Joint Comments of the Natural Resources Defense Council (NRDC) and the Union of Concerned Scientists (UCS) on the Draft *2008 Integrated Energy Policy Report (IEPR) Update*

DOCKET
08-IEP-1A
DATE OCT 16 2008
RECD. OCT 16 2008

Docket Number 08-IEP-1
October 16, 2008

Submitted by:
Lara Ettenson, Noah Long, Cliff Chen, and Laura Wisland

I. Introduction and Summary

The Natural Resources Defense Council (NRDC) and the Union of Concerned Scientists (UCS) appreciate the opportunity to offer these comments on the draft 2008 Integrated Energy Policy Report (IEPR) Update. NRDC is a nonprofit membership organization with a long-standing interest in minimizing the societal costs of the reliable energy services that Californians demand. We focus on representing our more than 124,000 California members' interest in receiving affordable energy services and reducing the environmental impact of California's energy consumption. UCS is a leading science-based nonprofit working for a healthy environment and a safer world. Its Clean Energy Program examines the benefits and costs of the country's energy use and promotes energy solutions that are sustainable both environmentally and economically.

Our recommendations are organized by Chapter and summarized below:

Chapter 1: California's Renewable Energy Future

Transmission Barriers

- NRDC/UCS support the Commission's continued efforts in the Renewable Energy Transmission Initiative (RETI) and encourage the Commission to initiate planning for comprehensive mitigation strategies

- NRDC/UCS recommend that the Commission actively address the identified issues for joint transmission projects.

- NRDC/UCS support local government assistance to incorporate energy elements into general plans and recommend that the Commission also provide technical support to ensure that the planning process is informed and effective.

Integration Barriers

- NRDC/UCS urge the Commission to continue investigating technical barriers to integrating intermittent generation.

- NRDC/UCS support the recommendation to investigate and encourage opportunities to promote distributed renewable generation.

- NRDC/UCS urge the Commission to explore the impacts of plug-in hybrid vehicles on system integration and storage needs.

- NRDC/UCS encourage the Commission to explore additional opportunities for renewable energy to replace conventional fossil fuel for heating and cooling applications.

Contracting Issues

- NRDC/UCS encourage the Commission identify ways to improve least-cost/best-fit assessments of RPS-eligible renewable energy contracts.

- UCS supports the draft 2008 IEPR Update recommendation to explore alternative rate schemes for renewable projects under 20 MW.

- NRDC/UCS strongly support the Commission's efforts to evaluate the effect of increased renewables on natural gas demand and price.

Chapter 2: Energy Efficiency and Demand Forecasting

Measurement and Attribution Challenges

- NRDC/UCS urge staff to modify language in the IEPR to account for the fact that energy efficiency savings can be quantified and relied upon given proper forecasting and evaluation methodologies.

- NRDC/UCS request that the Commission remove Table 2 from the 2008 IEPR Update and seek further public input on modeling the effects of energy programs, market effects, and price impacts.

- NRDC/UCS request that the Commission seek further public input on whether and how demand forecast methodology should discount energy efficiency savings to avoid potential double counting.

- NRDC/UCS urge the Commission to include an analysis of the natural gas embedded efficiency in the demand forecast, similar to current efforts for embedded energy efficiency.

Utility Progress Under Assembly Bill 2021

- NRDC/UCS recommend that the 2008 IEPR Update include a direct reference to the requirements of California law that all utilities use energy efficiency as the highest priority procurement resource.

- NRDC/UCS urge staff to work with the POUs to identify all funding sources, including procurement resources, to achieve all cost-effective energy efficiency and to provide guidance to include all identified funding resources and allocations in the next SB 1037 report.

- NRDC/UCS recommend that the Commission provide additional guidance to the POUs to ensure that the next round of potential studies are more rigorous and provide the necessary detailed information to enable a transparent review.

Chapter 3: Electricity Procurement Practices and Resource Planning Activities

- Commission staff should continue participating in the CPUC LTPP proceeding.

Chapter 6: State Progress on Key IEPR Recommendations

- NRDC/UCS reiterate the need for staff to provide further reporting guidance to ensure that detailed funding source and allocation information for energy efficiency programs is included in the next SB 1037 report.

- UCS recommends that the Commission implement feed-in tariff set at the cost of project construction plus a reasonable rate of return for all RPS-eligible renewables up to 20 MW in size.

