>NAME</th>
<th>MEMBER/ALTERNATE</th>
<th>ATTENDING</th>
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<tbody>
<tr>
<td>South County</td>
<td>City of Coronado</td>
<td>Carrie Downey, Chair</td>
<td>Member</td>
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<tr>
<td>North County Coastal</td>
<td>City of Solana Beach</td>
<td>Lesa Heebner</td>
<td>Member</td>
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<td>North County Inland</td>
<td>City of San Marcos</td>
<td>Rebecca Jones</td>
<td>Member</td>
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<td>City of Escondido</td>
<td>Sam Abed</td>
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<td>East County</td>
<td>Vacant</td>
<td>Alternate</td>
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<tr>
<td>City of San Diego</td>
<td>----</td>
<td>Donna Frye</td>
<td>Member</td>
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<td>Sherri Lightner</td>
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<td>County of San Diego</td>
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<td>Peter Livingston</td>
<td>Alternate</td>
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<tr>
<td>Regional Transit Agencies</td>
<td>Metropolitan Transit System (MTS)</td>
<td>Sharon Cooney</td>
<td>Member</td>
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<td>North County Transit District (NCTD)</td>
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<td>San Diego Gas &amp; Electric</td>
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<td>David Geier</td>
<td>Member</td>
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<td>JC Thomas</td>
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<td>Ahmad Solomon</td>
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<tr>
<td>San Diego Regional Chamber of Commerce</td>
<td>Shell Energy</td>
<td>Mike Evans</td>
<td>Member</td>
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<td>Carmen Sandoval</td>
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<td>Regional Economic Development Councils</td>
<td>North County Economic Development Council</td>
<td>David Lloyd</td>
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<td>South County Economic Development Council</td>
<td>Bill Cleveenger</td>
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<tr>
<td>California Center for Sustainable Energy</td>
<td></td>
<td>Andrew McAllister</td>
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<td>Irene M. Stillings</td>
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<td>Environmental Health Coalition</td>
<td></td>
<td>Laura Hunter</td>
<td>Member</td>
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<td>Leo Miras</td>
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<td>Energy Policy Initiative Center</td>
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<td>Scott Anders, Vice Chair</td>
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<td>Nilmini Silva-Send</td>
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<td>University of California, San Diego (UCSD)</td>
<td>Dave Weil</td>
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<td>San Diego State University (SDSU)</td>
<td>Dr. Heather Honea</td>
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<td>Port of San Diego</td>
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<td>Bill Hays</td>
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<td>Cody Hooven</td>
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<td>Sierra Club</td>
<td>Border Power Plants Working Group</td>
<td>Bill Powers</td>
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<td>David Grubb</td>
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<td>Regional Alternative Fuels Groups</td>
<td>San Diego Clean Cities Coalition</td>
<td>Greg Newhouse</td>
<td>Member</td>
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<td>Regional Sustainability Partnership, Clean Transportation Cmt</td>
<td>Derek Turbine</td>
<td>Alternate</td>
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**OTHER ATTENDEES:**
Alexandra Hart
Julie Gelfat
Laura Scott, Psomas
Gabriela Munoz, COLEF
Beth Jennings, PowerHouse
John Paul McNeill, PowerHouse
Linda Wagner
Miguel Resa, GRID Alternative
Steve Fernandez, GRID Alternative
Paul Cleary, GRID Alternative
Mike Nagy, San Diego Regional Chamber of Commerce
Dan Weinheimer, City of San Marcos
Tom Blair, City of San Diego
Stephen Heverly, San Diego City Council District 1
Debra Horen
Nancy Bragado, City of San Diego
Mary Ann Kempczenski, City of San Diego
Nicole Cretelle, County of San Diego
Michelle Perez, UCSD
Cecilia Aguillon, Kyocera Solar
Kurt Kammerer, Invenergy
Brit Coupens, Inveneryg
Wende Protzman
Danny King
Andy Hamilton, APCD
Curt Dowd
Jonathan Hardy
Jim McCollum, Solar Turbines
Kim Zuppiger, Ecology & Environment, Inc.
Marisa A. Quiroz, San Diego Foundation
Michael Meacham, City of Chula Vista
Jon Fortune, CCSE
Sephra Ninow, CCSE
Risa Baron, SDG&E
Frank Spasmn, SDG&E
Shaun Dentice, SDG&E
Julie Ricks, Sempra Utilities
Lorie Gowrie
Rob Rundle, SANDAG
Susan Freedman, SANDAG
Jennifer Green, CCSE
Andrew Martin, SANDAG
Marina Som, SANDAG
EPIC monitors and conducts analysis on key energy-related legislation affecting the San Diego region and California. EPIC's Legislative Center provides a listing and summary of pending energy-related legislation.

2009 CALIFORNIA ENERGY-RELATED LEGISLATION (UPDATED 3-18-09)

The following bills have been introduced into the California Legislature. Click on a category to see all the bills. Click on the bill numbers to go to the actual bill site.

**AIR QUALITY**

**AB 28 (Jeffries) Natural Gas Engines To Pump Water**
This bill would prohibit air pollution control districts and air quality management districts from restricting the use of engines powered by natural gas by a city, county, or special district, including a water district, to operate water pumps.

**SB 225 (Florez) Emission Reduction Credits**
This bill would authorize an air pollution control or air quality management district to create an emission reduction credit from the emission reductions resulting from a project that is funded from both public and private moneys if specified requirements are met.

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**BUILDING STANDARDS**

**AB 210 (Hayashi) Local Government Green Building Standards**
Existing law authorizes a city or county to make changes or modifications in the requirements contained in the provisions published in the California Building Standards Code and other specified regulations. This bill would specify that the requirements and regulations that a city or county is authorized to change or modify includes, but is not limited to, green building standards. Further, existing law provides that specified building standards do not limit the authority of a city, county, or city and county to establish more restrictive building standards. This bill would provide that the adopted and established standards include, but are not limited to, green building standards.
AB 212 (Saldana) Residential Zero Net Energy Building Standards
This bill would require the CEC to adopt, in collaboration with specified parties, building design and construction standards and energy and water conservation standards to require new residential constructions commenced on or after January 1, 2020, or on a date by which the commission determines that the use of photovoltaic technology is cost effective, whichever is later, to be zero net energy buildings.

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CA DEPARTMENT OF ENERGY

AB 1016 (Villines) California Department Of Energy
Among other things, this bill would: abolish the CA Energy Commission (CEC), the California Consumer Power and Conservation Financing Authority, and the Electricity Oversight board; create the Department of Energy (CA DOE), headed by a Secretary of Energy, and would create the (New) California Energy Commission (New CEC) and the Office of Energy Market Oversight within the department; authorize the Governor to appoint an Assistant Secretary of Energy who would serve at the pleasure of the secretary; prescribe the composition of the New CEC; transfer the jurisdiction over the certification for electric facilities from the PUC to the Secretary of Energy; transfer jurisdiction of certain energy-related matters from the Office of Planning and Research, the Department of Water Resources, the Department of General Services, and the Office of the State Architect to the CA DOE or the New CEC; repeal the requirement that a person proposing to construct a thermal powerplant or electric transmission line on a site to submit to the CEC a notice of intention to file an application for the certification of the site; prohibit land use for a nuclear fission powerplant unless the New CEC certifies that specified conditions exist.

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CA ENERGY COMMISSION

AB 1333 (Hagman) Public Interest Energy Research Program
This bill would make technical, nonsubstantive changes to existing provisions related to the Public Interest Research, Development, and Demonstration Fund in the State Treasury for purposes of public interest research, development, and demonstration.

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CA PUBLIC UTILITIES COMMISSION

AB 435 (De La Torre) CPUC Certificate For Public Convenience And Necessity
This bill would make technical, nonsubstantive changes to the provision of existing law related to the CA Public Utilities Commission's certificate of public convenience and necessity process.

AB 1315 (Ruskin) CPUC Procedures
Among other things, this bill would repeal provision that exempts the CA Public Utilities Commission from certain Administrative Procedure Act requirements; specify that the definition of "regulation" includes every proceeding designated "quasi-legislative" by the commission pursuant to certain existing law; would require the Governor to appoint, subject to the approval of the Senate, a president of the commission from among its members; repeal the requirement that the president direct commission staff; require the commission to hold at least one session in each
calendar month in the City of Sacramento; authorize the attorney for the commission, if directed to do so by the commission, to intervene, if possible, in any action or proceeding involving any question arising pursuant to the Public Utilities Act; require the attorney for the commission to commence, prosecute, and expedite the final determination of all actions and proceedings, and to generally perform all duties and services as attorney to the commission, as directed or authorized by the commission; require the executive director to keep a full and true record of all proceedings of the commission, issue all necessary process, writs, warrants, and notices, and perform the other duties the commission prescribes; provide that the commission may authorize the executive director to dismiss complaints or applications when all parties are in agreement thereto, in accordance with rules that the commission may prescribe.

SB 322 [Benoit] CPUC Powers And Powers And Authority
This bill would make a technical, nonsubstantive change to the Public Utilities Code relating to the CA Public Utilities Commission powers and authority.
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CLEAN TRANSPORTATION

SB 400 [Corbett] Eligibility Changes To Alternative And Renewable Fuel And Vehicle Technology Program
This bill would expand eligibility for funding under the Alternative and Renewable Fuel and Vehicle Technology Program to include projects that develop, manufacture, or improve vehicle technologies providing for, among other results, advanced internal combustion engines with a 30% or better efficiency level over current market standard. It also would define "advanced transportation technologies" to include, among other things, "California green vehicles," as defined.

SB 626 [Kehoe] Electrical Infrastructure Plug-In Hybrid And Electric Vehicles
This bill would require the CA Public Utilities Commission, in consultation with the CA Energy Commission, the CA Air Resources Board, electrical corporations, and the motor vehicle industry, to evaluate and implement policies to develop infrastructure sufficient to overcome any barriers to the widespread deployment and use of plug-in hybrid and electric vehicles and, by January 1, 2011, to adopt rules that address specified matter.

SB 663 [Benoit] Neighborhood Electric Vehicles
This bill would authorize the City of Palm Desert to establish a neighborhood electric vehicle plan and require a report to the Legislature by January 1, 2013.
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CLIMATE CHANGE/GREENHOUSE GASES

AB 19 [Ruskln] Voluntary Carbon Labeling For Consumer Products
This bill would enact the Carbon Labeling Act of 2009 and require the CA Air Resources Board to develop and implement a program for the voluntary assessment, verification, and standardized labeling of the carbon footprint of consumer products sold in this state.

This bill would repeal the California Global Warming Solutions Act of 2006.

http://www.sandiego.edu/epic/legislative/ 03/20/2009
AB 177 (Price) Green Economy Inclusion Act Of 2009
This bill would enact the Green Economy Inclusion Act of 2009 and would state the intent of the Legislature to enact legislation to ensure greater equity and inclusion of all Californians in the future of developing and implementing climate change, transportation, land use, and economic stimulus policies to reduce GHG emissions in California.

AB 231 (Huffman) Climate Protection Trust Fund
This bill would require the CA Air Resources Board (CARB) to, no later than March 30, 2010, adopt a schedule of fees (as opposed to the market-based compliance mechanisms CARB is also authorized to include) to be paid by the sources of greenhouse gas emissions regulated pursuant to AB 32. The revenues collected would be deposited in the Climate Protection Trust Fund, which the bill would create. All other compliance revenues collected pursuant to the act, including fines and penalties, would be required to be deposited into the fund, and would be available, upon appropriation by the Legislature, for the purposes of carrying out the act.

AB 378 (Nava) Voluntary Greenhouse Gas Emission Offsets
This bill would state the intent of the Legislature to enact legislation to provide protections for consumers of voluntary greenhouse gas emission offsets, including both businesses and individuals, and help ensure that their participation in the market brings the expected environmental benefits.

AB 478 (Chesbro) Greenhouse Gas Regulations For Solid Waste
This bill would require CARB board to consult with the California Integrated Waste Management Board in developing the regulations to include rules for the reduction of greenhouse gas emissions from solid waste reduction and recycling.

AB 1085 (Mendoza) CA Air Resources Board Regulatory Process
This bill would require CARB to make available to the public all methodologies, inputs, assumptions, and any other information used in the development of a proposed regulation, or that is the rationale behind any proposed regulation, before the comment period for any regulation proposed for adoption by CARB.

AB 1404 (De Leon) Greenhouse Gas Offsets Verification And Compliance
This bill would require the CA Air Resources Board, if it allows the use of market-based compliance mechanisms, to create an independent entity to be regulated by the state board to independently verify a greenhouse gas emission offset to ensure the emission reduction claim is real, permanent, and additional. Both providers and users of offsets would be required to pay a fee to this entity, in amounts to be determined by the state board, to pay for the costs of the verification. The bill also would require an offset used for compliance to be similarly as effective in reducing emissions of pollutants in addition to greenhouse gases as would a direct emission reduction measure by the user of that offset. It would also require an offset to be located in the same air pollution control district or air quality management district in which the user of the offset emits greenhouse gas emissions that makes them subject to emission reduction requirements pursuant to this act, or if an offset cannot be found that meets this requirement, an offset in California in an environmentally disadvantaged community would be required to be purchased, if an offset can be found that meets this requirement. In addition, a source would be prohibited from using more than 10% emission offsets to meet the greenhouse gas emission reductions required during a compliance period created by the state board.

AB 1405 (De Leon) California Global Warming Solutions Act Of 2008: Community Benefits Fund
This bill would establish the Community Benefits Fund, and would require an unspecified percentage of revenues generated pursuant to the Global
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ACR 14 (Niello) California Global Warming Solutions Act Of 2006:
Economic Impact Disclosure And Deadlines
This measure would call upon the CA Air Resources Board, prior to any regulatory action being taken consistent with the scoping plan for the implementation of the Global Warming Solutions Act of 2006, to perform an economic analysis that will give the State of California a more complete and accurate picture of the costs and benefits of the act’s implementation. The measure would also call upon the Governor to use the authority granted by the act to adjust any applicable deadlines for regulations.

SB 31 (Pavley) California Global Warming Solutions Act Of 2006: Air Pollution Control Fund
This bill would require that revenues collected pursuant to AB 32 compliance mechanisms adopted by the CA Air Resources Board also be deposited in the Air Pollution Control Fund. This bill would specify certain uses of the revenues collected pursuant to the fee discussed above and the compliance mechanisms.

SB 104 (Oropeza) California Global Warming Solutions Act Of 2006:
Definition Of Greenhouse Gases
The Global Warming Solutions Act of 2006 defines greenhouse gases to include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. This bill would also include nitrogen trifluoride, and any other anthropogenic gas one metric ton of which makes the same or greater contribution to global warming as one metric ton of carbon dioxide, as determined by the CA Air Resources Board (CARB). CARB would be required to adopt regulations, including emission limits and emission reduction measures, for a gas determined to be a greenhouse gas no later than ____ years after that gas is designated as a greenhouse gas. The bill would also express the intent of the Legislature that the state board take all feasible actions to include in the regulations to be adopted pursuant to the act by January 1, 2011, emission limits and emission reduction measures for nitrogen trifluoride.

SB 128 (Padilla) California Climate Change Institute
This bill would state the intent of the Legislature to enact legislation to create the California Climate Change Institute to: (A) identify and support, through a merit-based peer-reviewed competitive grant process, research and education to be undertaken at academic and research institutions and laboratories throughout the state, (B) oversee, coordinate, and manage a nonduplicative, targeted research and development program for the purposes of achieving the state’s targets for reducing emissions of greenhouse gases and mitigating the effects of those emissions, (C) develop effective model education pathways, training, model curriculum, and professional development necessary for emerging green technologies and industries, and (D) ensure that its climate change research is conducted in a manner that is targeted and nonduplicative of other research programs.

