Comments of the California Center for Sustainable Energy Regarding the Climate Change Draft Scoping Plan (June 2008 Discussion Draft and Appendices)

I. INTRODUCTION

The California Center for Sustainable Energy (CCSE) is pleased to provide comments regarding the Climate Change Draft Scoping Plan (June 2008 Discussion Draft and Appendices) ("Draft Scoping Plan") prepared by the California Air Resources Board (ARB).

CCSE is an independent non-profit 501(c) (3) organization whose singular purpose is "Greening Your World"[SM] by providing expertise, education and rebate program administration in five critical areas: green building, energy efficiency, renewables, transportation and climate change. We administer several educational/ incentive programs in the San Diego region, including the California Solar Initiative (CSI), the Self-Generation Incentive Program (SGIP), the Solar Water Heating Pilot Program (SWHPP), the ARB's Alternative Fuel Vehicle Incentive Program and the San Diego Energy Resource Center (ERC).

CCSE is very supportive of the Draft Scoping Plan. We realize that this was, and will continue to be, an extensive and broad-reaching effort, and congratulate the ARB staff. We greatly appreciate ARB making much of the underlying work and assumptions available for public review in the form of appendices and work papers. In an ongoing effort, CCSE plans to contribute our on-the-ground experience to the scoping process and, soon thereafter, to program development and implementation. CCSE is pleased to provide comments on the following topics:

- Scoping Plan Process and Stakeholder Involvement
- The Role of State Government
- The Role of Municipalities and Regional GHG Emission Targets

- Relationship Between Regulated and Voluntary Markets
- Water
- Land Use and Transportation
- Electricity and Energy Efficiency
- Public Outreach and Education
- CCSE's Intention to Contribute to Scoping Plan Process

II. SCOPING PLAN PROCESS AND STAKEHOLDER INVOLVEMENT

CCSE looks forward to the establishment of a defined scoping plan process under which each recommended emission reduction measure is investigated, defined and implemented for maximum carbon impact. Learning by doing is essential to this process, and California has an extremely broad base of existing stakeholders with rich experiences and knowledge in virtually all of the core areas identified in the Draft Scoping Plan.

ARB should make certain to involve the broadest array of actors in the scoping plan process, including local and regional agencies and institutions that may not have resources to participate at the level of government agencies or large investor-owned institutions. We suggest coordinating tightly with the California Public Utilities Commission (CPUC) and the California Energy Commission (CEC) to evolve a cutting-edge, broad-based, fully inclusive model for energy efficiency implementation, and have voiced this suggestion to them as well. At the same time, local efforts will require proactive engagement with, and support for, local actors throughout our diverse state. CCSE is excited to participate and contribute with the full range of our hard-won expertise covering a significant section of California.

III. THE ROLE OF STATE GOVERNMENT

It is critical that State Government models actions Californians must take with respect to greenhouse gas (GHG) reductions. The proposal to reduce emissions from State government activity by 30%, rather than the standard 20%, is excellent example-setting. State employees and public citizens must be able to see and actively participate in the new GHG programs being launched, such that large numbers of people gain experience and comfort

with the new practices and are able to then transfer that knowledge elsewhere in their daily lives, obtaining further GHG reductions.

There are many ways in which State government can "walk the talk"; addressing State practices in parallel with Scoping Plan development and implementation will demonstrate true commitment and set a proper tone. Areas for aggressive initiatives might include: assorted alternative fuel vehicle fleets, designated parking places and charging/filling stations for these vehicles; heightened use of public transportation; water-smart landscaping and practices; efficient technologies in new and retrofit construction projects; extensive use of solar-electric and solar thermal systems; and many others. Business leaders and citizens notice such actions; therefore, these programs must be implemented with care- if they are not, the message of Assembly Bill (AB) 32 may be diluted in practice.

