CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET
SACRAMENTO. CA 95814-5512

June 18, 2007

The Honorable John D. Dingell
Chairman, Committee on Energy and Commerce
and
The Honorable Rick Boucher
Chairman, Subcommittee on Energy and Air Quality
U.S. House of Representatives
Washington, DC 20515-6115

Dear Representatives Dingell and Boucher:

The Renewables Committee of the California Energy Commission welcomes the opportunity to provide responses to the questions posed by your Committee regarding portfolio standards for renewable energy. Those responses are enclosed with this letter. In sum, though we wholeheartedly support a Federal renewable portfolio standard (RPS), we do so only if such a standard does not pre-empt the authority of a state to implement a higher standard within its own jurisdiction.

California has implemented an RPS since 2002 to reap the economic and environmental benefits associated with increased levels of renewable energy in California's generation mix. California law currently requires that 20 per cent of retail electricity sales be met with renewable energy by 2010, and Governor Schwarzenegger has endorsed a goal of 33 per cent by 2020. Legislation to codify the 33 per cent goal is being considered this year. The California Energy Commission, in concert with the California Public Utilities Commission, is responsible for implementing California's aggressive renenwable energy goals.

If a Federal renewable energy standard is adopted, states must be granted <u>specific</u> authority to set an RPS standard that exceeds the Federal standard. A Federal RPS should follow the example of the Federal Clean Air Act, which allows the Federal Government to waive application of certain sections of the act to a state that has adopted standards that are at least as protective of public health and welfare as applicable Federal standards. At a minimum, it is critical that states be given specific authority to determine whether and under what conditions load serving entities may transfer, trade or otherwise dispose of any renewable energy certificates or environmental attributes associated with renewable generation used to meet the state standard.

Although the proposed Federal RPS that is before the Senate does indicate that it would not pre-empt state RPS policies, the language is not sufficiently clear on whether and under what conditions states can develop binding targets that go above and beyond the Federal requirements. In particular, by creating a separate Federal renewable energy credit trading program, and not being explicit on whether states are allowed to develop binding targets that exceed Federal targets, the proposal would effectively allow “double counting” of renewable energy credits (RECs); such double counting is directly contrary to recommendations of California state law and the National Association of Attorneys General, and to the goal of increasing renewable energy deployment in the nation.

In particular, as currently drafted, the Federal RPS being considered in the Senate would allow California utilities to: 1) “count” renewable energy towards the California RPS requirement and 2) sell the RECs associated with the amount of renewable energy that exceeds the Federal standard to utilities in other states. In this example, RECs would be counted towards compliance with the California RPS and a second time for compliance with the Federal RPS.

However, it is critical to the goal of advancing renewable energy and the integrity of the market that renewable energy be counted once and only once. To ensure this, the California Legislature and Governor enacted Public Utilities Code, Section 399.16(a)(2) as follows: “a renewable energy credit shall be counted only once for compliance with the renewables portfolio standard of this state or any other state, or for verifying retail product claims in this or any other state.” Further, the National Association of Attorneys General adopted a resolution finalizing its Environmental Marketing Guidelines for Electricity. In the resolution, the National Association of Attorneys General "encourages each Attorney General, in the absence of relevant state law, to promote use of the Guidelines as a model for legislation and rulemaking." The Guidelines, which apply to marketing claims concerning the environmental attributes of electricity products offered for sale, establish general principles for determining whether advertising claims are misleading or deceptive and include provisions to ensure that renewable attributes are not “double sold.”

The proposed Federal standard being considered in the Senate would require a 3.75 per cent renewable portfolio in 2010 ramping up to 15 per cent in 2020. Although the current language allows states to set their own standards, it also allows RECs to be “double counted” to meet both a state obligation and be sold outside the state for others to use towards their Federal obligation. The effect of allowing the sale of RECs in a utility’s portfolio that represent the amount over and above the Federal standard is that in 2010, presuming California achieves its 20 per cent target by 2010, California's portfolio could become 3.75 per cent renewable. This is because without added safeguards, the California utilities would be allowed to sell RECs representing the 16.25 per cent in excess of the Federal standard to other states. To allow the 16.25 per cent to count towards California’s RPS and the Federal RPS would be “double counting.”

Further, if the Federal portfolio standard legislation pre-empts states from retaining and setting higher standards, then opportunities to increase the national portfolio of renewables will be foreclosed. For reasons described above, as currently drafted in the Senate, the Federal standard would serve to establish the maximum amount of renewables the nation would achieve. If states are allowed to set higher and binding standards as we recommend, then the national standard will become a minimum, rather than a cap, on the amount of renewable generation achieved nationally.