- NRDC/UCS recommend that the 2008 IEPR Update report on the progress towards
    1. Examining the feasibility of increasing natural gas production from biogas and
    2. Adopting a 'loading order' for natural gas similar to that for electricity

- NRDC/UCS recommend that the Commission:
    1. Develop sustainability goals to ensure that alternative fuel production minimizes other unintended consequences
    2. Meet or exceed the land use safeguards that will be required by the federal Renewable Fuels Standard (RFS)
    3. Modify the current recommendation to establish a non-petroleum diesel fuel standard to be consistent with the adopted low-carbon fuel standard
    4. Work with the EPA when updating the full fuel cycle analysis to ensure consistency with the federal RFS.

- NRDC/UCS recommend that the Commission:
    1. Urge localities to pledge they will follow the "sustainability community strategy" due to be developed under the recently passed SB 375
    2. Offer technical assistance to enable local governments to comply with additions to their general plans

- NRDC/UCS recommend that the 2008 IEPR update report on the progress towards
    1. Assessing and pursuing the 2005 recommendation for energy savings by end users
    2. Fulfilling the requirements of AB 1881 (*Laird)*, AB 662 (*Ruskin*) and AB 1560 (*Huffman*)
    3. Defining a Water-Energy Research Development and Demonstration Strategic Plan and Roadmap as noted in the 2007 IEPR

II. Chapter 1: California's Renewable Energy Future

NRDC/UCS generally support the identified recommendations for overcoming transmission barriers as noted at the end of Chapter 1 in the draft 2008 IEPR Update and offer the following additional recommendations.

Transmission

a. NRDC/UCS support the Commission's continued efforts in the Renewable Energy Transmission Initiative (RETI) and encourage the Commission to initiate planning for comprehensive mitigation strategies.

As the Commission is aware, the legitimate concerns about siting transmission projects and new transmission lines are large obstacles to achieving the state's current and future renewables goals. We appreciate the Commission's recognition of the environmental issues surrounding new transmission and power plants as well as the Commission's support for the Renewable Energy Transmission Initiative (RETI). We believe that RETI and its Environmental Working Group have made significant progress in identifying the least environmentally sensitive areas for potential generation and transmission projects by identifying Competitive Renewable Energy Zones (CREZ). However, we urge the Commission to initiate planning for comprehensive mitigation strategies as soon as possible to address the difficulties of mitigating the impacts of large scale renewable projects and new transmission lines in the California Desert. We look forward to working with all stakeholders for continued progress.

b. NRDC/UCS recommend that the Commission actively address the identified issues for joint transmission projects.

We agree that opportunities for joint transmission projects may occur as a result of planned collaboration efforts currently underway. However, NRDC/UCS recommend that the Commission actively work towards resolving identified issues for joint transmission projects to avoid multiple lines in the same area and direction, which create unnecessary environmental impacts, controversy, and delays. In particular, we encourage the Commission to take an active role in facilitating investor-owned utility (IOU) and publicly-owned utility (POU) joint transmission projects to eliminate duplicative transmission efforts, costs, and impacts.

c. NRDC/UCS support local government assistance to incorporate energy elements into general plans and recommend that the Commission also provide technical support to ensure that the planning process is informed and effective.

The draft 2008 IEPR Update references public comments from the July 23, 2008 IEPR staff workshop that indicate the need to communicate and work with local agencies and stakeholders before a new transmission route is identified.[1] NRDC/UCS fully support the proposed funding for local governments under Public Resources Code section 25616 and stress the need for this money to be used for local resident outreach and education to illustrate the importance of achieving the state's renewable energy and greenhouse gas reduction goals. In addition to the proposed funding, NRDC/UCS urge the Commission to also offer assistance from experts in the Commission staff to ensure that such a planning process produces informed and effective decisions.

Integration

d. NRDC/UCS urge the Commission to continue investigating technical barriers to integrating intermittent generation.

Understanding and overcoming the technical barriers to integrating large quantities of intermittent renewable energy to the electricity grid will be crucial to

[1] Draft 2008 Integrated Energy Policy Report Update, California Energy Commission, September 25, 2008, CEC-100-2008-008-CTD, p. 23.

meeting the Commission's goal of 33% renewables by 2020 and for achieving deeper levels of renewable energy penetration in following years. NRDC/UCS support the draft 2008 IEPR Update recommendation to ensure there is adequate research and development funding to address the technological barriers of integrating large quantities of intermittent resources.

e. NRDC/UCS support the recommendation to investigate and encourage opportunities to promote distributed renewable generation.

