Department of Water and Power the City of Los Angeles

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H. DAVID NAHAI,
Chief Executive Officer and General Manager

August 1, 2008

Ms. Mary Nichols, Chairman
California Air Resources Board
1001 I Street
Sacramento, California 95812

Dear Chairman Nichols:

Subject: Los Angeles Department of Water and Power Comments to the California Air Resources Board on the AB 32 Climate Change Draft Scoping Plan (Released on June 26, 2008)

The Los Angeles Department of Water and Power (LADWP) appreciates the opportunity to review the Air Resources Board's AB 32 Climate Change Draft Scoping Plan. Climate change is a shared challenge and the LADWP is committed to working in partnership with you to secure real, permanent and quantifiable emission reductions from our operations. AB 32 is California's landmark environmental legislation and I am confident that as challenges arise the Air Resources Board will continue to be thoughtful in finding workable solutions that will keep implementation of this important effort on track.

The LADWP continues to support direct emission reductions with a market mechanism providing a secondary compliance option. The LADWP is opposed to the diversion of any monies through a cap-and-trade program away from the direct investments we need to make in emission reductions from our portfolio. We are hopeful that the Scoping Plan, when finally adopted, will accommodate this viewpoint.

We fully support your efforts and respectfully submit the attached comments for your consideration as you draft the Proposed Scoping Plan that will be adopted

later this year. If you have any questions, please do not hesitate to contact me or LeiLani Johnson Kowal of my staff at (213) 367-3023.

Sincerely,

H. David Nahai
Chief Executive Officer
and General Manager

LJK:rb
Enclosure
c: Mr. Daniel Sperling, Board Member, CARB
Mr. Jerry Hill, Board Member, CARB
Ms. Dorene D'Adamo, Board Member, CARB
Ms. Barbara Riordan, Board Member, CARB
Mr. John R. Balmes, Board Member, CARB
Ms. Lydia H. Kennard, Board Member, CARB
Ms. Sandra Berg, Board Member, CARB
Mr. Ron Roberts, Board Member, CARB
Mr. John G. Telles, Board Member, CARB
Mr. Ronald O. Loveridge, Board Member, CARB
Mr. James Goldstene, Executive Officer, CARB
Mr. Michael Scheible, Deputy Executive Officer, CARB
Mr. Chuck Shulock, Assistant Executive Officer, Office of Climate Change, CARB
Mr. Kevin Kennedy, Office of Climate Change, CARB
Ms. Edie Chang, Office of Climate Change, CARB
Ms. LeiLani Johnson Kowal

Los Angeles Department of Water and Power
Comments to the California Air Resources Board on the
AB 32 Climate Change Draft Scoping Plan (Released on June 26, 2008)

August 1, 2008

The Los Angeles Department of Water and Power (LADWP) appreciates the opportunity to provide comments to the California Air Resources Board (ARB) on the "Climate Change Draft Scoping Plan" released June 26, 2008. Additionally, we are currently reviewing the Appendices that were released last week and may provide supplemental comments by the August 11, 2008 deadline.

I. INTRODUCTION

The LADWP remains committed to partnering with the State to achieve the goals of Assembly Bill 32 (AB 32) to reach 1990 greenhouse gas (GHG) emission levels by 2020. We commend the ARB for the leadership provided on development of the Scoping Plan in a public and democratic process that has allowed various viewpoints to be heard. The challenge of addressing climate change requires leadership that can balance those viewpoints while remaining focused on the end goal – greenhouse gas emission reductions. The ARB has demonstrated this leadership throughout the plan development stage and we look forward to continuing to work with ARB staff to develop the regulations needed to implement the Scoping Plan.

The LADWP appreciates the ARB's recommendations for targeting direct emission reduction measures for approximately 80% of overall emission reductions by 2020, with 20% of emission reductions coming from cap-and-trade. The best approach to fulfilling this commitment for the California electricity sector is through quantifiable and enforceable direct emission reductions, achieved in the most environmentally sustainable manner and without risking system reliability. Cap-and-trade should be used as a secondary method of compliance to the extent that direct emission reductions fall short of attaining the statewide emission reduction goal of 169 million metric tons (MMT). While the LADWP is not opposed to cap-and-trade, we are opposed to diversion of funds away from needed investments in direct GHG emission reductions.

The LADWP supports the State's further development of renewables and implementation of energy efficiency (EE) and demand side management (DSM) programs as the core electricity sector strategies to meet its AB 32 emission reduction goals. The LADWP recognizes the need to do more in response to the enormous challenges and health risks posed by global warming. In response to this commitment to reducing carbon emissions and transitioning to cleaner energy, the Los Angeles Board of Water and Power Commissioners has taken a number of actions to reduce emissions directly from our portfolio, including the adoption of a Renewable Portfolio Standard (RPS) of 20% by 2010 and 35% by 2020, establishment of energy efficiency goals to reduce energy demand by 10% over the next ten years, and adoption of a water supply plan to further reduce our consumption and demand on imported water.

The State must also lead by example, just as the Scoping Plan indicates, and exercise its authority to eliminate the barriers that slow down the expansion of renewables beyond current 20% RPS goal. A statewide renewables goal of 33% renewables by 2020 is possible to achieve, and the State must engage in this effort with alongside electricity sector stakeholders.

II. SUMMARY OF KEY COMMENTS

The LADWP remains committed to AB 32 and achieving meaningful GHG emission reductions and respectfully makes the following points in these comments for your consideration:

- ***Additional Evaluation Criteria:*** *Electric system reliability, rate stability, and investment in California's communities should be added to the evaluation criteria as they are vital considerations for electricity sector stakeholders.*
- ***Public Process:*** *The Scoping Plan public review process is a crucial step in garnering and maintaining public support for AB 32 and we encourage the ARB to release the economic analysis for public review as soon as possible.*
- ***Revenues:*** *The collection, redistribution and use of revenues that are generated through potential cap-and-trade auctions, carbon fees, and public goods charges must be fully evaluated to ensure they serve the purpose of AB 32 in a manner that is both legal and equitable, and do not result in wealth transfers or cost shifting between entities or sectors, or diversion of committed funds from GHG reductions.*
- ***Dual Regulatory Burden:*** *The Scoping Plan must avoid dual or triple regulation of emission sources in a manner that extracts additional revenues from California consumers without providing corresponding emission reduction benefits.*
- ***Federal Action on Climate Change:*** *The Scoping Plan should acknowledge and consider the interface and potential implications of federal regulatory and/or legislative action on climate change.*
- ***Early Voluntary Actions:*** *The Scoping Plan should be revised to include a discussion on voluntary early actions and how those will be acknowledged.*
- ***Cap-and-Trade:*** *Cap-and-trade must fulfill the pre-requisites of AB 32 and be supported by economic and environmental analyses that show lower compliance costs can be achieved while maintaining environmental integrity.*
- ***Proportionality:*** *Each sector must take responsibility for their emissions. Electricity ratepayers must not be disproportionately burdened with the cost of emission reductions that are either attributed to other sectors or fail to be achieved by other sectors.*

