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## Summary of ETAAC Recommendations Status - July 25, 2008

Title/Status	Progress/Next Steps
A. Create a California Carbon Trust  In Development	<p><b>Progress:</b> E2 is working to further develop the Carbon Trust proposal. - E2 has met with members of the financial community, cleantech entrepreneurs and regulators over the past several months to discuss the Carbon Trust proposal, with most of the discussion focusing on the Trust's role in financing and encouraging cleantech RD&amp;D. - E2 has prepared a draft report outlining the Trust's potential role in financing and encouraging RD&amp;D. The report draws from the input of cleantech investors, entrepreneurs, and policymakers and from academic expertise on this topic. It identifies specific financing gaps and details possible public sector interventions. It also makes recommendations regarding the structure of the RD&amp;D portion of the Trust.</p>
Part of Proposed Scoping Plan	<p><b>Next Steps:</b> Having addressed the role of the Trust in encouraging RD&amp;D, E2 is now researching how the California Carbon Trust could use auction revenues to accelerate emission reductions in California. We are gathering information on potential emission reduction projects and will discuss options for compliance credits, voluntary offsets, and incentive payments for projects that would otherwise not be funded.</p>
B. Promote Clean Energy Innovation and Commercialization  In Development	<p><b>Progress:</b> The work that E2 has done with regard to the role of the Carbon Trust (see above) is relevant to clean energy innovation and commercialization. E2's draft report outlines barriers to cleantech innovation and commercialization and makes recommendations for public sector intervention.</p>
Not Mentioned in Proposed Scoping Plan	<p><b>Next Steps:</b> This is a broad and sweeping recommendation that gives many ideas related to demonstration finance, targeted RD&amp;D funding for carbon reductions, engaging the private sector, and possibly creating a new entity to manage and coordinate these efforts. Additional attention is needed to establish priorities and examine overlaps between this and other recommendations and efforts (including the California Institute for Climate Solutions and the proposed California Carbon Trust). Additional research is needed on the proposal to create "single focused entity" to coordinate policy-motivated technology innovation.</p>
C. Leveraging AB 32 to Spur	<p><b>Progress:</b> Certain bills to expand Self Generation Incentive Program eligibility to natural gas fired CHP would give extra incentives to California-based companies. (SB 1012 - Kehoe and AB 1064 - Lieber). Another bill would give California Energy Commission contracting preference to such companies (AB 2267 - Fuentes). The definition of California-based in not</p>

## California Job Creation and Manufacturing

Under Consideration

yet settled. The proposal to reinstate a manufacturing investment tax credit or sales tax exemption for manufacturing equipment purchases is making no progress in the legislature, possibly because it is perceived as a cost to the state. Tesla Motors recently decided to site a manufacturing facility in California after the state waived the sales tax on their purchases. Tesla stated the waiver was a "key factor" in the deal.

Not Mentioned in Proposed Scoping Plan

**Next Steps:** Legislation is pending.

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## D. Clean Technology Workforce Training Program

Under Consideration

**Progress:** There are currently two bills pending in the legislature related to green job creation and workforce training. SB 1672 (Steinberg) would make \$1 billion in bond funds and \$1.25 billion in loans available to middle and high schools, community colleges, businesses and labor organizations that create green technology training and jobs. AB 3018 (Nunez) would create a pilot program to identify needed skills, develop training programs, and train workers for jobs in a range of cleantech industries.

Not Mentioned in Proposed Scoping Plan

**Next Steps:** Legislation is pending.

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## E. Fee and Tax Shifting (Feebates)

In Development

**Progress:** Feebates for light duty vehicles are being considered for inclusion in the Proposed Scoping Plan as a backstop strategy if the state is not able to implement the Pavley standards for light duty vehicles. The feebates could possibly be extended to medium duty vehicles.

Under Evaluation for Proposed Scoping Plan

**Next Steps:** The general "feebate" approach can be applied to any product category for where there is already well defined measurement of carbon content and for which there is a State tax or fee assessed at the time of purchase.

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## F. Municipal Assessment Districts

**Progress:** The City of Berkeley was first to propose this sort of innovative financing mechanism, and Berkeley's program is scheduled to launch in September 2008. Other California cities, including San Francisco and Santa Cruz, have announced plans to launch similar programs in 2008. Palm Desert has proposed similar model using a different type of assessment district. As of now, only charter cities are permitted to set up these types of financing schemes, while general law cities are

not. Pending legislation would address this issue (see below).