SB 295 (Dutton) California Global Warming Solutions Act Of 2006:
Implementation Timeline
This bill, notwithstanding this provision or any other provision of law, would prohibit CA Air Resources Board (CARB) or its staff from beginning to develop regulations pursuant to the California Global Warming Solutions Act of 2006 until June 1, 2009, and until the state board reevaluates the evaluation of costs (the total potential costs and total potential economic and noneconomic benefits of the plan). The bill would prohibit the state board from implementing those regulations until the unemployment rate in the state is below 5.8% for 3 consecutive months. The bill would also require CARB to evaluate, and make public,
the costs of those regulations.

SB 333 (Hancock) Voluntary Greenhouse Gas Emission Offset Program Fund
This bill would create the Voluntary Greenhouse Gas Emission Offset Program Fund, and would provide that funds received by the state on a voluntary basis from the federal government, individuals, businesses, organizations, industry, or other sources for the mitigation of climate change impacts related to greenhouse gas emissions be deposited in this fund. The moneys in the fund would be available, upon appropriation, for expenditure by the "Resources Agency" for specified projects. The bill would require that moneys from the fund be directed to the California Conservation Corps and local conservation corps for specified projects. The Resources Agency (CARB?) would be required, by October 1, 2010, to adopt guidelines for the distribution of moneys from the fund and to develop strategies for the sale of voluntary greenhouse gas emission offsets by the state and other opportunities for contributions by the public to the Voluntary Greenhouse Gas Emission Offset Program Fund.

SB 721 (Steinberg) Climate Action Team
This bill would: create the Climate Action Team (CAT), consisting of representatives from specified state agencies, that would be responsible for coordinating the state's overall climate policy; require the CAT, on or before January 1, 2011, and annually thereafter, to prepare, adopt, and present to the Legislature, a strategic research, development, demonstration, and deployment plan that establishes priorities and identifies key expenditure categories for research, development, demonstration, and deployment funds to be expended by the state agencies represented on the CAT for the following fiscal year; require a state agency that is represented on the CAT to expend research, development, demonstration, and deployment funds, which would be administered by the Department of Transportation and allocated for clean technology, environmental protection, and public interest energy research, consistent with this plan; require the CAT, on or before January 1, 2011, and biennially thereafter, to prepare and adopt a climate change impact mitigation and adaptation plan that includes specified information; require the specified state agencies to prepare and submit to the CAT, the information in a standardized format as determined by the Secretary for Environmental Protection; require the specified state agencies to submit information on other technologically feasible and cost-effective measures related to operations and programs managed by the state agencies that require statutory or regulatory changes for their adoption, and an estimate of potential GHG emission reductions from those measures; provide that demonstration for purposes of this program, includes, but is not limited to, grants and loans to entities to commercialize new, cost-effective technologies in the California marketplace.

SB 722 (Steinberg) Greenhouse Gas Credit Requirements
This bill would make it unlawful for a person, as defined, to represent in an advertisement or in any other sales or promotional materials made available to the public for the sale of a greenhouse gas credit or emission reduction, that the credit or reduction reduces greenhouse gas emissions unless certain requirements are met. The bill would also require a person that represents in an advertisement or in any sales or promotional materials made available to the public for the sale of a greenhouse gas credit or emission reduction, that the credit or emission reduction results in a reduction of greenhouse gases to maintain in written form and make available to any member of the public who requests it certain information and documentation supporting the validity of that representation. A violation of these provisions would be punishable by a specified civil penalty and would create a civil cause of action. Reasonable attorney fees and costs would be available for any such action brought. These requirements would become operative on January 1, 2011, and would become inoperative if the Federal Trade Commission adopts binding and enforceable trade rules or regulations for claims or representations for greenhouse gas emission reduction credits.
DISTRIBUTED GENERATION

AB 44 (Blakeslee) Energy Storage Facilities
This bill would authorize the CA Public Utilities Commission (PUC), after a hearing, to approve an increase in the rate of return for investment by a corporation in energy storage facilities that meet any of specified requirements; require the PUC to develop a time-variant tariff that establishes and maximizes incentives for the storage and dispatch of energy by an eligible facility; require the PUC, in consultation with the CA Energy Commission, to prepare and submit a report to the Governor and the Legislature, by January 1, 2012, on the costs and benefits to ratepayers of energy storage; and, require an electrical corporation to develop a standard contract or tariff providing for energy storage metering that accounts separately for both the charging and discharging of energy by an energy storage system, and to make this contract available to eligible facilities upon request.

AB 920 (Huffman) Credit For Net Surplus Electricity From Solar And Wind Distributed Generation
Among other things, this bill would: require the ratemaking authority, as defined, for the electric utility to adopt, by January 1, 2011, a net surplus electricity compensation valuation to compensate a net surplus customer-generator, for the value of net surplus electricity, generated by an eligible customer-generator and delivered to the grid that is in excess of the amount of electricity that is delivered from the grid to the eligible customer-generator; require the electric utility to offer a standard contract or tariff to eligible customer-generators that includes compensation for the value of net surplus electricity; require the electric utility, upon an affirmative election by the eligible customer-generator to receive service pursuant to this contract or tariff, to either: (1) provide net surplus electricity compensation for any net surplus electricity generated in the 12-month period, or (2) allow the eligible customer-generator to apply the net surplus electricity as a credit for kilowatthours subsequently supplied by the electric utility to the surplus customer-generator; provide that upon adoption of the net surplus electricity compensation rate and the eligible customer-generator electing to receive net surplus electricity compensation, any renewable energy credit, for net surplus electricity belongs to the electric utility purchasing the electricity and that net surplus electricity counts toward the electric utility's renewables portfolio standard purchasing requirements.

AB 1110 (Fuentes) Revised Definition Of Cogeneration
This bill would revise the existing definition of cogeneration where the use of thermal energy follows the generation of electricity, to allow technologies that utilize thermal energy internally to increase overall electrical efficiency to not less than 40% high heat value, as established by the commission.

AB 1031 (Blumenfield) Eligibility For AB 2466 (2008) Net Surplus Electricity Credit
This bill would expand the definition of a local government relative to AB 2466 (2008), which allows certain government entities to apply excess renewable electricity at one account to other accounts within the enterprise, to include an individual campus of the University of California or the California State University and a joint powers authority or agency.
AB 1536 (Blakeslee) Self-Generation Incentive Program
This bill would make nonsubstantive changes to the statute requiring the CA Public Utilities Commission to administer a self-generation incentive program for distributed generation resources.

SB 412 (Kehoe) Self-Generation Incentive Program: Inclusion Of Non-Solar Technologies
This bill would extend until January 1, 2013, the self-generation incentive program for nonsolar distributed generation resources and would limit the eligibility for incentives pursuant to the program to distributed generation resources that the CA Public Utilities Commission (PUC) determines will support the state's goals for the reduction of emissions of greenhouse gases pursuant to the California Global Warming Solutions Act of 2006; require that combined heat and power units meet certain efficiency and emissions requirements, including the greenhouse gases emission performance standard, to receive incentives; require the PUC to ensure that distributed generation resources are made available in the program for all ratepayers; prohibit recovery of the costs of the program from ratepayers that participate in the California Alternative Rates for Energy (CARE) program, delete the authorization for the PUC, in administering the program, to include other ultraclean and low-emission distributed generation technologies; and, delete the current requirement that the CA Energy Commission, by November 1, 2008, and in consultation with the PUC and CA Air Resources Board, to evaluate the costs and benefits of providing ratepayer subsidies for renewable and fossil fuel ultraclean and low-emission distributed generation.

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ELECTRIC GENERATION

AB 40 (Fuentes) CPUC Procedures For Plant Held For Future Use Pursuant to existing law, the CA Public Utilities Commission has adopted a uniform system of accounts for public utilities and licensees, including an account for plant held for future use, and established guidelines for the account. This bill would make nonsubstantive changes to existing law relative to how gain accruing from the sale of property carried in the plant held for future use account is to be allocated between the gas or electrical corporation and ratepayers; require the CPUC to review its guidelines for the plant held for future use account and determine whether it needs to open a proceeding to adjust the time period allowed for a property to be held in the account; require the CPUC to consider whether it should amend the guidelines, or add a separate guideline to allow a distinct time period for real property located within a transmission corridor zone designated by the California Energy Commission, require that if the commission amends the existing guidelines, or adds a separate guideline, pursuant to the bill's requirements, that the commission ensure that any gains or losses from the sale or reassignment of any interest in real property acquired by the electrical corporation that is subject to the amended or new guideline are allocated between customers and shareholders proportionately to the risks involved.

AB 162 (Ruskin) Electricity Disclosure Requirements For Electrical Utilities This bill would define the term "unspecified sources of power" for purposes of the electrical utility disclosure requirements in existing law to mean electricity generated that cannot be matched to a particular generating facility. Further, this bill would change reporting requirements from quarterly to annually and amend other details regarding disclosures and eliminate certain reporting requirements.

AB 1305 (V. Manuel Perez) Border Region Electricity Generation Emissions Mitigation Fee
This bill would: require any person that imports electricity into the state, or causes electricity to be imported into the state, to pay up to a $0.001 per kilowatthour air contaminant emission electricity generation mitigation fee for that electricity; impose the fee only if the electricity is produced by an electrical generating facility that is located within an air basin shared by a district and Mexico and located in Mexico within 100 kilometers of the United States' border; if construction of the electrical generating facility was completed after January 1, 2010, and if the electrical generating facility was not constructed to meet all existing California air pollution regulations and standards, including, but not limited to, best available control technology (BACT) and any offsets that would be required under California law to mitigate any additional pollution; establish the Imported Electricity Air Pollution Mitigation Subaccount in the Air Pollution Control Fund, and would require the fees to be deposited in that subaccount; and, make the moneys deposited in the subaccount available to the state board, upon appropriation by the Legislature, for distribution to each district in the state that the state board determines is directly impacted by emissions of air contaminants from those electrical generating facilities.

AB 1218 (V. Manuel Perez) Emission Credits For Electrical Generation In South Coast Air Quality Management District
This bill would require the executive officer of the South Coast Air Quality Management District, upon making a specified finding, to transfer a specified quantity of emission reduction credits for certain pollutants from the district's internal emission credit accounts to eligible electrical generating facilities. The bill would grant the California Energy Commission the exclusive authority to review the environmental impact of the executive officer's actions. These provisions would be repealed on January 1, 2013.

SB 42 (Corbett) Open Ocean Intake And Once-Through Cooling Prohibition And Fee
This bill would; prohibit a state agency from authorizing, approving, or certifying a new power plant or industrial facility, as defined, that uses an open ocean intake, a new open ocean intake, or the expansion of an existing open ocean intake; and after January 1, 2015, prohibit a power plant from using once-through cooling; require, from January 1, 2011, to December 31, 2014, a power plant that uses once-through cooling to pay a specified fee; require the State Water Resources Control Board to collect the fee and to deposit the revenues from the fee in the Marine Life Restoration Account, which the bill would establish in the fund; require the State Coastal Conservancy to administer the account and would continuously appropriate the moneys in the account to the conservancy and the board to reimburse their costs of administering the fee and to the State Coastal Conservancy for specified projects and activities that address the impacts of once-through cooling processes, thereby making an appropriation.

SB 176 (Simitian) End Date Of Donated Electricity Provision
This bill would delete the repeal date of a provision of existing law that authorizes a nonprofit charitable organization to acquire electric commodity service through a direct transaction with an electric service provider, until January 1, 2010, if electric commodity service is donated free of charge without compensation.

SB 207 (Flores) Electricity Generation Authorization For Westlands Water District
This bill would authorize the Westlands Water District, a California water district, to generate, provide, sell, and deliver electricity, and to construct, own, lease, operate, contract for, and maintain any works, facilities, improvements, or property necessary or convenient for that generation and delivery. The district would be generally required to use the electricity generated by the district for the development, conveyance, and delivery of surface water and groundwater supplies or to implement programs to address subsurface drainage within the district's boundaries. The bill also would authorize the district to sell, dispose of, or distribute...
electricity to others, as specified, only if the district does not require the use of all electricity generated by the district.

SB 696 (Wright) Emissions Credit Availability in South Coast Air Quality Management District
This bill would state that it is the intent of the Legislature to enact legislation to ensure that there are sufficient credits available for the South Coast Air Quality Management District to issue permits for essential public services and new clean efficient power plants.

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ENERGY EFFICIENCY

AB 46 (Blakeslee) Extension Of CA Energy Commission Local Government Energy Loan Program
This bill would extend to January 1, 2015 the activities of the CA Energy Commission's State Energy Conservation Assistance Account, which provide grants and loans to local governments and public institutions to maximize energy use savings, and would thereby make an appropriation by extending the time during which the funds in a continuously appropriated account are made available.

AB 51 (Blakeslee) Integrated Demand Side Management Programs (CPUC)
This bill would express the intent of the Legislature to enact legislation that would require the CA Public Utilities Commission to integrate the demand-side management programs within its jurisdiction in order to enable offerings of integrated packages that will maximize savings and efficiencies of utility program overhead.

AB 150 (Smyth) Sales And Use Taxes Exemption For Energy Efficient Products
This bill expand the existing Sales and Use Tax exemptions to include energy efficient products for specific periods beginning in 2010.

AB 238 (Huffman) Standards For Outdoor Lighting Efficiency
This bill would require the CA Energy Commission, by an unspecified time, to adopt minimum energy efficiency standards for outdoor lighting.

AB 234 (Huffman) Federal Stimulus Package Efficiency Implementation Plan
This bill would state the intent of the Legislature to enact legislation to develop an implementation plan for distributing federal economic stimulus dollars for energy efficiency projects and programs to help facilitate the state's economic recovery while making investments in the state's environment and improving the quality of life of the people of the state.

AB 531 (Saldana) Exemption For Energy Consumption Data Disclosure
This bill would exempt an electric or gas utility from existing customer information disclosure prohibitions when the electric or gas utility is uploading the energy consumption data for the account specified for a building to the US EPA's ENERGY STAR Portfolio Manager, which is authorized under existing law.

AB 758 (Skinner) Existing Building Efficiency Financing And Audits
This bill would require the CA Energy Commission (CEC), by March 1, 2010, and subject to certain requirements, to establish a regulatory proceeding to develop a comprehensive program to achieve greater energy savings in the state's existing residential and commercial building stock; require the CA Public Utilities Commission (PUC), by March 1, 2010, to open a proceeding to investigate the ability of electrical corporations to provide energy efficiency financing options to their customers to implement the comprehensive program developed by the
CEC pursuant to this act; require the PUC, by January 1, 2011, after consultation with the CEC, to authorize an electrical corporation to provide a targeted number of low- or no-cost energy efficiency audits each calendar year; and, require a local publicly owned utility to be responsible for implementing an energy efficiency program that recognizes the Legislature’s intent to encourage energy savings and greenhouse gas emission reductions in existing residential and commercial buildings.

AB 1105 (Blakelee) Building Energy Retrofit Revolving Loan Program
This bill would require the CA Energy Commission to implement the Building Energy Retrofit Revolving Loan Program to provide loans for energy efficiency projects retrofitting nonresidential buildings built before July 1, 1978. It also would create the Building Energy Retrofit Revolving Loan Program Fund in the State Treasury that would be continuously appropriated to the commission for the implementation of the program, thereby making an appropriation. Further, the bill would require moneys from the federal American Recovery and Reinvestment Act of 2009 that are appropriated to the commission be transferred to the fund as authorized by federal law.