NRDC/UCS agree with the Commission that "Distributed generation is a key component of the state's loading order for meeting new resource needs."[2] Renewable energy projects that are not dependent on the construction or upgrading of transmission lines present important near-term opportunities to develop more in-state renewable energy projects. In addition, public support for new transmission lines and utility scale projects depends in large part on the demonstration that *all* options to achieve our renewable goals, including projects that do not need transmission upgrades, are being pursued with equal attention. Therefore, NRDC/UCS support the recommendation to investigate all opportunities to build ultra-clean distributed generation, efficient renewable energy projects, and building-integrated renewables at the wholesale and retail distribution levels. This will ensure that the state is pursuing all possible approaches to increase in-state renewable energy while incorporating remote projects and new transmission lines most effectively to meet our aggressive renewable energy goals.

f. NRDC/UCS urge the Commission to explore the impacts of plug-in hybrid vehicles on system integration and storage needs.

NRDC/UCS believe the Commission should also fully explore the impacts of large-scale vehicle electrification program on future load. This evaluation should identify opportunities to maximize the value from vehicle electrification with respect to (1) renewable integration and intermittency issues, (2) rapid demand response, and (3) overall state goals for GHG emission reductions, petroleum savings, and air quality. In addition, the Commission should identify the potential future load from vehicle

[2] *Ibid*, p. 23.

electrification and include these scenario(s) when developing their forecasts. The Commission should also work with the CPUC and CARB to align state policies in order to maximize the benefits from investments in vehicle electrification.

g. NRDC/UCS encourage the Commission to explore additional opportunities for renewable energy to replace conventional fossil fuel for heating and cooling applications.

NRDC/UCS strongly encourage the Commission to investigate and promote new opportunities for renewable energy to replace fossil fuel in residential and commercial heating and cooling applications. This includes supporting utility projects to demonstrate the commercial viability of solar water heaters and geothermal heat pumps, as well as supporting the development of emerging heating and cooling technologies. For example, consumers purchasing geothermal heat pumps for their homes should be eligible to receive rebates through the Commission's Emerging Renewables Program.

Contracting

h. NRDC/UCS encourage the Commission identify ways to improve least-cost/best-fit assessments of RPS-eligible renewable energy contracts.

The 2007 IEPR acknowledges that the current least-cost/best-fit methodology applied in the RPS procurement process may not adequately assess the ability of a project to successfully deliver megawatts by the estimated delivery date.[3] In addition, the draft 2008 IEPR Update includes stakeholder comments indicating that the current least-cost best-fit RPS procurement assessments may be overlooking viable projects for the lowest cost bidders.[4]

NRDC/UCS recommend that the Commission and the CPUC explore how least-cost/best-fit assessments can be improved to ensure the most cost-effective and viable contracts are receiving bids. It may be appropriate for the Commission and the CPUC to consider whether project viability criteria should be a more integral component of the bid ranking process, and not simply used as tie-breakers for projects of similar cost.

[3] 2007 Integrated Energy Policy Report, California Energy Commission, December 5, 2007, # CEC-100-2007-008-CMF, p.140.

[4] Draft 2008 Integrated Energy Policy Report Update, California Energy Commission, September 25, 2008, CEC-100-2008-008-CTD, p. 28.

NRDC/UCS also recommend that the Commission and CPUC consider whether the utilities should use more uniform criteria and methodologies to assess project viability in their bid evaluation process.

i. UCS supports the draft 2008 IEPR Update recommendation to explore alternative rate schemes for renewable projects under 20 MW.[5]

UCS believes that feed-in tariffs for projects up to 20 MW may complement the existing RPS competitive bid solicitation process and effectively stimulate more in-state renewable energy projects that are less likely to experience project delays due to the state's current lack of transmission. In addition, a feed-in tariff will lower transaction costs for small-scale developers that may not have the resources to engage in the current RPS solicitation process. A feed-in tariff that is based on the cost of project construction reduces risk and helps project developers obtain financing, which will encourage more renewable energy development at the wholesale distribution level and encourage project advanced technology demonstration projects at financeable levels that may later be scaled to much larger capacities. A feed-in tariff may also provide incentives for older renewable energy projects to repower and increase efficiencies.[6]

j. NRDC/UCS strongly support the Commission's efforts to evaluate the effect of increased renewables on natural gas demand and price.