In Development

Not Mentioned in  
Proposed Scoping Plan

**Next Steps:** Pending legislation should allow all California cities and counties to set up municipal assessment districts. AB 1709, which will take effect in January 2009 if signed into law, will clear the path for cities and counties wanting the follow the Berkeley model. AB 811 should take effect in August or September 2008, and will address the general law cities barrier for the Palm Desert model. The cost of capital and the administrative costs associated with setting up these districts are lingering issues that should improve with time and experience.

G. On-Bill  
Financing for  
Small Business  
Energy Efficiency  
Projects

In Development

Not Mentioned in  
Proposed Scoping Plan

**Progress:** The CA CPUC has mandated that all IOUs deliver On Bill Financing for the 2009-11 Energy Efficiency program cycle. Small Business California will operate under an EPA grant through May of 2009 to help develop and foster success with CA OBF programs. - Sempra will ask the CPUC to continue their OBF program for the 2009-11 cycle, continuing to lead the CA IOUs with the use of OBF as a tool which applies to all SDG&E and SoCalGas programs where rebates are applicable. Sempra will raise, if the CPUC agrees, the maximum loan per meter in 2009 to \$100,000 for commercial customers and \$250,000 per meter for institutional or taxpayer funded entities. - SCE says they will incorporate OBF for both small business and institutional customers. The current small business pilot program has led to the installation of 1.1 M kWh, plus 600,000 kWh sold and waiting for installation, for a total of 1.7 kWh to date. Most of this is from refrigeration retrofits. - PG&E is researching OBF and plans to offer a commercial program in the 2009-11 cycle although when that will occur within the cycle is not known at this time. PG&E is also planning on delivering a program dedicated to state buildings perhaps using state bond funds but final planning has not been completed.

**Next Steps:** All IOUs are currently required to file program plans for the 2009-11 program cycle with the CPUC by July 23rd. Currently, those programs are likely to begin sometime in the first quarter of 2009 if no additional delays are encountered.

A. Planning:  
Smart Growth  
and Transit  
Villages

Under Consideration

Part of Proposed  
Scoping Plan

**Progress:** CARB's Draft Scoping Plan calls for a 2 MMT CO2 reduction from improved land use practices by 2020. The Draft Scoping Plan specifically mentions regional greenhouse gas emissions targets, encouraging regional blueprint planning and increased compact and infill development to meet the target. The plan does not contain any clear linkage between infrastructure resource allocation decisions and Smart Growth planning.

**Next Steps:** Smart Growth legislation (SB375) is being considered by the Assembly.

## B. Pay-As-You-Drive Insurance

In Development

Under Evaluation for  
Proposed Scoping Plan

**Progress:** The Assembly has passed AB2800 (Huffman), which seeks to enable the implementation of PAYD insurance in California on a voluntary basis for both insurers and drivers. This legislation requires a 2/3rd majority vote to pass. The California Department of Insurance has embarked on a rulemaking proceeding "with the goal of making PAYD insurance widely available in California and to encourage participation." At the first public workshop on June 23, 2008, CDI staff declared that the "primary" goal of PAYD was to reduce Vehicle Miles Traveled for environmental benefit. Preliminary regulations are expected in Fall, 2008. Prop 103 requires that mileage be given the greatest weight in setting insurance rates after the driver's safety record, yet mileage currently has little effect on insurance rates. The California Air Resources Board has stated that it will consider including PAYD in the AB32 scoping plan.

**Next Steps:** AB2800 has moved to the Senate for consideration. Insurance companies are required to submit new filings to CDI to comply with Prop 103 by July 14th. CDI intends to issue draft regulations on PAYD in August, and has a one-year deadline for completing rulemakings.

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## C. Congestion Charges

In Development

Under Evaluation for  
Proposed Scoping Plan

**Progress:** The California Air Resources Board has stated that it will consider including congestion pricing in the AB32 scoping plan. Localities must receive authorization from the State Legislature to charge for the use of highways in the State. At the time of writing, there was no such legislation pending. The City and County of San Francisco has expressed support for congestion pricing and is planning for its implementation, contingent on permission from the Legislature. Santa Clara County and Los Angeles County are initiating congestion charging studies.