Within the implementation of AB 32, schools will require special attention through targeted resources to reduce their emissions and waste streams. Only the State has the authority to mandate sustainability programs for all its schools. As one example, many schools do not participate in recycling, primarily due to the perceived prohibitive cost of implementation. Through a recycling mandate, we will empower and teach our children about sustainability in a tangible way. Targeted assistance for schools to adopt energy efficiency measures and solar systems will create similar multiplier effects, in that these efforts reduce emissions at the same time they educate and encourage long-term cultural change towards sustainability.

IV. THE ROLE OF MUNICIPALITIES AND REGIONAL GHG TARGETS

CCSE believes that municipalities' involvement in the scoping plan process is crucial. We consider municipal governments to be primary partners in implementing change in the realm of sustainable energy and other areas of environmental stewardship. Aggressive municipal codes and standards and attention to code enforcement coupled with innovative financing measures for both new and retrofit applications are a must for achieving the magnitude of reductions sought with AB 32. In addition to codes and standards, government participation and officials' buy-in must be standard practice. Local officials need the clear backing of legal requirements to be confident in making the difficult budget reallocation decisions necessary to achieve significant GHG reductions within their jurisdictions, especially during these hard economic times. If the difficult but necessary decisions are left as optional,

it is unlikely that municipalities can uniformly achieve the aggressive GHG emission reductions targets mandated by AB 32.

For the transformation to be successful, municipal staff will undoubtedly need training and assistance on GHG emission reduction practices. Few municipalities currently have staff time available to dedicate to GHG issues in more than a cursory fashion, let alone hire staff with the technical expertise required to calculate GHG emissions, conduct energy assessments, create climate action plans, set GHG reductions goals, and develop new policies and procedures that will integrate efficiently into the city systems already established, among other necessary tasks. GHG policies are far-reaching and impact all aspects of city operations. Small cities are especially vulnerable, and would benefit greatly from support that would allow them to join with other small cities in their regions, for example, to hire or share staff who can aid them in their GHG reduction efforts. The establishment of Regional GHG Emission Targets, and other regional programs, would also be very useful for jurisdictions of all sizes to gather to receive State-provided technical assistance, GHG job training, education and outreach, technology demonstration, innovation updates, and the like. Third party non-profits, such as CCSE, can also be of great assistance in providing targeted, more or less specialized, on-the-ground technical assistance to local governments, businesses, elected officials, and interested citizens, among others. Substantial funding should be dedicated to education and technical assistance for municipalities. The state must provide assistance, guidelines, and appropriate protocols, many of which are in practice and in writing throughout the state. For example, the San Diego Association of Governments (SANDAG) is currently establishing guidelines and best practices that any municipality could apply locally to be sustainable, with attention to GHG reduction.[1]

V. RELATIONSHIP BETWEEN REGULATED AND VOLUNTARY MARKETS

The mix of a cap-and-trade program and the carbon fees proposed in the Draft Scoping Plan should send solid, appropriate and important price signals to the market regarding the value of carbon and GHG emissions. CCSE applauds these efforts.

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[1] California Center for Sustainable Energy (CCSE) is a subcontractor to this contract between San Diego Association of Governments (SANDAG) and the California Energy Commission (CEC).

Regarding carbon offsets, the Draft Scoping Plan discusses in some detail the allocations and credits to be used for compliance purposes within the regulated cap-and-trade sectors. These GHG emissions account for approximately 85% of all GHG emissions in the state. Offsets are proposed to be limited to 10% of the compliance obligation for any regulated entity, helping to ensure that meaningful GHG reductions are actually made within the regulated sectors, and within the State of California. CCSE applauds these aspects of the regulated cap-and-trade program being developed under the Draft Scoping Plan.

CCSE is concerned, however, about the voluntary GHG market, the sectors that will go unregulated by AB 32, which account for approximately 15% of all emissions in California. Our concern is that GHG credits of high (AB 32) quality will not be available for purchase by voluntary participants in the voluntary market place. Voluntary participants need a structured and widely accepted source for offsets that complement the regulated sectors' obligations. Failure to develop such a mechanism for voluntary offsets along side the cap-and-trade system will result in missed opportunities.