III. LADWP'S COMMITMENT TO REDUCE GREENHOUSE GAS EMISSIONS

A. Background

The City of Los Angeles Department of Water and Power is the Nation's largest municipally-owned utility. Established in 1916, the LADWP serves more that 4 million residents, or approximately 10% of California's population, and maintains 1.4 million electric service connections, over 3,600 mils of transmission lines and 680,000 water service connections. LADWP's annual budget in 2007-2008 was $4.2 billion (Power System: $3.1 billion, Water System: $1 billion). LADWP's operations are financed solely through the sales of water and electrical services. Capital funds are partially offset through the sale of bonds and no tax support is received. The LADWP Power System has a maximum electricity generating capacity of 7,400 Megawatts (MW) of electricity and electric sales in 2006-07 totaled 23.9 million Megawatt Hours (MWh). The LADWP Water System has aggressively invested in conservation since the early 1980s making it a leader in water management and conservation. As a result, Los Angeles' water demand is about the same as it was 25 years ago, despite a population increase of 1 million people.

B. Reducing Our Carbon Footprint

The LADWP has been a Charter Member of the California Climate Action Registry since September 2002, and has reported and certified its 2000 through 2006 annual entity-wide greenhouse gas emissions inventories with the Registry, more years than of any other California electric utility. Since 1998, with the divestiture of Colstrip and Deseret coal contracts and shutdown of Mohave Generating Station at the end of 2005, the LADWP has taken steps to move away from dependence on coal resources, including discontinuation of its involvement in the development of Unit 3 at Intermountain Generating Station.

LADWP repowered its Valley and Haynes Generating Stations with two combined-cycle generating units, reducing C02 emissions from these units by 30% to 40%. Six natural gas combustion turbine peaker units totaling 280 MW have been installed in-basin, providing quick-start peaking that also helps with integration of renewables into our system. In January 2008, LADWP broke ground on the 8,000-acre Pine Tree Wind Farm that will deliver 120 megawatts of wind power to Los Angeles when completed in 2009, enough energy to power 56,000 homes. LADWP has plans to develop the Pine Canyon Wind Project on 12,000 acres of adjacent property that will ultimately provide an additional 150 MW of wind generation.

With the passage of SB 1368 and AB 32, the LADWP calibrated its efforts to ensure funding strategies are in place to reduce GHG emissions in advance of 2012. The following table demonstrates the LADWP's downward emissions trajectory from 1990 to 2006 (adjusted from CCAR data to be consistent with AB 32).

Table 1: Historical LADWP CO2 Emissions (Fuel-Based, Recalculated)

Year	Total CO2 Emissions from Owned & Purchased Generation (metric tons)	Total CO2 Emissions from Owned & Purchased Generation minus Wholesale Sales (metric tons)	Total Owned & Purchased Generation (MWh)	LADWP System Average CO2 Emission Factor (lbs CO2/MWh)
1990	17,790,561	17,565,184	25,481,532	1,539
2000	18,090,473	16,267,558	28,806,750	1,384
2001	17,940,556	16,143,538	28,032,375	1,411
2002	16,852,489	16,072,241	26,808,789	1,386
2003	17,137,610	16,511,934	27,337,694	1,382
2004	17,464,148	16,445,781	28,138,391	1,368
2005	16,790,153	15,676,493	28,301,700	1,308
2006	16,786,422	15,804,514	29,029,883	1,275

C. Undergoing a Utility-Wide Transformation

The LADWP is undergoing a utility-wide transformation in how we supply, transmit, deliver and use electricity and water. In 2007, the City of Los Angeles unveiled its "Green LA Plan"[1], an aggressive plan for reducing the City's overall greenhouse gas (GHG) emission levels to 35% below 1990 levels by 2030, of which the LADWP plays a lead role through its renewables, energy efficiency/demand side management programs, tiered customer rates, green building/LEED incentives that complement the City's Green Building Ordinance, and water management programs.

Consistent with the CARB policy on early action, the LADWP is taking immediate action now, not in 2012, to reduce its emissions. Accordingly, the LADWP has established an aggressive goal of developing and owning new renewable generation to meet its 20% by 2010 mandate and recently the Los Angeles Board of Water and Power Commissioners formally adopted the 35% by 2020 Renewables Portfolio Standard (RPS) mandate.

The LADWP has already begun working aggressively to meet its goals. Since 2005, the LADWP has nearly tripled its portfolio of renewable energy. The LADWP increased its share of renewables from less than 3% in 2005 to approximately 8% delivered today (with a total of 13% under contract), and has more energy projects currently under development to meet the 20% by 2010 mandate. The LADWP has also significantly increased funding for energy and water efficiency programs, green fleet vehicles, and

[1] A copy of the City of Los Angeles "Green LA Plan An Action Plan to Lead the Nation In Fighting Global Warming" can be viewed at: http://www.ladwp.com/ladwp/cms/ladwp010314.pdf.

upgrades to existing natural gas generation facilities as a significant component of reducing its GHG emissions, which provides additional community and environmental co-benefits. The LADWP established a LEED Building program to provide incentives for buildings that meet higher environmental standards, complementing the City of Los Angeles' recently adopted Green Building Ordinance.[2]

While dry seasons and the toll of climate change continue to threaten Los Angeles' future water supply, population growth is expected to drive up water demand in Los Angeles by 15 percent by 2030. In response, the LADWP and the Mayor's Office unveiled the "Securing LA's Water Future" plan[3] which calls for an aggressive, multi-pronged approach to meet this increase in demand, combining short-term steps to conserve water with long-term investment in water-efficient technology, water recycling, and improvements in the groundwater supply. The premise of this Water Supply Plan is that the City will meet all new demand for water – about 100,000 acre-feet per year (AFY) – through a combination of water conservation and water recycling. In total, LADWP will conserve or recycle 32.6 billion gallons of water – enough to supply water to 200,000 homes for one year. By the year 2019, half of all new demand will be filled by a six-fold increase in recycled water supplies and by 2030 the other half will be met through ramped-up conservation efforts.