**Next Steps:** ICCT is currently funding a study to determine the potential greenhouse gas benefits that could be achieved by congestion charging

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## D. Employer-Based Commute Trip Reductions

Under Consideration

Under Evaluation for  
Proposed Scoping Plan

**Progress:** The draft scoping plan states that ARB is considering including an "Indirect Source Fee" in the AB32 scoping plan (p. 38). Commercial and residential development create additional vehicle miles traveled. The indirect source fee would create an incentive to design developments to reduce GHG emissions; and provide mitigation of the emissions that do occur. The draft plan also states that CARB is considering public education and programs to reduce vehicle travel by encouraging telecommuting, flex-time schedules, and mode-shifting alternative forms of travel.

**Next Steps:**

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## E. New Vehicle Technology Improvements

In Development

Part of Proposed Scoping Plan

**Progress:** CARB is committed to implementation of both the existing passenger vehicle GHG standards, and development on new standards for post-2016 vehicles (p. 20). However, California needs a waiver from the US EPA to implement its current passenger vehicle GHG standards, and the current Administration has blocked progress by refusing to allow the waiver. California is currently litigating this denial. CARB has included a preliminary medium and heavy-duty vehicle engine measure in the draft GHG scoping plan. In addition to the aerodynamic efficiency early action measure already underway, CARB proposes a heavy duty vehicle engine measure and a medium/heavy duty vehicle hybrid engine measure.

**Next Steps:** A federal waiver allowing the state to implement GHG standards is critical to allow CARB's efforts to continue its leadership role on environmental issues and reduce GHG emissions by 31.7 mmtpy CO<sub>2</sub>(eq) by 2020. CARB has determined that proposed federal fuel economy standards would achieve important reductions, but will not benefit the California fleet (nor other states that have adopted this standard) as much as the California standards.

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## F. Low GHG Fleet Standards and Procurement Policies

Implemented

Not Mentioned in Proposed Scoping Plan

**Progress:** Legislation (AB 236, Lieu) was signed into law in 2007 requiring that state passenger vehicle purchases meet criteria based on emissions, fuel economy, lifecycle fuel cost, and purchase cost. Legislation (AB2560, Lieu) expanding this program to medium and heavy duty vehicles has passed the California Assembly.

**Next Steps:** The California Department of General Service's implementation of passenger vehicle scoring is due by the end of this year. All vehicles procured after June 30, 2009 must meet these criteria. Given California's urgent need to reduce emissions and purchase the lowest lifecycle cost vehicles, implementation should occur as soon as possible.

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## G. GHG-based Vehicle Feebates and Registration Fees and Indexed Fuel Taxes

Under Consideration

Under Evaluation for Proposed Scoping Plan

**Progress:** Feebates have been addressed in the draft AB32 scoping plan as a potential "back-up" to California's passenger vehicle GHG standards (p.20), and are under consideration as a stand-alone measure (p.37). Indexed registration fees and fuel taxes are not considered in the plan.

**Next Steps:**

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H. Air Quality  
Incentives  
Programs and  
Standards

No Activity

Not Mentioned in  
Proposed Scoping Plan

**Progress:** This topic is not addressed in the draft scoping plan. Note that this topic is potentially related to investments in carbon reductions, such as through a California Carbon Trust, if carbon fees and/or the value of allowances are used for public purposes.

**Next Steps:**

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I. Create Markets  
for Green Fuels

Under Consideration

Not Mentioned in  
Proposed Scoping Plan

**Progress:** At present, CARB efforts are focused on achieving the goals of the LCFS. The technical development efforts for the LCFS would also be useful in providing Green Fuels labeling information to the public regarding the carbon intensity of fuels developed as part of, or in addition to, CARB's Low Carbon Fuel Standard (LCFS). However, because design and implementation of the LCFS is complex, CARB is not currently evaluating the additional steps that would be needed to establish a Green Fuels labeling program.

**Next Steps:** CARB will evaluate ways to encourage fuel carbon reductions beyond the standard, such as carbon content labeling, in the future after completing work on the LCFS.

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A. Cleantech Tax  
Incentives

No Activity

Not Mentioned in  
Proposed Scoping Plan

**Progress:**

**Next Steps:**

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B. Rebates for  
Load Reduction