AB 1225 (De La Torre) Green Team Guidance On Federal Stimulus Package Funding
This bill would designate the Green Action Team (chaired by the Secretary of the State and Consumer Services Agency, with additional members being the Director of the Department of Finance, the Secretaries of Business, Transportation and Housing, Environmental Protection, Resources, Education, and a commissioner of the CA Public Utilities Commission) as being responsible for evaluating opportunities for the state to participate in, and benefit from, the energy-related programs of the American Recovery and Reinvestment Act of 2009 and to coordinate the state’s participation in any federal energy-related economic stimulus programs and the distribution of moneys for energy efficiency and renewable energy programs to specified entities.

AB 1234 (Skinner) Energy Smart Buildings
This bill would state the intent of the Legislature to enact legislation relating to smart buildings and the promotion of energy savings and management.

SB 488 (Pavley) Energy Efficiency Financing Program (CEC)
This bill would require the CA Energy Commission July 1, 2010, in consultation with specified entities, to establish an ongoing procedure to develop an energy efficiency financing program to allow residential, commercial, industrial, and municipal participants to finance energy efficiency improvements funded through cost avoidance of the energy saved by the implemented measure.

SB 699 (Alquist) Sales And Use Tax Exemption For Efficient Manufacturing Equipment
This bill would declare the intent of the Legislature to enact legislation that would exempt from sales and use taxes, the sale and purchase of manufacturing equipment that reduces energy and water use, and increases energy efficiency and water recycling.

SB 806 (Wiggins) Energy Efficiency Program Administrative Fees (CPUC)
This bill would require the CA Public Utilities Commission to limit the administrative costs, as defined, of energy efficiency programs to not more than 5 percent of the funds expended.

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GREEN JOBS

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AB 3 (V. Manuel Perez) Renewable Energy Workforce Readiness Program (CPUC)
This bill would require the CA Public Utilities Commission (PUC), by January 1, 2011, to establish a Renewable Energy Workforce Readiness Program to ensure green collar career placement and advancement opportunities within California's renewable energy manufacturing, construction, installation, maintenance, and operation sectors that is targeted towards specified populations. The program would award training grants, on a competitive basis, to implement and operate renewable energy worker training and education programs in the state.

AB 380 (De La Torre) California Clean Energy Curriculum And Training
This bill would require the Secretary of Labor and Workforce Development, in collaboration with the major stakeholders, including appropriate state agencies, building trades unions, education, and the clean energy industry, to create by July 1, 2010, the California Clean Energy Curriculum and Training Initiative of 2009 to establish standardized curriculum for use at schools and provide outreach, assistance, and guidance to schools on creating clean energy training programs.

This bill also would establish the California Clean Energy Curriculum and Training Initiative Subaccount within the Labor and Workforce Development Fund within the State Treasury. The bill would require that, upon the appropriation of moneys, not to exceed $1,000,000, by the Legislature to implement the initiative, the CA Public Utilities Commission (PUC) order electrical corporations that have collected moneys for research, development, and demonstration for allocation by the PUC pursuant to a specified provision, to transfer an amount of those moneys, equivalent to the amount of the appropriation, to the subaccount for purposes of the initiative.

AB 1394 (Bass) Green Collar Jobs Council
This bill would authorize the Green Collar Jobs Council (GCJC) to accept any revenues, moneys, grants, goods, or services from federal and state governmental entities, local philanthropic organizations, and other sources, to be used for purposes relating to the administration and implementation of the strategic initiative. It would require the GCJC to confer with appropriate state and local agencies to coordinate the award of specified federal grant funds and green workforce training funds received by the state, and to make a finding that a proposed program or expenditure is consistent with the purposes of the above-described initiative, prior to authorizing the expenditure of funds made available to the state pursuant to The Federal American Recovery and Reinvestment Act of 2009.

SB 267 (Benoit) Definition Of Green Jobs
This bill would state the intent of the Legislature to enact legislation that would define “green jobs.”

SB 675 (Steinberg) Clean Technology And Renewable Energy Job Training, Career Technical Education, And Dropout Prevention Act Of 2010
This bill would enact the Clean Technology and Renewable Energy Job Training, Career Technical Education, and Dropout Prevention Act of 2010 and a similarly named fund in the State Treasury. It would provide that the moneys in the fund would be available, upon appropriation by the Legislature, in the form of competitive grants that would be administered by the State Allocation Board and awarded to qualifying entities for the purposes of the construction of new facilities or the reconfiguration of existing facilities to enhance the educational opportunities for program participants, as defined, to provide them with the skills and knowledge necessary for careers directly related to clean technology, renewable energy, or energy efficiency that may also contribute to California’s goal in reducing greenhouse gas emissions.
The bill also would create the Clean Technology and Renewable Energy Job Training, Career Technical Education, and Dropout Prevention Council comprised of 9 members. The council would be required to issue guidelines to implement the purposes of this act. The bill would authorize the council to issue and renew negotiable bonds, notes, debentures, or other sources of security of up to $5,000,000,000 that would be secured by moneys appropriated by the Legislature in the annual Budget Act from the Public Interest Research, Development, and Demonstration Fund.

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LIQUEFIED NATURAL GAS

SB 376 (Similan) LNG Assessment Report (CEC)
This bill would: enact the Liquefied Natural Gas Market Assessment Act and would require the CA Energy Commission (CEC), in consultation with affected state agencies, including but not limited to, the CA Public Utilities Commission (PUC), the CA Air Resources Board, to adopt and submit to the Legislature and the Governor, on or before July 1, 2011, the Liquefied Natural Gas Market Assessment Report of 2011 that would be incorporated into the integrated energy policy report of 2009; require the CEC to include a Liquefied Natural Gas Market Assessment Report in every integrated energy policy report adopted after January 1, 2011; require the CEC on or before March 31, 2010, to create a matrix on its Internet Web site containing information related to the construction and operation of a liquefied natural gas terminal project, and quarterly updates would be required; prohibit the Governor, or a state or local entity from approving the construction or operation of an onshore or offshore liquefied natural gas terminal in California until the Liquefied Natural Gas Market Assessment Report of 2011 has been issued and becomes final and all appeals have been exhausted, or November 1, 2011, whichever is earlier; and, require a liquefied natural gas terminal project applicant to include in the application evidence that it has consulted with the United States Department of Defense and its impacted service components.

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METERING

AB 1108 (Fuentes) Electric And Gas Submeter Repair
This bill would: authorize the CA Public Utilities Commission (PUC), if it finds that a master-meter customer has failed to maintain or repair its submeter facilities beyond the master-meter, to order the master-meter customer to maintain or repair those facilities; authorize the PUC, to order that moneys received as a result of the master-meter discount be held in trust to be expended for maintenance and repair of the submeter facilities; require a master-meter customer to separately bill for gas or electric service, or both, and rent; prohibit a master-meter customer from charging a user of electricity or gas any late charge for nonpayment or delayed payment of rent; require that any late charge imposed by a master-meter customer for nonpayment or delayed payment by a user for gas or electric service be an amount that does not exceed that which the electrical or gas corporation would charge.

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NUCLEAR ENERGY

AB 42 (Blakeslee) 3-D Imaging Survey Of Diablo Canyon Vicinity
This bill would require Pacific Gas and Electric Company to utilize the CA Energy Commission to conduct a three-dimensional imaging survey to map the fault characteristics in the vicinity of the Diablo Canyon Nuclear Power Plant that could potentially disrupt the reliable operation of the electrical grid and impact customer rates as a result of a seismic event.

AB 1035 (DeVore) Nuclear Power Plant Certification Exemption
Existing law requires a person proposing to construct a thermal powerplant to obtain certain approvals from the CA Energy Commission and CA Public Utilities Commission. This bill would additionally exempt from these requirements an applicant for a nuclear fission thermal powerplant capable of producing up to 2,000 megawatts of energy that is the first California entity to obtain an early site permit from the United States Nuclear Regulatory Commission.

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RATES AND TARIFFS

AB 432 (Nedanda) Municipal Utility Districts (Spot Bill For Feed-in Tariffs)
This bill would state the intent of the Legislature to enact legislation to reform the manner in which municipal utility districts are organized.

AB 560 (Skinner) Statewide Net Metering Limit
This bill would require that the standard contract or tariff for net energy metering be offered on a first-come-first-served basis until the time that the total rated generating capacity used by eligible customer-generators exceeds an unspecified percent (currently 2.5%) of the electric distribution utility or cooperative's aggregate customer peak demand.

AB 1103 (Duvall) Regulation Of Nonresidential Electricity Rates
This bill would declare the intent of the Legislature to establish policies to reform the regulation of electricity rates for nonresidential customers.

AB 1023 (Ruskin) Feed-in Tariff System Size Limits
This bill would increase the eligible maximum effective capacity under existing standard renewable energy feed-in tariff provisions from 1.5 megawatts to not more than 20 megawatts.

AB 1106 (Fuentes) Renewable Energy Feed-in Tariff
This bill would: require every electrical corporation to file with the CA Public Utilities Commission (CPUC) a standard feed-in tariff for the electricity generated by a renewable electric generation facility, that is an eligible renewable energy resource and meets other size, deliverability, and interconnection requirements. The bill would require the CPUC to consult with the CA Energy Commission (CEC) and the CA Independent System Operator (ISO) in approving feed-in tariffs and rules for interconnection to the electrical grid; require the electrical corporation to make the feed-in tariff available to any customer of the electrical corporation, upon request, on a first-come, first-served basis, until the electrical corporation meets its renewables portfolio standard; provide that the electricity generated by the renewable electric generation facility, including generation used to offset the customer's own usage of electricity, counts toward the electrical corporation's renewables portfolio standard and resource adequacy requirements; require the CPUC, in consultation with the CEC, to develop feed-in tariffs for eligible renewable energy resources of more than 20 megawatts that value a diverse mix of sources of renewable energy based upon the most successful feed-in tariffs utilized in Europe; and, require the CPUC, in consultation with the ISO, to establish tariff provisions that facilitate both the renewables portfolio standard program and the reliable operation of the electrical grid.

SB 32 (Negre McLeod) Renewable Electric Generation Feed-In
Tariffs
Among other things, this bill would: require an electrical corporation to file with the CA Public Utilities Commission (CPUC) a standard tariff for the electricity purchased from an electric generation facility that is owned, leased, or rented by a retail customer of the electrical corporation; require that the electric generation facility have an effective capacity of not more than 3 megawatts; require that the electric generation facility be strategically located and interconnected to the electric grid in a manner that is considered deliverable to load; require that the tariff provide for a base payment rate for every kilowatthour of electricity purchased from an electric generation facility at the market price referent established by the CPUC pursuant to the renewables portfolio standard program, for a period of 10, 15, or 20 years; authorize the PUC to adjust the payment rate to reflect the value of the electricity on a time-of-delivery basis and any other attributes of renewable generation; require the electrical corporation to make the tariff available to any customer that owns, leases, or rents 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 subject to tariffs with electrical corporations reaches 500 megawatts, or its proportionate share of that limit; provide that the electricity purchased from an electric generation facility counts toward meeting the electrical corporation's renewables portfolio standard and that electricity generated by the electric generation facility counts toward meeting the electrical corporation's resource adequacy requirements; prohibit a customer that receives service pursuant to a tariff adopted by an electrical corporation pursuant to the above-described provisions from being eligible to participate in any net metering program; allow a customer that elects to receive electrical service pursuant to a tariff filed by an electrical corporation pursuant to the bill to be eligible to receive ratepayer-funded incentives in accordance with the self-generation incentive program or the California Solar Initiative for the capacity needed to offset part or all of the electrical demand of the customer; and, require a local publicly owned electric utility that sells electricity at retail to 75,000 or more customers to adopt and implement a similar tariff, as defined.

SB 523 (Pavley) Renewable Energy Feed-In Tariff
Among other things, this bill would: require every electrical corporation with more than 100,000 service connections to develop and, upon approval by the CA Public Utilities Commission (CPUC), implement a standard-offer contract and feed-in tariff, that requires the electrical corporation to purchase every kilowatthour of electricity delivered to the grid that is generated by a tariff-eligible generation facility; require the CPUC to approve the standard-offer contract and feed-in tariff at a rate and upon those terms that the CPUC determines are reasonable on a market segment and technology specific basis in consideration of certain criteria; require each electrical corporation to obtain CPUC approval of a standard-offer contract and feed-in tariff by June 1, 2010; and to implement the standard-offer contract and feed-in tariff by July 1, 2010; require an electrical corporation to make the standard-offer contract or feed-in tariff available to the owner or operator of a tariff-eligible generation facility on a first-come-first-served basis until the time that 2% of total retail sales of electricity by the electrical corporation is generated by tariff-eligible generation facilities; require that after June 30, 2014, the CPUC review the effectiveness of the implementation of standard-offer contracts and feed-in tariffs in advancing specified purposes and would authorize the CPUC to revise the program as it sees fit for additional tariff-eligible generation facilities; authorize the CPUC to modify the above-described requirements for an electrical corporation with less than 100,000 service connections in the state based upon the individual circumstances of that electrical corporation; provide that every kilowatthour of electricity generated by a tariff-eligible generation facility receiving service pursuant to the standard-offer contract or feed-in tariff count toward meeting the electrical corporation's requirements pursuant to the renewable portfolio standard and the California Global Warming Solutions Act of 2006; and, require the governing board of a local...
publicly owned electric utility with more than 100,000 service connections to develop and implement a feed-in tariff that provides for payment for every kilowatthour of electricity generated by a tariff-eligible generation facility that is delivered to the grid and has a duration of not less than 20 years.

SB 695 (Wright) Residential Time-Of-Use Electricity Rates

Among other things, this bill would: prohibit the CA Public Utilities Commission (CPUC) from requiring or permitting an electrical corporation to employ dynamic pricing for residential customers, but would authorize the CPUC to authorize an electrical corporation to offer residential customers the option of receiving service pursuant to dynamic pricing; authorize the CPUC beginning January 1, 2016 to authorize an electrical corporation to employ default dynamic pricing for residential customers, if the customer has the option of receiving service pursuant to a rate schedule that is not based upon dynamic pricing and if residential customers that exercise the option to not receive service pursuant to the dynamic pricing incur no additional costs as a result of the exercise of that option; require the CPUC to establish the CARE program to provide assistance to low-income electric and gas customers with annual household incomes at or below 200% of the federal poverty guideline levels, and require that the cost of the program, with respect to electrical corporations, be recovered on an equal cent-per-kilowatthour basis from all classes of customers that were subject to the surcharge that funded the CARE program on January 1, 2008; require that electrical corporations, in administering the specified energy efficiency and weatherization programs, to target energy efficiency and solar programs to upper-tier and multifamily customers in a manner that will result in long-term permanent reductions in electricity usage and develop programs that specifically target new construction by, and new and retrofit appliances for, nonprofit affordable housing providers; delete the prohibition that the PUC not increase the electricity charges in effect on February 1, 2001, for residential customers for existing baseline quantities or usage by those customers of up to 130% of then existing baseline quantities; and, authorize the PUC, until January 1, 2019, to increase the rates charged residential customers for electricity usage up to 130% of the baseline quantities by the annual percentage change in the Consumer Price Index from the prior year plus 1%, but not less than 3% and not more than 5% per year.