IV. COMMENTS ON SCOPING PLAN

The LADWP respectfully submits the following comments for ARB's consideration in preparation for the Proposed Scoping Plan that is scheduled for adoption by the ARB before the end of 2008.

A. Additional Evaluation Criteria: Electric system reliability, rate stability, and investment in California's communities should be added to the evaluation criteria as they are vital considerations for electricity sector stakeholders.

The western electric grid is an interconnected system that is at the start of an unprecedented transformation. Integration of increasing amounts of intermittent renewable energy sources, construction of new transmission systems to connect those resources to load centers, reduced reliance on high carbon baseload resources, high natural gas price forecasts, growing regional energy demands, and an aging utility workforce are placing unprecedented pressures on electric utilities that must balance the need to provide reliable electric service to their customers and remain committed to

[2] Information regarding the Los Angeles Department of Water and Power LEED New Construction Incentive Program can be viewed at: http://www.ladwp.com/ladwp/cms/ladwp008821.jsp. The City of Los Angeles Green Building Program Ordinance (City of Los Angeles Ordinance No. 179820) was adopted April 22, 2008 and can be viewed at: http://cityplanning.lacity.org/Code_Studies/GreenLA/greenbuildingordinance.pdf.

[3] Information regarding the Los Angeles Department of Water and Power Water Supply Plan can be viewed at: http://www.ladwp.com/ladwp/cms/ladwp010588.jsp.

environmental leadership. These objectives must remain central to any policy initiatives like AB 32 or the Western Climate Initiative (WCI).

1. Preserving electric system reliablity

The LADWP recommends that the Scoping Plan include consideration of grid reliability in the evaluation criteria. The AB 32 program should be designed to complement and not impede wholesale electric market stability. In the near term, the electricity sector, and in particular the public and private utilities will be faced with new and renewed electric market programs as the AB 32 program begins, such as the 33% mandate for renewable energy purchases, and a potential revival of direct retail access. Overall resource adequacy, wholesale market stability and electric system reliability should be given additional consideration and be reflected clearly in the design criteria in the Scoping Plan, particularly if the electricity sector is expected to deliver a significant portion of the emission reductions as outlined in the Scoping Plan.

2. Protecting against market manipulation and gaming

The Draft Scoping Plan includes evaluation criteria for providing leadership and influencing other governments [in cap-and-trade design]. This criterion should include leadership in designing a carbon market – including one that plays a subordinate role to direct emission reduction measures – that ensures integrity by minimizing the potential for gaming and market manipulation. Besides the potential for windfall profits, there are other economic risks associated with establishing a market-based system. Proper controls against manipulation must be built into the design, including protecting against the exercise of market power, artificial and unpredictable price inflators, fraudulent transactions and credit hoarding. The electric sector has the benefit of experience with other market-based emission compliance programs and with wholesale electric market deregulation. The lessons learned from these experiences should be reflected in the Scoping Plan criteria for developing preliminary recommendations.

3. Investing in California

AB 32 states it is the intent of the Legislature that the ARB design emissions reduction measures in a manner that "minimizes costs and maximizes benefits for California's economy, ***improves and modernizes California's energy infrastructure*** and ***maintains electric system reliability***, maximizes additional environmental and economic co-benefits for California, and complements the state's efforts to improve air quality."[4] [Emphasis added]. The Legislature specifically included this language in the bill, recognizing that electricity sector investment should be directed toward real environmental benefits that also protect and develop our energy infrastructure in a manner that protects against customer rate shocks. These principles must also be reflected in ARB's evaluation criteria to develop the recommended strategies (Section III of the Draft Scoping Plan).

[4] Health and Safety Code, Section 38501(h).

The Scoping Plan criteria do not specifically reflect the clear AB 32 principle of investing in California's energy infrastructure and it should be added. The AB 32 program should provide additional incentives to those entities who invest in California's energy infrastructure, including ***new*** renewables, low and/or zero emission electric generating facilities and transmission infrastructure designed to support these new cleaner resources. The benefits of developing California energy infrastructure are multiple: we will continue to be an economic leader in renewable energy, we can create more electric industry jobs in California, and develop long-term sustainable low carbon and zero carbon resources within California dedicated to serving our region.

Finally, AB 32 specifically requires the greenhouse gas emission reduction program to "direct public and private investments toward the most disadvantaged communities in California and provide [opportunities] for …***community institutions***…"[5] The Draft Scoping Plan criteria must include the broader principle stated above. To the extent feasible, the ARB should look for opportunities to promote investments by electric utilities in their communities, such as reduced electric rates for port interconnection for ships to transition from bunker fuel to electricity, cooperative opportunities to shift vehicle fleets to alternative fuels and cooperative efforts to streamline development and redevelopment using LEED standards.

B. Public Process: The Scoping Plan public review process is a crucial step in garnering and maintaining public support for AB 32 and we encourage the ARB to release the economic analysis for public review as soon as possible.

The LADWP urges the ARB to release the results of the multi-sector economic analysis as soon as possible in order to allow adequate time for review prior to adoption of the Scoping Plan by the end of 2008. The results of the economic analysis are central to supporting the recommendations made in the Scoping Plan.

Additionally, the proposed Final Decision for the electricity sector recommendations from the California Public Utilities Commission and California Energy Commission (Joint Commissions) has not been released for comment and adoption has been pushed back to early September 2008. With the scheduled release of the revised "Climate Change Proposed Scoping Plan" by October 3, 2008, the schedule leaves stakeholders with less than adequate time to review, analyze and evaluate the plan in its entirety, let alone provide regulatory staff with time to review stakeholder comments and make necessary revisions.

[5] Health and Safety Code, Section 38565.

C. Revenues: The collection, redistribution and use of revenues that are generated through potential cap-and-trade auctions, carbon fees, and public goods charges must be fully evaluated to ensure they serve the purpose of AB 32 in a manner that is both legal and equitable, and do not result in wealth transfers or cost shifting between entities or sectors, or diversion of committed funds from GHG reductions.