No Activity

**Progress:**

**Next Steps:**

C. Improve  
Policies for  
Combined Heat  
and Power Plants

In Development

Part of Proposed  
Scoping Plan

**Progress:** The Draft Scoping Plan states that the State should "pursue efforts to encourage combined heat and power systems that make use of both the electricity and the heat generated to maximize efficiency." (p. 21) The Scoping Plan estimates 6.9MMTCO<sub>2</sub>E in reductions from CHP by 2020. The Western States Petroleum Association (WSPA) held the "Combined Heat & Power Collaborative" on July 8, 2008 to provide a forum for interested parties to engage in constructive dialogue, education, technical review, research and guidance to assist the State in designing the successful implementation of the CHP aspects of AB32. Progress on specific aspects of recommendation: (1) Defining CHP, identifying potential, and setting targets: No final action has been taken by either the CEC or CPUC. The CEC has not taken action to develop AB 1613 criteria. Both agencies are determining resource commitments to implement AB 1613 for their respective tasks. (2) Developing an "explicit strategy" for low carbon electricity generation, with CHP as an option: No targets have been established that would encourage additional CHP development. (3) Reexamining CHP's eligibility for CPUC self-gen incentives: CPUC issued a rulemaking on June 26 to consider rules for implementing AB 1613, including removal of barriers. No comparable investigation has been initiated for large-scale CHP. The CPUC still has not acted on a request filed in December 2006 to reduce departing load charges, although a decision is anticipated in Q3 2008. SB 1012 (Kehoe) is moving through the legislature to allow the CPUC to determine eligibility for natural-gas fired CHP. (4) Maintaining power purchase programs for QFs to maximize CHP system efficiency and economic viability: CPUC has a program in place, but low approved prices are not likely to encourage new resources. (5) CHP-friendly transmission tariffs: no action. (6) "Double-benchmarking" for the evaluation of CHP GHG emission reduction benefits: a double benchmark considers the combined efficiency of the separate production of electrical and thermal energy that would have occurred had the CHP plant not been developed. A CPUC recommendation to CARB on the use of double benchmarking is expected in August 2008.

**Next Steps:**

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D. Distributed  
Renewable  
Energy  
Generation: Solar  
PV

Under Consideration

Not Mentioned in

**Progress:** The legislation establishing the California Solar Initiative (SB-1, adopted in 2006) is limited to systems where "The solar energy system is intended primarily to offset part or all of the consumer's own electricity demand." California has a relatively new feed-in tariff for some utilities for projects under 1.5 MW, which allows surplus sale transactions (i.e., surplus sale provides for onsite use before selling the surplus, but does not provide for banking like net metering). PG&E has already signed 13 contracts for 11 MWs in the last four months. This feed-in tariff excludes solar energy systems installed under the California Solar Initiative, and contains administrative requirements that create a barrier to rooftop PV solar residential or small business projects. Several bills have been introduced regarding feed-in tariffs, some of which would exclude PV solar that received a capital cost incentive under the California Solar Initiative. (Some of these bill may raise issues beyond the scope of ETAAC's recommendation. One of these additional issues is whether existing incentives for renewable energy would be replaced by feed-in tariffs that provide an incentive by paying a higher price than the value of the energy provided.)

Proposed Scoping Plan **Next Steps:** Policy-makers should take action to compensate residents and businesses for the value of power provided to the grid when the value of solar PV output exceeds the value of on-site use. To have the greatest long-term impact, PV solar will need to benefit from innovations that allow it to compete with grid electricity without subsidies.

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E. Customer  
Choice of Electric  
Service Provider

**Progress:** CPUC has an open proceeding to determine the circumstances and timing for reopening the retail energy market to allow for customer choice.

Under Consideration

**Next Steps:**

Not Mentioned in  
Proposed Scoping Plan

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F. Building  
Efficiency  
Programs and  
Incentives

**Progress:** Investor-Owned Utilities filed their Energy Efficiency Program and Incentive proposals for the 2009-2011 period, which are designed to meet increased goals. As an example, PG&E seeks almost \$1.9 billion over the three-year program, more than double the amount authorized for the previous three-year funding cycle. SCE and SDG&E also proposed increased funding levels to meet higher goals, at \$1.3 billion and \$280 million, respectively. The Draft Scoping Plan recommends maximizing energy efficiency building and appliance standards and pursuing additional efficiency efforts (p. 21). Additional efficiency measures are under consideration for inclusion in the scoping plan (p. 38).

In Development

Part of Proposed  
Scoping Plan

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**Next Steps:** CPUC approval process for program filings.

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G. Combustion  
Devices: Energy  
Efficiency

**Progress:** The Draft Scoping Plan contains measures related to boiler efficiency and stationary internal combustion electrification, but does not mention uniform standards.