NRDC/UCS strongly supported the Commission's efforts to investigate the potential effect of increased levels of energy efficiency and renewable energy on natural gas prices as part of the 2007 IEPR. The long-term impact of higher levels of renewables and energy efficiency on reducing natural gas prices is a significant potential benefit and should not be ignored in analyzing the system costs of these resources. While the draft 2008 IEPR Update correctly suggests that natural gas demand and price may be largely driven by national or global factors, local or regional supply constraints can still have a significant impact on price. NRDC/UCS strongly support the draft 2008 IEPR Update

[5] While NRDC supports alternative rate schemes as one possible tool to be examined in promoting development of renewables, the following comments are UCS specific.

[6] For more information, please see UCS's comments on the design of a feed-in tariff for projects up to 20 MW, which were submitted in response to the October 1, 2008 Energy Commission feed-in tariff workshop.

recommendation to evaluate the regional natural gas market and supply dynamics that affect the magnitude of the likely effect of renewables and efficiency on natural gas prices. We also recommend that the Commission include such an analysis as part of the 2009 IEPR process.

III. Chapter 2: Energy Efficiency and Demand Forecasting

NRDC/UCS commend the Commission and staff for efforts to bring together key players and identify potential solutions to address the complicated issue of delineated embedded energy efficiency in the demand forecast. We look forward to our continued participation in this effort and urge the Commission to include the California Air Resources Board (CARB) whenever possible to ensure that this process is coordinated with AB 32 planning efforts.

Measurement and Attribution Challenges

a. NRDC/UCS urge staff to modify language in the IEPR to account for the fact that energy efficiency savings can be quantified and relied upon given proper forecasting and evaluation methodologies.

NRDC/UCS recognize the challenges of forecasting the effects of energy efficiency. However, we believe energy efficiency is a dependable resource that can be relied upon to produce tangible savings thereby reducing the need for additional conventional sources of energy. We urge staff to modify language in the 2008 IEPR Update to account for methods that ensure the estimated savings from energy efficiency programs are in fact realized and can be relied upon. For example, the estimated savings assigned to energy efficiency programs rely on evaluation, measurement, and verification (EM&V) studies that are based on *actual* customer behavior and therefore take into account any potential variation of savings due to behavior. In addition, behavior is only a small fraction of uncertainty as many energy efficiency programs rely on use of improved technologies that are not subject to behavior. Furthermore, with effective EM&V procedures and ongoing monitoring systems to ensure that installed measures are working properly and are being maintained, energy efficiency can be considered a dependable and reliable source to reduce electricity demand.

b. NRDC/UCS request that the Commission remove Table 2 from the 2008 IEPR Update and seek further public input on modeling the effects of energy programs, market effects, and price impacts.

The discussion of the demand forecast modeling in the draft 2008 IEPR Update indicates that far more of the state's energy savings result from market and price effects than from efficiency programs. The draft 2008 IEPR Update does not fully define market and price impacts nor does it explain how they occur absent programmatic and policy-based energy efficiency efforts. While there is certainly merit to probing the individual effects of efficiency programs and estimating the impacts of non-program energy efficiency improvements, NRDC/UCS are very concerned that the data in Table 2 and the accompanying explanation underestimate the impacts of energy efficiency programs and policy in favor of "naturally occurring" market and price impacts.

Moreover, we believe there is ample evidence to suggest that California energy efficiency programs have been central to the creation of more efficient products and improved energy efficiency standards both in California and federally. As such, we urge a closer look at the modeling techniques that assign much of the energy efficiency gains over the last few decades to market and price effects without a clear discussion of what the effects are, or how they relate to the energy efficiency policies of the state.

While we understand that staff plans to further vet this topic during the 2009 IEPR process, we believe this subject deserves further discussion and analysis before being published in the 2008 IEPR Update. We therefore request that Table 2 be removed from the 2008 IEPR Update until there is a clearer understanding and agreement on how to best model the various sources of energy efficiency savings. We look forward to participating in this process to better understand and define how the modeling efforts address the division between programmatic effects and market and price impacts.

c. NRDC/UCS request that the Commission seek further public input on whether and how demand forecast methodology should discount energy efficiency savings to avoid potential double counting.

