MEETING NOTICE AND AGENDA

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

Thursday, April 22, 2010
11:30 a.m. to 1:00 p.m.
SANDAG Board Room, 7th Floor
401 B Street, Suite 800
San Diego, CA 92101-4231

Staff Contact: Andrew Martin
(619) 699-7319
ama@sandag.org

AGENDA HIGHLIGHTS

• PROGRESS REPORT ON SDG&E’S SMART METER PROGRAM
• OVERVIEW OF CLIMATE CHANGE ADAPTATION AND THE 2050 REGIONAL TRANSPORTATION PLAN DRAFT WHITE PAPER
• ENERGY AND CLIMATE CHANGE LEGISLATION

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<th>ITEM #</th>
<th>RECOMMENDATION</th>
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<tbody>
<tr>
<td>1.</td>
<td>WELCOME AND INTRODUCTIONS</td>
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<td>2.</td>
<td>APPROVE SUMMARY OF FEBRUARY 25, 2010, ENERGY WORKING GROUP MEETING</td>
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<td></td>
<td>The February 25, 2010, meeting summary is attached for Energy Working Group (EWG) review and approval.</td>
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<td>3.</td>
<td>COMMENT PUBLIC COMMENT</td>
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<tr>
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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.</td>
<td>INFORMATION PROGRESS REPORT ON SAN DIEGO GAS &amp; ELECTRIC’S SMART METER PROGRAM (Risa Baron, SDG&amp;E)</td>
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<tr>
<td></td>
<td>Since spring 2009, San Diego Gas &amp; Electric (SDG&amp;E) has installed over 700,000 meters at residential homes and small commercial businesses. SDG&amp;E program staff will provide an update on the installation process to date and why Smart Metering is important to the San Diego region.</td>
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<td>5.</td>
<td>DISCUSSION OVERVIEW OF CLIMATE CHANGE ADAPTATION AND 2050 REGIONAL TRANSPORTATION PLAN DRAFT WHITE PAPER (Ron Saenz, SANDAG)</td>
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<tr>
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<td>Ron Saenz, SANDAG staff, will provide a summary of the Overview of Climate Change Adaptation and the 2050 Regional Transportation Plan Draft White Paper prepared to support development of the 2050 Regional Transportation Plan currently underway. The EWG is asked to discuss and provide input on the draft White Paper.</td>
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<td>6.</td>
<td>DISCUSSION STATE ENERGY AND CLIMATE CHANGE LEGISLATION</td>
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<td>EWG members are asked to review the attached list of bills introduced in the California legislature and identify those they would like the group to monitor or evaluate, with an emphasis on bills that would help or hinder implementation of the priority early actions identified in the Regional Energy Strategy.</td>
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7. FINAL CLIMATE ACTION STRATEGY

The Board of Directors approved the Final Climate Action Strategy at its March 26, 2010, meeting. The Strategy can be viewed online at: www.sandag.org/energy.

8. SCHEDULING AGENDA ITEMS FOR FUTURE MEETINGS

EWG members are invited to suggest topics for future meetings. The EWG meeting on May 27 is scheduled to include presentations from NRG, Inc. and the City of Carlsbad on a proposed power plant; the Regional Airport Authority on its shuttle incentive program and Air Quality Management Plan; and SDG&E, SANDAG, and eTec on the upcoming deployment of electric vehicles in the region. Future meetings are planned to center around Regional Energy Strategy early actions including building retrofit programs, financing programs, and sustainable energy efforts.

9. ADJOURN

+ next to an item indicates an attachment
SUMMARY OF FEBRUARY 25, 2010, ENERGY WORKING GROUP MEETING

AGENDA ITEM #1: WELCOME AND INTRODUCTIONS

Chair Carrie Downey, City of Coronado, called the meeting to order at 11:45 a.m.

AGENDA ITEM #2: SUMMARY JANUARY 14, 2010, ENERGY WORKING GROUP MEETING

The January 14, 2010, meeting summary was unanimously approved.

AGENDA ITEM #3: PUBLIC COMMENT

Mike Evans, San Diego Regional Chamber of Commerce, announced that Shell Energy was awarded a contract with the Marin Energy Authority to offer residential customers a renewable energy alternative for their homes.

AGENDA ITEM #4: DRAFT CLIMATE ACTION STRATEGY

Ms. Downey thanked those who attended the public workshop for the Preliminary Draft Climate Action Strategy and noted that many revisions were made in response to comments and discussion at that workshop. Andrew Martin, SANDAG staff, presented background information on the Draft Strategy, and described changes made to the Preliminary Draft, including changing the name from a “Plan” to a “Strategy” to better reflect the document’s purpose as a guide for updating other plans like the SANDAG Regional Transportation Plan and Regional Comprehensive Plan and as local jurisdictions update their General Plans and other community plans.

Carolyn Chase, Sierra Club, asked for clarification on the schedule for the Strategy. Ms. Downey described the process for approving the Final Climate Action Strategy as follows: recommendation by the Energy Working Group, recommendation by the Regional Planning Committee, and finally approval by the SANDAG Board of Directors.

Michael Meacham, member of the audience, mentioned regional efforts by San Diego Gas & Electric (SDG&E), California Center for Sustainable Energy, and the San Diego Foundation to partner with cities and promote greenhouse gas reductions. These efforts increased the number of cities with greenhouse gas baselines from two to twelve in one year. He also described how the City of Chula Vista participated in the SDG&E Cool Planet Project and the California Air Resources Board Climate
Action Registry. The City has reduced greenhouse gas emissions from city facilities by 43 percent relative to the 1990 level. Mr. Meacham added that universities in the region should be recognized for their work to promote regional climate change planning.

Ms. Downey pointed out that the Strategy is not mandatory, but offers policy options for SANDAG and local jurisdictions to address climate change. Rather than “one-size-fits-all,” the Strategy identifies broad options that can be tailored to the unique characteristics of the many diverse communities and development types in the region.

Ms. Hunter suggested adding an objective that twelve SANDAG member agencies adopt climate action plans including performance goals within a specified amount of time. She suggested using financial incentives to promote positive change, such as the development of local climate action plans. She also suggested including brief case studies of actions taken to address climate change. She cited two examples: the lighting project at the Casa del Prado in Balboa Park and greenhouse gas reductions achieved by the City of Chula Vista. Ms. Hunter also asked that energy retrofits of existing residential buildings be included as a priority for the Clean Energy and Efficient Buildings section. Her last comment was that SANDAG might want to include the disruptions to food supply as a potential climate change outcome. Ms. Chase voiced several comments on the Draft Strategy:

1. Clarify that increases in peak electricity demand are predicted under a business-as-usual scenario with no changes in existing trends or policies and add a reference for the information.
2. The Smart Growth Concept Map does not result in significant changes in vehicle miles traveled.
3. Most growth in the County will occur west of Interstate 15, contrary to information provided in the Strategy.
4. The statement calling for protection of transportation infrastructure from sea level rise and higher storm surges encompasses a wide range of projects, including construction of walls and relocation of infrastructure. She asked for specifics on what was being suggested in the Draft Strategy. In response, Ms. Downey invited Ms. Chase to join the team to develop a future vulnerability plan, agreeing that there are many issues that still need to be addressed.
5. There are policy measures to protect only transportation and energy infrastructure from sea level rise, but not other types of infrastructure. She listed private property, pump stations, and sewage plants as examples of infrastructure that also might be impacted; therefore, should be included in the Strategy. Ms. Downey referred back to the objectives of the Draft Strategy and stated that this suggestion could be added to future revisions of the Strategy.
6. She requested adding a policy measure to “improve the performance of transit to attract drivers.”

Mr. Evans requested that the speed limit policy measure be revised to read: “Evaluate the potential benefits of establishing a lower speed limit on the regional transportation system.” Ms. Hunter advocated for encouraging the reduction of the speed limit, listing additional benefits such as fewer fatal accidents. Mr. Evans responded that there could also be negative benefits to a speed limit measure. Ms. Hunter stated that driving slower reduces emissions. Ms. Downey mentioned that some studies suggest the link between speed limit measures, fuel savings, and greenhouse gas reductions are not as clear as previously thought.
Mr. Martin added that the impact of a speed limit measure on greenhouse gas emissions would depend on several variables such as vehicle model year, vehicle technology, and traffic conditions. Mr. Anders stated that it is not clear whether a speed limit would improve air quality, elaborating on the comments from Mr. Martin that it would depend on a number of different factors such as current average speeds now and enforcement costs. He requested policy measure language that reflects the nuances of this issue.

Ms. Downey suggested that SANDAG evaluate the impact of a speed limit measure before taking any action. Mr. Meacham stated that such a small incremental change in speed limit will not be as important as other measures, and he hoped that there was as much energy for building retrofits as there was for the speed limit discussion. In describing SANDAG’s role and possible tools as a transportation agency, he summarized a study that compare gas taxes among the states, and stated that California was one of the lowest ten states. He also added that states with higher gas taxes than California have cheaper gasoline, pointing out that gas tax does not drive the cost of gasoline.

Bill Powers, Sierra Club, referred back to a conversation about the inexorable rise in peak demand. He stated that the highest peak demand in San Diego was reached in 2006, and has since dropped. Therefore, he argues, the forecast analysis might be no peak growth. Ms. Downey acknowledged that as time goes by and new reports are released, some elements of the Strategy will need to be revised to be consistent with the most recent report. Ms. Downey indicated that increased peak demand forecasted for the region addresses the million extra people expected to come into San Diego County by 2050. Ms. Chase added that business-as-usual is already changing. For example, California has established goals for zero net energy buildings by 2020.

Ms. Frye thanked staff for the added information on indirect potable reuse of water.

Mr. Lloyd made a motion to recommend the Climate Action Strategy with staff incorporating the comments made at the meeting. Ms. Jones seconded the motion, which carried unanimously.

AGENDA ITEM #5: SCHEDULING AGENDA ITEMS FOR FUTURE MEETINGS

Ms. Frye requested a presentation on Bloom Energy, which was recently featured on “60 Minutes.” Ms. Hunter suggested an update on battery storage technology related to solar power and peak demand. Mr. Anders asked for discussion of state energy legislation at future meetings.