The customers of the LADWP and other southern California publicly owned utilities will already bear the significant cost of the direct emission reductions associated with their portfolio shift to low carbon resources and implementation of energy efficiency programs. The Joint Commissions appropriately recognized in their final Interim Decision on Point of Regulation (revised from the draft Proposed Interim Decision) that "[I]t is not our intent to treat any market participants unfairly based on their past investments or decisions made prior to the passage of AB 32." D.08-03-018, at 8.

The Joint CPUC/CEC Staff Paper on Options for Allocation of GHG Allowances in the Electricity Sector correctly prioritizes 1) impacts to retail electricity consumers (i.e. consumer costs) and 2) equity among customers of retail providers (i.e. transfers of wealth among retail provider customers) as key evaluation criteria for evaluating impacts of different allowance allocation methodologies. "Consumer cost consists of two elements: the true social cost of mitigation (reductions in GHG emissions) that is borne by consumers and transfers of wealth from consumers to producers (or deliverers)." Staff Paper at 10.

Regarding the second evaluation criterion, equity among customers of retail providers, "any recommended allocation method should not result in large redistributions of funds from one set of retail provider consumers to another as a result of actions taken prior to AB 32. While retail providers who are also deliverers should be encouraged to achieve positive environmental performance, the allocation method should not result in a redistribution of wealth among the customers of retail providers for reasons unrelated to mitigating climate change, such as access to or dependence on resources largely determined by geographic or historical circumstances." Staff Paper at 11.

The LADWP appreciates the Joint Commissions' and the staff's acknowledgement of this key concern and for the incorporation of evaluation criteria to prevent the dual penalty of having to pay for investments in direct emission reductions and then having to buy allowances from other utilities on the basis of their legacy investments that have bear no relationship to the emission reductions needed to meet AB 32 goals. The Scoping Plan must also incorporate these important concepts in the discussion of cap-and-trade to ensure that future discussions of allowance distribution are guided by equity and fairness between capped sectors and individual capped entities.

D. Dual Regulatory Burden: The Scoping Plan must avoid dual or triple regulation of emission sources in a manner that extracts additional revenues from California consumers without providing corresponding emission reduction benefits.

LADWP is growing concerned about the overlap of compliance obligations as outlined in the Draft Scoping Plan that either directly or indirectly target the same emission sources. Measures that impose fees and charges that duplicate existing funding and investment efforts intended to serve the same purpose results in a dual or even triple penalty on consumers.

1. Mandated emission reduction measures

First, the Draft Scoping Plan includes energy efficiency and 33% renewables statewide as the key measures for reducing emissions from the electricity sector. As mentioned earlier, LADWP is supportive of measures to increase renewable energy and energy efficiency throughout the state. This is consistent with LADWP's strategy to pursue a 35% RPS and aggressive energy efficiency programs among other strategies that focus our utility dollars on a portfolio approach to reducing emissions entity-wide. This strategy essentially displaces emissions associated with other high GHG sources within our portfolio, with the objective that our overall emissions and carbon intensity will be reduced while preserving grid reliability at the least cost to our customers. Regulated entities will continue to make significant financial investments in building new generation resources and ensuring penetration of energy efficiency programs to meet these mandates.

2. Cap-and-trade and auctions

Second, the Draft Scoping Plan includes a recommendation to pursue cap-and-trade for four capped sectors, beginning with electricity and industry in 2012 and possibly including transportation (i.e. transportation fuels) and commercial/residential (i.e. natural gas) sectors by 2020. The plan proposes to achieve a 35 MMT reduction in emissions by 2020 through a California-only market that is linked to other western states through the Western Climate Initiative. Compliance with a cap-and-trade program would require the surrendering of emission allowances equivalent to emissions for a given compliance period. With auctioning, an electricity sector entity would be required to buy at auction the emission allowances needed to cover all emissions associated with its generation or purchased energy. Revenues generated from cap-and-trade auctions would be redistributed in ways that are unknown at this time. In LADWP's view and as previously stated, entities must be allowed to make necessary investments in direct GHG reductions without revenues being diverted to State coffers or other entities via an auction of allowances. This will only increase compliance costs and will hinder the LADWP's ability to transform its generation portfolio to cleaner sources.

3. Western Climate Initiative potential for dual emission reduction burden for electricity imports

The LADWP requests that the Scoping Plan be revised to clarify the relationship and treatment of electricity imports from other states that are also participants in the Western Climate Initiative where such sources would be subject to a regional cap-and-trade program and regulated directly by the respective state from which they originate. AB 32 requires the ARB to account for GHG emissions from all electricity consumed in the state, including electricity imported from outside the state (Health and Safety Code, Section 38530). Electricity imports are embedded in the Scoping Plan by way of how the 1990 greenhouse gas inventory and 2020 emissions forecast were established. It is also embedded in the cap-and-trade measure as a capped emission source within the electricity sector. LADWP's renewable energy and energy efficiency goals are based on a portfolio approach to reducing emissions overall, which offset remaining emissions from our imported resources, like Intermountain and Navajo Generating Stations.
In the WCI proceedings, it is currently recommended that the point of regulation for a WCI program be the first-jurisdictional deliverer, or the owner of the electricity when it is first delivered to the grid of a WCI jurisdictional partner state. For facilities, like Intermountain, that are located in member states, they would be regulated by the respective state authority and subject to that state's emission reduction goals and declining emission cap.

LADWP understands that discussions are taking place between WCI member states regarding how to apportion emission allowance budgets between the member states as part of a regional cap-and-trade program. We believe that even if this issue of apportionment were resolved and it was agreed that emissions from specified imported electricity were not double-counted – once in a WCI state like Utah as a direct emission source and second in California based on electricity consumption – it does not adequately address the remaining concerns that AB 32 emission reduction measures are designed to account for emissions related to electricity imports, whether directly (i.e. coal emission reduction standard or carbon fees) or indirectly (i.e. renewable energy and energy efficiency goals). If the WCI cap-and-trade program does come to fruition, it is imperative that LADWP's emission reduction strategies be attributed to its entire portfolio and not result in electricity imports being subject to a declining emission cap in other WCI states and also subject to implementation of AB 32 reduction obligations.