No Activity

**Next Steps:**

Not Mentioned in  
Proposed Scoping Plan

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H. Industry -  
Government  
Partnerships to  
Reduce Industrial  
Energy Intensity

**Progress:**

**Next Steps:**

No Activity

Not Mentioned in  
Proposed Scoping Plan

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I. A Revolving  
Fund for  
Technology  
Demonstration  
Projects

**Progress:** Part of the ongoing work for the proposed California Carbon Trust deals with the issue of demonstration finance. E2 has produced a draft report on this topic. CEC staff are working on proposals for demonstration finance as well.

**Next Steps:**

Under Consideration

Not Mentioned in  
Proposed Scoping Plan

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J. Develop Suite  
of Emission  
Reduction  
Protocols for  
Recycling

**Progress:** The Draft Scoping Plan's "Recycling and Waste" recommendation (p. 34) does not specifically address this ETAAC recommendation.

**Next Steps:**

No Activity

Not Mentioned in

Proposed Scoping Plan

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K. Increase  
Commercial-  
Sector Recycling

Under Consideration

Under Evaluation for  
Proposed Scoping Plan

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**Progress:** Increased commercial recycling is mentioned in the Draft Scoping Plan as a measure "under evaluation," but the appendix does not go into detail other than to say that research and studies are planned to evaluate the potential. The scoping plan notes that commercial recycling programs are already underway at CIWMB, but their in-state reductions have not been quantified. (p. 35)

**Next Steps:** The Draft Scoping Plan notes that "research and studies are planned to investigate potential for commercial recycling." (p. C-126)

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L. Remove  
Barriers to  
Composting

Under Consideration

Under Evaluation for  
Proposed Scoping Plan

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**Progress:** The Draft Scoping Plan's Appendix C includes a Composting measure that is "under evaluation." The appendix does not provide sufficient detail to determine the degree to which this measure would address existing barriers.

**Next Steps:**

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M. Phase Out  
Diversion Credit  
for Greenwaste  
Alternative Daily  
Credit

No Activity

Not Mentioned in  
Proposed Scoping Plan

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**Progress:** The Draft Scoping Plan's "Recycling and Waste" recommendation (p. 34) does not specifically address this recommendation.

**Next Steps:**

N. Reduce  
Agricultural  
Emissions  
Through  
Composting

**Progress:** The Draft Scoping Plan's Appendix C includes a Composting measure that is "under evaluation." The appendix does not provide sufficient detail to determine the degree to which this measure takes into account ETAAC's specific recommendations.

Under Consideration

**Next Steps:**

Under Evaluation for  
Proposed Scoping Plan

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O. Evaluate and  
Improve Policies  
for Qualified  
Waste Conversion  
Technologies

**Progress:** LA county is developing one or more demonstration conversion technology projects in Southern California. County officials have identified four promising technology companies as well as potential recycling facilities for them to partner with for post-MRF residual solid waste as feedstock. They have also issued a Request for Offers and anticipate receiving 4 site-specific proposals, due August 15, 2008. If all goes on schedule, these facilities may be operational as early as 2012.

In Development

**Next Steps:**

Not Mentioned in  
Proposed Scoping Plan

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A. Energy  
Efficiency  
Program  
Coordination

**Progress:** The recent IOU filings for the 2009-11 funding cycle included some integrated and coordinated programs. As an example, PG&E proposes to integrate its energy efficiency, demand response, and solar programs. It also proposes a Green Communities Program and Innovator Pilots to help local governments and communities reduce greenhouse gas emissions. PG&E's filing also identified proposed program changes that would complement AB 32 rules and policies, including a proposed program targeting "Cement Production & Distribution Energy Efficiency".

In Development

**Next Steps:** CPUC approval process for new programs.

Not Mentioned in  
Proposed Scoping Plan

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B. Aggressive LED Energy Efficiency Programs

In Development

**Progress:** Light-Emitting Diode (LED) applications including refrigerated case lighting, bi-level stairway lighting and street lighting were tested by IOUs as Emerging Technology during the 2006-8 program cycle. Recently filed IOU program and incentive proposals for 2009-2011 propose new LED incentive programs as a "cross-cutting" technology. As an example, PG&E's "LED Accelerator" proposal would nearly quadruple program funding between 2009 and 2011.