AGENDA ITEM #6: ADJOURN

The meeting was adjourned at 1:02 p.m.
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<tr>
<th>GEOGRAPHICAL AREA/ORGANIZATION</th>
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<th>MEMBER/ALTERNATE</th>
<th>ATTENDING</th>
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<td>Lesa Heebner</td>
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<td>Donna Frye</td>
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<td>Sherri Lightner</td>
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<td>Peter Livingston</td>
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<td>Sharon Cooney</td>
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<td>Matt Burkhart</td>
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<td>Ahmad Solomon</td>
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<td>San Diego Regional Chamber of Commerce</td>
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<td>Mike Evans</td>
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<td>David Lloyd</td>
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<td>Bill Clevenger</td>
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<td>California Center for Sustainable Energy</td>
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<td>Andrew McAllister</td>
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<td>Irene M. Stillings</td>
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<td>Laura Hunter</td>
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<td>Nicole Capretz</td>
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<td>Energy Policy Initiatives Center</td>
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<td>Scott Anders, Vice Chair</td>
<td>Member</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>Michelle White</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>Carolyn Chase</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></td>
<td>Regional Sustainability Partnership, Clean Transportation Committee</td>
<td>Derek Turbide</td>
<td>Alternate</td>
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</tbody>
</table>

**OTHER ATTENDEES:**

Jennifer Ayala, Ayala Architecture  
Alexander Hart  
Julie Gelfat  
Michael Meacham, City of Chula Vista  
Jim McColian, Solar Turbines  
Kristi Plume, City of Coronado  
Ahmad Solomon, San Diego Gas & Electric  
Marty Turock, Clean Tech San Diego Electric  

Susan Freedman, SANDAG  
Andrew Martin, SANDAG  
Kim Roeland, SANDAG  
Midori Wong, SANDAG
Action Requested: DISCUSSION

OVERVIEW OF CLIMATE CHANGE ADAPTATION AND THE 2050 REGIONAL TRANSPORTATION PLAN DRAFT WHITE PAPER

Introduction

The Overview of Climate Change Adaptation and the 2050 Regional Transportation Plan Draft White Paper (Attachment 1), provides an overview of potential climate change-related impacts to transportation infrastructure in the San Diego region and the potential role of adaptation strategies in the 2050 Regional Transportation Plan (RTP) currently under development. The White Paper identifies issues and policy implications for regional transportation planning as well as recommendations on next steps. The 2050 RTP is scheduled for adoption in July 2011.

Discussion

The primary purpose of the draft White Paper is to assess the 2010 RTP Guidelines regarding best practices for addressing climate change adaptation, identify strategies included in the 2009 California Climate Adaptation Strategy related to transportation infrastructure, and to evaluate adaptation efforts by transportation agencies across the country.

The Energy Working Group is asked to discuss and provide input on the draft White Paper.

Attachment: 1. Overview of Climate Change Adaptation and the 2050 Regional Transportation Plan White Paper

Key Staff Contact: Ron Saenz, (619) 699-1922, rsa@sandag.org
INTRODUCTION

Adaptation is defined by the California Natural Resources Agency as: Efforts that respond to the impacts of climate change – adjustments in natural or human systems to actual or expected climate changes to minimize harm or take advantage of beneficial opportunities.\(^1\)

Mitigation is defined as actions to reduce greenhouse gas emissions. Mitigation alone will not prevent climate change from having serious impacts on the San Diego region. The current concentration of greenhouse gases in our atmosphere – without considering continued and accelerated pace of emissions – will continue to change the climate for the next 30 to 40 years.\(^2\) Adaptation to the changes that have already been set in motion is essential to maintain the region’s economy, ecosystems, and public health.

The following discussion is an overview of potential impacts to transportation infrastructure due to climate change and the proposed climate change adaptation strategies to deal with these impacts for consideration in the 2050 Regional Transportation Plan (RTP). This discussion includes efforts being made by federal, state, and local governments. While some strategies may not ultimately prove viable for the San Diego region, they are presented in this White Paper to provide decision-makers with a broad range of options for consideration. Also included are draft recommendations focused on the San Diego region that if implemented would require a more detailed study and analysis prior to implementation.

Objectives for the 2050 RTP

The objectives of this white paper for the 2050 RTP are threefold. They include:

1. Assessing the 2010 California RTP Guidelines regarding best practices for addressing climate adaptation in RTPs.
2. Identifying strategies included in the 2009 California Climate Adaptation Strategy related to transportation infrastructure.
3. Evaluating adaptation efforts by transportation agencies across the country.

Background

Climate change is happening now and its impacts are readily apparent, with temperatures increasing, Arctic sea ice disappearing, and sea levels rising beyond climate scientists’ worst-case estimates. Recently it was reported that January 2000 to December 2009 was the warmest decade

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1 2009 California Climate Adaptation Strategy, California Natural Resources Agency, p.4
2 2009 California Climate Adaptation Strategy, California Natural Resources Agency, p.14
on record. The predicted rate of temperature change by 2050 as a result of these greenhouse gas levels is 10-50 times faster than the temperature changes that occurred when the ice ages receded.

Most significantly, the results of greenhouse gases produced by the fossil fuel energy we burn to power our society are a major contributor to climate change. We are largely dependent on fossil fuels to generate electricity, drive our vehicles, transport goods, heat and cool our homes, produce and deliver food, convey and treat water, and provide power to our businesses and industries.

The most significant climate impacts to California’s transportation infrastructure are predicted to be from higher temperatures and extreme weather events across the state, reduced and shifting precipitation patterns throughout California, and sea-level rise. The largest projected damages will come from sea-level rise threatening large portions of California’s coastal transportation, housing, and energy-related infrastructure. The San Diego region is not immune to these threats.

Temperature extremes will impact the transportation sector. It is expected less extreme cold days will reduce road damage related to frost and other cold weather conditions, but extreme hot days (including prolonged periods of very hot days), are likely to become more frequent, increasing the risk of buckling of highways and railroad tracks and premature deterioration or failure of transportation.

By 2050, the San Diego region is expected to experience a rise in average annual temperatures between 1.5 and 4.5 degrees Fahrenheit. Greater increases will occur in summer, with peak temperatures consistently reaching the upper 80s and low 90s. Larger temperature increases are expected in inland areas as compared to the coastal zone (within 50 km). Though precipitation is expected to maintain the existing Mediterranean pattern with dry summers and most rainfall happening in the winter months, rainfall amounts will likely vary widely from year to year, leaving the region highly vulnerable to drought.

The combination of a generally drier climate in the future, which will increase the chance of drought and wildfires, and the occasional extreme downpour, is likely to cause more mud- and landslides during winter months. Specifically, researchers and the California Department of Transportation (Caltrans) expect increased damage of transportation infrastructure such as coastal
and inland highways, railways, and associated business interruptions. The related debris impacts are historically well known to California, but if they become more frequent, they will create greater costs for the state and require more frequent repairs.\textsuperscript{10}

The largest projected damages will come from sea-level rise up to 12-18 inches higher in San Diego.\textsuperscript{11} This threatens large portions of California’s coastal transportation, housing, and energy-related infrastructure.\textsuperscript{12} Sea-level rise impacts on transportation infrastructure will include flooding of roads, railways, transit systems, and airport runways in coastal areas. A substantial amount of this ground transportation infrastructure is predicted to be at risk from sea-level rise by 2100, including 2,500 miles of roads and rails. Such infrastructure is vital to the state’s economy for both the movement of commercial freight and the ability of Californians to get to work and school. In the San Francisco Bay Area, the major airports of San Francisco and Oakland are near sea level and would require additional elevation, protection, or relocation to remain functional.\textsuperscript{13}

A report cited in the 2009 California Climate Adaptation Strategy estimates that the cost of no action in California would be on the order of “tens of billions of dollars in direct costs” and would “expose trillions of dollars of assets to collateral risk.” The San Diego region also would likely have to bear its share of the cost climate change impacts will produce.

\textbf{State of the Planning Practice}

In general, transportation agencies nationwide are not yet incorporating climate change adaptation measures into long-range planning. The large uncertainty in the location and magnitude of impacts makes agencies reluctant to take major action on adaptation, given the multitude of other pressing demands for Departments of Transportation (DOTs) and Metropolitan Planning Organizations (MPOs), and their funding limitations.\textsuperscript{14} As a result, agencies that are considering adaptation are typically focusing on building awareness of the issues and on research. However, there are recent examples summarized in this report where this focus is beginning to change and that more agencies are recognizing the value of taking action earlier.

\textbf{Identification of Problems}

The states’ transportation infrastructure faces potential risk from climate change impacts stemming from changes in temperature, sea-level rise and precipitation. To summarize the changing risks that California’s transportation infrastructure may be facing from climate change, the likelihood of occurrence of the projected consequences was qualitatively assessed. The economic cost associated with the required alteration, fortification, or relocation of existing infrastructure is likely to be in the tens of billions.\textsuperscript{15} The resulting risk profile for California’s transportation infrastructure can be characterized as follows:

\begin{thebibliography}{9}
\bibitem{10} Navai, R. (2008). Climate Adaptation and California’s Transportation Infrastructure. Staff White Paper, California Department of Transportation. Sacramento, CA
\bibitem{11} The San Diego Foundation’s Focus 2050 Study: San Diego’s Changing Climate – A Regional Wakeup Call, p. 4
\bibitem{12} 2009 California Climate Adaptation Strategy, California Natural Resources Agency, p. 119
\bibitem{13} 2009 California Climate Adaptation Strategy, California Natural Resources Agency, p. 68
\bibitem{14} Gallivan, Ang-Olson, and Turchetta (2009). Integrating Climate Change into State and Regional Transportation Plans, Federal Highway Administration. itre.ncsu.edu/adc10/PDFs/2009_Winter_Conference/Turchetta_Session530_paper.pdf
\bibitem{15} 2009 California Climate Adaptation Strategy, California Natural Resources Agency, p. 128
\end{thebibliography}
Temperature extremes can increase the risk of road and railroad tracks buckling, decreasing transportation safety and creating higher maintenance costs.

Winter storms, especially if coinciding with earlier snowmelt and high runoff, can cause flooding and physical damage to culverts, canals, tunnels, coastal highways, runways, and railways, and associated business interruptions.

More drought, fires, and intense rainfall events will produce more mud- and landslides, which can disrupt major roadways and rail lines. These impacts will likely be felt in the San Diego region.

Sea-level rise is likely to cause the greatest impacts on California’s and on the San Diego region’s infrastructure, including more frequent storm-related flooding of airports, seaports, roads, and railways in floodplains due to higher sea levels.

As sea level rises at a faster pace and coastal storm surges increase, existing fortifications will be increasingly inadequate and need to be raised, and areas previously not at-risk will become at risk.

DISCUSSION

The following section focuses on efforts being made by federal, state, and local governments. Their different approaches to climate change adaptation provide insight and background to the policy and issues section in this paper.

Potential Solutions and Alternatives

Federal

Interagency Climate Change Adaptation Task Force

In the Fall of 2009, in response to President Obama’s Executive Order 13514, the U.S. Global Change Research Program (USGCRP), the White House Council on Environmental Quality (CEQ), the White House Office of Science and Technology Policy (OSTP), and the National Oceanic and Atmospheric Administration (NOAA) convened the Interagency Climate Change Adaptation Task Force to begin the development of federal recommendations for adapting to climate change impacts both domestically and internationally. More than twenty federal agencies, departments, and offices are participating in this Task Force and contributing their operational capabilities and expertise through a series of workgroups, coordinated with USGCRP, on specific topics related to climate change adaptation.

Goals of the interagency adaptation work include:

- Forming recommendations toward a national adaptation strategy that uses a set of best practices derived from the best available science and the experience and knowledge of governments and stakeholder groups across the United States and abroad.

16 Interagency Climate Change Adaptation Task Force www.whitehouse.gov/sites/default/files/microsites/ceq/20100315-interagency-adaptation-progress-report.pdf

• Integrating climate change resilience and adaptive capacity into federal government operations, and coordinating interagency preparations for climate change impacts with domestic and international activities.
• Broadening the understanding of vulnerability to climate impacts, equipping communities with information to use in local adaptation policies, and learning from communities who have taken steps to adapt.