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RENEWABLE ENERGY

AB 64 (Krekorian) Modifications To RPS, Feed-in Tariffs, Formation Of Renewable Infrastructure Authority

Among many other things, in relation to the renewable portfolio standard and feed-in tariffs, this bill would: require retail sellers and local publicly owned electric utilities to procure 35% of the electricity delivered to its retail customers from eligible renewable sources by 2020, with a goal of procuring 50% by 2035; require the CA Public Utilities Commission to establish annual procurement targets to meet the goals above; authorize limited use of renewable energy credits to meet renewable portfolio targets; require electrical corporations to file with the CPUC a standard tariff to purchase renewable electricity from eligible small-scale generators and increase size eligibility for this tariff to 5 megawatts; require that the standard tariff purchase electricity at the benchmark price established by the CPUC for a period of 10.15, or 20 years and allow the CPUC to adjust the price to reflect the value of electricity on a time-of-delivers basis and any other attributes of renewable generation; require that the standard tariff be offered until the statewide total of participating capacity reaches 500 megawatts; and, require that electricity purchased under the proposed tariff count toward the electrical corporation's RPS targets; require local publicly owned utilities to develop and make available a similar standard tariff. This bill also would establish the Renewables Infrastructure Authority (RIA), including the issuance of revenue bonds.

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of up to $6,400,000,000, for the purposes of financing projects and programs to build eligible renewable energy resources and electric transmission lines to deliver the electricity generated to retail customers. It would also repeal the CEC's authority to designate transmission corridor zones and instead, give authority to the RIA to designate transmission corridor zones.

**AB 222 (Adams) Biofuels And Green Power Production**

This bill would state an intent of the Legislature to enact legislation to advance biofuels and green power production.

**AB 238 (Adams) Transmission, Smart Grid For Renewable Energy Resources**

This bill would revise the legislative findings and declarations under the Renewable Portfolio Standard to declare that new and modified electric transmission facilities, including the employment of smart grid technologies, may be necessary to facilitate the state achieving its energy efficiency goals and renewables portfolio standard targets.

**AB 394 (Fuentes) Solar Energy In Municipal Utilities**

This bill would state the intent of the Legislature to further facilitate the efforts of local publicly owned electric utilities to increase the installation of residential and commercial solar energy systems.

**AB 474 (Blumenfield) Modifications To AB 811 Financing Provisions**

This bill would: expand the provisions for AB 811 financing to include installation of water efficiency improvements that are permanently fixed to real property, with respect to all of the provisions relating to public improvements and the installation of distributed generation renewable energy sources or energy efficiency improvements, redefine the term "city" as a "public agency" to include, every governmental subdivision, every district, every public and quasi-public corporation, every public agency and public service corporation and every town, city, county, and city and county, and municipal corporation, whether incorporated or not and whether chartered or not; similarly modify the definition of "legislative body" to also include the governing body of a public agency or any other public body created by statute; and, specify that these improvements are not new construction which would be subject to property taxation.

**AB 695 (Bill Berryhill) Renewable Energy Procurement Plans**

This bill would require a technical, nonsubstantive change to the existing law relating to the California Renewables Portfolio Standard Program.

**AB 739 (Fuller) Wind Energy**

This bill would state the Legislature's intent to enact legislation to encourage the use and siting of wind energy facilities.

**AB 915 (Logue) Changes To The Renewable Portfolio Standard**

This bill would change provisions related to the Renewable Portfolio Standard to require that each retail seller increase its total procurement of electricity generated by eligible renewable energy resources by at least an additional 1% of net program retail sales per year so that 20% of its net program retail sales of electricity are procured from eligible renewable energy resources no later than December 31, 2010. The bill would define net program retail sales of electricity as being total retail sales of electricity by the retail seller within California, minus those retail sales where the load was met by noneligible hydroelectric generation. This bill would also revise the Renewable Energy Resources Program to state the intent of the Legislature to increase the amount of electricity generated from eligible renewable energy resources per year so that amount equals at least 20% of net program retail sales of electricity in California per year by December 31, 2010.

**AB 1027 (Blumenfield) Solar Schools And Nonprofits Program (CEC)**

This bill would require the California Energy Commission (CEC) to administer a solar schools and nonprofits program to encourage schools, hospitals, and specified nonprofit public benefit corporations to install...
solar energy systems. The bill would require the program to seek to encourage the greatest number of installations while effectively generating electricity through renewable energy systems. As part of that program, the bill would require the CEC to administer a grant and revolving loan program for the installation of solar energy systems by those entities.

AB 1030 (Blumenfield) Inventory Of State Properties Available For Renewable Energy System Installation
This bill would require the Director of Transportation, on and after May 1, 2010, to compile and maintain an inventory list of state-owned real property under the direction or control of the Department of Transportation that may be available for lease for the installation and operation of solar, wind, piezoelectric, or other renewable energy systems for power generation. The bill would require the director to consult with the CA Energy Commission developing criteria for property to be placed on the inventory list.

AB 1043 (Fong) Biofuels And Clean Fuel Technology
This bill would provide that it is the intent of the Legislature to enact legislation to advance biofuels and other clean fuel technologies by adopting policies that promote the production and purchase of biofuels and other clean fuel technologies in California as a means to reduce greenhouse gas emissions and reduce California’s reliance on petroleum fuels.

AB 1111 (Blakeslee) California Alternative Energy And Advanced Transportation Financing Authority
This bill would modify provisions related to the California Alternative Energy and Advanced Transportation Financing Authority’s mission by including as a project, machinery or equipment that is utilized for the design, technology transfer, manufacture, production, assembly, distribution, or service of an alternative source component.

AB 1348 (Blakeslee) CEC Role In Renewable Portfolio Standard Compliance
This bill would make technical, nonsubstantive changes to the provision that requires the CA Energy Commission to design and implement an accounting system to verify compliance with the renewables portfolio standard by retail sellers.

AB 1350 (Blakeslee) Voluntary Certification For Biofuels
This bill would require the CA Energy Commission (CEC), in collaboration with specified entities, to establish a voluntary certification program to establish environmental performance standards for a biofuel qualifying as a California Sustainable Biofuel Resource, require the CEC to consider certain factors in developing the performance standards; authorize moneys from the fund, upon appropriation, be used by the CEC to implement the voluntary certification program; authorize the CEC to charge an entity seeking to certify a biofuel under the program a fee to cover the Energy Commission’s administrative costs.

SB 7 (Wiggins) Compensation For Net Surplus Renewable Electricity
This bill would require the electric distribution utility or cooperative, at the discretion of the eligible customer-generator, to either: (1) provide net surplus electricity compensation for any net surplus electricity generated in the 12-month period, or (2) allow the eligible customer-generator to apply the net surplus electricity as a credit for kilowatthours consumed during the following, and any subsequent, 12-month periods. This bill also would provide that investments for solar energy systems that exceed the electricity demand of a consumer shall be permitted, but only the capacity needed to offset part or all of the electricity demand of the consumer is eligible for ratepayer funded monetary incentives pursuant to the solar initiative programs.

SB 14 (Simitian) Modifications To RPS And Transmissions Siting Procedures
This omnibus bill, among many other things, would: modify certain CPUC
procedures; prohibit the CPUC from mandating dynamic pricing; modify the CARE program; delete the prohibition that the CPUC not increase the electricity charges in effect on February 1, 2001, for residential customers for existing baseline quantities or usage by those customers of up to 130% of then existing baseline quantities, with certain restrictions; revise the Renewable Energy Resources Program (and Renewable Portfolio Standard) to state the intent of the Legislature to increase the amount of electricity generated from eligible renewable energy resources per year, so that amount equals at least 20% of total retail sales of electricity in California per year by December 31, 2010, and 33% by December 31, 2020; and, require the CPUC to approve an application for a certificate of public convenience and necessity within one year of the filing of a completed application under specified circumstances and would authorize the CPUC, if it finds the costs are justified pursuant to the statutory requirements for approving a rate increase, to allow recovery of certain transmission costs incurred by an electrical corporation.

SB 338 (Alquist) The California Alternative Energy And Advanced Transportation Financing Authority
This bill would state the intent of the Legislature to enact legislation related to the authority of the the California Alternative Energy and Advanced Transportation Financing Authority and renewable energy companies.

SB 366 Aaneslad Net Energy Metering - Biomas *This bill would modify existing provisions related to net energy metering by changing the definition of eligible customer-generators to include residential, small commercial, commercial, industrial, or agricultural customers of an electric service provider that use biomass electricity generating facilities.

SB 534 (Strickland) Property Tax Exclusion For Small Wind Turbines And Geothermal Heat Pumps
The California Constitution generally limits ad valorem taxes on real property to 1% of the full cash value of that property. For purposes of this limitation, "full cash value" is defined as the assessor's valuation of real property as shown on the 1975-76 tax bill under "full cash value" or, thereafter, the appraised value of that real property when purchased, newly constructed, or a change in ownership has occurred. This bill would provide that the classification as "newly constructed" for purposes of the following constitutional provisions does not include the construction or addition, on or after January 1, 2010, of a small wind turbine or geothermal heat pump system. This bill would take effect immediately as a tax levy, but would become operative only if Senate Constitutional Amendment ___ of the 2009-10 Regular Session is approved by the voters.

SB 542 (Wiggins) Solar And Efficiency In Rental Properties
This bill would require the CA Public Utilities Commission (CPUC), by July 1, 2010, to develop and implement a strategy to expand the participation of multiunit residential and commercial rental properties in utility energy efficiency and solar energy programs and to prepare and submit a report on the program to the Legislature by that date.

SB 605 (Ashburn) CEQA Exemption For Biogas Pipelines
This bill would exempt from the California Environmental Quality Act, a project of less than 8 miles in length within a public street or highway or another public right-of-way for the installation of a new pipeline, or the maintenance, repair, restoration, reconditioning, relocation, replacement, removal, or demolition of an existing pipeline, that is used to transport biogas.

SB 655 (Padilla) ISO Support In RPS And Greenhouse Gas Reductions
This bill would require the CA Independent System Operator to support and assist in implementing the California Renewables Portfolio Standard Program and greenhouse gas emission reduction laws and regulations.
**SB 805 (Wright) Modifications To The Renewable Portfolio Standard**

Among other things, this bill would: move the requirements for the CA Public Utilities Commission (CPUC) to review and adopt a procurement plan for each electrical corporation from an article concerning rates to an article concerning long-term plans and procurement plans, and make conforming changes that reference existing law; add an additional requirement to the RPS by requiring that the process consider the cost impacts of procuring the eligible renewable energy resources on the electrical corporation's procurement plan, the effects upon electrical system reliability, and the environmental and economic benefits of procuring renewable energy; require the CPUC, by rulemaking to adopt flexible rules for compliance with the RPS that apply to all years before and after a retail seller procures at least 20% by December 31, 2010, and 33% by December 31, 2020, of total retail sales of electricity from eligible renewable energy resources; authorize a retail seller to meet up to 25% of its RPS procurement requirements with unbundled renewable energy credits from eligible renewable energy resources within the region of the WECC; require the CPUC to establish project development milestones to evaluate the potential for compliance with the adopted plan and a set of actions that will occur as a result of not meeting those milestones; require the CPUC, in consultation with the CEC, to adopt rules for the enforcement of the program with respect to retail sellers; provide that if the CPUC determines that despite good faith best efforts by a retail seller to procure eligible renewable energy resources, that there are insufficient eligible renewable energy resources at competitive prices to enable the retail seller to meet its RPS procurement requirements, the retail seller is not out of compliance with the RPS.

**SCA 13 (Strickland) Property Tax Exclusion For Small Wind Turbines**

And Geothermal Heat Pumps

The California Constitution generally limits ad valorem taxes on real property to 1% of the full cash value of that property. For purposes of this limitation, "full cash value" is defined as the assessor's valuation of real property as shown on the 1975-76 tax bill under "full cash value" or, thereafter, the appraised value of that real property when purchased, newly constructed, or a change in ownership has occurred. This measure would authorize the Legislature to exclude from classification as "newly constructed" the construction or addition, on or after January 1, 2010, of a small wind turbine or geothermal heat pump system.

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**SMART GRID**

**SB 17 (Padilla) Smart Grid Deployment Plan**

This bill would: require the CA Public Utilities Commission (CPUC), by July 1, 2010, and in consultation with the CA Energy Commission (CEC) and the CA Independent System Operator (ISO), to determine the requirements for a smart grid deployment plan consistent with the policies set forth in the bill and federal law; require that the smart grid improve overall efficiency, reliability, and cost-effectiveness of electrical system operations, planning, and maintenance; require each electrical corporation, by July 1, 2011, to develop and submit a smart grid deployment plan to the CPUC for approval and would authorize the CPUC to authorize an electrical corporation to recover reasonable costs of deploying smart grid technologies and services from ratepayers; authorize a smart grid deployment plan that is adopted to provide for deployment of smart grid products, technologies, and services by entities other than electrical corporations; authorize smart grid technologies to be deployed in an incremental manner to maximize the benefit to ratepayers and to achieve the benefits of smart grid technology, would authorize the CPUC to modify or adjust the bill's requirements for an electrical corporation with fewer than 100,000 service connections as individual circumstances merit, and would require the CPUC in consultation with the CEC, the ISO, and electrical corporations, at each step of
deployment, to evaluate the impact of deployment on major initiatives and policies, and, require a local publicly owned electric utility, as defined, to develop by July 1, 2011, a smart grid deployment plan consistent with the policies set forth in federal law.

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SOLAR ENERGY

AB 546 (Knight) Tax Exemption For Solar Manufacturing Equipment
This bill would exempt from sales and use taxes the gross receipts from the sale of, and the storage, use, or other consumption of, tangible personal property, as specified, purchased for use primarily in the manufacturing of solar photovoltaic panels.

AB 1453 (Buchanan) Changes To California Solar Initiative
The bill would make technical and nonsubstantive changes to existing statutes that require the CA Public Utilities Commission to undertake certain steps in implementing the California Solar Initiative.

AB 1508 (Torrico) Solar Schools
This bill would state the intent of the Legislature to enact legislation that would encourage school districts to include solar energy in their projects for the modernization and new construction of school facilities.

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SUSTAINABLE COMMUNITIES

AB 782 (Jeffries) Modifications To Provisions Related To SB 375
This bill would: provide that acceptance by CARB of a sustainable communities strategy adopted as part of a metropolitan planning organization's regional transportation plan (which is to be designed to achieve certain targets established by the CA Air Resources Board (CARB) for the reduction of greenhouse gas emissions from automobiles and light trucks in the region) shall be final; provide that any local government entity participating in the sustainable communities strategy or an alternative planning strategy that subsequently determines that a project proposed for approval within its jurisdiction is consistent with the applicable strategy, that project shall be deemed compliant with the requirements of AB 32 of 2006 and SB 375 of 2008, and no person or entity may initiate or maintain any judicial proceeding to review the propriety of the local government entity's determination that the project is consistent with the strategy; add the following to the Regional Targets Advisory Committee: representatives of commercial builders, the business community, and entities involved in the funding of transportation projects to the entities to be appointed to the committee; require a metropolitan planning organization preparing a sustainable communities strategy or an alternative planning strategy to create a business advisory committee to provide input on the potential impacts of the proposed strategy on business activities and the economy; further exempt all projects funded by the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006 (Proposition 1B) and the federal American Recovery and Reinvestment Act of 2009 regardless of the date of programming or construction; and, this bill would extend the applicability of an existing CEQA exemption to any development project, including, but not limited to, a residential or mixed-use residential project, health facility, educational facility, retail facility, commercial job center, or transportation project.

SB 860 (Ashburn) Regional Sustainable Community Plans
This bill would: provide that greenhouse gas emission credits for counties and cities that site and permit commercial wind, solar, and biomass...
projects may be used as credit in the formulation of the sustainable communities strategy or an alternative planning strategy; provide that transportation trips outside of federal lands that are directly related to activities of a federal or state military installation shall not be included in the emissions inventory otherwise required to be considered to achieve any reductions in greenhouse gas emissions; and, add provision of access for renewable energy projects to the transportation investments that should be considered for purposes of providing financial incentives for cities and counties that have resource lands or farmlands for the purposes of, for example, transportation investments for the preservation of the city street or county road system, and farm to market and interconnectivity transportation needs.