4. Coal Emission Reduction Standard (i.e. additional coal divestiture)

The Scoping Plan indicates that ARB is working with CEC and CPUC to evaluate approaches to reduce the carbon dioxide associated with current coal-based electricity sales, including requiring electricity service providers to divest or otherwise mitigate portions of existing investments in coal-based generation. This measure appears to expand upon the GHG Emission Performance Standard established under SB 1368 by extracting additional emission reductions from baseload resources beyond those that stop deliveries to California by 2020. The Appendices provide additional details of how emission reductions could be achieved through this measure including: foregoing a portion of generation available from current coal contracts, cancelling or renegotiating

current contracts, implementing carbon capture and sequestration, and or acquiring offsets, to the extent allowed under other state emission regulations. Appendices at C-78 and C-79. (Please see additional discussion about this measure below in Section I below.)

5. Carbon fees

Third, the Draft Scoping Plan includes a detailed description of carbon fees that are under consideration to control emissions, yet it is not clear whether such fees would be in addition to mandated measures and cap-and-trade or in lieu of either strategy. In the absence of this clarification, it appears that ARB is considering such fees in addition to implementation of mandated measures and cap-and-trade. The Scoping Plan states that "fees could be widely applied to most emission sources, likely generating billions of dollars per year in revenue that could be directed toward various purposes…Every $10 per ton, if placed on all emissions of GHGs in California, would result in more than $4 billion per year through the life of the program." Draft Plan at 41. Later the Scoping Plan states that "Emission fees for California-bound electricity that is generated by power plants outside the state would need to be assessed on firms that deliver electricity to the California power grid…carbon fees would need to increase over time. The fees would be set high enough to drive investment and fuel use choices toward more efficient and lower carbon options." Draft Plan at 42-43.

6. Water sector energy-related public goods charge

The Scoping Plan proposes to implement a Public Goods Charge on water use to raise $100 to $500 million in funds for reducing GHG emissions resulting from capturing, storing, conveying, treating and disposing of water (see pages 28-29 of Draft Scoping Plan and page C-87 of Appendices). The measure does not assign any specific emission reduction requirements to this particular measure and therefore appears to be nothing more than a mechanism for generating revenues for the State to redistribute among local, regional and statewide planning efforts. LADWP supports in general the water sector control measures proposed in the Scoping Plan and is funding and implementing similar measures specific to LADWP's water operations, including water conservation and outreach strategies, water recycling, stormwater capture, cleanup of groundwater basin, and expanding groundwater storage. The Scoping Plan must take into consider early actions, like water conservation, that have kept consumption levels low.

The water fee would impose an additional $10 - $50 per connection per year or $0.83 to $4.17 per month, which would be "a flat rate per connection, i.e. not based on the quantity of water use and therefore not likely to directly reduce water use or the associated emissions." The LADWP opposes this charge as it is duplicative of funding sources that are already established by several water agencies to fund water efficiency, water recycling, and pumping and treatment efficiency improvements within their service territories. Some agencies have imposed similar public goods charges and others have established funding through their water rate structures. Because this proposed flat fee does not recognize early water conservation efforts, it discriminates against urban water

users that consume a fraction of the water used for agriculture. For example, LADWP has 680,000 water connections. Urban water users must not end up subsidizing agricultural water users simply because agriculture has far fewer water connections, and therefore fewer water fees.

E. Federal Action on Climate Change: The Scoping Plan should acknowledge the interface and potential implications of federal regulatory and/or legislative action on climate change.

The Draft Scoping Plan recognizes that addressing climate change is a shared challenge and responsibility. LADWP agrees with this position and believes that an approach that engages government at all levels is necessary to reduce GHG emissions. It is widely anticipated that action to address climate change will be taken at the national level under a new Administration beginning in 2009, whether it is regulatory under the U.S. Environmental Protection Agency (EPA) or through legislation passed by Congress. The Scoping Plan should include a recognition that the arena in which climate change is currently being addressed and debated will change over the coming years, including the possible establishment of GHG emission standards before AB 32 implementation begins in 2012.

In April 2007, the Supreme Court ruled in *Massachusetts v. EPA* that CO2 and other greenhouse gases (GHGs) are "air pollutants" under the Clean Air Act and that EPA has authority to regulate GHGs from new motor vehicles to address global climate change if EPA finds that GHGs from new motor vehicles "cause or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare" (standard in CAA section 202(a)(1). In response to that court ruling, on July 11, 2008, EPA released its Advance Notice of Proposed Rulemaking (ANPR) on options for regulating GHG emissions, in which the agency requests comment on a variety of options for regulating GHG emissions under the Clean Air Act (CAA). The ANPR does not make a finding that GHG emissions endanger public health and welfare under the Clean Air Act but discusses the issues that the agency would need to resolve if it were to develop standards to govern GHG emissions.

EPA development of GHG standards could have significant impacts for stationary sources under other sections of the CAA, including provisions governing listing of criteria pollutants, establishment of National Ambient Air Quality Standards, New Source Review, New Source Performance Standards, and hazardous air pollutants. The LADWP recommends that the Scoping Plan include a discussion and recognition of this interface and potential overlap between local, state and federal air quality regulations as they pertain to all types of air emissions, not just GHG emissions.

F. Early Voluntary Actions: The Scoping Plan should be revised to include a discussion on voluntary early actions and how those will be acknowledged.

AB 32 directs the ARB to "[e]nsure that entities that have voluntarily reduced their greenhouse gas emissions prior to the implementation of this section receive appropriate credit for early voluntary reductions" (Health and Safety Code, Section

38562(b)(3)). However, the Draft Scoping Plan and Appendices do not appear to address how early voluntary reductions will be recognized and treated as part of the overall AB 32 program.

On February 28, 2008, the ARB Board adopted a "Policy Statement on Voluntary Early Actions to Reduce Greenhouse Gas Emissions" which states "…ARB will develop the AB 32 Scoping Plan and implement regulations to 1) Encourage and reward voluntary early reductions of greenhouse gas emissions, 2) Ensure the recognition of actions taken to reduce greenhouse gas emissions after the enactment of AB32, and 3) Ensure that any credits provided for voluntary early actions are based on emission reductions that are real, permanent, additional, quantifiable, verifiable, and enforceable."

LADWP believes the Scoping Plan, which is the roadmap for the AB 32 program, should spell out how early voluntary reductions will be recognized and treated in the AB 32 program. Regulatory certainty is critical to encourage early action to reduce emissions, which is one of the objectives of AB 32.