Not Mentioned in Proposed Scoping Plan

**Next Steps:** CPUC approval process for new programs.

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C. Take Steps Necessary to Achieve an Increase in Renewable Energy to 33 Percent by 2020 to Reduce G

Under Consideration

**Progress:** The Draft Scoping Plan supports a 33 percent RPS (p. 24).

**Next Steps:**

Part of Proposed Scoping Plan

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D. Competitive Renewable Energy Zones

In Development

**Progress:** CPUC /CEC/CAISO working on the Renewable Energy Transmission Initiative (RETI)

**Next Steps:**

Not Mentioned in Proposed Scoping Plan

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E. Renewable Energy Technology Assessments

**Progress:**

**Next Steps:**

Not Mentioned in Proposed Scoping Plan

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F. Electricity Storage as an Enabling Technology for Renewable Energy

**Progress:** Energy storage opportunities are being pursued on multiple fronts: a) PG&E filed FERC applications for two new pumped storage plants with capacities ranging from 380 MW to 1,140 MW for each project. b) The CEC PIER program awarded wind storage grants to a PG&E/SCE/EPRI joint proposal and to a separate SCE proposal. The joint proposal is to study using energy storage devices to mitigate some of the challenges associated with integrating intermittent wind resources. This grant-funded project has three objectives: 1) determine the value of deploying an energy storage device at any point on the grid, 2) identify the characteristics of an energy storage device that would maximize value of energy storage at any particular location, and 3) determine what, if any commercially available energy storage devices best match the identified value maximizing characteristics. SCE's separate CEC grant was for testing specific technologies. c) PG&E expects to issue an Energy Storage Request for Information (RFI) to determine the capabilities of energy storage providers for future projects.

In Development

Not Mentioned in Proposed Scoping Plan

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**Next Steps:** Next steps include: a) FERC process for pumped hydro. b) Commencement of the CEC PIER funded wind-storage projects. c) Issuance of the energy storage RFI.

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G. Plug-in Electric Drive Vehicles as Storage Devices

**Progress:** CARB has proposed including both the transportation and the electricity sectors under a cap & trade program. This would avoid an uneven playing field that could occur if carbon was priced in the electricity sector, but not in the transportation sector. Technology development & deployment that is critical to the success for plug-in vehicles is on-going.

No Activity

Not Mentioned in Proposed Scoping Plan

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**Next Steps:** Policy-makers will need to develop a policy frame-work that recognizes the potential benefits of PHEVs for providing distributed energy to the grid during peak loads, and other ancillary grid services.

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H. Smart Grid as  
Enabling  
Technology for  
Renewables and  
Clean Vehicles

**Progress:**

**Next Steps:**

Not Mentioned in  
Proposed Scoping Plan

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I. Carbon Capture  
and Sequestration  
in Geological  
Formations

**Progress:** CEC sponsoring WestCARB project

In Development

**Next Steps:**

Not Mentioned in  
Proposed Scoping Plan

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J. Low Carbon  
Electricity  
Generation Plan

**Progress:**

**Next Steps:**

Not Mentioned in  
Proposed Scoping Plan

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K. Unifying

**Progress:**

## Standards for Climate-Related Programs

### Next Steps:

Not Mentioned in  
Proposed Scoping Plan

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**Progress:** The Draft Scoping Plan includes a recommendation to encourage methane capture and energy generation at dairies (p. 35). The Schwarzenegger Administration organized a stakeholder-working group led by Robert Crandall at the Department of Toxic Substances to compile the pertinent regulatory guidance and information pertaining to permitting a manure digester. This was done in an effort to improve and streamline the digester permitting process.

### A. Manure to Energy Facilities

In Development

Part of Proposed  
Scoping Plan

**Next Steps:** The first draft of a Permit Guidance Manual for Anaerobic Digesters and Co-Digesters has been completed but significant work is still needed, both related to format and content. It is important to recognize that the compilation of permitting information for digesters is just the first step toward getting better agency collaboration and hopefully improving the overall process. While the intent is reach "one-stop" permit guidance, a project developer still has to go to each permitting agency for a separate permit so this obstacle has not resolved. Recognizing that obtaining a "one-stop" permit will be extremely difficult, efforts are being made to develop a general permit and a website which could serve as a virtual "one-stop" permit shop. This could lead to a means of communication, approval, and management of projects via electronic coordination between the agencies, industry, and other stakeholders. Despite these positive steps, it is the agencies regulatory requirements that are the primary barrier. In fact recent developments suggest that few if any new dairy digesters will be built, at least in the San Joaquin Valley where they are concentrated. Several years of agency led meetings, including more recently the AB 32 Interagency Task Force, have not addressed or resolved any of the fundamental issues Unless they are addressed, the opportunity to build new digester systems for electricity generation or biomethane injection in natural gas pipelines will not manifest and this emerging industry will focus developments on other states. That process has already started.