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TRANSMISSION

SB 581 (Strickland) CEC Transmission Certification Authority
This bill would expand the definition of “electric transmission line” to include an electric powerline that carries electricity from any powerplant located in the state to a point of junction with an interconnected transmission system, an electric powerline that is rated at 200 kilovolts or above, and an electric powerline that is rated between 50 kilovolts and 200 kilovolts that is needed to support the stability and reliability of the interconnected transmission line, thereby giving the CEC the exclusive power to certify these electric powerlines. The bill also would exempt from the certification requirement an electric transmission line for which an application for a certificate of public convenience and necessity has been submitted to the CPUC before January 1, 2010.

SB 720 (Strickland) Transmission Capacity
This bill would provide that it is the policy of the state and the intent of the Legislature to ensure timely investments are made in the state’s electrical transmission system to integrate electricity generation from renewable energy resources, to increase capacity to import electricity, and to accommodate load growth consistent with the efficient use and reliable operation of the grid.

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TRANSPORTATION

AB 881 (Huffman) Local Transportation Authorities And Greenhouse Gas Emissions
This bill would authorize a local transportation authority to implement programs and projects to comply with statewide or federal greenhouse gas emission standards. It would make legislative findings and a statement of legislative intent with respect to the exercise of that authority by the Sonoma County Transportation Authority in that regard.

AB 1502 (Eng) Clean-Vehicle HOV Lane Exemption
This bill would extend the time duration of a provision that exempts certain low-emission, hybrid, or alternative fuel vehicles from rules regarding the number of passengers required to travel in high-occupancy vehicles (HOVs) lanes until January 1, 2017, or until the Secretary of State receives a specified notice, except that with respect to a hybrid or alternative fuel vehicle the provision would be operative only until January 1, 2011, or until the Secretary of State receives the specified notice.

SB 391 (Liu) California Transportation Plan
This bill would require DOT to update the California Transportation Plan (CTP) by January 1, 2012, and every 5 years thereafter; require the CTP...
to address how the state will achieve maximum feasible emissions reductions in order to attain a statewide reduction of greenhouse gas emissions to 1990 levels by 2020 and 80 percent below 1990 levels by 2050.

SB 425 (Simultaneous Vehicle Trip Reduction (CARB))
This bill would require the CA Air Resources Board, in coordination with the Department of Transportation, to develop a program for employers employing more than 100 individuals to reduce the number of single-occupant vehicle trips, as specified.
REGIONAL CLIMATE ACTION PLAN (RCAP) POLICY MEASURES
AND GUIDING PRINCIPLES
File Number 3003000

Introduction

The Assembly Bill (AB) 32 Climate Change Scoping Plan and Senate Bill (SB) 375 emphasize the need for changed land use patterns and improved regional transportation to help achieve the state’s mandatory greenhouse gas (GHG) emissions limit for 2020. State law requires metropolitan planning organizations (MPOs) to integrate the transportation network with development patterns in a way that achieves GHG emission reduction targets from passenger cars and light-duty trucks while meeting housing needs and other regional planning objectives. SANDAG is obligated to achieve the GHG emission reductions targets, to be established through the SB 375 process, in the next Regional Transportation Plan (RTP) update due in 2011.

Staff will present the quantitative policy measures and their associated GHG reduction impacts for the region and revised guiding principles developed as a framework for the RCAP. The EWG is asked to discuss and provide input on these components of the RCAP.

Discussion

The primary purpose of the RCAP is to analyze and recommend policies that SANDAG and its member agencies can support to address climate change. The RCAP will help SANDAG identify measures to meet required GHG emissions reduction targets for passenger cars and light-duty trucks. As discussed at previous EWG meetings, staff developed a set of land use and transportation policies that could reduce GHG emissions from passenger cars and light-duty trucks. These policies have been analyzed for 2020 and 2030 in the SANDAG travel demand model and the California Air Resources Board (CARB) EMFAC model to determine their potential GHG emissions reductions. The results are not ready as of agenda processing and will be distributed to the EWG via email prior to the meeting. Handouts of the modeling results also will be available at the meeting.

The draft guiding principles for the RCAP were presented to the EWG at the February meeting. However, there was not adequate time for the EWG to discuss. Staff has continued to refine the guiding principles and will present them to the EWG and request their input.

The guiding principles identify a series of priorities and standards to guide regional and local planning decisions in a manner that ensures the region achieves the required short- and long-term GHG emissions reductions and prepares the region for the impacts of climate change. They
emphasize changes in community design, improved alternatives to vehicle travel, and support for the transition to alternative transportation fuels, among others (Attachment 1).

A draft RCAP will be completed by July 1, 2009, and a public workshop will be held at the California Center for Sustainable Energy in mid-July.

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Attachment: 1. Draft Guiding Principles for the Regional Climate Action Plan
Draft Guiding Principles for the Regional Climate Action Plan

Take Immediate Action
Climate change is an urgent global problem requiring all levels of government, including SANDAG and its member agencies, to engage in immediate and sustained actions to reduce greenhouse gas (GHG) emissions and prepare for the impacts of a changing climate.

Design Communities to Maximize Mobility
Regional transportation planning is integrated with improved community design to significantly lower demand for vehicle travel by making walking, bicycling, and public transportation practical choices for everyday travel.

Minimize Greenhouse Gas Emissions from Vehicle Trips
Programs to manage demand for vehicle trips, such as carpools, vanpools, and telecommuting, and improve their efficiency are an emphasis in regional transportation planning.

Increase Alternative Transportation Fuels and Vehicles
Infrastructure and policy promote the transition away from petroleum to vehicles and fuels with lower lifecycle greenhouse gas emissions.

Price Transportation Modes to Reflect Their Climate Impacts
Transportation pricing signals lead to travel behavior that supports regional GHG emissions reductions.

Reduce GHG Emissions from Interregional Movement of People and Goods
Infrastructure, policy, and technology are deployed as necessary to significantly lower GHG emissions associated with the interregional movement of people and goods.

Minimize GHG Emissions from Electricity and Natural Gas Use
Conservation, energy efficiency, renewable energy, and distributed resources are preferred over new utility-scale fossil-fuel generated resources.

Promote Social Equity and Environmental Justice
Climate protection policies and actions promote the principles of opportunity, inclusion, and equal access for disadvantaged populations and ensure fair treatment and meaningful involvement for all people regardless of race, ethnicity, gender, income, national origin or geography.

Prepare for the Impacts of a Changing Regional Climate
The region is preparing for projected impacts of climate change to San Diego, including increased threats to public health, higher sea level, warmer average temperature, more frequent and longer heat waves, increased peak demand for electricity, more vulnerable water supply, more frequent wildfires and loss of native plant and animal species.

Lead By Example
SANDAG and its member agencies lead by example and increase public awareness of climate change: our actions to reduce GHG emissions from internal operations and prepare for the impacts of climate change encourage residents and the private sector to follow our lead.
2009 REGIONAL ENERGY STRATEGY GOALS AND GUIDING PRINCIPLES

Introduction

Over the past several meetings, the Energy Working Group (EWG) has been discussing the update of the Regional Energy Strategy (RES) including goals and guiding principles. Attachment 1 is a proposed set of goals and policies for inclusion in the 2009 RES. This is a draft document that continues to be refined and improved. Please note that agenda item 8 is the energy efficiency analysis that SANDAG asked the California Center for Sustainable Energy (CCSE) to prepare for the RES and it is being used for the energy efficiency goal.

Staff also seeks input and recommendations on RES guiding principles (Attachment 2). The draft guiding principles are based on previous EWG meeting discussions, the 1994 Regional Energy Plan, 2003 RES, and existing policies is the second attachment. A third attachment is a background document listing the 1994 and 2003 guiding principles. Staff will present an overview of new information. The remaining time will be for discussion.

A draft of the 2009 RES must be completed for the California Energy Commission by June 1, 2009. A public workshop is scheduled for the evening of June 18 at CCSE. A final draft is to be considered by the SANDAG Board of Directors in October 2009.

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2: Proposed Guiding Principles for the 2009 Regional Energy Strategy
3: Background Information on Regional Energy Strategy Guiding Principles
Proposed 2009 Regional Energy Strategy Goals and Policies

Energy use is responsible for more than 90 percent of greenhouse gas (GHG) emissions in the San Diego Region. The largest contributors are on-road transportation (46 percent), electricity use (25 percent) and natural gas end use (9 percent). Adopting energy efficiency measures for buildings, accelerating the deployment of alternative fuel vehicles, and considering the energy impacts of land use and transportation planning decisions, all contribute to meeting the state law to reduce GHG emissions economy-wide to 1990 levels by 2020 and the long-term goal of reducing GHG emissions to 80 percent below 1990 levels by 2050.

Energy Efficiency (EE)

**Goal:** Through energy efficiency measures, reduce total electricity consumption (GWh) to at least 7.5% below projected levels in 2020 and 9% below projected levels in 2030.

The EE goal reflects a projection forward applying existing funding levels from the Public Goods Charge (PGC) program mechanism through San Diego Gas and Electric (SDG&E). Within this goal, targets have been identified for each electricity sector, including new and existing residential, commercial and industrial structures.

A stretch goal for energy efficiency by sector is currently under analysis by the California Center for Sustainable Energy (CCSE). The more aggressive goal would result if the region leveraged other policies and programs outside the scope of PGC programs.

For the 2009 RES, energy efficiency is broadly defined as using less energy to accomplish the same level of electrical output as a less efficient energy appliance or application. EE can be more precisely defined by the potential for it, by type. The energy efficiency goal is defined as the market potential for EE penetration in each electricity sector.

Policies:

- Prioritize existing building retrofits and develop a regionally consistent and comprehensive EE building retrofit program
- Exercise local government leadership by implementing cost-effective energy efficiency in public facilities and services.
- Increase weatherization programs
- Develop more aggressive A/C load reduction programs
- Support stringent, comprehensive local codes and standards
- Adopt procurement policies that consider the energy intensity of equipment and materials, like Energy Star
- Identify and recommend residential and commercial green building programs that could be adopted and implemented by local governments in the region.
- Partner with SDG&E, CCSE and others to educate local governments and constituents about energy-efficiency incentives and resources available to them through public goods charge.
- Promote water conservation measures since water pumping and end uses are energy intensive.
• Support energy efficiency initiatives that reduce energy demand at maquiladoras in Baja California Mexico.

Regional Peak Demand

**Goal:** Reduce per capita electricity peak demand (MW) through deployment of smart grid technologies, and targeted energy efficiency and demand response measures.

A smart grid includes smart devices, two-way communications and advanced control systems. The smart grid would enable SDG&E to communicate with appliances at the home or business. Smart grid also can detect and address emerging problems on the transmission and distribution system before they affect service. During peak summer periods when demand is at its highest, energy intensive systems or appliances like air conditioners (A/C) could be cycled on and off, and clothes dryers could be programmed to run later in the day when the power is in greater supply and less costly.

In addition, approximately one-third of energy demand in the SDG&E territory is derived from A/C units during peak summer periods. Not only does this affect overall consumption, but high A/C demand during summer peak periods has necessitated the use of less efficient regional peaker plants. The lack of a large industrial sector that draws power day and night also has created more dramatic spikes in San Diego’s load profile.

Policies:

- Support rate designs and incentives that encourage SDG&E to invest in smart technologies and deploy identifiable grid improvement initiatives that improve reliability
- Develop aggressive A/C load reduction programs
- Prioritize existing building retrofits and develop a regionally consistent and comprehensive EE building retrofit program

Clean Distributed Generation (DG)

**Goal:** Increase the total amount of distributed generation resources (renewable and non-renewable) in the region to diversify the electricity resource mix and reduce summer peak demand with in-county resources.

The targets are to exceed 500 MW (9% of net peak demand) by 2020 and 684 MW (11% of net peak demand) by 2030. Goals by technology also have been established.

The overall targets have been revised downward from the 2003 RES after analysis by the California Energy Commission (CEC) and CCSE of the market potential for these technologies shown that the earlier goals were unachievable. For the 2009 RES, DG is defined as an onsite or near-load electricity generator, under 20 MW, serving either onsite load (or a portion thereof) or the regional utility grid. Technologies and fuels included in the definition of DG are solar, wind, biomass and biogas, fuel cells, clean and efficient combined heat and power (CHP) systems, efficient microturbines, and internal combustion engines (ICEs). Advanced energy storage (AES) is included here as a recently added component of DG applications.
Policies:

- Support integration of smart grid technologies and policies in the SDG&E service territory.
- Develop a regional approach to implementing sustainable energy financing districts in which property owners can finance solar installations and energy efficiency improvements through a voluntary assessment on their individual property tax bills.
- Educate local governments about AB 2466 which incentivizes renewable technologies for governments by allowing governments to aggregate their bills and offset heavy load at one site with high capacity systems at another site.
- Partner with organizations like the Apollo Alliance and Clean Tech to train the next generation of the region's energy workforce to develop, sell and/or install energy efficient and renewable energy technologies.
- Support continuation of state and federal incentives for DG.
- Target appropriate audiences that can take advantage of large-scale DG
- Support market “value-pricing” for DG’s environmental attributes being fed into the power grid through a feed-in tariff or other mechanism determined at the CPUC.

Renewable Energy Supply

**Goal:** Significantly increase the total electricity supply from renewable energy resources to 20% by 2010, 33% by 2020 and 50% by 2030.

The 2010 and 2020 targets have been revised upward from the 2003 RES to reflect more aggressive state law and policy. The 2030 target from the 2003 RES remains unchanged.

Renewable resources include supply that counts toward SDG&E meeting the renewable portfolio standard (RPS). California's RPS program requires electric corporations to increase procurement from eligible renewable energy resources to reach 20% by 2010. In November 2008, the governor signed Executive Order S-14-08 directing all state agencies to work toward achieving 33% by 2020. The CEC, California Public Utilities Commission (CPUC) and California Air Resources Board (CARB) support the higher RPS goal for 2020, which still must be codified into law through legislation. This RES goal also will include any renewable resources not counted in the DG goal.

Policies:

- Identify and remove barriers to siting renewable energy installations in San Diego County.
- Identify potential sites for renewable energy projects in each jurisdiction that will help the region and SDG&E meet the RPS targets.
- Promote quality jobs for workers employed in the energy sector through the invigoration of the local renewable energy industries.
- Support cost-effective transmission access from areas rich in renewable resources to the San Diego region.
- Monitor the Renewable Energy Transmission Initiative (RETI) and consider its recommendations in future regional planning.
**The Electricity Grid**

**Goal:** Modernize and expand the transmission and distribution grid to maintain required reliability, provide better access to renewable resources, promote smart communications and technologies, and provide competitively priced electricity.

California state law requires the utilities to follow a specific “Loading Order” when developing their resource plans. Under this law, utilities should seek new energy resources first from energy efficiency, demand response, renewable energy, and distributed generation before seeking resources from new transmission and fossil-fuel based generation.

The state also identifies the lack of transmission access from areas rich in renewable resources to load centers as a major obstacle to meeting the RPS targets. Transmission is a necessary component to reaching adequate renewable resources to meet the RPS goal of 33% by 2020.

Policies:
- Secure funding to conduct a feasibility study on the potential for establishing infrastructure corridors that could include pipelines, transmission lines, roadways, and cable.
- Support the adoption and deployment of smart-grid technologies.
- Support regional entities like SDG&E and Energy Policy Initiatives Center at University of San Diego in acquiring state and federal funds to implement smart grid for San Diego.
- Support cost-effective transmission access from areas rich in renewable resources to the San Diego region.
- Monitor the RETI and consider its recommendations in future regional planning.

**Transportation Energy**

**Goal:** Reduce petroleum dependence by accelerating the deployment and availability of cost-competitive alternative fuel vehicles in the San Diego region.