Prior to the passage of AB 32, the California Legislature adopted SB 1771 and SB 527 to create the California Climate Action Registry (California Registry) to register voluntary reductions of greenhouse gas emissions from California sources. SB 527 included the following declarations:

> "Mandatory greenhouse gas emissions reductions may be imposed on California sources at some future point, and in view of this, the state has a responsibility to use its best efforts to ensure that organizations that voluntarily inventory their emissions receive appropriate consideration for changes in emissions quantities made prior to the implementation of any mandatory programs." (SB 527 section 42801(b))
>
> "The state hereby commits to use its best efforts to ensure that organizations that establish greenhouse gas emissions baselines and register emissions results that are certified in accordance with this chapter receive appropriate consideration under any future international, federal, or state regulatory scheme relating to greenhouse gas emissions..." (SB 527 section 42801(e))

The intent of the Legislature when it passed SB 527 was to reward entities that voluntarily participated in the California Registry. LADWP recommends that the Scoping Plan be revised to specifically include a section discussing how "appropriate consideration" for early voluntary reductions in entity-level emissions achieved by participants in the California Registry will be handled under California's AB 32 program.

G. Cap-and-Trade: Cap-and-trade must fulfill the pre-requisites of AB 32 and be supported by economic and environmental analyses that show lower compliance costs can be achieved while maintaining environmental integrity.

It has become evidently clear that a California-only cap-and-trade program is not viable, and that a cap-and-trade program must be developed in the context of a broader regional and/or national effort. The economic modeling conducted by E3 provides a good starting point for evaluating cap-and-trade policy options, and the LADWP appreciates the ARB's recognition that designing a successful cap-and-trade program will require additional time to address critical issues that have already emerged, such as the distributional impacts of different allowance allocation methodologies and overall costs to consumers. This is important not just within the context of the California electricity sector, but also a multi-sector AB 32 program and the WCI regional cap-and-trade program.

The Scoping Plan must focus on how specifically to address the barriers that prevent the electricity sector from fully reaching its emission reduction potential, and cap-and-trade should be pursued as a secondary compliance option. AB 32 establishes specific requirements that must be met before market-based compliance mechanisms like cap-and-trade may be adopted. These requirements include the following:

- Be found to be necessary and desirable to meet AB 32 goals (Health and Safety Code, Section 38561(b))
- Be verifiable and enforceable by the ARB (Health and Safety Code, Section 38562(d)(1)
- Achieve emission reductions that are "in addition to other GHG reductions" (Health and Safety Code, Section 38562(d)(2))
- Achieve emission reductions that take place over the same time period as would otherwise occur from direct emission reductions (Health and Safety Code, Section 38562(d)(3))
- Consider the localized impacts in communities that are already adversely impacts by air pollution (Health and Safety Code, Section 38570(b)(1))
- Design any market-based compliance mechanism to prevent any increase in the emissions of toxic air contaminants or criteria air pollutants (Health and Safety Code, Section (Health and Safety Code, Section 38570(b)(2))
- Maximize additional environmental and economic benefits for California (Health and Safety Code, Section 38570(b)(3))

The Scoping Plan should address these considerations in the coming months during the rulemaking process. The Scoping Plan is not required to be updated for five years, well into the implementation of AB 32. As such, the LADWP recommends that the Draft

Scoping Plan be revised to reflect clearly the prerequisite considerations listed above as part of the rulemaking process.

1. The electricity sector modeling does not support cap-and-trade

While the LADWP can neither endorse nor oppose the CPUC/E3 economic modeling results, the E3 modeling states that utility rates will increase, not decrease, under cap-and-trade, irrespective of allocation methodology with no environmental benefit over existing policies and programs (i.e. reference case of 20% RPS and existing energy efficiency goals). Listed below is a summary table of key scenarios in the E3 model that show overall impacts to California consumers of implementing a California-only cap-and-trade program for the electricity sector.

Table 2: Summary of Modeling Scenarios: Rate Impacts, Emissions, and Costs

Case #	Scenario	Rate Change Over Reference Case (CA average)	2020 CO2 Emissions Level (MMT)	Cumulative Cost Over Reference Case ($ Billion) (2012-2020)	Cumulative CA CO2 Reductions Over Reference (MMT)
1	Reference Case (20% RPS and EE)	0	108.2	$0	0
2	33% RPS/high goals EE	13.80%	78.6	($6.90)	(177.7)
Cap & Trade Scenarios (assuming $30/ton for emission allowances)					
6	Scenario 1: Pure historical allocation; $30/ton; ref. EE; 20% RPS	5.9	108.2	$22	0
7	Scenario 2: Pure output allocation; $30/ton; ref. EE; 20% RPS	5.4	108.2	$19.9	0
8	Scenario 3: Pure auction w/o ARR, $30/'ton; ref. EE; 2O% RPS	8.3	108.2	$34.1	0
9	Scenario 4: Pure auction w/ ARR on 50/50 LSE sales & historical emisssions; $30/ton; ref. EE; 20% RPS	1.5	108.2	$4.8	0
10	Scenario 5: Staff preferred 100% allocation w/ transition to 100% output-based; $30/ton; ref. EE; 20% RPS	6	108.2	$22.5	0
11	Scenario 6: Staff preferred Output Allocation & ARR on 50% emissions/50% output sales	1.5	108.2	$11	0
12	Scenario 7: Staff preferred auction with ARR transition from emissions-based to 50/50 mix of emissions and output sales	1.5	108.2	$4.8	0
13	Scenario 2a: Pure output allocation excluding non-fossil generators, $30/ton, ref. EE, 20% RPS	6	108.2	$22.6	0
23	$30/ton; 100% auction w/ 100% ARR; BAU other	1.5	108.2	$4.8	0
24	$60/ton; 100% auction w/ 100% ARR; BAU other plus more RE	3.1	107.3	$9.8	(7.5)
25	$90/ton; 100% auction w/ 100% ARR; BAU other plus more RE	4.7	106.4	$15.2	(14.7)
26	$120/ton; 100% auction w/ 100% ARR; BAU other plus more RE	7.2	96.2	$25.2	(100.7)
27	$160/ton; 100% auction w/ 100% ARR; BAU other plus more RE	14.1	73.9	$53	(290.7)
30	Scenario 2MCP: Pure output allocation; $30/ton; ref. EE; 20% RPS	1	108.2	$3.4	0
31	Scenario 2aMCP: Pure output allocation excluding non-fossil generators, $30/ton, ref. EE; 20% RPS	0.1	108.2	$0.5	0
32	Scenario 5MCP: Staff preferred 100% allocation with transition to $100 output-based; $30/ton; ref. EE; 20% RPS	0.1	108.2	$3.8	0

Legend: ARR = auction revenue recycling, BAU = business as usual, EE = energy efficiency, RPS = renewable portfolio standard, RE = renewable energy.