The Task Force has found that there already is substantial U.S. government and non-government activity towards adapting and building resilience to climate change risks. Current activities include landscape conservation cooperatives supported by the Department of the Interior, to a comprehensive risk assessment of Gulf Coast transportation infrastructure by the Department of Transportation, and the Environmental Protection Agency’s efforts to support local decision-makers through Climate Ready Estuaries.

As required by Executive Order 13514, the Interagency Climate Change Adaptation Task Force will deliver a report to the President in the fall of 2010. The report will detail the development of domestic and international dimensions of a U.S. strategy for adaptation to climate change, agency actions in support of that strategy development process, and recommendations for any further measures to advance towards a national strategy. The Task Force will not, however, deliver a complete U.S. adaptation strategy to the President.

Over the next several months, the Interagency Climate Change Adaptation Task Force may refine recommendations around structural issues such as improving and integrating science results in developing policy and a framework for federal agency adaptation, as well as cross-cutting topics, including water resources management and international adaptation. The Task Force also may establish additional workgroups, in cooperation with USGCRP, including those to inform the development of a national strategy in the areas of communications and capacity-building, coordination and collaboration across government and with partners, evaluation and learning, and other priority issues. Through a series of regional outreach meetings and pilot activities, the Task Force will continue moving towards recommendations on the development of a national strategy on climate change adaptation.

In tandem with these efforts, the U.S. Department of Transportation’s Federal Highway Administration (FHWA) and the U.S. Army Corps of Engineers (USACE) are in the beginning stages of engaging in climate change adaptation issues. FHWA’s approaches to climate change are being looked at as a Surface Transportation Safety and Operations issue. In this context, FHWA will be engaging state and local agencies or projects that require FHWA preliminary engineering and NEPA reviews.

In the area of outreach and education, FHWA has established peer exchanges, a Transportation & Climate Change Clearinghouse, and a FHWA Adaptation Working Group. It also is providing technical assistance in the areas of modeling, adaptation, and research.18

18 Summary Report: Peer Workshop on Adaptation to Climate Change Impacts Appendix A - Adaptation of Transportation Infrastructure to Global Climate Change (GCC) Effects: Implications for Design and Implementation, U.S. Department of Transportation, Federal Highway Administration
Also at the federal level, the USACE is working towards addressing climate change adaptation. In its circular published in July 2009, guidance is provided for incorporating the direct and indirect effects of projected future sea level change in managing, planning, engineering, designing, constructing, operating, and maintaining USACE projects and systems of projects.\(^{19}\)

**State of California**

**2009 California Climate Adaptation Strategy (CAS)**

The changes necessary to protect the state’s transportation infrastructure will require collaboration between multiple state, regional, and local agencies. In an effort to begin protecting these assets, Governor Schwarzenegger signed Executive Order (EO) S-13-08. This order provides direction on developing California’s first statewide adaptation effort. It requires the California Natural Resources Agency to develop the CAS as the state’s first comprehensive guide on climate adaptation.

The CAS was developed with the input of numerous stakeholders including state agencies and seven climate adaptation working groups.\(^{20}\) Although the CAS focuses on state level efforts, climate change vulnerability assessment planning tools, policies, and strategies will be integrated at the local level (MPOs, RTPAs) in conjunction with Caltrans.\(^{21}\) The CAS states that impacts of climate change on infrastructure will vary at the local level, but it is certain they will be widespread and costly in human and economic terms, and will require significant changes in the planning, design, construction, operation, and maintenance of California’s infrastructure.\(^{22}\)

The CAS has identified the following priorities in addressing climate adaptation for California state agencies. The near-term actions referenced below are those actions that have been identified and which can be initiated or completed by November 2011. The long-term actions include those recommended actions that will require support from California and collaboration with multiple state agencies.\(^{23}\)

**Strategy 5 – TRANSPORTATION: Develop a detailed climate vulnerability assessment and adaptation plan for California’s transportation infrastructure.**

Near-Term and Long-Term Actions:

a. **Vulnerability and Adaptation Planning – Business, Transportation and Housing Agency (BTH) and Caltrans will develop a climate vulnerability plan that will assess how California’s transportation infrastructure facilities are vulnerable to future climate impacts, assess climate adaptation options, prioritize for implementation, and select adaptation strategies to adopt in coordination with stakeholders. This plan will be coordinated with an updated climate mitigation plan that will act as BTH’s and Caltrans’ overall transportation climate policy.**

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\(^{19}\) United States Army Corps of Engineers (USACE) circular: Water Resource Policies and Authorities Incorporating Sea Level Change Considerations in Civil Works Programs

\(^{20}\) 2010 California Regional Transportation Plan Guidelines (Final Draft, February 8, 2010), p. 136

\(^{21}\) 2010 California Regional Transportation Plan Guidelines (Final Draft, February 8, 2010), p. 137

\(^{22}\) 2009 California Climate Adaptation Strategy, California Natural Resources Agency, p. 132-134

\(^{23}\) 2009 California Climate Adaptation Strategy, California Natural Resources Agency, p. 127
i. Develop a transportation use “hot-spot” map – Caltrans will research and identify transportation “hot spots” to identify across the state where the mixture of climate change impacts, population increases, and transportation demand increases will make communities most vulnerable to climate change impacts. Caltrans will include in this analysis how the lowest-income communities in hot spot areas will be impacted.

b. Economic Impacts Assessment – Complete an overall economic assessment for projected climate impacts on the state’s infrastructure under a “do nothing” scenario and under climate policy scenarios identified by BTH/Caltrans.

i. Prepare a list of transportation adaptation strategies or measures based on the “hot spot” map and prepare an economic assessment and cost-benefit analysis for these strategies vs. a do nothing scenario.

Strategy 6 – TRANSPORTATION: Incorporate climate change vulnerability assessment planning tools, policies, and strategies into existing transportation and investment decisions.

Near-Term and Long-Term Actions:

a. Integrate Mitigation and Adaptation System-wide – Caltrans will develop and incorporate climate change mitigation and adaptation policies and strategies throughout state strategic, system and regional planning efforts. These will be included in key phases of the following planning and project development phases when appropriate:

i. Strategic Planning (Governor’s Strategic Growth Plan and California Transportation Plan)
ii. System Planning (i.e., District System Management Plan, Interregional Strategic Plan, Corridor System Management Plan, and Transportation Concept Report)
iii. Regional Transportation Planning (RTP Guidelines and Regional Blueprint Planning)
v. Programming (State Transportation Improvement Program, State Highway Operations and Protection Program, California Transportation Commission State Transportation Improvement Program Guidelines)

Strategy 7 – TRANSPORTATION: Develop transportation design and engineering standards to minimize climate change risks to vulnerable transportation infrastructure.

Near-Term and Long-Term Actions:

a. Transportation infrastructure assessment - Caltrans will assess existing transportation design standards as to their adequacy to withstand climate forces from sea-level rise and extreme weather events beyond those considered.

b. Buffer zone guidelines - Develop guidelines to establish buffer areas and set backs to avoid risks to structures within projected “high” future sea-level rise or flooding inundation zones.
c. Stormwater quality - Assess how climate changes could alter size and design requirements for stormwater quality best management practices.

Strategy 8 - TRANSPORTATION: Incorporate climate change impact considerations into disaster preparedness planning for all transportation modes.

Near-Term and Long-Term Actions:

a. Emergency Preparedness – Caltrans provides significant emergency preparedness abilities for all transportation modes across the state. The transportation system is sensitive to rapid increases in precipitation, storm severity, wave run-up, and other extreme weather events. Caltrans will assess the type of climate-induced impact information necessary to respond to district emergencies. Results will be incorporated into existing operations management plans.

b. Decision Support (Near-Term) – Caltrans will identify how climate impact information can be integrated into existing Intelligent Transportation Systems and Transportation Management Center operations.

2010 California Regional Transportation Plan Guidelines (Final Draft, February 8, 2010)

Subsequent to the passage of California Assembly Bill (AB) 32 (California Global Warming Solutions Act of 2006), the California Transportation Commission (CTC) adopted an addendum to the 2007 RTP Guidelines in May 2008 to address a request from the California Legislature to ensure climate change issues were incorporated in the RTP process. 24

On April 7, 2010, the CTC approved the 2010 RTP Guidelines which incorporate new planning requirements as a result of Senate Bill (SB) 375 and also incorporate the addendum to the 2007 RTP Guidelines. SANDAG staff has been participating in this update process. SB 375 requires MPOs to identify a forecasted development pattern and transportation network that will meet greenhouse gas emission reduction targets specified by the California Air Resources Board (ARB) through their RTP planning processes. 25

In addition, the CTC references the transportation adaptation strategies contained in the 2009 CAS for guidance on addressing Climate Change Adaptation. The CTC also endorses the CAS’ position on the need for significant changes in the planning, design, construction, operation, and maintenance of California’s infrastructure. The changes necessary to protect the state’s transportation infrastructure will require collaboration between multiple state, regional and local agencies. Regional planning agencies should incorporate these practices in the implementation of transportation strategies in conjunction with Caltrans, to the extent that they are feasible. 26

24 2010 California Regional Transportation Plan Guidelines (Final Draft, February 8, 2010), p. 14
25 2010 California Regional Transportation Plan Guidelines (Final Draft, February 8, 2010), p. 14
26 2010 California Regional Transportation Plan Guidelines (Final Draft, February 8, 2010), p. 137
Best Practices

The 2010 California Regional Transportation Plan Guidelines (Final Draft, February 8, 2010) states that notwithstanding a lack of reliable information on the future impacts of sea-level rise, precipitation changes, or extreme heat events, MPOs and RTPAs should begin to address climate change in their long-range transportation plans. There are numerous ways planning agencies can begin preparing for climate change adaptation on the transportation infrastructure including preliminary mapping of infrastructure that is vulnerable to changes in precipitation, heat, and sea-level rise. It is also recommended that design and planning standards be re-evaluated to accommodate potential changes. It is important to ensure that planned infrastructure is engineered and built in locations that can withstand future climate change impacts.

The California Environmental Quality Act (CEQA)

On December 30, 2009, the Resources Agency adopted an amendment to the CEQA Guidelines, Section 15126.2 Consideration and Discussion of Significant Environmental Impacts now requires an Environmental Impact Report (EIR) to evaluate the effects of climate change on the locating of a project in areas susceptible to hazardous conditions, e.g. floodplains, coastlines, wildfire risk areas as identified in authoritative hazard maps, risk assessments or in land use plans addressing such hazards areas. This Amendment became effective on March 18, 2010, and is now included in the California Code of Regulations.27

Other Agencies

City of Chula Vista

In 2009, the City of Chula Vista began developing its Climate Change Adaptation Strategy (CCAS).28 The development of the CCAS also coincides with its participation in the International Conference on Climate Adaptation held in Seville, Spain in May 2009 and the resulting adaptation planning priorities (known as the “Seville Declaration”) agreed upon by various California and Spanish government entities. This cross continent exchange was held because of the similar climates the Andalusia region of Spain and Southern California share and potentially similar adaptation strategies they would likely need to implement. Participants of this event representing cities in California and Spain will continue an information exchange on climate adaptation best practices as both regions develop their adaptation strategies.