Transportation was not addressed in the 2003 RES except to call for further study. Refueling stations and other infrastructure that can accommodate alternative fuel vehicles must be in place to provide members of the public and fleet managers with a level of certainty that they can purchase alternative fuel vehicles without concern over finding a fueling station or maintenance facility. The state has enacted several laws to reduce reliance on petroleum-based transportation fuels. Increasing the use of alternative fuels will help mitigate energy security concerns, provide a buffer from oil price volatility and emit fewer GHG emissions than petroleum-based fuels. Improved vehicle fuel efficiency required by state and federal standards also will help the region address these concerns.

The choice of which alternative fuel will vary based on vehicle class and customer needs. The region will utilize alternative fuels that meet the state’s low carbon fuel standard (LCFS), which is determined by a full fuel cycle analysis (“well to wheels”). Fuels with lower carbon
intensities than conventional gasoline and diesel qualify for the LCFS and are eligible for state aid to increase their deployment.

Policies:
- Identify and secure state and/or federal alternative fuel funding for the region.
- Assist local and regional government fleets to purchase alternative fuel vehicles and use alternative fuels.
- Through public and private partnerships, increase the availability of alternative fuel vehicles and infrastructure in the San Diego region.
- Identify and remove permitting and other barriers to siting refueling/recharging stations.
- Identify and remove permitting barriers to siting home and business refueling stations.
- Identify regional transportation investment projects that could be augmented with an alternative transportation component.
- Coordinate with vanpool and carpool programs to replace fleet vehicles with more efficient models.
- Coordinate with regional transit agencies to identify and fund energy reduction technologies for the trolley and light rail.
- Collaborate with cross-border entities to identify and support alternative transportation options that reduce pollution associated with goods movement at the ports of entry (POE).
- Collaborate with cross-border entities to identify and support alternative transportation options that reduce pollution associated with traffic at the POEs.

**Energy Considerations for Land Use and Transportation Planning**

**Goal:** Reduce the energy intensity of the built environment.

This is a new area of focus by the state, although SANDAG’s 1994 energy plan did recognize the need to consider maximizing mobility in community design and building structures with energy efficiency in mind. A target for the 2009 RES is to increase the number of designated “Potential Smart Growth Areas” that become part of adopted local plans.

Community design is strongly related to energy consumption. The energy intensity of a community is in large part determined by the design and layout of individual buildings and their spatial relation to each other and supporting transportation infrastructure. Local governments influence community design through their land use planning authority and local infrastructure decisions. Local governments provide the blueprint for future land use development and community design in their communities through the General Plan. SANDAG conducts transportation planning for the region and provides land use planning guidance to local governments through the Regional Comprehensive Plan (RCP). In the San Diego region, a major objective of local land use and regional transportation planning is to identify the land and infrastructure needed to accommodate projected population, housing and job growth while maintaining and enhancing quality of life. The San Diego region is forecast to grow by another million residents by 2030, about 30 percent more people than today (2009).
Over the long term, the land use and transportation planning decisions made to accommodate future growth will have a large impact on the spatial distribution of buildings and places and how people travel among them. As a result, energy must be a primary consideration in land use and transportation planning.

**Policies:**

- Assist local governments with incorporating energy-saving measures into general plans and development codes.
- Encourage and help local governments to incorporate Potential Smart Growth Opportunity Areas into their adopted land use plans.
- Adopt resolution calling for zero net energy homes by 2020 and zero net energy commercial buildings by 2030.
- Integrate efficient energy supply, distribution and use, and petroleum reduction measures into all facets of land-use planning and development.
- Assist local governments with policies and standards that emphasize pedestrians, bicycles, and public transit.
- Maintain funding and incentives for transportation demand management (TDM) programs like iCommute, carpools, vanpools and telecommuting.
- Make walking, bicycling and public transportation practical choices for travel.

**Natural Gas**

**Goal:** Through energy efficiency measures and fuel diversification, reduce per capita natural gas consumption by 10% in 2020 and 15% in 2030.

Natural gas is the least polluting fossil fuel and the only fossil fuel that California allows to fuel in-state power plants. It is used for space conditioning and water heating and as a growing transportation fuel for some buses, heavy duty vehicles and passenger vehicles. It is less polluting and more energy efficient than diesel or gasoline.

Regional natural gas consumption is expected to grow to 590 million therms (MMTh) in 2010, 660 MMT in 2020 and 730 MMTh in 2030. As demand for natural gas continues to grow in the region, and with the passage of AB 32, priority must be made to utilizing natural gas in the most energy efficient manner and where applicable and cost-effective, replace it with a renewable fuel. Significant opportunities exist to reduce the use of natural gas in the region, including the dismantling or repowering of aged power plants with more efficient combined cycle gas turbines, expanding the use of solar for hot water and solar pool heating, and reducing demand and peak demand by other energy efficiency measures. The passage of AB 1368 in 2006, placed a GHG emissions standard on power purchases of California utilities that will effectively prevent any high-emission baseload plants from being contracted within the state.

**Policies:**

- Monitor the availability and cost of natural gas supplies in light of increased regulatory and environmental restrictions on fossil fuels.
- Support policies that will provide more stable natural gas prices and reduce consumer exposure to market volatility.
- Increase use of solar water heating in residential, pool and commercial uses to offset natural gas demand.
- Promote the use of high efficiency distributed generation technologies like combined heat and power.
- Promote the weatherization and insulation of un-insulated homes built before the development of building energy codes.
- Increase and promote demand-side energy efficiency programs to reduce residential, commercial and industrial gas usage.
- Encourage the re-powering or replacement of older power plants in the county with high efficiency combined cycle gas turbines or a more efficient technology or fuel.
Proposed Guiding Principles for 2009 Regional Energy Strategy (RES)

Sustainably Meet Future Energy Needs
The region’s energy needs are met by employing resources efficiently and utilizing supplies that minimize cost and are consistent with the environmental quality, economic prosperity and social equity objectives of the region’s growth management strategy.

Reduce Greenhouse Gas Emissions from Energy Use
Climate change is a serious global challenge to public health, the environment and the economy requiring all levels of government, including SANDAG and its member agencies, to engage in immediate and sustained cost-effective actions to reduce and mitigate greenhouse gas emissions and prepare for the impacts.

Promote Education and Consensus-Building
An open, transparent and inclusive planning process, combined with education programs, increase public awareness and responsible energy decisions by the community.

Foster the Clean Tech Sector
Economic development initiatives and workforce training programs position the region to supply a growing demand for energy efficient and renewable energy products and services.

Promote Social Equity and Environmental Justice
Energy planning and programs promote the principles of opportunity, inclusion, and equal access for disadvantaged populations and ensure fair treatment and meaningful involvement for all people regardless of race, ethnicity, gender, income, national origin or geography.

Acquire Cost-Effective Electricity Resources in a Sustainable Manner
New resources come from energy efficiency, demand response, renewable energy, and distributed generation before resources from new transmission and fossil-fuel based generation are sought.

Implement the Smart Grid
The deployment of smart devices, controls and communications modernize our electricity grid to improve reliability, power quality, and detect problems before service is affected.

Reduce Energy Demand and Renewable Energy System Cost
Policies and programs promote the integration of energy efficiency at a structure prior to the installation of a renewable energy system in order to reduce the size and cost of the renewable energy system.

Reduce the Energy Intensity of the Built Environment
The energy intensity of community design, including buildings and travel options, is an integral component of land use and transportation planning.

Ready the Region for Wide-Scale Deployment of Alternative Fuel Vehicles
The region has convenient access to alternative transportation fuels that reduce our dependence on foreign oil supply, reduce local economic impacts from oil price volatility and reduce greenhouse gas emissions.
Background Information on Regional Energy Strategy Guiding Principles

The following statements, grouped by subject, were developed by staff from the 1994 Regional Energy Plan, 2003 Regional Energy Strategy (RES) and EWG discussions. A year is listed in parentheses at the end of each statement signifying where the principle was derived. Staff developed principles from EWG meetings are denoted by year 2009.

General

Meet the energy needs of the San Diego region by employing resources efficiently and utilizing supplies which minimize cost, and are consistent with the environmental quality, economic prosperity, and social equity objectives of the region’s growth management strategy. (1994)

The SANDAG planning process will remain open, transparent, and inclusive. (2003)

Public awareness and education programs will foster responsible energy decisions by the community. (2003)

Integration of renewable energy installations and EE improvements

Policies and programs support the integration of energy efficiency at a structure prior to any renewable energy installations in order to reduce electricity demand and reduce the size and cost of the renewable energy system. (2009)

Global Climate Change

Climate change poses a serious global challenge to public health, the environment and the economy requiring all levels of government, including SANDAG and its member agencies, to engage in immediate and sustained cost-effective actions to reduce and mitigate greenhouse gas emissions and prepare for the impacts. (2009)

Climate change is an urgent global problem requiring all levels of government, including SANDAG and its member agencies, to engage in immediate and sustained actions to mitigate greenhouse gas emissions and prepare for the impacts. (2009)

Electricity

Support electricity market structure that maximizes the benefits of competition in wholesale and retail markets while protecting the public from inappropriate pricing practices in retail markets. (2003)

The supply portfolio will be diversified, cost efficient, environmentally sound, self sustaining, secure and reliable. It will be sufficiently diverse to ensure resource adequacy and stable prices. (2003)

The San Diego region will have adequate resources to ensure reliability through a combination of centralized and decentralized power dispersed throughout the distribution grid. (2009)
**Natural Gas**
Regional per capita natural gas consumption will be reduced through aggressive energy efficiency measures including combined heat and power and solar thermal. (2009)

Due to a diversified electricity fuel supply, including one third renewable energy resources, the region will be insulated from natural gas price fluctuations. (2009)

**Preferred Loading Order**
Conservation, energy efficiency, renewable energy, and distributed resources will be preferred over new transmission infrastructure and utility-scale fossil-fueled. (2003)

Energy programs, policies, and infrastructure decisions will encourage the deployment of distributed energy resources. (2009)

New energy resources first will come from energy efficiency, demand response, renewable energy, and distributed generation before resources from new transmission and fossil-fuel based generation are sought. (2009)

**Transportation Energy**
Regional reliance on petroleum will be reduced through improvements in vehicle fuel efficiency and widespread availability of additional fuel choices. (2009)

The region will have access to a diversified portfolio of transportation fuels that will reduce dependence on foreign oil supply and reduce local economic impacts from oil price volatility. (2009)

Adequate and accessible fueling facilities will be located throughout the county to accommodate significant numbers of alternative fueled vehicles such as electric plug-in, biofuels, compressed natural gas, and liquid petroleum gas. (2009)

Fleet operators will retire gasoline and diesel-fueled vehicles, as applicable. New fleet vehicles will utilize fuels with lower lifecycle carbon intensity as determined by State Alternative Fuels Plan. (2009)

San Diegans will have more transportation options by making walking, bicycling and public transportation practical and common choices for travel. (2009)

Increased transportation demand management (TDM) programs such as carpools, vanpools, telecommuting, and alternative work are in place to reduce vehicle miles traveled (VMT). (2009)

Goods movement improvements at the ports of entry will significantly reduce truck idling and associated environmental problems. (2009)

**Land use and transportation planning**
Development and land-use planning decisions will incorporate standards for energy efficiency, distributed energy resources, and renewable energy. (2003, 2009)
Equity and Environmental Justice
Energy projects, programs and policies will protect the interests of all communities in the San Diego region and Baja California, Mexico. (2003)

Energy generation facilities located in Baja California, Mexico that supply energy to the San Diego region should be encouraged to comply with both California and United States environmental and labor laws. (2003)

Energy planning and programs promote the principles of opportunity, inclusion, and equal access for disadvantaged populations and ensure fair treatment and meaningful involvement for all people regardless of race, ethnicity, gender, income, national origin or geography. (2009)

Economic Development

- Energy programs and policies will foster sustainable economic development activities with the goal of creating new jobs and industries in the San Diego Region. (2003)

- Economic development and workforce training policies and programs have positioned the region to meet the growing demand for energy efficient and renewable energy products and services. (2009)

- Consider the amount of local business and employment that can be increased when developing and implementing energy actions. (1994)
Regional Energy Strategy (RES) Goal for Energy Efficiency (EE)

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Definition of Energy Efficiency

Energy Efficiency (EE) is broadly defined as reducing the energy required to accomplish a given task or provide a given service. Electric end-use efficiency is the focus of this chapter; per capita electricity consumption is the principle metric for setting and monitoring a regional efficiency goal. Natural gas may be incorporated in a future version of the chapter.

Traditionally in California EE programs have focused on installation of more efficient technologies to reduce energy consumption, within a fairly mechanistic approach aiming to achieve “market transformation” for a given efficient product or technology type. Several levels of efficiency potential can be defined as follows, with each successive definition a subset of the former. The technical potential for EE is the maximum applicable and feasible application of a given EE technology, without regard to cost or acceptability to the customer. Applicability limits installation to situations where a qualifying end use or technology is present. Feasibility limits installation to situations where installation is physically practical. Economic potential includes the further consideration of measure costs, and includes the most cost-effective and efficient technology options subject to applicability and feasibility. Market potential denotes the savings that can be anticipated from specific scenarios relating to program designs and market conditions.1

The baseline EE goals defined here are based on the most recent assessments of market potential for EE penetration in each sector, including new and existing residential, commercial and industrial facilities.

California EE Market

Analysis of energy procurement costs shows that EE is the most cost effective resource, averaging $.03 per lifetime kilowatt hour (kWh) saved versus approximately $.07-.12 for conventional electricity generation.2 Since the mid-1970s, California has been the US leader in development and implementation of EE codes and standards; most famously this has contributed to a relatively stable level of per capita electricity usage in California over the last 35 years, whereas per capita electricity consumption in the rest of the country has continued to rise.

In 1978, the CEC set a state priority for EE to be included in new residential and non-residential building plans. These Building Efficiency Standards, better known as Title 24 Part 6 (T24) standards set a

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1 Itron, “p. California Energy Efficiency Potential Study, Volume 1: CALMAC Study Id: PGE0211.01”p. 3-2, 2006
“rigorous yet achievable” set of regulations through a process that today includes input from the four largest investor-owned utilities (IOUs), CEC EE staff, industry stakeholders and other interested parties. The CEC updates its T24 standards triennially, and is scheduled to launch its updated set of standards in August of 2009.

California T 24 standards encompass rules for the following EE technologies:

- Lighting
- Fenestration
- Insulation
- Air Conditioning and Heating
- Ventilation
- Duct Work
- Roofing Products, e.g. cool roofs, green roofs

The CEC has set goals to focus on cost-effectiveness as well as environmentally-sound measures in its updates, as well as ensuring that state policy reflects relevant EE legislative mandates, including those emphasized in Assembly Bill (AB) 32, which calls for large GHG emissions reductions, approximately 10 percent in the SD region), which can be achieved through rigorous pursuit of EE. (AB 32 and other mandates are discussed later in the Policy Section of this document.) New construction standards are an efficient mechanism for moving the building stock gradually and cost-effectively towards increased efficiency. Some impacts of progressive tightening of T24 standards are illustrated below in Figures 1 and 2.