The rate increase, depending on allocation methodology, ranges from 1.5% to 8.3% if allowances cost $30/ton. Moreover when utility costs are combined with consumer costs, the E3 model shows that cumulative cost (2012 to 2020) of a California-only cap-and-trade program for the electricity sector ranges from $4.8 billion to $34 billion with no additional emission benefits beyond what is already accomplished with existing policies. The CPUC/CEC modeling results show that the State will pay approximately $700 million per year to clean generators due solely to the higher market clearing price for power when the cost of CO2 is embedded in the cost of wholesale electricity. These results alone refute the claim that a cap-and-trade program would be more cost effective than additional direct policies beyond 20% RPS and EE.

According to E3's modeling, if the State adopted a 33% RPS and an aggressive energy efficiency program, then the cumulative cost from 2012 to 2020, above and beyond the reference case, would be $6.9 billion less than the reference case with a greater reduction in emissions down to 78.6 MMT from the reference case of 108.2 MMT. That will result in a cumulative C02 reduction over the reference case of 177 MMT. If the E3 model is to be taken for face value, then it means that the State will actually save $6.9 billion for California overall, if it implements a 33% RPS and adopts aggressive EE programs.

2. Fuel prices dictate future cost of fossil generation and renewables

Additionally, the E3 model is using fuel costs with a gas burner tip at $7.85 and coal at $1.01 in 2020. Today, the LADWP is already paying fuel prices significantly higher at $10.87 for gas and $1.54 for coal. As such, it is very likely that the E3 model is significantly underestimating the future cost of fossil generation. Assuming more realistic prices of $12 for natural gas and $1.90 for coal in 2020, fossil generation costs could run to $46 billion for the reference case (20% RPS and EE) thereby making the 33% RPS and aggressive energy efficiency very cost effective on their own merit, even with a conservative allowance price of $30/ton.

3. Multi-sector modeling not available to justify cap-and-trade

Until the economic analysis of the multi-sector program is available for the Scoping Plan, it is not known what level of emission reductions may come from covered sources in the other sectors, and it is unclear that other sectors have any more viable solutions than the electricity sector. Based on the preliminary recommendations in the Draft Scoping Plan, it appears that they may have even greater challenges to address such as leakage of operations and jobs to other states and/or overseas. While offsets are desirable among regulated entities, they have also come under tremendous scrutiny, particularly those in developing countries, as it is becoming more difficult to pass the "additionality" test.[6]

[6] A working paper from two senior Stanford University academics examined more than 3,000 projects applying for or already granted up to $10bn of credits from the UN's CDM funds over the next four years, and concluded that the majority should not be considered for assistance. "They would be built anyway," says David Victor, law professor at the Californian university. "It looks like between one and two thirds of all the total CDM offsets do not represent actual emission cuts." To view the

The ability of regulated entities to manage risk may be a reason to support a broad economy-wide federal cap-and-trade program. However, a California-only program for the electricity sector is one that increases risks for electricity consumers if the market is illiquid. California's direct experience with AB 1890 demonstrate the frailties of developing a market that is too small and therefore at risk of market manipulation and gaming as well as price volatility. The LADWP, as a fully resourced electric retail provider, recognizes that it is in the best position to make decisions regarding its generation portfolio to reduce emissions while taking into consideration grid reliability and costs to customers. We must be allowed to make emission reduction investments directly without revenues being diverted to State coffers or other entities via an auction of allowances.

H. Proportionality: Each sector must take responsibility for their emissions. Electricity ratepayers must not be disproportionately burdened with the costs of emission reductions that are either attributed to other sectors or fail to be achieved by other sectors.

The Draft Scoping Plan lists as one of the evaluation criteria "Assure that emissions reductions required of each sector are equitable." The plan states that "the cap-and-trade program is expected to encourage the lowest-cost emission reductions to be implemented – some sectors may not contribute any emission reductions, but the reductions that are achieved would likely be the cheapest ones. The regulatory components of the preliminary recommendation primarily address the Transportation and Energy Sectors…" Draft Scoping Plan at 50-51. Careful consideration must be given in the Scoping Plan to the ability of the electricity sector to assume greater emissions reductions obligations than its proportional share of emissions.

1. Greater reliance on electricity sector reductions

The LADWP appreciates the ARB's recommendations for targeting direct emission reduction measures for approximately 80% of overall emission reductions by 2020, with 20% of emission reductions coming from cap-and-trade. However, we remain concerned that the electricity sector may be targeted for greater responsibility than its fair share for emission reductions when taking into account contributions from mandated measures, participation in a cap-and-trade program, and additional measures under evaluation. First, the total emissions from electricity (2002-04 average) accounted for 23% of statewide emissions, yet 27% of reductions are expected to come from electricity sector measures and that does not include the electricity sector's share of the 35 MMT reductions expected from cap-and-trade.

When electricity and energy-related water sector emission measures are combined, they account for 30% of recommended statewide emission reductions prior to

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working paper "A Realistic Policy on International Offset" please go to: http://iis-db.stanford.edu/pubs/22157/WP74_final_final.pdf.

accounting for the electricity sector's share of total cap-and-trade reductions. While we agree that there are GHG co-benefits associated with reduced water consumption that results in less electricity used to convey water, it appears that the energy-related water sector emission measures are simply additional reductions indirectly imposed on the electricity sector emissions that will already be quantified and for which emission reduction obligations will be assigned. In other words, for this particular instance, electricity sector emissions will be regulated mid-stream at the retail provider/first-deliver and then again downstream by the end-user, the water consumer. Careful thought must be given to the water sector measures to ensure they are equitably implemented across all types of water use, particularly urban and agricultural use.