### B. Enteric Fermentation

In Development

**Progress:** The Draft Scoping Plan states that "further research is needed to understand and quantify the benefits of practices to reduce direct methane emissions from livestock digestive processes." Ongoing research at the state and national levels is underway but far from completion.

**Next Steps:** Various aspects of enteric fermentation research are underway including developing a process model to

Under Evaluation for  
Proposed Scoping Plan

assess the potential to reduce GHG by improving dairy operational and animal efficiencies.

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### C. Agricultural Biomass Utilization

**Progress:** The Draft Scoping Plan mentions the possibility of energy generation from manure digestion, as well as other bioenergy sources such as crop residue (p. 36). The Plan notes that energy produced will be tracked and accounted for in the Energy sector. Various areas of research are being pursued.

In Development

**Next Steps:** With the Renewable Portfolio Standard and Low Carbon Fuel Standard included in the scoping plan, there is clearly the need to support further agricultural biomass utilization research.

Under Evaluation for  
Proposed Scoping Plan

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### D. Dedicated Bio-Fuels Crops

**Progress:** Various areas of research are being pursued.

In Development

**Next Steps:** With the Low Carbon Fuel Standard included in the scoping plan, there is clearly the need to support further biofuels research. AB 118 funds are one vehicle for investment in sustainable crop production methods that should be pursued.

Not Mentioned in  
Proposed Scoping Plan

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### E. Soil Carbon Sequestration

**Progress:** The Draft Scoping Plan states that "increasing carbon sequestration in soils and permanent crops is desirable but sound quantification protocols are not yet developed" (p. 36). The International Wine Industry Greenhouse Gas Accounting Protocol, developed through a partnership between the Wine Institute of California, New Zealand Winegrowers, South Africa's Integrated Production of Wine program, and the Winemakers' Federation of Australia, was released February 2008 for use by the global wine industry. The goal of the project partners was to provide a free, easy-to-use, wine industry specific, greenhouse gas (GHG) protocol and calculator that will measure the carbon footprints of winery and vineyard operations of all sizes and was approved as an acceptable reporting mechanism for wineries that must report their emissions under AB 32. The California Department of Food and Agriculture awarded a \$100,000 Specialty Crop Block Grant to the California Sustainable Winegrowing Alliance (CSWA) in collaboration with industry and academic partners for their California Vineyards Climate Protection Initiative proposal to examine data and research pertaining to emissions and offsets of greenhouse gases to better understand the wine, table and raisin grape sector's greenhouse gas "footprint." The intent of the project is to enable the industry to accelerate development of mitigation measures and prioritize research needs and improve vineyard emission factors for use in the International Wine Industry GHG calculator. CSWA also received a two year, \$607,500 USDA NRCS Conservation Innovation Grant to evaluate and refine environmental services accounting tools that

In Development

Under Evaluation for  
Proposed Scoping Plan

will help to increase use of their GHG accounting and energy efficiency benchmarking tools, create an online system to store, manage, analyze and report on outcomes determined through the tools, and conduct educational outreach to help other growers benefit from market-based conservation opportunities. CCAR has issued an 8/1/08 RFP deadline to develop a document to highlight and discuss any potential issues with developing a specific protocol, such as evaluating potential approaches to GHG emissions quantification, exploring options for defining projects, setting project boundaries, and developing performance standards and standardized baselines, as well as identifying any potentially relevant regulations pertaining to soil crop and rangeland sequestration. The contract will be awarded 9/1/08 with completion by 11/1/08. Concern has been raised about the lack of CCAR outreach to stakeholder groups announcing this effort and the short response time.

### Next Steps:

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#### F. Riparian Restoration and Farmscape Sequestration