In addition, the City of Chula Vista established a Climate Change Working Group (CCWG), which is comprised of Chula Vista residents, businesses, and community group representatives to assist in developing climate adaptation strategies suitable for Chula Vista. The Climate Change Working Group will be asked to use the following guiding principles to evaluate and prioritize possible adaptation options:

1. Seek out the best available science to understand local climate change impacts and their relative risks;

27 California Environmental Quality Act (CEQA) Proposed Guidelines Amendments & Related Materials
   ceres.ca.gov/ceqa/docs/Adopted_and_Transmitted_Text_of_SB97_CEQA_Guidelines_Amendments.pdf
2. Give priority to policies that can build on existing work rather than policies which require new sources of funding or staffing;

3. Ensure that the legitimate interests of all City stakeholders are considered in evaluating options;

4. Develop policies flexible enough for future incorporation of new science or improved modeling, but defined well enough for staff to implement;

5. Ensure that adaptation strategies complement climate protection measures already in place in Chula Vista;

6. Consider strategies to adapt to both short- and long-term impacts from climate change, but only in areas where the group decides there is enough evidence to support the work;

7. Prioritize strategies in accordance with the degree of risk that different climate impacts pose to Chula Vista, its residents, and businesses;

8. Recommend adaptation strategies that address the most immediate risk in the most financially feasible way (i.e., require the least General Fund support);

9. The strategies chosen should not cause a significant adverse economic and/or environmental impact to the community;

10. Reach consensus on a preferred list of final recommended adaptation strategies which best meets all City stakeholders’ needs.

Following these guiding principles and through a community-based process, the development of a local CCAS would be incorporated into the City’s current Climate Action Plan, for City Council review and consideration by the end of 2010. The CCAS would address the following sectors projected to be adversely affected by climate change:

- Water Management
- Energy Management
- Infrastructure & Resources
- Public Health
- Wildfires
- Ecosystems & Biodiversity
- Business & Economy

San Francisco Bay Area

The Bay Conservation and Development Commission (BCDC) is dedicated to the protection and enhancement of San Francisco Bay and to the encouragement of the Bay’s responsible use.29 The BCDC has taken a lead role in adaptation planning for the Bay Area. The BCDC will consider an

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29 The San Francisco Bay Area Bay Conservation and Development Commission’s website: [www.bcdc.ca.gov/mission.shtml](http://www.bcdc.ca.gov/mission.shtml)
amendment to the San Francisco Bay Plan, which regulates development within the 100-year floodplain of the Bay, to address climate change including adaptation strategies. The following are proposed amendments.\textsuperscript{30}

1. Proposed additions to Bay Plan findings and policies

   a. Create a climate change policy section of the Bay Plan that addresses the following:
      (1) Updating sea-level rise scenarios and using them in the permitting process
      (2) Developing a long-term strategy to address sea-level rise and storm activity and other Bay-related impacts of climate change in a way that protects the shoreline and the Bay; and
      (3) Working with the Joint Policy Committee (JPC) and other agencies to integrate regional mitigation and adaptation strategies and adaptation responses of multiple government agencies, to analyze and support environmental justice issues, and to support research that provides useful climate change information and tools.

2. Proposed changes to existing Bay Plan findings and policies

   a. Amend findings and policies on public access to provide public access that is sited, designed and managed to avoid significant adverse impacts from sea-level rise and ensure long-term maintenance of public access areas.

   b. Amend findings and policies on tidal marshes and tidal flats to ensure that buffer zones are incorporated into restoration projects where feasible and sediment issues related to sustaining tidal marshes are addressed.

   c. Amend the policies on safety of fills by updating the findings and policies on sea-level rise and moving some to the new climate change section of the Bay Plan.

   d. Amend the policies on protection of the shoreline to address protection from future flooding.

3. The Metropolitan Transportation Commission (MTC) included the following actions to combat global warming and help clean Bay Area air in its Transportation 2035 Plan.\textsuperscript{31}

   • Commits $400 million to fund a multi-agency Transportation Climate Action Campaign to reduce our carbon footprint, complementing MTC’s Transportation for Livable Communities Program, Regional Bicycle Program, Regional Rideshare Program, and other Transportation 2035 bicycle and pedestrian investments.

\textsuperscript{30} Living with a Rising Bay: Vulnerability and Adaptation in San Francisco Bay and on its Shoreline. San Francisco Bay Conservation and Development Commission, p. 7

\textsuperscript{31} Transportation 2035 Plan Draft Environmental Impact Report. Metropolitan Transportation Commission, p. 14
King County, Washington

King County Climate Plan proposes to protect the integrity and safe operation of regional transportation infrastructure from climate change impacts. King County Road Services Division will incorporate climate change impacts information into construction, operations, and maintenance of infrastructure projects.

Actions already underway by King County Road Services Division include:

- Evaluation of higher flows on bridge and culvert design as well as seawall modifications;
- Participation in King County’s interdepartmental climate change adaptation team; and
- Initiation of educational efforts to facilitate the sharing of information among staff on the projected impacts of climate change.

In the near term, King County Road Services Division will incorporate climate change into its own planning and design documents, and comments on others’ planning and design documents, as they come up for revision. King County Road Services Division also plans to identify and expand policies and plans that adjust transportation infrastructure improvements and maintenance to ongoing and anticipated climate and weather changes. Additionally, the division is looking at ways to incorporate climate changes predicted in the future into current transportation project designs. For example, the Road Services Division is currently rebuilding over 57 bridges and 40 culverts that will need to be designed to improve streamflows and endure the most significant impacts of climate change.

In the long-term, some strategies that are being considered by Road Services Division include:

- Replacing or rehabilitating bridges in order to improve floodwaters conveyance and to avoid scour during high flows;
- Using pervious pavement and other low impact development methodologies to manage stormwater through reduced runoff and onsite flow control;
- Modifying existing seawalls to avoid failures in transportation facilities.

Issues and Policy Implications

One of the goals identified in the SANDAG 2010 Climate Action Strategy is to protect transportation infrastructure from climate change (Goal 4). This Strategy acknowledges that in addition to being the number one source of climate change emissions in our region, the transportation sector is threatened by the impacts of climate change. Adapting transportation infrastructure to prepare for climate change is emerging as a new concern for designing future projects as well as maintaining our current system. As such, the tools and methodologies for evaluating and adapting to impacts are still in the early stages of development.

The Strategy outlines the following objectives and potential policy measures:

Objective 4a. Protect transportation infrastructure from damage due to extreme heat

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32 2007 King County Climate Plan (February 2007). King County Departments and Divisions on Climate Change Impacts, p. 118
33 SANDAG’s 2010 Climate Action Strategy - Final, p. 28
Policy Measures

- Direct research at developing materials for transportation infrastructure that is better suited to withstand high temperatures.
- Accelerate inspections schedules and prepare for increased maintenance and costs.
- Utilize adaptive management and monitoring to determine which, if any, adaptive strategies should be incorporated in transportation planning.
- Address adaptation issues in the design of new projects and when improvements are made to existing infrastructure.

Objective 4b. Protect transportation infrastructure from sea-level rise and associated higher storm surges

Policy Measures

- Develop a climate vulnerability plan that will identify areas in San Diego at high risk of damage from sea-level rise and storm surges.
- Modify standards for project design and construction to account for increased potential storm surge elevations and frequency.
- Engage a multi-disciplinary team of climate change and coastal experts along with hydraulics and bridge design specialists during scoping process of coastal bridge projects.
- Utilize adaptive management and monitoring to determine which, if any, adaptive strategies should be incorporated in transportation planning.
- Address adaptation issues in the design of new projects and when improvements are made to existing infrastructure.

Objective 4c. Protect transportation infrastructure from wildfire-associated mudslides

Policy Measures

- Improve bank stabilization and erosion control measures near important transportation lines after wildfire.
- Address adaptation issues in the design of new projects and when improvements are made to existing infrastructure.

A main issue of concern is the lack of quantitative data on vulnerability available to begin to make concrete policy decisions and conduct economic impact assessments. The 2050 RTP is likely to produce a qualitative assessment of potential risks and preliminary evaluation of climate change adaptation strategies. At the project level, environmental clearance documents would conduct further evaluation related to climate change.

Currently, DOTs and their partner agencies are evolving toward "risk management" approaches to asset management and investment programs. In a limited resource environment, a process that seeks to understand and manage the risks to the transportation system from climate change, rather
than continuing with a "worst first" approach, is key to ensuring the most critical infrastructure continues to function adequately. Facilitation of cross-disciplinary collaboration (e.g., Design and Planning) within Caltrans and between local agencies is recommended.  

RECOMMENDATIONS

1. Staff will continue to monitor the implementation of strategies in the CAS and evaluate which ones should be incorporated into the 2050 RTP.

2. Staff will evaluate the 2010 California RTP Guidelines for any best practices suggested to address climate change adaptation issues in the RTP.

3. Staff could use existing GIS tools to evaluate areas that are likely to experience impacts associated with climate change, such as floods, mudslides, sea-level rise and locations where projects would require approval from the USACE. Findings from this evaluation would be used to determine if further analysis or climate adaptation strategies for existing and planned transportation infrastructure should be proposed in the 2050 RTP.

4. Staff will monitor the implementation of Executive Order S-13-08 which states that the California Resources Agency, in cooperation with the California Department of Water Resources (DWR), California Energy Commission (CEC), California's coastal management agencies, and the California Ocean Protection Council (OPC), shall request that the National Academy of Sciences (NAS) convene an independent panel to complete the first California Sea-level Rise Assessment Report. This report will guide state agencies that are planning construction projects in areas vulnerable to future sea-level rise shall, for the purposes of planning, consider a range of sea-level rise scenarios for the years 2050 and 2100 in order to assess project vulnerability and, to the extent feasible, reduce expected risks and increase resiliency to sea-level rise. This report would be completed by March 2011.

5. The SANDAG 2010 Climate Action Strategy acknowledges that climate changes and their associated impacts vary greatly from location to location. Although national and international action is essential, many important decisions about how best to manage systems affected by climate change are made at the local and regional levels. The Strategy recommends that regional and local planning should reinforce and complement the recommendations given at the state and federal levels.

6. SANDAG staff will evaluate the significance of CEQA Guidelines Amendment: Section 15126.2 and the Draft 2050 RTP EIR.

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35 United States Army Corps of Engineers (USACE) circular: Water Resource Policies and Authorities Incorporating Sea-Level Change Considerations in Civil Works Programs

36 SANDAG’s 2010 Climate Action Strategy - Final, p. 14
For Future Analysis

1. To develop an adaptation strategy tailored to the San Diego region, SANDAG would seek funding at the state or federal level to partner with other regional agencies to conduct a vulnerability analysis. However, before conducting this analysis, the NAS California Sea-level Rise Assessment Report and any similar research would be analyzed to assess whether additional vulnerability analysis would be necessary for the San Diego region. Understanding vulnerability to the extent feasible within the limitations of available science and resources is critical to developing adaptation strategies. This analysis would include the latest projections on sea-level rise scenarios and identify existing and planned vulnerable transportation infrastructure. Adaptation strategies could be individually tailored to each of these.

In this context, vulnerability occurs over a long timeframe and affects people differently in the near-term and the long-term. Therefore, both short-term and long-term adaptation strategies should be identified. In the long-term, a variety of adaptation strategies involving many potential partners will be needed to deal effectively with sea-level rise in San Diego.