*Figure 1: 2005 v. 2001 T24 Standards, San Diego Coastal Area*

<table>
<thead>
<tr>
<th></th>
<th>Residential</th>
<th>Commercial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avg. Building Size (in SqFt)</td>
<td>1,761</td>
<td>15,000</td>
</tr>
<tr>
<td>Total 2005 Building Starts</td>
<td>6048</td>
<td>41</td>
</tr>
<tr>
<td>Total Building Area (in SqFt)</td>
<td>10.6 million</td>
<td>615 thousand</td>
</tr>
<tr>
<td>Incremental Cost – Total</td>
<td>$7.50 million</td>
<td>$2.5 million</td>
</tr>
<tr>
<td>Incremental Savings – Total</td>
<td>$9.8 million</td>
<td>$10.6</td>
</tr>
<tr>
<td>Incremental Cost/SqFt</td>
<td>$0.71/</td>
<td>$4.07/</td>
</tr>
<tr>
<td>Incremental Savings/SqFt</td>
<td>$0.93/</td>
<td>$17.24/</td>
</tr>
</tbody>
</table>
Appliance efficiency standards, applied by the CEC under Title 20, complement building standards and are another area in which our state leads by example. California’s T20 standards can legally go beyond federal standards, and often do in practice; all other US states then have the option to adopt California’s stricter standard if they desire. This arrangement has allowed California to provide substantial leadership in this area, and has led to much faster improvement of federal appliance efficiency standards than might otherwise have occurred.

Integration of renewable energy installations and EE improvements is a prominent goal of state energy policy, and is being strongly encouraged by the PUC and CEC in their EE programs and policy work, long-term planning proceedings and distributed generation programs. For example, the CSI program has boosted emphasis on EE by including EE mandates within the program. For example, to receive an incentive for installation of solar as part of the New Solar Homes Partnership (NSHP) component of the CSI, participants are required to design the home to a minimum of 15% above T24. In the mainstream CSI program (for existing residential buildings and new commercial sectors) participants must receive an EE audit and extensive EE information prior to receiving an incentive for a

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3 Based on average cost of $500/SqFt home for incremental measures of higher performance windows, AC unit refrigerant management, new ventilation requirement for IAQ, and improved lighting controls.

4 Using a 30 year lifecycle period and $690/home average savings

5 15 year lifecycle savings comprised of $4 million for therm and $153 million for kWh savings.
solar PV installation. Increasingly, contractors who provide integrated services focused on optimizing a building’s energy usage as opposed to installing a specific technology, will gain traction in the marketplace.

**San Diego Energy Demand**

Per capita electricity consumption in the San Diego Region in 2007 was 5400 kWh. SDG&E’s load factor is around 45%, which is relatively low for major US utilities. San Diego’s mild weather means that along the coast, little energy is required for space conditioning. As the inland population has increased, however, air conditioning (A/C) has become a more important part of the system load profile, essentially driving SDG&E’s system peak and reducing the system’s load factor—not a desirable development for any utility. Approximately one-third of peak electricity demand in the SDG&E territory is due to A/C units; this has driven the installation of less efficient natural gas-fired peaker plants in the region. Additionally, the lack of a large industrial sector in San Diego, and the base load it would bring, translates to a lower system load factor.

**EE Motivators and Impediments**

The many economic, environmental and system benefits of energy efficiency make it an attractive investment for virtually any property. Properly implemented EE programs benefit all stakeholders, from the property owner to the electric ratepayer to society generally; indeed, cost-effectiveness tests from each of these perspectives are routinely performed to evaluate the value of utility EE programs. At the same time, EE implementation is not without its barriers. Developing and implementing specific EE projects can entail significant transaction costs; information gaps and misguided perceptions about the benefits of EE have been impediments to deeper EE penetration levels. The following section expands on the motivations for and impediments to EE penetration in the region.

In October 2008, federal EE tax incentives were extended eight years for residential construction and five years for commercial construction. The extension of tax credits and deductions for new and existing construction demonstrates a national dedication to EE technologies and can spur their deeper penetration in the marketplace.

The perception of developers and builders by the public creates a powerful motivator to incorporate EE into new construction plans. The opportunity to create a niche market can play a role in the decision of a developer or remodeler to pursue EE efforts. Incorporating renewable energy, conservation, and efficiency features in a development can create a unique image that sets a company apart from its competition.

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EE Requirements for CSI participation will become more extensive on July 1, 2009. See Appendix B for CSI EE requirements.

Prepared by the California Center for Sustainable Energy for the San Diego Association of Governments March 18, 2009
Societal needs sometimes influence developers to use opt for new construction that is considered efficient. Through government loans and a nonprofit status, philanthropic endeavors can help a community incorporate energy efficient design and renewable technology into affordable housing construction. In the San Diego region, Community Housing Works builds affordable residential communities. Their Solara affordable rental housing project was completed in 2007 with all energy efficient appliances and other "green" attributes, resulting in nearly a net-zero consumption of energy. The project has provides the San Diego region a benchmark for the concrete benefits of EE and other green technologies to achieve both lower tenant electricity bills and important GHG emissions.

 Builders and developers experience market pressure to incorporate EE and other green energy technologies into their projects. Market differentiation is important in the real estate business, and in many respects this imperative is actually heightened by the current downturn in new construction and the economy in general. Developers and builders may be motivated by the positive media attention and image associated with so-called "green" projects that incorporate renewable energy and EE systems and features.

General barriers also exist for EE technology penetration, as detailed here. A common barrier to the expanded use and availability of EE measures is the cost concerns. There has historically been a perception in the market – amongst the private sector, government, and consumers – that EE technologies are more expensive than their conventional counterparts. This is often due to their higher upfront costs and a market focus on short-term results. However, the life-cycle costing approach affords the market a mechanism in which the cost implications of energy saving resources and products are evaluated over a longer time horizon. Despite sometimes higher upfront costs, EE resources usually have lower life-cycle costs than their conventional counterparts. Life-cycle cost evaluations show that on the whole, EE installations provide more cost-effective than conventional choices.

Lack of awareness and complexity of the marketplace can also make understanding and embracing EE technologies difficult. Complexity often leads to a jumble of messages to potential consumers and confusion about the facts and motivations for action. The lack of a clear approach for integrating EE into each project can ultimately lead to inaction and lost opportunities for EE measures and technologies.

Lack of accurate information can lead to under-penetration of EE products, especially in the existing building segment. Many EE technologies that were once thought to be inferior in quality to conventional technologies, e.g. CFLs as substitute for incandescent lighting, have advanced to a level that allows their satisfactory use in virtually all applications. However, public awareness about these improvements often lags product development, which inhibits growth of the EE market and highlights the need for adaptation assistance.
Commensurate with lack of information about life cycle costs and benefits of EE, lack of incentives for certain audiences have prevented high EE penetration levels. Specifically, the issue of split incentives plagues builders as well as existing building owners, landlords and tenants. The 2009 SB 542: Solar and Efficiency in Rental Properties will attempt to address this impediment if enacted.

**Performance and reliability uncertainty** can create poor perception of EE technology potential. For example, HVAC systems have increasingly penetrated the California market, with the percentage of homes with central conditioning growing from 25 percent in 1976 to 95 percent today. Unfortunately, this growth in HVAC installations has not been accompanied by adequate installation and maintenance support. The result can be poor system operation and decreased operational efficiency. Further, less than 10 percent of HVAC installations obtain legally required pre-installation local building permits, inhibiting proper quality assurance and system commissioning.

Based on the preceding description of the regional EE climate as well as the motivators for and impediments to EE penetration, goals for aggressive yet achievable and feasible EE penetration rates are presented followed by a discussion of policies to aid in implementation of those goals and actions that can facilitate meeting the policy mandates.

**Energy Efficiency Goals for the San Diego Region**

For purposes of the RES, we define here the region’s baseline goals for energy efficiency through the year 2030. As with the 2003 RES, we continue using per capita electricity use as the top-level metric, since it is easily tracked and emblematic of the California’s success to date. We begin with Statewide Potential Study prepared by Itron and KEMA for the CEC and PUC in 2006, and updated in 2008. This study is widely recognized as the most comprehensive and defensible analysis available today, and includes analysis by utility service territory, making it a logical starting point for setting baseline EE goals for the San Diego region. With baseline goals established, we then propose specific initiatives, unique to the San Diego region, that would complement the existing programs and permit greater EE improvements moving forward. A future iteration of this report will include disaggregated analysis of the regional potential for these additional program options. Figures 3 and 4 below present the baseline goals proposed for SDG&E territory, expressed as a percent of total energy consumption in the region.

*Figure 3: Baseline EE Goals for San Diego Region, by Percentage of Total Consumption*
These EE goals are based on market projections of the results of EE incentive programs using Itron’s ASSET modeling software. ASSET is a bottom-up model of energy usage throughout the state’s economy, allowing projection of project future consumption patterns under a wide variety of EE policy scenarios, from business as usual to very aggressive. We have chosen a moderately aggressive EE scenario as the baseline goal for the region—in particular, that called the “moderate-restricted” scenario in the Potential Study. In this scenario “moderate” indicates mid-level incentives, midway between the 2006 incentive levels adopted by the IOUs for their programs, and the full incremental cost of all cost-effective EE measures. In other words, this scenario is the level of EE that would be achieved with a substantial increase in EE incentives above current practice, but not so much as to cover the full additional cost of the EE measures. “Restricted” means that the mix of EE measures funded is limited to those that pass a cost-effectiveness threshold, specifically that the Total Resource Test (TRC) shows a benefit-to-cost ratio of at least 0.85—again, this is somewhat more liberal than current practice, under which TRC must exceed 1.0 for a program to be deemed cost-effective.

7 These results were reported in “California Energy Efficiency Potential Study”, dated September 10, 2008, prepared by Itron and KEMA for PG&E.
Cumulative EE achievements and projections since EE programs began, reported on an annual GWH basis, were obtained from the 2008 Itron/Kema study. Note the projections were approximately 30% lower than similar projections in a 2006 version of the Itron study, due to improved calibration of the ASSET model to recent actual measured program impacts. The Itron study results were reported as SDG&E gross production values, and were adjusted for this chapter to yield net values for San Diego County only, i.e. excluding the approximately 9% of SDGE electricity that is consumed in Orange County and its associated losses. SANDAG population projections were used to derive per capita values in kWh/yr/person.

**Actions: Leveraging Policies and Programs to Achieve Goals**

The CPUC Long Term EE Strategic Plan supports a market transformation that makes EE “business as usual.” Local Governments (LGs) should pursue the following actions to push the San Diego region toward this goal as well.

**Prioritize Existing Building Retrofits**

Existing buildings, particularly the residential sector, are typically much harder to influence and impact than new construction, where mandates can relatively easily be added to building codes. As a complement to a statewide policy goal of pursuing all “cost-effective” EE programs through the IOU EE programs, LGs can utilize their regular contact with each and every property owner and permitted project to push a broader set of activities. This could include pursuing measures and approaches that may be less cost-effective, but that which meet multiple city goals. For instance, more emphasis can be placed on improving the energy performance of the existing housing stock. According to the [www.buildgreennow.org](http://www.buildgreennow.org) report, 70 percent of homes that could benefit from EE technologies are pre-1980 construction. The remodeling sector must be targeted more.

**Comprehensive EE Retrofit Programs**

When calculating EE measure potential for market penetration, goals need to take into account the elements of market saturation and diminishing program accomplishments over time when assessing overall potential. When calculating the potential for utility-administered EE program savings, saturation levels must be acknowledged and goals must reflect those saturation points. By supporting comprehensive approaches to EE, the potential that one technology as part of a program will be saturated prior to the end of the program funding cycle.

**Weatherization Programs**

Weatherization refers to steps that protect homes and commercial structures from the outside environment, resulting in lower electricity bills. Weatherization technologies include weatherstripping around doors and window apertures and gaskets around electric outlets and areas that allow outside air into building interiors. Weatherization also refers to insulation, window replacement and chimney dampers.

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8 CPUC Decision D.07-01-032
**Aggressive A/C Load Reduction**

Support of A/C load reduction programs is a must—the EE programs are cost-effective by virtue of their being included in the suite of programs. Make sure installation is proper and maintained properly. The EAP emphasizes a 10 percent improvement in A/C efficiency as a critical element to attainment of state energy goals. The SDG&E 2009-2011 EE Programs application includes an HVAC tune-up program, an A/C cycling program and other existing and new A/C programs that can move the region toward meeting the aforementioned goals.

**Support Stringent, Comprehensive Local Codes and Standards**

LGs that would like to pursue EE goals that exceed T24 standards can instead of imposing a “T24+-” style program, instead look toward pursuing other approaches. NZE goals embody a comprehensive approach to sustainability that includes EE as a critical component. Another strategy is to impose in-lieu fees\(^9\) for new construction that cannot meet a T24+ goal set by the city. A third possibility is to enact an expedited permitting process for EE remodels and new construction, as developed by the City of San Diego.

**Ten Percent above T24 for Non-Residential New Construction Option**

Create or use existing (CV) model to provide a step-by-step process for pursuing EE goals beyond T24 for LGs.

As previously recommended in “New Non-Residential Construction Building EE Standards Recommendation”, LGs should espouse a mandate that surpasses the powerful baseline supplied by T24. While most of the actions described above support actions that existing structure property owners can undertake, it is important to set an example through mandates for new construction within a community. This advanced EE goal scenario is already being carried out in LGs throughout California and within the San Diego region, including the cities of Chula Vista, Solana Beach (who else?)

The key to success with this type of program to keep the mandate metrics among those that can be easily verified to the CEC.

**Encourage End-User Educational Opportunities**

Opportunities for EE education are available through SDG&E and EE education providers. Through their partnership, SDG&E and CCSE offer free workshops and seminars to increase EE potential for all customer segments. Seminars include training and general education on HVAC, T24 standards training, energy modeling and current and emerging EE technologies. SDG&E also plans to promote EE through inspector training, with a curriculum that includes equipment identification and compliance, residential

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\(^9\) In-lieu fees are a tax charged instead of using compliance with a mandate as the only option; in-lieu fees are often used to contribute to a municipal goal in keeping with the mandate. In this case, an in-lieu fee could be used to incentivize EE retrofits for existing homes.
and commercial California Energy Code documentation and compliance, building plan verification for EE standards, and the 2010 California Green Building Code

Pending and New Policies to Aid in Goal Implementation
To reach the EE goal developed here, local governments (LGs) will need to establish benchmarks that match state mandates. Local stakeholders should also encourage state policymakers address the barriers to increased EE penetration first through adoption of policy changes and then through actions that support those policy recommendations and directives. Recent policy developments are listed here, followed by actions the region can take to accomplish the adopted goals

American Recovery and Reinvestment Act of 2009
Energy-related issues are a cornerstone of the newly-enacted “American Recovery and Reinvestment Act of 2009” stimulus package. The signed bill allocates substantial sums to EE programs, including $3.2 billion for EE and Conservation Block Grants (EECBG) which will fund development of EE strategies, audits and incentive programs for EE improvements as well as building code improvements and education programs. In addition, the stimulus bill provides $5 billion in funding for low-income weatherization programs. The act also stipulates that $3.1 billion will go to regions that intend to adopt strict building energy codes and provide utility incentives for EE measures.

Assembly Bill 811
Assembly Bill (AB) 811 allows local government entities to offer sustainable energy project loans to eligible property owners. Through the creation of sustainable energy financing districts, property owners can finance solar installations and energy efficiency improvements through a voluntary assessment on their individual property tax bills. Property Owners benefit by avoiding the upfront installation cost of solar systems and energy efficiency measures, and eliminating concerns that they will sell the property before recovering the system investment from utility bill savings. The result is that property owners in participating jurisdictions can finance their greening efforts without financial risk. Cities benefit as well: Clean energy investments funded through these programs will assist local governments in reaching their carbon reductions goals. The AB 811 mechanism requires little or no investment of general funds and presents very low risk given that the loan repayment is a senior lien on the property, ahead of the mortgage itself. The assessment district approach thus adds a new and potentially powerful option to the clean energy finance landscape.