In Development

Not Mentioned in Proposed Scoping Plan

**Progress:** The Carbon Breakfast Club, a local consortium of ranchers, non-profits and agency personnel in the northern Sacramento Valley is focused on developing a cost-effective system for carbon sequestration in oak woodlands and native perennial grasslands. The group intends to register multiple ranches under the California Climate Action Registry and work with participants in a future cap-and-trade system to generate funding for oak woodland and native perennial grassland restoration. The Marin Soil Carbon Project is designed to establish a definitive soil carbon monitoring protocol for Marin's rangelands and use that protocol to test selected Best Management Practices with potential to significantly increase annual soil carbon sequestration rates. This replicable and scaleable template may then be rolled out statewide, even nationally. This is a local pilot study that will have local, national and potentially international significance in advancing the understanding and monitoring of carbon sequestration in soils. Spin-off soil findings and co-benefits are anticipated. Started in Spring 2008 with presentation of initial results in Fall 2009. The University of California Kearney Foundation of Soil Science has funded a UC Davis project to quantify the carbon sequestered in woody trees and shrubs, and in the soil of riparian corridors and hedgerows on farms in Yolo County. These marginal areas are turning out to represent a significant proportion of the carbon stored on a farm, e.g. approx. 15% of the total C stored on a 45 ha farm. Further funding is needed to determine the best practices for restoration of farm margins with woody vegetation, and for monitoring carbon storage and greenhouse gas emissions in restoration projects.

**Next Steps:** CCAR has issued an 8/1/08 RFP deadline to develop a document to highlight and discuss any potential issues with developing a specific protocol pertaining to rangeland sequestration. The Carbon Breakfast Club will be closely involved with this effort.

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#### G. Fertilizer Use and Water Management

**Progress:** The Draft Scoping Plan states that ARB has begun a research program to better understand the variables affecting N<sub>2</sub>O emissions from fertilizer use (p. 35). The plan also mentions water efficiency (p. 36). CARB organized an agricultural nitrogen-working group to attempt to coordinate the various agencies efforts to research N<sub>2</sub>O emissions from nitrogen fertilizer use.

## Efficiency

In Development

**Next Steps:** A total of \$950,000 is currently being spent on three separate agricultural N2O emissions projects at CDFA, CEC and CARB.

Part of Proposed  
Scoping Plan

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### A. Link Forest Fuels

Management and  
Biomass  
Utilization

**Progress:** The Draft Scoping Plan contains a recommendation to "preserve forest sequestration and encourage the use of forest biomass for sustainable energy generation." (p. 27) However, no GHG reductions are attributed to fuel management strategies. Accounting will be done following implementation. Biomass fuel utilization accounted for in Energy sector. Fuel management opportunities delegated to Board of Forestry.

In Development

**Next Steps:**

Part of Proposed  
Scoping Plan

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### B. Reforestation and Forest Management for Enhanced Carbon Storage

**Progress:** The Draft Scoping Plan notes possible gain from voluntary action in forest management. The Plan also notes reforestation as possible recipient of revenue generated by auctions or carbon fees.

In Development

**Next Steps:** Delegated to Board of Forestry to 1) determine actions to meet 5 MMT 2020 target for Forest sector; 2) develop monitoring plan.

Part of Proposed  
Scoping Plan

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### C. Urban Forests for Climate Benefits

**Progress:** Urban Forests are included in the draft scoping plan as a voluntary action. The Plan notes that "urban forests can provide the dual benefit of carbon sequestration and shading to reduce air conditioning load." (p. 28) Urban Forest Protocols are currently under public review process of California Climate Action Registry (CCAR).

Under Consideration

Part of Proposed  
Scoping Plan

**Next Steps:** Following public review process, final approval of voluntary Urban Forestry Protocols by CCAR Board.

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D. Endorse  
"California  
Climate Solutions"  
Program

**Progress:**

No Activity

**Next Steps:**

Not Mentioned in  
Proposed Scoping Plan

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A. Establish a  
Loading Order for  
Water

**Progress:** Though there is not mention of a loading order, the Scoping Plan notes that "in addition to the many efficiency efforts throughout the state, the Department of Water Resources is implementing a directive from the Governor to develop a plan to reduce per capita water use by 20 percent by 2020. Measures to increase water use efficiency and re-use will reduce electricity demand from the water sector, reducing GHG emissions." (p. 28)

Under Consideration

Not Mentioned in  
Proposed Scoping Plan

**Next Steps:** AB 2175 by Assembly Members John Laird (D-Santa Cruz) and Mike Feuer (D-Los Angeles) establishes numeric targets for urban and agricultural water use efficiency, requiring a 20 percent per-capita reduction in urban water use, and a 500,000 acre-feet reduction in agricultural water use, by 2020.

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B. Establish a  
Public Goods  
Charge for  
Funding Water  
Improvements

**Progress:** The Scoping Plan states that "the State will also establish a public goods charge for funding investments in water efficiency that will lead to reductions in greenhouse gases." (p. 28) The charge can be used to fund end-use water efficiency improvements, system-wide efficiency projects, and water recycling.

In Development

**Next Steps:**

Part of Proposed  
Scoping Plan

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