2. As Caltrans and BTH advance on the implementation of transportation strategies identified in the 2009 California Climate Adaptation Strategy, evaluate data and findings that could be applicable to future RTP updates and infrastructure projects.

3. In order to avoid duplicating research efforts, existing and planned research will be assessed for its applicability to better understand the impact of changes in sea level in other areas of strategic and economic importance, such as San Diego Naval Air Station North Island, San Diego International Airport, and the Port of San Diego. This analysis should provide the basis for further analysis of coastline vulnerabilities and the development of risk management strategies involving the public and private sectors. This analysis should also be conducted in the context that sea-level rise is expected to accelerate in decades following 2050.37

37 Climate Change-Related Impacts in the San Diego Region by 2050, p. 38
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2009 The San Francisco Bay Area Bay Conservation and Development Commission’s Web site: www.bc dc.ca.gov/mission.shtml

2010 SANDAG 2010 Climate Action Strategy – Final

2008 The San Diego Foundation’s Focus 2050 Study: San Diego’s Changing Climate – A Regional Wakeup Call
STATE ENERGY AND CLIMATE CHANGE LEGISLATION  File Number 3200300

Introduction

Several bills introduced in the California legislature are related to energy and climate change. They address a wide variety of topics including renewable energy, the smart grid, clean tech, green jobs, rates and tariffs, clean transportation, energy efficiency, and distributed generation.

Energy Working Group members are asked to review the list of bills provided as Attachment 1 and identify those they would like the group to monitor or evaluate, with an emphasis on bills that would help or hinder implementation of the priority early actions identified in the Regional Energy Strategy. The attachment is a legislative summary prepared by the Energy Policy Initiatives Center of the University of San Diego School of Law. It is also available online at: www.sandiego.edu/epic/legislative/.

Discussion

The following priority early actions are identified in the Regional Energy Strategy:

1. Pursue a comprehensive building retrofit program to improve efficiency and install renewable energy systems.
2. Create financing programs to pay for projects and improvements that save energy.
3. Utilize the SANDAG-SDG&E Local Government Partnership funding award to help local government identify opportunities and implement energy savings at government facilities and throughout their communities.
4. Support land use and transportation planning strategies that reduce energy use and GHG emissions.
5. Support planning of electric charging and alternative fueling infrastructure.
6. Support use of existing unused reclaimed water to decrease the amount of energy needed to meet the water needs of the San Diego region.

The last day for bills to be introduced in the current legislative session was February 19, 2010. Other important dates for the remainder of the session are provided below:

- April 23: Last day for policy committees to hear and report to fiscal committees fiscal bills introduced in their house.
- May 7: Last day for policy committees to hear and report to the floor nonfiscal bills introduced in their house.
- May 14: Last day for policy committees to meet prior to June 7.
• May 28: Last day for fiscal committees to hear and report to the floor bills introduced in their house. Also, last day for fiscal committees to meet prior to June 7.
• June 4: Last day to pass bills out of house of origin.
• July 2: Last day for policy committees to hear and report bills.
• August 13: Last day for fiscal committees to hear and report bills to the floor.
• August 20: Last day to amend on the Floor.
• August 31: Last day for any bill to be passed. Final Recess begins on adjournment.

Important Dates Occurring During Final Recess 2010:
• September 30: Last day for Governor to sign or veto bills passed by the Legislature before September 1 and in the Governor’s possession on or after September 1.
• October 2: Bills enacted on or before this date take effect January 1, 2011.
• January 1, 2011: Statutes take effect.

Attachment: 1. Summary of State Energy and Climate Legislation

Key Staff Contact: Susan Freedman, 619-699-7387, sfr@sandag.org
Summary of State Energy and Climate Legislation

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, provided below. For updates and additional information, visit www.sandiego.edu/epic/legislative/.

CALIFORNIA DEPARTMENT OF ENERGY

AB 2561 (Villines) CA Department of Energy Among other things, this bill would: abolish the State Energy Resources and Conservation Commission and the Electricity Oversight Board; create the Department of Energy, headed by a Secretary of Energy, and would create the California Energy Board and the Office of Energy Market Oversight within the department; require the department to create a legal subcommittee comprised of specified members to develop a single statewide position on litigation concerning energy matters; repeal Small Business Energy Efficient Refrigeration Program and eliminate the State Solar Medallion Passive Design Competition; repeal the California Consumer Power and Conservation Financing Authority Act.

CALIFORNIA ENERGY COMMISSION (CEC)

SB 1198 (Huff) CA Energy Commission Regulations This bill would mandate that any new regulation adopted by the CA Energy Commission (CEC) but not yet in effect be ratified by the Legislature. New CEC regulations could only take effect under the bill when unemployment in California falls below 5.1 percent for three consecutive months.

SB 1435 (Padilla) Site Certification: Notice This bill would require the CA Energy Commission to also transmit a copy of the notice of intention to the Independent System Operator.

CALIFORNIA PUBLIC UTILITIES COMMISSION (CPUC)

SB 1414 (Kehoe) CPUC Rehearings This bill, for an application for rehearing made 10 days or more before the effective date of the CPUC order as to which a rehearing is sought, would delete the provision that the suspension ceases after 60 days if the application is not granted or denied before its effective date, thereby indefinitely suspending the effective date of the order until the CPUC either grants or denies the application. This bill, for an application for rehearing made less than 10 days before the effective date of the CPUC order as to which a rehearing is sought, would provide that if the CPUC has not acted upon the application within 120 days, the application is deemed granted and the order is suspended until the application is granted or denied.

CLEAN TECH

AB 2428 (Buchanan) Green Tech Enterprise Zones This bill would state the intent of the Legislature to enact legislation to expand the definition of enterprise zone to include green technology zones.

AB 2525 (Blumenfield) Clean Tech Manufacturing Equipment Sales Tax Exemption The bill would exempt from sales taxes, imposed on retailers on or after January 1, 2011, the gross receipts from the sale of, and the storage, use, or other consumption of, tangible personal property purchased by a qualified person for use in the manufacturing process of clean energy technology, as specified, and tangible personal property purchased for use by a contractor for specified purposes.

CLEAN TRANSPORTATION

SB 1340 (Kehoe) Alternative Fuels and Vehicle Technologies This bill would specify projects eligible for funding under the Alternative and Renewable Fuel and Vehicle Technology Program to include a program to provide funding for homeowners who purchase an electric vehicle to offset costs associated with modifying electrical sources to include an in-home electric vehicle charging station.
**Regulation Review**

**AB 2311 (Mendoza) Transportation Fuel Vehicles**
This bill would require the CPUC to determine, for each class of ratepayers, the portion of the billings that are used for subsidizing electricity for plug-in hybrid and electric vehicles.

**AB 1781 (Villines) Neighborhood Electric Vehicles**
This bill would authorize the City of Fresno to establish a neighborhood electrical vehicle plan. The bill would require a report to the Legislature by November 1, 2014, if the city adopts a plan.

**CLIMATE CHANGE/GREENHOUSE GAS**

**AB 1504 (Skinner) Carbon Sequestration by Forests**
This bill would: include sequestration of carbon in the list of specified public needs and values provided for in the Z’berg-Nejedly Forest Practice Act of 1973 (the Act); make other legislative findings and declarations relative to carbon dioxide sequestration as it relates to forests; require the Department of Forestry and Fire Protection, in consultation with the State Air Resources Board, by March 1, 2011, to assess the capacity of its forest and rangeland regulations and nonregulatory forestry programs to meet or exceed the state’s greenhouse gas reduction goals, consistent with the scoping plan adopted by the board pursuant to the California Global Warming Solutions Act of 2006; require the department to publish a draft assessment by December 1, 2010, for public review and comment; require the board, in consultation with the department, to convene an independent panel to peer-review the draft assessment, and would require the department to incorporate the panel’s findings and recommendations or describe in writing the reasons for rejecting a finding or recommendation. The bill would provide that the implementation of these requirements is contingent upon the receipt of sufficient funding.

**AB 1846 (V. Manuel Perez) Expedited CEQA Review of Climate Change Regulations**
This bill would: require the a CEQA environmental analysis be performed for a rule or regulation adopted pursuant to the California Global Warming Solutions Act of 2006; authorize the use of the focused environmental impact report for a project that reduces greenhouse gas emissions in compliance with a rule or regulation adopted pursuant to the California Global Warming Solutions Act of 2006.

**AB 2311 (Mendoza) Transportation Fuel Regulation Review**
This bill would require the State Air Resources Board to review any regulation adopted by the state board that establishes greenhouse gas emission standards for transportation fuels and adopt a report relating to this review, as provided. The bill would require the state board, based on that report, to revise the compliance schedule or schedules in the regulation to avoid impacts on California fuel supplies or prices, competitiveness of California businesses relative to out of state or international competitors, impacts on the California economy, and impacts on California small businesses.

**AB 2313 (Buchanan) GHG Emissions**
This bill would declare the intent of the Legislature to enact legislation regarding the determination of significant effects resulting from greenhouse gas emissions.

**AB 2534 (Fuentes) Allocation of GHG Allowance Revenues**
This bill would authorize the State Air Resources Board to establish a fund, to deposit a portion of revenues from the distribution of allowances received pursuant to market-based compliance mechanisms, for expenditure on communities experiencing increased exposure to air pollutants to the extent that the state board establishes that the increased exposure to air pollutants is caused by the implementation of the market-based compliance mechanism regulation.

**AB 2691 (Wright) Allocation of GHG Allowances**
This bill would require the State Air Resources Board, if market-based compliance mechanisms are adopted, to sell, trade or otherwise distribute an allowance, defined as an authorization to emit greenhouse gas emissions, only to a person subject
to the greenhouse gas emissions limit to which that allowance applies.

**SB 1120 (Dutton) Prohibition on GHG Market-Based Mechanism**
This bill would prohibit the State Air Resources Board from implementing a market-based compliance mechanism that includes caps on greenhouse gas emissions and trading among participants unless it is a part of a legally enforceable regional or federal program.

**SB 1153 (Hancock) Renewable Energy Projects on Agricultural Land**
This bill would express the intent of the Legislature to enact legislation to address the serious threat of global warming to the economic well-being, public health, natural resources, and the environment of the state by coordinating permit approvals and providing incentives for renewable energy projects with multiple environmental and economic benefits to agricultural land.

**SB 1241 (Wolk) GHG Emissions Reduction Grants for Agriculture**
This bill would require the Secretary of Food and Agriculture to administer an unspecified percentage of certain funds, which are subject to appropriation by the Legislature, in consultation with the California Agricultural Climate Benefits Advisory Committee, which the bill would require the secretary to establish to be used for costs of administration or grants to reduce greenhouse gas emissions in the state’s agricultural sector.

**SB 1263 (Wyland) Implementation of AB 32**
This bill would make the provisions of the California Global Warming Solutions Act of 2006, and any regulation adopted pursuant to the act, inoperative.

**SB 1305 (Pavley) Expenditure of Cap and Trade Revenues**
This bill would provide that revenues generated from fees to fund expenditures beyond the administrative costs of implementing the act, revenues generated as a result of the implementation of market-based compliance mechanisms, or revenues generated from compliance mechanisms shall be appropriated by the Legislature in furtherance of the act for purposes determined by the Legislature.