Locally, San Diego and Solana Beach are actively developing municipal tax financing programs. Additionally, the California Statewide Community Development Authority (CSCDA, also known as “California Communities”) is developing an AB811 program into which member jurisdictions (which includes virtually all local governments in the state) could opt. California Communities is a statewide JPA that can utilize its existing authority to aggregate demand from local governments to relieve them of the burden of establishing the financing districts and accessing the bond market. CCSE is part of the team awarded the program contract by California Communities; the team is led by Renewable Funding LLC, the firm that initially developed this idea and administers the program in Berkeley and several other cities.

Prepared by the California Center for Sustainable Energy for the San Diego Association of Governments

March 18, 2009
CPUC Advanced Metering Infrastructure (AMI) “Smart Meter” Initiative
In the San Diego region and throughout California, utilities are currently working with the CPUC to implement AMI. AMI involves the installation of new electric meters that not only measure the total amount of electricity used, but also allow two-way communication with the meter via a standardized protocol. AMI opens up the potential for much more granular demand-related data collection as well as interactive communication with each customer. Possibilities for the utility thus include the development of increasingly targeted customer programs, and much more widespread use of demand response. Over time AMI should enable development of tools and knowledge that will permit customers to make more informed decisions about their energy consumption both in the near-term, and with respect to longer-term decisions such as appliance purchases and building upgrades. The long-term benefits of AMI are real. Regional actors, including SANDAG and its members, local universities and program implementers, should work with the PUC and SDG&E to take full advantage of the information gathered from advanced metering to pursue most effectively the region’s energy efficiency goals.

Long-Term EE Strategic Plan
The CPUC’s Long-Term EE Strategic Plan emphasizes the need for “market transformation,” defined as “long lasting sustainable changes in the structure or functioning of a market achieved by reducing barriers to the adoption of EE measures to the point where further publicly-funded intervention is no longer appropriate in that specific market.”

The plan calls for new construction to move towards a net-zero-energy (NZE) approach, under which buildings would use no more site energy than they can achieve through a combination of onsite EE and self-generated power and thermal energy on an annual basis. This method would benefit from performance modeling software used for energy compliance enhanced with a NZE module that takes into account onsite generation options not unlike an approach used for the EE-oriented statewide Savings by Design Program offered by the IOUs via the EnergyPro software program.

Also as part of the Long-Term EE Strategic Plan, the Low Income EE Standard sets a goal 100 percent of eligible and willing customers will have received all cost-effective EE measures by 2020.

California Green Building Initiative, Executive Order (EO) S-20-04
The Governor’s signing of EO S-20-04 in December 2004 established a goal of reducing energy use in state-owned buildings by 20 percent by 2015 (from a 2003 baseline). The EO also encourages the private commercial sector to set the same goal and directs compliance with the Green Building Action Plan, which details the measures the state will take to meet this goal. The EO and Green Building Action Plan directed the CEC to:

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10 CPUC’s Long-Term Strategic Plan, September 2008, p. 4
11 See Appendix A for S-20-04 language

Prepared by the California Center for Sustainable Energy for the San Diego Association of Governments
March 18, 2009
• Develop and propose by July 2005, a simple building efficiency benchmarking system for all commercial buildings in the state
• Develop commissioning and retro-commissioning guidelines for commercial buildings
• Further develop and refine T24 building EE standards applicable to the commercial building sector to result in 20 percent savings by 2015 using 2003 standards as the baseline

SB 1037
California SB 1037, signed into law in 2005 requires IOUs, municipal utilities and the CPUC to make EE programs a priority before acquiring other sources of electricity or building new transmission lines. Pursuit of EE as the highest priority on the loading order, and the clear efforts to identify areas of potential savings by the CEC and PUC in the course of the current EE proceedings, are in line with this legislation.

AB 2021
In 2006, Assemblymember Levine authored a bill that required the CEC to investigate options and development of a plan to improve the energy performance of air conditioners. This prompted the CEC to author a report that estimated potential savings from increased A/C efficiencies and proper installation and maintenance savings.

AB 32 and EO O S-3-05
AB 32, the Global Warming Solutions Act of 2006, sets the emissions baseline levels from which the majority of California energy policy goals are being developed. The state must achieve a 1990 GHG level by 2020, with much of the emission reduction efforts originating in the electricity sector. Through California Executive Order S-3-05, Governor Schwarzenegger has expanded and extended that goal to a level 80 percent below 1990 by 2050. The CARB Scoping Plan for AB 32 implementation states “California has a long history of success in implementing regulations and programs to encourage EE... [it] will need to greatly expand those efforts to meet our greenhouse gas emission reduction goals.” Because procurement of EE appliances and technologies is lower cost than generation or transmission, it will play a major role in GHG reductions to meet these goals.

AB 1109
Lighting accounts for around 25 percent of the load in a typical home and it is therefore critical to address not only lighting efficiency but also installation of “clean and green” lighting technologies as old lamps burn out and need to be replaced. AB 1109 was signed into law in 2007 and mandated EE and hazardous waste-reduction mandates for all general purpose lights. The bill also required the formation of a task force to educate consumers on the proper disposal of less efficient lights and has prompted education on the benefits of more efficient lamps.

The CEC’s 2007 IEPR adopted a goal for all new commercial buildings to be NZE by 2030. The goal is achieving increasingly broad support: the CPUC has adopted their Long-Term EE Strategic Plan which
emphasizes construction of NZE buildings and neighborhoods. The Architecture 2030 Challenge recommends targets and defines a pathway for achieving NZE buildings by 2030. LGs should consider explicitly aligning their policies with the state’s medium- to long-term NZE goals, beginning with municipal facilities then expanding coverage more broadly within the jurisdiction.

**Federal Energy Independence and Security Act of 2007 and AB 2176**

In 2008, the legislature passed a bill that requires the CEC to administer funds received by the state pursuant to the federal Energy Independence and Security Act of 2007 (EISA) and would require not less than 60% of the funds received to be used to provide sub-grants to cities and counties of specified population sizes. It also required that the remaining 40% to be used to provide grants to entities eligible under EISA. All grants must be prioritized based on cost-effective EE.

**2009 Proposed EE Legislation**

As EE has become a subject of broader interest, legislation has increasingly mirrored the policy recommendations made by the state energy agencies. In 2009, multiple EE-related bills have been introduced that will further develop the potential of the ARRA. Topics of interest in the 2009 session include Smart Grid technologies, government energy saving programs, technology RD&D and EE incentives and ME&O opportunities. Below is a partial list of proposed initiatives with direct relevance for the San Diego Region.
Appendix A: Executive Order S-20-04

1. That the state commit to aggressive action to reduce state building electricity usage by retrofitting, building and operating the most energy and resource efficient buildings by taking all cost-effective measures described in the Green Building Action Plan for facilities owned, funded or leased by the state and to encourage cities, counties and schools to do the same.

2. That state agencies, departments, and other entities under the direct executive authority of the Governor cooperate in taking measures to reduce grid-based energy purchases for state-owned buildings by 20% by 2015, through cost-effective efficiency measures and distributed generation technologies; these measures should include but not be limited to:
   2.1. Designing, constructing and operating all new and renovated state-owned facilities paid for with state funds as “LEED Silver” or higher certified buildings; and
   2.2. Identifying the most appropriate financing and project delivery mechanisms to achieve these goals; and
   2.3. Seeking out office space leases in buildings with a U.S. EPA Energy Star rating; and
   2.4. Purchasing or operating Energy Star electrical equipment whenever cost-effective.

3. The Division of the State Architect in the Department of General Services should adopt guidelines by December 31, 2005, to enable and encourage schools built with state funds to be resource and energy efficient.

4. That the California Public Utilities Commission (CPUC) is urged to apply its EE authority to support a campaign to inform building owners and operators about the compelling economic benefits of EE measures; improve commercial building efficiency programs to help achieve the 20% goal; and submit a biennial report to the Governor commencing in September 2005, on progress toward meeting these goals.

5. That the California Energy Commission (CEC) propose by July 2005, a benchmarking methodology and building commissioning guidelines to increase EE in government and private commercial buildings.

6. That the CEC undertake all actions within its authority to increase efficiency by 20% by 2015, compared to Titles 20 and 24 non-residential standards adopted in 2003; collaborate with the building and construction industry state licensing boards to ensure building and contractor compliance; and promptly submit its report as per Assembly Bill 549 (Statutes of 2001) on strategies for greater energy and peak demand savings in existing buildings.
7. The California Public Employees Retirement System and State Teachers Retirement System are requested to target resource efficient buildings for real estate investments and commit clean technology funds to advanced sustainable and efficiency technologies.

8. Other entities of state government not under the Governor’s direct executive authority, including the University of California, California State University, California Community Colleges, constitutional officers, legislative and judicial branches, and CPUC, are requested to actively participate in this effort.

9. Nothing in this Order shall be construed to confer upon any state agency decision-making authority over substantive matters within another agency’s jurisdiction, including any informational and public hearing requirements needed to make regulatory and permitting decisions.

10. Commercial building owners are also encouraged to take aggressive action to reduce electricity usage by retrofitting, building and operating the most energy and resource efficient buildings by taking measures described in the Green Building Action Plan.
Appendix B-CSI EE Requirements

NSHP EE requirements

- Residential buildings are required to meet one of two tiers of EE to be eligible for NSHP incentives:
  - **Tier I** — 15 percent reduction in the residential building’s combined space heating, space cooling, and water heating energy compared to the current Title 24 Standards.
  - **Tier II** — 35 percent reduction in the residential building’s combined space heating, space cooling, and water heating energy and 40 percent reduction in the residential building’s air conditioning energy compared to current Title 24 Standards.
- In addition, for either Tier I or II, each appliance provided by the builder must be ENERGYSTAR® if an ENERGYSTAR designation is applicable for that appliance.
- The Tier I level is a minimum condition for participation in the NSHP. The Tier II level is intended to differentiate builders who make a greater commitment to EE, aim for immediate positive cash flow to homeowners—allowing the PV system to be downsized to be more affordable—and encourage builders to move towards zero energy new homes. The Tier II level is consistent with what is being accomplished by California builders participating in the national Building America program.
- The Building America program offers incentives to builders who construct homes that are 70 or better E-Scale rating. The E-Scale is similar to a car’s MPG rating, which is an easy way for potential homebuyers to learn the EE of a home which also indicates consumption and energy costs. Pursuant to the 2000-2001 energy crisis, the state’s IOUs have increased their spending on EE programs, from ~$220 million/year to ~$300 million/year.

Reaching Tier I or Tier II EE levels will also qualify your project for additional incentive money—as much as $2,000 per home, depending on the utility and the program. To find out how much in additional incentives your project qualifies for, click on the links below for PG&E, San Diego Gas & Electric or Southern California Edison.

California Solar Initiative EE Requirements

Existing Buildings - All existing residential and commercial buildings are required to have an energy audit conducted on their existing home or building if they choose to apply for a solar incentive. After an audit is performed, customers are responsible for submitting a copy of the completed EE audit with a signed disclosure agreement to the CSI Program Administrator with their solar incentive application. In addition to the energy audit and disclosure agreement, the energy use intensity (EUI) must be benchmarked using Portfolio Manager or the equivalent for existing commercial buildings with conditioned floor area of 100,000 square feet or larger. Retrocommissioning is required if these existing commercial buildings have a benchmark rating of less than 75. Retrocommissioning is a
process to identify how major energy using equipment is being operated and maintained to identify specific improvements to the performance of those energy using systems. A Commitment Agreement, provided by the CSI Program Administrators, needs to be signed by the customer and submitted with their solar incentive application to indicate when the retrocommissioning will begin and be completed. A signed Commitment Agreement will commit the customer to complete equipment adjustments, or cost-effective efficiency improvements identified in the retrocommissioning assessment.
The Green Students Program teaches future solutions NOW
Climate change is a global issue influenced by local actions. The Green Students Program emphasizes the collective impact of personal actions related to energy and water conservation, public health, and waste reduction, and links them with the broader climate protection issue. Students are given practical examples of actions they can take TODAY to make a positive difference in the future of the San Diego region.

The Green Students Program will come to your school
This successful program consists of interactive lectures in the high school classroom that include energy audit training, a competitive grant program for energy efficiency school projects on campus or in the community, and culminates with a countywide Youth Forum.

The Green Students Program is a partnership with teachers
A partnership between the Green Students Program and your high school requires a two-way commitment. The teachers are needed to facilitate on-site visits, and assist with scheduling and coordinating students for one classroom instruction session (45-60 minutes), and grant funds are available for teachers conducting energy efficiency projects with their students. An interesting field trip to the City’s award-winning “Ridgehaven Green Building” can also be arranged.

SCHEDULE
The Green Students Program schedule of presentations is flexible. We will bring the Program to the classroom whenever the teacher feels it fits best into the curriculum.

- January 2009: Scheduling begins for classroom presentations, and grant competition applications become available
- February-March: Presentations begin but can be scheduled as late as May if needed
- March 23, 2009: Deadline for grant competition applications
- April 25, 2009: Sustainable Community Program Youth Forum
- May 2009: Last month of classroom presentations before summer session begins
- December 31, 2009: Completion of grant competition energy efficiency projects

Over 4,500 students have benefited from participation since program inception, and more than 41,000 kWh of energy-saving community service projects have been completed by the students.
The **Green Students Program** is interactive

**Classroom Learning:** An interactive lesson is given by experienced Program staff that links local energy use, global trends, and resulting environmental and societal impacts. Each of these topics is covered in the presentation: greenhouse effect, water and energy conservation, renewable and nonrenewable energy sources, home energy audits, environmental health, waste reduction and transportation issues.

**Hands-On Learning:** Instruction is also given in the classroom on conducting energy audits in campus and at home. The students operate and handle engineering diagnostic tools and brainstorm ideas that could improve energy efficiency.

**Community Service:** Teachers and students may participate in a grant competition to receive up to $5,000 to complete an energy efficiency project on campus or in the community.

**Youth Forum:** A 4-hour forum for high school students is held each spring. It is an opportunity for the students from a broad range of high schools to discuss what they understand about the future of our region with respect to resource use, waste reduction, and other key challenges they have identified. Prominent speakers and elected officials participate, and the goal is to empower the students to speak out and make a difference.

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<tr>
<th>HIGH SCHOOLS THAT HAVE BENEFITED</th>
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<td>Clairemont</td>
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<td>La Jolla</td>
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<td>University City</td>
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To schedule a presentation, request a grant application, or for more information, contact:

Kathie Pishny, Green Students Program Coordinator  
Phone: 858-627-3334  E-mail: KPishny@sandiego.gov
San Diego Green Students
2009 Youth Forum

“Planning Our Future: **TAG! YOU'RE IT!**”

This 9th Annual Youth Forum is FREE and open to high school students throughout San Diego County. Pre-registration is required because seating is limited!

Saturday, April 25th, 2009
10:30am – 2:30pm
Reuben H. Fleet Science Center
1875 El Prado, San Diego, CA 92101
Balboa Park

This is an opportunity to link the decision makers of today with the decision makers of tomorrow. What can YOU do to create a more sustainable future? What university programs are available to prepare you for the new and exciting “Green Careers”? Join us for answers to these questions and more!

The City of San Diego Environmental Services Department Invites High School Students throughout San Diego County for:

- Dialogue with community leaders and students
- Presentations from local government, universities, and corporations
- A film showing in the IMAX Theater
- Opportunity to explore the science center exhibit galleries including the new exhibit "So WATT! An Illuminating Look at Energy"
- Free lunch with an interesting group of your peers

Registration Required by April 18th, 2009
Contact Kathie Pishny at KPishny@sandiego.gov
Or by telephone: 858-627-3334

This program is funded by California utility rate payers under the auspices of the California Public Utilities Commission and through a Partnership between the City of San Diego and San Diego Gas and Electric