CCSE interacts primarily with unregulated entities: voluntary participants ranging from individual citizens to small businesses, private companies and municipalities, who want to demonstrably reduce GHG emissions and be recognized formally for their actions and investments. These entities need access to verifiable offsets of high quality. If voluntary offset credits are not available, and credits are to be used for capped sector compliance purposes only, then GHG reductions from the voluntary sector may actually decrease; such an outcome could be an unintended consequence of developing the regulated carbon market.

Since early actions are critical for the long-term achievement of AB 32 goals, all motivated emitters, direct and indirect, should be engaged and rewarded as early as possible in the process. ARB is in the most advantageous position to define the voluntary market, how it will work, and determine where it fits in with the compliance market. A voluntary GHG market must be built to complement and accompany the regulated market. Confusion in the voluntary market system makes early actors and volunteers less likely to act in the short-term.

VI. WATER

The western United States is currently in a drought, and climate change is likely to further decrease water supplies in this vast region. As described in the Draft Scoping Plan,

water conservation efforts are expected to reduce per capita water use by 20% by 2020 and therefore reduce GHG emissions by 4.8 $MMTCO_2E$ in 2020. The remaining issues surrounding water and its relationship to energy are then lumped into the energy efficiency measure under the proposed cap-and-trade program.

CCSE understands the reasoning for separating the water sector into two parts, as well as the massive amount of energy that is required to pump, or otherwise get water to areas of need across California. CCSE believes that water may be better placed into a separately regulated category of its own, where it would receive more attention and emphasis in the Draft Scoping Plan.

CCSE's intent here is to simply urge caution when treating water primarily under energy efficiency in AB 32 and expecting large GHG reductions from the combined sector. Water availability impacts our health, safety, security, survival, land use patterns, environment, economy, food supply and much more. Water therefore impacts our lives and decisions in ways well beyond GHG considerations. If water becomes increasingly scarce, and is not available to the point where desalination becomes increasingly necessary to ensure local supplies of drinking water, GHG emissions could increase greatly since desalination is more energy intensive than even current pumping patterns.

Creating a public goods charge for water, requiring new development to offset both water needs and carbon impacts, educating the public more about water availability and conservation measures, and increasing the amount of water-wise landscaping in California would all be steps in the right direction.

VII. LAND USE AND TRANSPORTATION

Land use decisions are fundamental to positively impact carbon emissions trends, and must be evaluated at scales larger than individual cities. Greater consideration needs to be given to smart growth and public transportation in the Draft Scoping Plan. Vehicle Miles Traveled (VMT) increase every time we add freeway lanes, build in outlying areas, and travel further for our jobs, shopping, schools, etc. Walkable communities, higher densities, and improved pubic transportation systems need to be prioritized higher in the Draft Scoping Plan.

CCSE feels that the recommendations contained in the Draft Scoping Plan, seeking to obtain only 2.1 $MMTCO_2E$ in GHG reductions from land use and local governments, are not

aggressive enough. The Draft Scoping Plan must require, guide, and enforce more carbon-appropriate land use policies quickly, in the first phases of implementation. Land use decisions have large scale, long-term, GHG impacts that last for centuries or more. Inadequate land use decisions made now will impact our ability to reduce our GHG emissions past 2050 when emissions are slated to be at 80% below 1990 levels. If land use decisions are not a core focus of decisions today, AB 32 goals are much less likely to be reached in the long term.