**SJR 17 (Leno) Climate Change and Ocean Acidification**
This measure would reaffirm the Legislature’s commitment to reducing greenhouse gases in California to 1990 levels by 2020. It would urge the United States Environmental Protection Agency to regulate greenhouse gases and the federal government to persevere in its commitment to leading the world in efforts to address global climate change and ocean acidification, and reduce the concentration of carbon dioxide in the atmosphere to 350 parts per million.

**AJR 26 (Chesbro) Federal Action on Climate Change Adaptation**
This measure would request the Congress of the United States to establish a comprehensive framework, including dedicated funding, for adapting our nation’s wildlife, habitats, coasts, watersheds, rivers, and other natural resources and ecosystems to the impacts of climate change.

**DISTRIBUTED GENERATION**

**AB 2514 (Skinner) Energy Storage Portfolio Standard**
Among other things, this bill would: require each electrical corporation and local publicly owned electric utility, commencing January 1, 2014, to procure new energy storage systems, as defined, that are sufficient to provide specified percentages of the utility’s average peak electrical demand using stored energy that was generated during offpeak periods of electrical demand (energy storage portfolio); require each electrical corporation and local publicly owned electric utility, commencing January 1, 2011, to implement a 5-year program to employ distributed thermal, mechanical, or electrochemical energy storage systems to maximize shifting of electricity use for air-conditioning and refrigeration from peak demand periods to offpeak periods; require each electrical corporation and local publicly owned electric utility to develop plans to meet the energy storage portfolio procurement requirements and to report certain information to the Energy Commission; make an electrical corporation or local publicly owned electric utility liable for civil penalties of $5,000 to $25,000 per day for each day in which it failed to comply with certain requirements added by the bill; and require the Energy Commission to include certain information relative to energy storage systems in the integrated energy policy report, commencing with the report to be made by November 1, 2011.

**AB 2693 (Blumenfield) Local Government Renewable Energy Self-Generation Program**
This bill would allow a joint powers authority or agency, in addition to a local government, to receive a bill credit to a designated benefiting account for electricity exported to the electrical grid by an eligible renewable generating facility.

**AB 2724 (Blumenfield) Government Renewable Energy Self-Generation Program**
This bill would, among others: rename the Local Government Renewable Energy Self Generation
Program as the Governmental Renewable Energy Self-Generation Program; authorize a state agency to receive a bill credit to be applied to a designated benefiting account for electricity exported to the electrical grid by an eligible state renewable generating facility and would require the CPUC to adopt a rate tariff for the benefiting account; require the CPUC to authorize the award of monetary incentives for up to 5 megawatts of alternating current generated by an eligible state renewable generating facility that meets the eligibility criteria established by the Energy Commission for the California Solar Initiative.

SB 1465 (Lowenthal) Excess Electricity from Microturbines
This bill would require the CPUC to require an electrical corporation to purchase excess electricity from a customer of an electrical corporation that uses a microturbine with a generating capacity of not more than one megawatt that runs off of waste or standard gas associated with the extraction of oil or gas and has a time-of-use meter capable of registering the flow of electricity in 2 directions.

ELECTRIC GENERATION

AB 1686 (Jeffries) Diesel Generators in Communication Facilities
This bill would prohibit the South Coast Air Quality Management District from imposing requirements, or engaging in actions, that would prevent the operation, use, or maintenance of diesel-powered generators that would provide either primary or back-up electricity to specified facilities. This bill would make legislative findings and declarations as to the necessity of a special statute for the Santa Rosa Peak Communication Site, the Sunnyslope Communication Site, and the Glen Avon Communication Site.

AB 2037 (V. Manuel Perez) Air Pollution Standards for Electrical Generation
This bill would prohibit a load-serving entity or local publicly owned electric utility from entering into, and would prohibit the PUC from approving for an electrical corporation, a long-term financial commitment with or for a new electrical generation facility that meets specified criteria, as determined by local air pollution control districts and air quality management districts.

ENERGY EFFICIENCY

AB 1809 (Smyth) Home Energy Audits
This bill would authorize a home inspection to include a Home Energy Rating System ("HERS") home energy audit. If the client requests an inspection of energy efficiency or a HERS home energy audit, the bill would require the home inspection report to include certain additional specified information. The bill would declare the intent of the Legislature that a HERS audit may, at the request of the client, be performed by a HERS home energy certified home inspector.

AB 2614 (John A. Perez) Home Energy Retrofit Program (REEP)
This bill would require the CA Energy Commission, upon the enactment of federal legislation establishing the Retrofit for Energy and Environmental Performance (REEP) program, in consultation with the United States Department of Energy, to develop a program to implement the REEP program in the state; require the commission to facilitate any energy-related activities or programs created from an expansion of the federal American Recovery and Reinvestment Act of 2009.

AB 2679 (Eng) Reduced Energy Consumption in Public Sector
This bill would express the intent of the Legislature to enact legislation that creates a tiered system for achieving consumption reductions in energy and water in all public sector agencies for cost reduction, cost avoidance, and environmental compliance purposes.

AB 2758 (Bradford) Energy Efficient New Construction
This bill would require the CPUC to develop a framework that encourages developers to utilize appliances and structures in their developments that further the energy efficiency and renewable energy goals of the state.

SB 730 (Wiggins) Sonoma Energy Efficiency Pilot Project Act of 2010
This bill would require the CPUC, in evaluating energy efficiency investments, to ensure that local and regional interests, multifamily dwellings, and energy service industry capabilities are incorporated into an electrical corporation’s energy efficiency program portfolio design and that local governments, community-based organizations, and energy efficiency service providers are encouraged to participate in program design, revision, and implementation, where appropriate. The bill would require an electrical corporation, when developing or revising its energy efficiency program portfolio design, to collaborate with, and seek comments from, county climate protection authorities or other public agencies that are directly authorized to implement regional or countywide climate protection and energy efficiency programs.
SBX8 31 (Cedillo) Energy-Related Projects at Community Colleges
This bill would require the Energy Commission to award to the board of governors grants in the amount of $20,000,000 from the moneys appropriated to the Energy Commission under the 2009–2010 Budget Act that are received by the state pursuant to the federal American Recovery and Reinvestment Act of 2009 or related federal acts to the board of governors for purposes of implementing an energy management program including specified components. The bill would require the board of governors to ensure that prescribed requirements are met with respect to implementing the program.

FINANCING

AB 2050 (Fong) Housing and Community Redevelopment
This bill would modify the authorization of the Community Redevelopment Law to also apply to the financing of facilities or capital equipment that consists of green technology and to the development or rehabilitation of property that will be used for commercial purposes.

SB 1048 (Hancock) Community Facilities Districts
This bill would also authorize a community facilities district to finance and refinance the acquisition, installation, and improvement of energy efficiency, water conservation, and renewable energy improvements to or on real property and in buildings, as specified.

SB 1467 (Padilla) California Alternative Energy and Advanced Transportation Financing Authority
This bill would include as a project, under the California Alternative Energy and Advanced Transportation Financing Authority Act, machinery or equipment that is utilized for the design, technology transfer, manufacture, production, assembly, distribution, or service of an alternative source component. The bill would require the California Alternative Energy and Advanced Transportation Financing Authority to consider specified criteria in approving a project for which the purchase, sale, or lease of tangible personal property qualifies for the sales and use tax exclusion.

SBx8 26 (Pavley) Property Assessed Clean Energy (PACE) Financing
Among other things, this bill would: require the California Alternative Energy and Advanced Transportation Financing Authority to establish a Property Assessed Clean Energy (PACE) Reserve program to assist local jurisdictions in financing the installation of distributed generation of renewable energy sources or energy or water efficiency improvements that are permanently affixed on real property through the use of voluntary contractual assessment; establish the PACE Reserve Account within the California Alternative Energy Authority Fund and would transfer, consistent with federal law, $50,000,000 from moneys received pursuant to the federal American Recovery and Reinvestment Act of 2009 for energy-related purposes into the account; require the authority, on March 31, 2011, and annually thereafter, to submit to the Legislature, a report containing specified information regarding the implementation of the above provisions.

GREEN JOBS

AB 2437 (V. Manuel Perez) Green Technology Training
This bill would appropriate $15,000,000 from the fund to the California Community Colleges for the purpose of providing green technology training through career technical and vocational programs. The bill would authorize the Energy Commission to allocate to the California Community Colleges up to $15,000,000 from specified economic recovery funds received from the federal government in lieu of the appropriation from the fund. The bill would require that an amount equal to that allocation revert back to the fund if the Energy Commission makes that allocation.

AB 2628 (V. Manuel Perez) Renewable Energy Workforce Readiness Initiative
This bill would require the California Workforce Investment Board (CWIB), by July 1, 2011, in consultation with the Green Collar Jobs Council (GCJC), to establish a Renewable Energy Workforce Readiness Initiative to ensure green collar career placement and advancement opportunities within California’s renewable energy generation, manufacturing, construction, installation, maintenance, and operation sectors that is targeted towards specified populations. The bill would require that the initiative provide guidance to local workforce investment boards on how to establish comprehensive green collar job assessment, training, and placement programs that reflect the local and regional economies, as prescribed. The bill would require the CWIB, in developing the initiative, to assist the local workforce investment boards in collecting and analyzing specified labor market data, in order to assess accurate local or regional industry cluster workforce development and training needs. The CWIB would be required to submit to the Legislature, by January 1, 2013, a report on the implementation of the initiative. The bill would require that the board only implement the initiative established pursuant to provisions of the bill if the Director of Finance determines that there are sufficient funds made available to the state for expenditure for the initiative pursuant to the American Recovery and Reinvestment Act of 2009, the federal Workforce Investment Act of 1998, or other federal law, or from other non-General Fund sources, and
would require that the initiative terminate at such time that the director determines that there are no longer sufficient funds available for the initiative.

**AB 2696 (Bass) California Workforce Investment Board**

This bill would authorize the CWIB to accept any revenues, moneys, grants, goods, or services from federal and state entities, philanthropic organizations, and other sources, to be used for purposes relating to the administration and implementation of the strategic initiative. The bill would require the GCJC to consult with appropriate state and local agencies to identify opportunities to coordinate the award of grant and green workforce training funds received by the state under the federal American Recovery and Reinvestment Act of 2009 or any other funding sources. The bill would require the CWIB, on or before April 1, 2011, and annually each April 1 thereafter, to report to the Legislature on the status of GCJC activities, grants awarded, and the development and implementation of a green workforce strategic initiative.

**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 an unspecified amount that would be secured by moneys appropriated by the Legislature in the annual Budget Act from the Public Interest Research, Development, and Demonstration Fund. Proceeds from the sale of the bonds, notes, debentures, or other sources of security would be deposited into the fund.

**LIQUEFIED NATURAL GAS**

**SB 376 (Simitian) LNG Market Assessment Report (CEC)**

This bill would create the Liquified Natural Gas Market Assessment Act and would require a liquefied natural gas terminal project applicant to include in the application evidence that it has consulted with the US Dept. of Defense and its impacted service components. For a project involving the construction or operation of a liquefied natural gas terminal for which an application submitted to the FERC or the US Maritime Administration has not been deemed data adequate on or before January 1, 2011, and the application is being processed for further action by the FERC or the US Maritime Administration, an environmental impact report prepared for that project by a lead agency would be required to contain specified information. By requiring a local agency to prepare an environmental impact report that contains specified information, the bill would increase the level of service provided by a local agency, thereby imposing a state-mandated local program. The bill would require the Energy Commission, on or before July 1, 2010 2011, 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.