Table 2: GHG Emission Contributions and Reduction Responsibility by Sector

Sector	2020 Forecasted Emissions Business-as-Usual (MMT)	Projected 2020 Sector Emissions After Mandated Measures (MMT)	Projected Sector Emission Reductions from Mandated Measures (MMT)	Projected Emission Reductions from Cap & Trade (MMT)	Emissions (2002-04 avg.) By Sector (%)	Sector Emission Reductions from Mandated Measures (%)	Additional Measures Being Considered (MMT)
Transportation	225.4	163.2	62.2	35.15	38%	36.8%	2-8
Electricity	139.2	93.8	45.4		23%	26.9%	Up to 14
Commercial/Residential	46.7	42.4	4.3		9%	2.5%	0
Industry	100.5	100.5	0		20%	0%	4-16
Cement (as subset of Industry)	-	-	-				4-7
Total Capped Sectors	511.8	399.9	111.9	35.15	90%	66.20%	10 - 45
High GWP	46.9	30.75	16.15	0	3%	9.5%	-
Agriculture	29.8	29.8	1***		6%	0%	-
Recycling & Waste	7.7	6.7	1		1%	0.1%	-
Forests	0.2	-	5		-	3%	-
Water	*	-	4.8		-	3%	-
State Government	-	-	1-2		-	1%	-
Land Use and Local Govt.	-	-	-		-	0.0%	Up to 2
Total Uncapped Sectors	84.6	67.25	27.95	0	10%	16.60%	Up to 2
Total All Sectors	596.4	467.15	139.85**	35.15	100%	82.8%**	10 - 47
Electricity and Water Combined	**139.2**	**89**	**50.2**	**?**	**23%**	**30%**	**Up to 14**

* Water emissions are included in electricity sector category.
** Sum of projected reductions from mandated measures (175 MMT) is greater than level required to achieve statewide goal of 169 MMT when combined with 35.15 MMT reduction from cap-and-trade.
***Emission reductions from methane capture at large dairies is not required, and therefore not counted in the total.

2. Shortfall from other sectors must not fall to electricity sector

It is very likely the burden created by other sectors falling short of achieving their emission reduction targets will place additional strains on the electricity sector, thereby compromising reliability and rates. For example, the Pavley I and II light-duty vehicle

standards account for approximately half of the emission reductions (31.7 MMT) recommended for the transportation sector. The LADWP supports ARB's efforts to enforce the Pavley standards, however, should the ARB ultimately be unable to enforce those standards on auto manufacturers that sell vehicles in California, then those reductions must be made up through other strategies that are specific to mobile sources (Health and Safety Code, Section 38590). The fact that additional measures accounting for only 2-8 MMT are being considered from other transportation measures would suggest that other sectors will be responsible for making up any shortfall by 2020. The Scoping Plan should be revised to be consistent with the Appendices (Table 9 on page C-39) to reflect clearly that additional measures will be implemented as backstops equivalent to 31.7 MMT that target emissions from the transportation sector to ensure that other sectors are not burdened with those reductions.

3. Electricity sector must be made whole for increased load resulting from electrification

While electrification of ships, equipment, trucks, and vehicles – a strategy strongly supported by LADWP and other utilities – will provide net emission benefits, the corresponding emission reductions appear to be attributed only to the transportation sector, while the additional costs of developing supporting power system infrastructure, providing incentive rates, and increased electrification load-related emissions will be borne entirely by the electricity sector. Appendix C (Page C-56) does acknowledge that as the transportation sector looks to alternative fuels in an effort to reduce GHG emissions, electricity consumption is expected to increase commensurately. However, there is no discussion as to how the electricity sector can be compensated for its emission increase. This equates to a direct subsidization of transportation sector reductions by electric ratepayers. The Scoping Plan must be revised to clarify specifically how ARB plans to make up any shortfalls from within the transportation sector and avoid shifting that burden to other sectors.

4. If cap-and-trade is implemented it must include all capped sectors at start of the program

The cap-and-trade program is recommended to begin in 2012 with only the electricity and industry sectors, and it is further recommended that commercial and residential sector (i.e. natural gas) and transportation sector (i.e. transportation fuels) be added by 2020. If the ARB concludes upon further analyses that a cap-and-trade program will be implemented beginning in 2012, the LADWP strongly believes that all targeted sectors be included at the same time, whether it is 2012 or some other date. If the commercial and residential sector and transportation sector ultimately are never included in the cap-and-trade program, in no uncertain way should the full 35 MMT reduction fall to the electricity and industry sectors alone.

5. Draft Scoping Plan should seek reductions from agriculture

Of all U.S. business sectors, agriculture is the largest consumer of both electricity and water. Most of the electricity used by agriculture goes to pump groundwater at a cost of

almost $1.2 billion each year. This combined electricity and water use is concentrated in California and other Western United States, with California farmers using 20 percent of the total U.S. agricultural electricity, or about 10,000 gigawatt-hours (GWH) per year.[7] The agricultural sector accounts for 6% of statewide emissions (2002-04 average), yet the Scoping Plan assigns no emission reduction requirements to that sector and it is excluded from cap-and-trade. Additionally, California agriculture uses roughly 30 million acre-feet of water a year on 9.6 million acres. California's vast water infrastructure was developed to provide water for irrigation with agriculture using 80% of California's developed water supply. However, the Scoping Plan's preliminary water sector recommendations appear to target urban water use, leaving no specific obligation for agriculture to improve water use efficiencies. The LADWP recommends that the Scoping Plan be revised to include more specific discussion of agricultural water consumption and opportunities to improve water use efficiencies.

I. Replacing Baseload Generation Resources: The Scoping Plan must carefully evaluate the options available and to what extent existing baseload resources can be replaced with natural gas.

The Draft Scoping Plan includes a measure called "Coal Emissions Reduction Standard" that is being further evaluated that would require California electric service providers to divest or otherwise mitigate additional portions of existing investments in coal-based generation (see page 39-40 of the Draft Scoping Plan) on the order of 13,000 GWh. The LADWP does not support forced divestiture of any resources that may cause a fire sale of valuable assets that have been paid for by California ratepayers. The emission reductions associated with this measure can be accomplished by allowing electric service providers to voluntarily divest. Electric service providers are in the best position to manage their generation portfolio and to determine how best to reduce emissions and from which sources. Resource managers must carefully consider feasible baseload replacement power options in relation to their overall portfolio, including potential constraints like availability of natural gas pipeline infrastructure, restrictions on air quality permitting or NOx emission allowances, and integration of renewables including resources available to meet reserve requirements. These are all considerations that must be fully evaluated on an entity-wide basis.

[7] Water and Energy Technology Team (WETT) at Lawrence Berkeley National Laboratory (LBNL), http://water-energy.lbl.gov/node/10