VIII. ELECTRICITY AND ENERGY EFFICIENCY

CCSE has been a leader in providing energy efficiency expertise and education since our inception in 1996. We administer several energy efficiency programs which have been successful in reducing GHGs in the commercial and residential sectors through programs such as the San Diego Energy Resource Center, a partnership with SDG&E, and the Tax Exempt Customers (TEC) EE program. Through these programs, we provide energy efficiency audits for municipalities, schools and other nonprofits, and education for the general public, energy service providers, installers and contractors, legislators and regulators on the benefits of energy efficiency. At CCSE, we realize that education and outreach are significant to the success of any program, in addition to the technologies offered and the mandates attached to them. While we agree that codes and standards are important, as is RD&D, a successful plan must include an education and outreach component to GHG reduction.

CCSE is keenly interested in distributed generation (DG) technologies, and have administered the Self-Generation Incentive Program since 2001, and the California Solar Initiative (CSI) since Senate Bill 1 was enacted in 2006. The Draft Scoping Plan notes that a way to achieve greater GHG reduction is to follow the example that is being set by the CSI to combine energy efficiency mandates with solar installation goals. We agree strongly. Furthermore, we believe that by the time the CSI sunsets in 2017, the market for solar will be ripe for aggressive additional renewable and ultra-clean and efficient non-renewable penetration combined with energy efficiency measures. By 2017 major energy users and the public will be well aware that energy efficiency measures, in combination with DG applications, help optimize the overall approach to energy provision at each site.

With respect to the pursuit of efforts to maximize the use of solar water heating systems to reduce natural gas use in California homes and businesses, we note that the Draft Scoping Plan includes “stretch goals”. The “stretch goals” are exactly that; the present solar

water heating market in California will require significant assistance and development to meet the stretch goal of 1.75 million systems installed by 2020. We believe this is achievable, and recommend concerted efforts such as expanded contractor training on both residential and commercial system design and installation, much greater public awareness and outreach, and streamlined uniform permitting processes, in addition to existing and future financial incentives for solar water heating.

IX. PUBLIC OUTREACH AND EDUCATION

Cultural change, by means of behavior modification, is critical to the successful achievement of the Strategic Plan's goals. Agreeing with ARB's assertion that "[t]he backbone of an effective climate action plan is public outreach and education", we suggest that the areas of education, marketing and targeted public outreach be designated for significant resources in parallel to those dedicated to technology development and investment.[2] Citizens and entities, including public and private, local and statewide, rich and poor, must be targeted with appropriate information and measures, as complementary components of a comprehensive approach. Dedicated funding will be critical to this effort.

Audit requirements, such as those proposed in the Draft Scoping Plan of individual sources within major industrial facilities, is integral to public outreach and education.[3] Audits are one of the most concrete interventions that California can do both to harvest savings and ensure education of the marketplace. Much can be learned from the efforts of various past programs to target "hard-to-reach" populations. In the energy efficiency realm, the Measurement & Evaluation (M&E) community as well as regional actors should be queried and mined for lessons on best practices.

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[2] *Climate Change Draft Scoping Plan, June 2008 Discussion Draft,* California Air Resources Board, page 66.

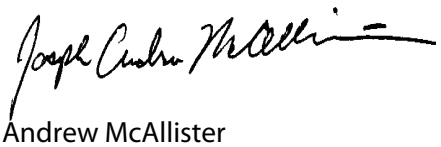
[3] *Climate Change Draft Scoping Plan, June 2008 Discussion Draft,* California Air Resources Board, page 36.

X. CCSE'S INTENTION TO CONTRIBUTE TO SCOPING PLAN PROCESS

As noted previously, CCSE provides expertise, education and rebate program administration in five critical areas: green building, energy efficiency, renewables, transportation and climate change. We look forward to contributing to the process in the areas of our substantive expertise, as the scoping plan proceeds into regulation and implementation, particularly in the technical areas of solar-photovoltaics (PV), solar water heating, energy efficiency and alternative transportation. We especially look forward to participating actively in the development of the Final Scoping Plan.

XI. CONCLUSION

CCSE very much appreciates the opportunity to provide these comments regarding the Climate Change Draft Scoping Plan and Appendices.



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