**NUCLEAR ENERGY**

**AB 1536 (Blakeslee) Seismic Survey of Diablo Canyon Vicinity**

This bill would require Pacific Gas and Electric Company, in furtherance of the recommendations made by the Energy Commission, to conduct seismic fault studies or surveys in areas at or near the Diablo Canyon Nuclear Power Plant in order to maintain reliable operation of the electrical grid and mitigate impacts to customer rates that could result from a seismic event. The bill would require the commission, in consultation with the California Geological Survey and the Seismic Safety Commission, to conduct or facilitate a peer review of any fault studies or surveys conducted pursuant to that requirement within 120 days of receipt of a final study or survey. The bill would require the Pacific Gas and Electric Company to fund all costs associated with a peer review of any studies or surveys and would require the commission to authorize the utility to fully recover, in its generation procurement rates, all reasonable costs associated with any studies, surveys, or peer review required pursuant to the bill.
RATES AND TARIFFS

SB 1097 (Strickland) Master-Meter Customers
Among other things, this bill would: require a gas or electrical corporation that receives an offer to transfer a gas or electric system from a master-metered mobilehome park or manufactured housing community that is within its service territory to accept transfer if certain criteria are met and require the corporation to assign a representative who will have responsibility for oversight of the proposed transfer, until the transfer is complete or the transfer process is terminated; require a gas or electrical corporation to provide the CPUC with copies of certain notices, reports, and estimates generated during the transfer process and would require the CPUC, upon receipt of these materials, to monitor and facilitate the transfer until the transfer is completed or the transfer process is terminated; require that in any application to recover costs to acquire, improve, upgrade, operate, and maintain transferred mobilehome park or manufactured housing community gas or electric systems, that the gas or electrical corporation include a calculation of the utility’s net costs, including additional income recovered by the utility resulting from the elimination of the submeter discount.

AB 2519 (Arambula) Net Energy Metering for Agricultural Customers
This bill would require, for the purposes of determining whether an agricultural customer-generator using wind or solar electric generation is a net consumer or a net surplus customer-generator during a 12-month period, the electric utility to aggregate the electrical load of the agricultural customer under the same ownership located on property adjacent or contiguous to the generation facility.

RENEWABLE ENERGY

AB 1816 (Anderson) Wind Energy
This bill would state the Legislature’s intent to enact legislation to address wind energy production.

AB 2231 (V. Manuel Perez) Renewable Energy Action Team
This bill would require the State Energy Resources Conservation and Development Commission to convene the Renewable Energy Action Team, which would consist of representatives from the commission, the Department of Fish and Game, and the Natural Resources Agency. The bill would require the commission also to request the United States Fish and Wildlife Service and the United States Department of the Interior Bureau of Land Management to participate in the team. The team would be required to develop and adopt the Desert Renewable Energy Conservation Plan to identify renewable energy zones based on renewable energy development potential and environmental, wildlife, and conservation criteria.

AB 2378 (Tran) Renewable Energy Program Definition
This bill would define “dual renewable energy device” for the purposes of the renewable energy resources program that is administered by the CA Energy Commission to increase the amount of electricity generated from eligible renewable energy resources per year.

AJR 30 (Salas) Tax Credit for Geothermal Power Projects
This measure would memorialize the President and the Congress of the United States to request that the United States Treasury Department clarify that, for purposes of eligibility for a grant under Section 1603 of the American Recovery and Reinvestment Tax Act of 2009 in lieu of tax credits, “exploring” with respect to geothermal power projects does not constitute physical work for determining when construction commences.

SB 722 (Simitian) 33% Renewable Portfolio Standard Requirement
Among other things, this bill would 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 33% of total retail sales of electricity in California per year by December 31, 2020. It also would require that a retail seller procure the following percentages of electricity from eligible renewable energy resources by the following dates: (A) Until December 31, 2012, the same percentage as actually achieved by the retail seller during 2009; (B) 20% by December 31, 2013; (C) 25% by December 31, 2016; and (D) 33% by December 31, 2020.

SB 1073 (Ashburn) Tax Credit for Renewable Energy
This bill would, under the Personal Income Tax Law and the Corporation Tax Law, for each taxable year beginning on or after January 1, 2010, provide that the credit for increasing research expenses shall be equal to 20% of the qualified research expenses with respect to green technology and renewable energy research and development costs.

SB 1074 (Ashburn) Tax Credit for Qualified Renewable Energy Materials
This bill would, for taxable years beginning on or after January 1, 2010, allow a credit against the taxes imposed by the Personal Income Tax Law and the Corporation Tax Law in an amount equal to 6% of the amount paid or incurred by the qualified taxpayer, that is engaged in specified green technology and renewable energy resource lines of business, during the taxable year for qualified property that is placed in service in this state.
SB 1247 (Dutton) Renewable Energy Resources
This bill would delete the existing definition of an eligible renewable energy resource and, instead, define the term to mean an electric generating facility that uses biomass, solar energy, wind, geothermal, fuel cells using renewable fuels, hydroelectric generation, nuclear generation, digester gas, municipal solid waste conversion, landfill gas, ocean wave, ocean thermal, or tidal current, and any additions or enhancements to the facility using that technology. The bill would make other conforming changes and repeal certain provisions relating to the eligibility of hydroelectric generation.

SB 1261 (Ashburn) Expedited CEQA Review
This bill would state the intent of the Legislature to enact legislation establishing a fast track environmental review process that maintains current environmental protection while expediting the review of projects related to green or renewable industries that will create jobs in the state.

SB 1319 (Pavley) Land Use for Renewable Energy Projects
This bill would authorize local agencies, under the Planning and Zoning Law, to authorize one or more pilot projects that will result in the resubdividing or consolidation of, or redevelopment of, small parcels on previously disturbed lands that are of lesser value as wildlife habitat, but are not conducive to acquisition for large-scale renewable energy systems, pursuant to existing law.

SB 1367 (Wyland) RPS Compliance Date Extension
This bill would: extend the target date for a retail seller to procure 20% of its retail sales from eligible renewable energy resources from December 31, 2010, to December 31, 2020; extend the attainment goal date, under the Renewable Energy Resources Program, for at least 20% of total retail sales of electricity to be generated from eligible renewable energy resources per year from December 31, 2010, to December 31, 2020.

SMART GRID

SB 837 (Florez) Smart Grid Technology
This bill would state the intent of the Legislature to enact legislation that requires the CPUC to ensure that electrical corporations that are authorized to deploy Smart Grid technology, including smart meters, are meeting their intended goals and have not shifted unnecessary deployment costs onto consumers.

SOLAR ENERGY

SB 1327 (Pavley) Solar Energy on Multifamily Residential buildings
This bill would state the intent of the Legislature to enact legislation to encourage small-scale solar energy systems of one megawatt or less capacity in communities with large concentrations of multifamily residential complexes, and its further intent to enact legislation to enable the residents of those complexes to participate in feed-in tariff programs, solar energy incentives, and the economic and environmental benefits of rooftop solar and other small-scale renewable energy projects.

AB 1915 (Davis) Expanded use of Solar Energy on Rental Properties
This bill would require the CPUC to implement a strategy to expand the participation rates of multiunit residential and commercial rental properties in utility energy efficiency and solar energy programs in accordance with prescribed program requirements.

AB 1923 (Evans) Theft of Photovoltaic Panels
This bill would state the intent of the Legislature to enact legislation to discourage the theft of photovoltaic panels.

AB 1947 (Fong) Solar Farm Bill Credits
This bill would direct the CPUC to require an electrical corporation to apply a bill credit of up to 100% to a customer’s bill, calculated as prescribed, for electricity that is generated by solar panels leased by the customer at a solar farm, as defined, and fed back to the electric grid.

AB 2296 (Saldana) Solar Energy System incentive Eligibility
This bill would expand the eligibility of solar energy systems receiving ratepayer funded incentives to include a solar energy system that is located on a near-site location to the end-use consumer.
TECHNICAL / NON-SUBSTANTIVE BILLS

AB 1711 (Villines) CA Energy Commission Membership
This bill would make a technical, nonsubstantive change in the membership of the State Energy Resources Conservation and Development Commission (Energy Commission) in the Natural Resources Agency.

AB 1794 (Gilmore) California Global Warming Solutions Act of 2006
This bill would make technical and nonsubstantive revisions to the California Global Warming Solutions Act of 2006.

AB 2014 (Torrico) Energy Efficiency
This bill would make a technical, nonsubstantive change to the requirement that a local publicly owned electric utility, by a specified date, should be responsible for implementing an energy efficiency program.

AB 2061 (Carter) Electrical Service: Investments
This bill would make a technical, nonsubstantive change to certain provisions of the Reliable Electric Service Investments Act.

AB 2132 (Carter) Renewable Energy Resources
This bill would make a technical, nonsubstantive change to certain provisions of the Public Utilities Act relating to California's Renewable Portfolio Standard Program.

AB 2431 (Fletcher) Renewable Energy Program
This bill would make technical and nonsubstantive changes to California Renewable Portfolio Standard Program's legislative findings and declarations.

AB 2441 (Berryhill) Natural Gas Production and Storage
This bill would make technical, nonsubstantive changes to the provision authorizing the CPUC to adopt a tariff that encourages the production or storage of natural gas within the state.

AB 2495 (Galgiani) Electrical Restructuring
This bill would make technical, nonsubstantive change to the declaration that reliable electric service is of paramount importance to the safety, health, and comfort of the people of California.

AB 2498 (Skinner) Combined Heat and Power Systems
This bill would make a technical, nonsubstantive revision to those provisions authorizing the CPUC to require an electrical corporation to purchase excess electricity, as defined, from an eligible customer, as defined, of the electrical corporation that is delivered by a combined heat and power system, as defined, that complies with the sizing, energy efficiency, and air pollution control requirements of the Waste Heat and Carbon Emissions Reduction Act.

AB 2643 (Logue) California Global Warming Solutions Act of 2006: Market-Based Compliance Mechanisms
This bill would make technical, nonsubstantive changes to certain provisions of the California Global Warming Solutions Act of 2006.

AB 2680 (Fong) Public Utility Rates
This bill would make technical, nonsubstantive changes to the provision authorizing the CPUC to fix the rates and charges for every public utility in the state.

AB 2681 (Garrick) Emissions of Greenhouse Gases: Market-Based Compliance Mechanisms
This bill would make technical and nonsubstantive changes to the State Air Resources Board's authorization to include market-based compliance mechanisms.

SB 985 (Hollingsworth) Electrical Corporations
This bill would make a technical, nonsubstantive change to the definition of an electrical corporation.

SB 986 (Hollingsworth) Natural Gas Restructuring
This bill would make various technical, nonsubstantive changes to the CPUC's regulatory authority over gas corporations.

SB 987 (Hollingsworth) Electrical Restructuring
This bill would repeal obsolete provisions of law, and would make other technical, nonsubstantive changes, relating to electrical restructuring.

SB 1248 (Dutton) Public Utilities Act
This bill would make technical and nonsubstantive changes to the Public Utilities Act setting forth the name of the act.