NRDC/UCS understand energy forecasters' need to address possible double counting of savings from efficiency programs due to spillover effects from other program activities, voluntary actions, and market changes not directly attributable to those

programs. However, it is unclear whether or not staff currently employs, or plans to employ, such a methodology. If staff intends to incorporate a discounting approach when determining the forecast, we request that there be further public input as to whether and how a discounting approach is incorporated when determining the effect of committed energy efficiency savings on the demand forecast.

d. NRDC/UCS urge the Commission to include an analysis of the natural gas embedded efficiency in the demand forecast, similar to current efforts for embedded energy efficiency.

NRDC/UCS reiterate the importance of understanding the amount of embedded natural gas efficiency in the demand forecast and urges the Commission to include a more explicit discussion of the natural gas embedded efficiency issue within the 2008 IEPR update.[7]

Utility Progress Under Assembly Bill 2021

NRDC/UCS commend staff for their hard work and continued willingness to collaborate throughout the process to ensure that the POUs are achieving all cost-effective energy efficiency.

e. NRDC/UCS recommend that the 2008 IEPR Update include a direct reference to the requirements of California law that all utilities use energy efficiency as the highest priority procurement resource.

NRDC/UCS appreciate the POU efforts to increase energy efficiency in their territories. However, we share staff's concerns that the POUs' may have difficulty reaching their 2008 Assembly Bill 2021 (AB 2021) targets.[8] While we acknowledge that some utilities required modest adjustments to their 2008 targets since the potential study was not targeted to each utility, we also agree with staff that the POUs need to "continue to be proactive in meeting the adopted goals."[9] NRDC/UCS recommend that the 2008 IEPR Update include a specific reference to the law requiring all utilities, including the

[7] NRDC noted the importance of delineating natural gas embedded efficiency in its comments on March 6, 2008; March 21, 2008; and April 30, 2008.
[8] Draft 2008 Integrated Energy Policy Report Update, California Energy Commission, September 25, 2008, CEC-100-2008-008-CTD, p. 52.
[9] *Ibid.* p. 53

POUs, to use energy efficiency as the highest priority procurement resource to defer the purchase and construction of conventional sources of energy. The Public Utilities Code specifically requires that POUs "treat investments made to achieve energy efficiency savings and demand reduction targets as procurement investments," (Public Utilities Code Section 9615(b)) and that POUs "in procuring energy to serve the load of its retail end-use customers, shall first acquire all available energy efficiency and demand reduction resources that are cost effective, reliable, and feasible." (Public Utilities Code Section 9615(a)).

These requirements are not only the Commission's stated policy, as noted in the draft 2008 IEPR Update, but are mandated by law and should be clearly reflected in the IEPR. By pursuing energy efficiency as a procurement resource, the POUs will be able to achieve even greater energy savings which will help the state meet our aggressive Assembly Bill 32 (AB 32) goals and save money for their customers by reducing their utility bills.

f. NRDC/UCS urge staff to work with the POUs to identify all funding sources, including procurement resources, to achieve all cost-effective energy efficiency and to provide guidance to include all identified funding resources and allocations in the next SB 1037 report.

NRDC/UCS appreciate the increase in utility investments in energy efficiency programs over the past few years. As the draft 2008 IEPR Update notes, the public goods charge allocations are "insufficient to achieve the savings needed to meet all cost-effective energy efficiency."[10] We recommend the 2008 IEPR Update include a recommendation that Commission staff work with the POUs to (1) identify procurement resources to supplement the public goods funding and (2) provide additional guidance to ensure that all funding sources and allocations for energy efficiency programs are clearly identified in the next SB 1037 report as required by the Public Utilities Code.[11]

[10] *Ibid*

[11] The POUs' annual report to the Commission must include "the sources of funding for its investments in energy efficiency and demand reduction program investments." (Public Utilities Code Section 9615 (e)(1))

g. NRDC/UCS recommend that the Commission provide additional guidance to the POUs to ensure that the next round of potential studies are more rigorous and provide the necessary detailed information to enable a transparent review.

NRDC/UCS appreciate staff's efforts to work closely with the POUs and to outline guidelines for the SB 1037 and AB 2021 reports. In addition, we support staff's recommendation that they "should continue to work with the POUs to understand the processes used by individual utilities to estimate their remaining potential and set targets."[12] We further recommend that staff provide additional guidance during this round of potential studies to ensure a more rigorous and transparent process.[13] We also strongly support the recommendation that staff will continue to work with the POUs through workshops and collaborative efforts and commends both the staff and the POUs for pursuing evaluation plans to ensure that the efficiency upgrades result in the intended savings.