SB 1441 (Leno) Public Utilities Rates
This bill would make technical, nonsubstantive changes to those provisions authorizing the CPUC to fix the rates and charges for every public utility.

TRANSMISSION

AB 1954 (Skinner) Electrical Transmission and Renewable Energy
This bill would require the CPUC, in acting upon an application by an electrical corporation for a certificate of public convenience and necessity, to deem new transmission facilities necessary to the provision of electric service if the CPUC finds that new transmission facilities are reasonably necessary or appropriate to facilitate achievement of the renewable portfolio standard. The bill would require the CPUC to provide assurance of the eligibility for recovery in retail rates of any increase in transmission costs incurred by an electrical corporation resulting from the construction of transmission facilities in certain circumstances and to allow recovery in retail rates of any increase in
transmission costs if not approved by FERC if the CPUC determines the costs were prudently incurred pursuant to a specified law. This bill would revise and recast certain of the definitions applicable to the California Renewable Portfolio Standard Program.

**AB 2662 (Hagman) Electrical Transmission Easements**
This bill would prohibit an electrical corporation from constructing substantially larger transmission towers in an easement intended for smaller transmission towers when the easement runs through an occupied residential area.

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**TRANSPORTATION**

**AB 584 (Huber) Coherence of Neighborhood Electric Vehicle Plans Across Counties**
This bill, until January 1, 2016, would authorize the County of Amador and the Cities of Jackson, Sutter Creek, and Amador City, jointly or individually, to establish a neighborhood electric vehicle plan similar to that of other counties in which a person operating a “low-speed vehicle” in a plan area in violation of certain provisions is guilty of an infraction punishable by a fine not exceeding $100. The bill would require a report to the Legislature by January 1, 2015.

**2009 CALIFORNIA ENERGY-RELATED LEGISLATION (UPDATED 10-13-09)**

**Chaptered Bills - Signed by Governor**

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**CHAPTERED BILLS**

The following bills have been signed into law by the Governor.

**AB 162 (Ruskin) Electricity Disclosure Requirements for Retail Electricity Suppliers**
This bill would make several changes to existing requirements that require electrical utility to disclose the sources of their electricity, including: defining the term “unspecified sources of power” to mean electricity generated that is not traceable to specific generation sources by any auditable contract trail or equivalent that provides commercial verification that the electricity source claimed has been sold once, and only once, to a retail consumer, define the “retail sales”, and enumerating specific fuel types and energy sources that are required to be disclosed by the retail supplier as a percentage of annual sales, changing the reporting requirements from quarterly to annually and amend other details regarding disclosures and eliminate certain reporting requirements.

**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 474 (Blumenfield) Modifications to AB 811 Financing Provisions**
This bill would expand the provisions of AB 811 financing to authorize the legislative body of any public agency to designate an area within which authorized city officials property owners can enter into contractual assessments to finance the installation of water efficiency improvements that are permanently fixed to real property.

**AB 531 (Saldana) Exemption for Energy Consumption Data Disclosure**
In California on and after January 1, 2010, building owners or operators will be required to disclose the United States Environmental Protection Agency’s ENERGY STAR Portfolio Manager benchmarking data and rating to a prospective buyer, lessee of the entire building, or lender that would finance the entire building. The bill instead would require the owner or operator to disclose the benchmarking data and rating to a prospective buyer, lessee of the entire building, or lender that would finance the entire building based on a schedule of compliance established by the CA Energy Commission.

**AB 758 (Skinner) Existing Building Efficiency Requirements**
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 881 (Huffman) Sonoma County Regional Climate Protection Authority**
his bill would, among other things, create the Sonoma County Regional Climate Protection Authority.
Authority and require that the Authority be governed by the same board as the Sonoma County Transportation Authority.

**AB 920 (Huffman) Credit for Net Surplus Electricity From Solar and Wind Distributed Generation**

Among other things, this bill would: require the ratemaking authority of an 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 belonging to the electric utility purchasing the electricity and that net surplus electricity counts toward the electric utility’s renewables portfolio standard purchasing requirements.

**AB 1031 (Blumenfield) Eligibility for AB 2466 (2008) Net Surplus Electricity Credit**

This bill would change the eligibility for which entities can apply surplus renewable energy generation to other accounts by authorizing a “campus,” defined as an individual community college campus, University of California campus, or California State University campus, to receive a bill credit to be applied to a designated benefitting account for electricity exported to the electrical grid by an eligible renewable generating facility.

**AB 1085 (Mendoza) CA Air Resources Board Regulatory Process**

This bill would require CARB to make available to the public all technical 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 1110 (Fuentes) Revised Definition of Cogeneration**

This bill would: authorize the commission and the CA Air Resources Board (CARB) to treat advanced electrical distributed generation technology as cogeneration and would make certain existing limitations upon gas rates and surcharges charged cogenerators applicable to an advanced electrical distributed generation technology; and, prohibit placing alternative fuel capability requirements upon gas customers that use gas for purposes of cogeneration applicable to a generator using advanced electrical distributed generation technology. These provisions would not apply to an advanced electrical distributed generation technology that is first operational at a site on and after January 1, 2014.

**AB 1318 (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 to transfer emission reduction credits for certain pollutants from the south coast district’s internal emission credit accounts to eligible electrical generating facilities, as described: exempt from CEQA certain actions of the district undertaken pursuant to the bill; require the State Air Resources Board to prepare and submit to the Governor and the Legislature a report that evaluates the electrical system reliability needs of the South Coast Air Basin and recommends the most effective and efficient means of meeting those needs while ensuring compliance with state and federal law. The provisions of this bill related to emissions credits would be repealed on January 1, 2012.

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

This bill would: require the CPUC, by July 1, 2010, to determine the requirements for a smart grid deployment plan consistent with the provisions of this 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; 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; require the CPUC to report, by January 1, 2011, and by January 1 of each year thereafter, to the Governor and the Legislature on the commission’s recommendations for a smart grid, the plans and deployment of smart grid technologies by the state’s electrical corporations, and the costs and benefits to ratepayers; require a local publicly owned
Solutions Act of 2006: Definition of Greenhouse gases

SB 32 (Negrete 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 located within the electrical corporation service territory; require that the electric generation facility have an effective capacity of not more than 3 megawatts; delete the provision that the facility be located on property owned or under the control of the customer; require that the tariff provide for a payment for every kilowatthour of electricity purchased from an electric generation facility for a period of 10, 15, or 20 years; require that the payment be the market price referent established by the commission pursuant to the renewables portfolio standard program and would require the price to include all current and anticipated environmental compliance costs; authorize the CPUC to adjust the payment rate to reflect the value of the electricity on a time-of-delivery basis; require an electrical corporation to make the tariff available on a first-come-first-served basis until either the corporation meets its proportionate share of a statewide cap of 750 megawatts cumulative rated generation capacity served under the tariffs adopted pursuant to the requirements of the bill or the electrical corporation has reached or exceeds its above-market cost limitation (this requirement would be contingent upon the enacting of SB 14); provide that the electricity purchased from an electric generation facility counts toward meeting the electrical corporation’s renewables portfolio standard and that the physical generating capacity of the electric generation facility counts toward meeting the electrical corporation’s resource adequacy requirements; provide that an owner or operator of an electric generation facility that received ratepayer-funded incentives and participated in a net metering program prior to January 1, 2010, would be eligible for the tariff; and, require a local publicly owned (municipal) electric utility that sells electricity at retail to 75,000 or more customers to adopt and implement a tariff for electricity purchased from an electric generation facility meeting certain size, deliverability, and interconnection requirements until a utility meets its proportionate share of the total statewide capacity for local publicly owned electricity utilities of 750 MW is reached.

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 in that definition.

SB 176 (Simitian) End Date of Donated Electricity Provision
This bill would extend 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, 2015, if electric commodity service is donated free of charge without compensation.

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 412 (Kehoe) Self-generation Incentive Program: Inclusion of Non-Solar Technologies
This bill would require the CPUC to require the collection of funding for the self-generation incentive program for non-solar distributed generation resources through December 31, 2011; 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.

SB 488 (Pavley) Energy Consumption Comparison on Bills
This bill would require each investor owned and municipal electrical and gas utility having an energy usage disclosure program to report to the CPUC the nature of the utility’s program and the energy savings resulting from that program on or before March 15, 2010, or within 90 days of having collected a year’s worth of data, and annually thereafter until March 15, 2014.

SB 581 (Leno) Hetch Hetchy Renewable Energy Generation
This bill would: authorize the City and County of San Francisco to elect to designate specific renewable electricity generation facilities as Hetch Hetchy Water and Power (HHWP) at-site renewable generation and HHWP remote renewable generation; authorize the City and County of San Francisco to elect to designate specific renewable electricity generation
facilities or a portion of specific renewable electricity generation facilities as HHWP remote renewable generation to supply electricity to qualifying remote load by designating those facilities to be served by HHWP remote renewable generation; require that PG&E accept any electricity exported to the grid by HHWP remote renewable generation, up to the amount of electricity being used during the corresponding time period by the qualifying remote load; and, delete the existing requirement that where the separate or remote sites are outside the City and County of San Francisco, they be located within 20 miles of the City and County of San Francisco or within 20 miles of a HHWP remote renewable generation facility.

SB 605 (Ashburn) CEQA Exemption for Biogas Pipelines
This bill would provide that until January 1, 2013, for purposes of a CEQA exemption, “pipeline” also means a pipeline located in Fresno, Kern, Kings, or Tulare County, that is used to transport biogas, as the bill would define that term, and that meets the existing requirements for the exemption and all local, state, and federal laws.

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 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 695 (Kehoe) Residential Time-of-Use Electricity Rates and Direct Access
Among other things, this bill would: prohibit the CA Public Utilities Commission (CPUC) from requiring or permitting an electrical corporation to employ mandatory default time-variant pricing for residential customers prior to January 1, 2013; prohibit mandatory or default time-variant pricing, without bill protection, for residential customers prior to January 1, 2014; prohibit mandatory or default real-time pricing, without bill protection, for residential customers prior to January 1, 2020; require the CPUC to establish the CARE program to provide assistance to low-income electric and gas customers with annual household incomes that are no greater than 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 cents-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, 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 at the dwelling units and develop programs that specifically target nonprofit affordable housing providers, including programs that promote weatherization of existing dwelling units and replacement of inefficient appliances; 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; authorize the CPUC 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; delete the existing suspension of direct transactions in the Water Code that was adopted during the energy crisis of 2000–01, and would instead require the commission to authorize direct transactions subject to a reopening schedule that commences immediately and will phase in over a period of not less than 3 years and not more than 5 years, and subject to an annual maximum allowable total kilowatthour limit established for each electrical corporation; continue the suspension of direct transactions except as expressly authorized, until the Legislature, by statute, repeals the suspension or otherwise authorizes direct transactions.

SB 827 (Wright) South Coast Air Quality Management District Emissions Credits
In a recent court decision (Natural Resources Defense Council v. South Coast Air Quality Management District (Super. Ct. Los Angeles County, 2007, No.BS 110792), the superior court found the promulgation of certain the South Coast Air Quality Management District’s rules related to emissions offset credits to be in violation of CEQA. This bill would authorize the district to issue permits under specified circumstances, notwithstanding this court decision. The provisions of the bill would be repealed on May 1, 2012.