IV. Chapter 3: Electricity Procurement Practices and Resource Planning Activities

a. Commission staff should continue participating in the CPUC LTPP proceeding.

NRDC/UCS support the draft 2008 IEPR Update recommendation that Commission staff continue collaborating in the CPUC's Long-Term Procurement Plan (LTPP) proceeding to develop long-term planning standards and metrics. As active parties in the proceeding, we appreciate the participation of Energy Commission staff, whose expertise on long-term planning has provided valuable insights to the process. Active participation by Energy Commission staff will help ensure that IEPR recommendations on risk analysis and long-term planning will be fully considered in the LTPP proceeding.

[12] Draft 2008 Integrated Energy Policy Report Update, California Energy Commission, September 25, 2008, CEC-100-2008-008-CTD, p. 54.

[13] NRDC provided more detailed recommendations in its January 9, 2008 memo on the October 2007 AB 2021 report jointly submitted by the POUs.

V. Chapter 6: State Progress on Key IEPR Recommendations

Energy Efficiency

a. NRDC/UCS reiterate the need for staff to provide further reporting guidance to ensure that detailed funding source and allocation information for energy efficiency programs is included in the next SB 1037 report.

We agree that staff has made substantial progress in providing the POUs with clear reporting requirements. However, we reiterate the need to provide additional guidance for the POUs to include detailed information on how they are meeting the law by using energy efficiency as a procurement resource. As noted above, the POUs are required to report on their investments in energy efficiency. While the POUs have made great strides to provide information such as expenditures and savings, it is not clear whether these expenditures are primarily public benefit funds or procurement funds. Unless we have a clear break down of the different sources of investment funding for energy efficiency programs, it will continue to be unclear if the POUs are meeting the requirements of SB 1037 and AB 2021 to use EE as a procurement resource.

Renewable Energy

b. UCS recommends that the Commission implement feed-in tariff set at the cost of project construction plus a reasonable rate of return for all RPS-eligible renewables up to 20 MW in size.

NRDC/UCS restate our firm support for 33% renewables by 2020 Renewable Portfolio Standard (RPS) legislation that would apply mandatory RPS targets to all retail providers. In addition, and stated previous in these comments, UCS believes the state should implement a feed-in tariff that is based on the cost of project construction plus a reasonable rate of return for projects up to 20 MW.[14] UCS believes that establishing a feed-in tariff price set at the market price referent will not establish adequate cost coverage to encourage project development beyond what would have occurred through the existing RPS competitive solicitation process.

[14] NRDC makes no comment on this position. For more information, please see UCS's comments on the design of a feed-in tariff for projects up to 20 MW, which were submitted in response to the October 1, 2008 Energy Commission feed-in tariff workshop.

Natural Gas

c. **NRDC/UCS recommend that the 2008 IEPR Update report on the progress towards:**
   - **Examining the feasibility of increasing natural gas production from biogas**
   - **Adopting a 'loading order' for natural gas similar to that for electricity**

NRDC/UCS appreciate the efforts of the Commission to diversify CA natural gas supply sources by pursuing various biomass resources. However, we recommend that the 2008 IEPR Update also report on the progress towards examining the feasibility of increasing natural gas production from biogas, which was identified as a potential renewable resource in the 2007 IEPR recommendation section for natural gas.[15] We also recommend that staff report on the progress towards the 2007 IEPR recommendation that the Commission and CPUC should adopt a 'loading order' for natural gas resources, similar to the one in place for the electric sector.[16]

Transportation Energy

d. **NRDC/UCS recommend that the Commission:**
   - **Develop sustainability goals to ensure that alternative fuel production minimizes other unintended consequences**
   - **Meet or exceed the land use safeguards that will be required by the federal Renewable Fuels Standard (RFS)**
   - **Modify the current recommendation to establish a non-petroleum diesel fuel standard to be consistent with the adopted low-carbon fuel standard**
   - **Work with the EPA when updating the full fuel cycle analysis to ensure consistency with the federal RFS.**

NRDC/UCS commend the Commission for efforts to identify 'sustainability goals' for alternative fuel production. However, in addition to addressing the key issue of land use, we recommend that the Commission develop sustainability goals to ensure that alternative fuel production minimizes other unintended consequences, such as food price impacts and increased water and fertilizer use, while also encouraging best practices to ensure that biofuel production is implemented in as a sustainable manner as possible. We

[15] 2007 Integrated Energy Policy Report, California Energy Commission, December 5, 2007, CEC-100-2007-008-CMF, p. 186.
[16] *Ibid.* p.187.

also recommend that the Commission, at a minimum, meet or exceed the land use safeguards that will be required by the federal Renewable Fuels Standard (RFS).

In addition, we suggest that the Commission modify the current recommendation to establish a non-petroleum diesel fuel standard so that it is more consistent with the level of minimum non-petroleum content identified in the low-carbon fuel standard expected to be implemented in early 2009.

Last, we support efforts to regularly update the full fuel cycle analysis and encourage the Commission staff to coordinate with the EPA to ensure consistency with the federal methodology currently under development pursuant to the RFS.

Land Use

e. NRDC/UCS recommend that the Commission:
- **Urge localities to pledge they will follow the "sustainability community strategy" due to be developed under the recently passed SB 375**
- **Offer technical assistance to enable local governments to comply with additions to their general plans**

NRDC/UCS support efforts to require local governments to create climate action plans. However, since land use is most often a local or regional issue, we recommend that rather than addressing individual local land use in this greenhouse gas emission reduction plan, the Commission should urge localities to pledge they will follow the "sustainability community strategy" due to be developed under the recently passed SB 375. This strategy, which establishes a regional framework to minimize GHG emissions from land use, is currently optional under the bill.

Furthermore, while we support efforts to increase energy elements in local government general plans, we also understand the capacity constraints of many local governments. As noted in the transmission section, we recommend that the Commission offer technical assistance to enable local governments to comply with this requirement.

Water and Energy Use

f. NRDC/UCS recommend that the 2008 IEPR Update report on the progress towards:

- **Assessing and pursuing the 2005 recommendation for energy savings by end users.**
- **Fulfilling the requirements of AB 1881 (*Laird)*, AB 662 (*Ruskin*) and AB 1560 (*Huffman*)**
- **Defining a Water-Energy Research Development and Demonstration Strategic Plan and Roadmap as noted in the 2007 IEPR**

NRDC/UCS urge the Commission to also include a progress analysis on additional water recommendations from the 2005 and 2007 IEPRs. In particular, we request that the 2008 IEPR Update include a review of the 2005 IEPR recommendation to "assess efficiency improvements in hot and cold water use in homes and businesses, water savings appliances and fixtures, devices that use and move water, and other viable options to maximize energy and water savings. Near-term opportunities should be identified for inclusion in the 2006-2008 IOU energy efficiency portfolios."[17] Furthermore, if a review by the IEPR committee identifies near term opportunities, NRDC/UCS recommend these be incorporated into the 2009-2011 IOU energy efficiency portfolios.

In addition, we urge the Commission to include progress on efforts to fulfill the requirements of AB 1881 (*Laird)*, AB 662 (*Ruskin*), and AB 1560 (*Huffman*) by initiating a standard setting proceeding for irrigation equipment, appliances, and buildings. We also request a progress analysis on defining a Water-Energy Research Development and Demonstration Strategic Plan and Roadmap as noted in the 2007 IEPR.[18]

III. Conclusion

Thank you for the opportunity to comment on the draft 2008 IEPR Update and for considering our recommendations.

[17] 2005 Integrated Energy Policy Report, California Energy Commission, November, 2007, CEC-100-2005-007-CMF, p. 146.

[18] 2007 Integrated Energy Policy Report, California Energy Commission, December 5, 2007, CEC-100-2007-008-CMF, p. 89.

Respectfully submitted,

Lara Ettenson
Energy Policy Analyst
Natural Resources Defense Council
111 Sutter St., 20th Floor
San Francisco, CA 94104
415-875-6100

Noah Long
Sustainable Energy Fellow
Natural Resources Defense Council
111 Sutter St., 20th Floor
San Francisco, CA 94104
415-875-6100
nlong@nrdc.org

Cliff Chen
Union of Concerned Scientists
2397 Shattuck Ave. Suite 203
Berkeley, CA 94704
Ph: (510) 809-1567
cchen@ucsusa.org

Laura Wisland
Union of Concerned Scientists
2397 Shattuck Ave. Suite 203
Berkeley, CA 94704
Ph: (510) 809-1565
lwisland@ucsusa.org