Renewable energy has extensive benefits, both to achieve an electric generation mix that balances risk and cost as well as to reduce greenhouse gas emissions and other harmful environmental effects of fossil fuel generation. Establishing a Federal portfolio standard will bring these benefits to other states. We strongly support a Federal standard, but only one that does not threaten individual states' ability to move beyond the Federal minimum standard.

Sincerely,

JOHN L. GEESMAN
Commissioner and Presiding Member
Renewables Committee

JACKALYNE PFANNENSTIEL
Chairman and Associate Member
Renewables Committee

cc:
The Honorable Jeff Bingaman, Chair Senate Committee on Energy and Natural Resources
California Congressional Delegation

Enclosures

Renewables Committee Responses to Questions posed by Rep. John D. Dingell in May 24, 2007 Letter from Committee on Energy and Commerce on Federal RPS

1. Purpose of Portfolio Standards Proposals

a. Do you believe that adopting one or more Federal "portfolio-standard" requirements applied to sources of retail electricity, mandating that a given percentage of the power sold at retail come from particular sources, is an advisable Federal policy? Why or why not?

The State of California has adopted an aggressive renewable portfolio standard (RPS) and believes that a Federal RPS is good policy, with the important qualification that it must not pre-empt higher standards developed by individual states. California has established a "loading order" for investment in new electricity generation resources in an effort to curb energy demand and overcome the state's overwhelming reliance on natural gas. The loading order calls for optimizing energy efficiency and demand response, and meeting new generation needs first with renewable resources and distributed generation, then with clean fossil generation.[1]

Consistent with the loading order, the California legislature adopted the RPS to increase the diversity, reliability, energy security, and public health and environmental benefits of its energy mix. In addition, the RPS is a critical part of California's efforts to reduce greenhouse gas emissions and to reduce its dependence on natural gas. With passage of a Federal RPS, these benefits could be realized at the national level. Further, by not pre-empting higher standards developed by individual states, the Federal RPS will become a "floor" for the amount of renewables developed nationwide rather than a "ceiling." Setting a floor RPS standard will allow for even greater benefits nationwide than would otherwise be achieved if the states' ability to set higher standards is not preserved.

b. Is it appropriate for Government to impose generation-source conditions or energy savings requirements on load-serving utilities in order to serve public-policy purposes such as promotion of renewable energy production, energy efficiency, and reduction of carbon emissions? Why or why not?

It is completely appropriate for the Federal Government to impose generation-source conditions to achieve public policy goals such as energy diversity, security, and reliability, as well as reduced environmental impacts from electricity generation. As stated in the declaration of legislative intent enacted

[1] California Energy Commission, CPUC and CPA *Energy Action Plan*, Spring 2003, p.4.

with California's RPS, increases in renewable energy may "promote stable electricity prices, protect public health, improve environmental quality, stimulate sustainable economic development, create new employment opportunities, and reduce reliance on imported fuels."[2]

c. If you favor such a policy, how would you define its specific purpose?

As noted above, the purpose of an RPS policy is to diversify energy resources, provide a hedge against volatile fossil fuel prices, reduce environmental impacts from the generation of electricity (including greenhouse gases), and reduce cost risk for citizens and businesses. In addition, an RPS helps establish a healthy market for renewable energy which leads to increased investment in renewable technologies and projects and accompanying economic benefits from increased jobs and tax revenues.

d. If Congress were to adopt an economy-wide policy mandating reductions in emissions of greenhouse gases, including the electricity industry, would such a portfolio standard policy remain necessary or advisable?

An RPS is an essential strategy to reduce greenhouse gas emissions. California's aggressive RPS was identified in the California Climate Action Team's Report to the Governor and the Legislature[3] as one of the key actions the state has taken to reduce its carbon footprint. However, if a cap and trade program is part of a Government effort to reduce greenhouse gas emissions, the cap must take into account reductions that will occur through an RPS and other mandatory and specific measures. (see also response to Question # 7)

e. What analysis has been done of any portfolio standards requirement you endorse to demonstrate:

> *i. Its economic costs to consumers, nationally, and in various regions, in electricity rates?*
>
> A report prepared in 2005 for the California Public Utilities Commission analyzed the costs of reaching the target of 33 per cent renewable energy in 2020. The findings included relatively small ratepayer impacts in the first decade of 2011-2020 (0.57 percent average overall rate increase) and longer term ratepayer benefits (net present value of $175 million in savings) in the 2011-2030 timeframe. [4] In addition, the

[2] California Public Utilities Code §399.11(a) et. seq.
[3] Climate Action Team, *2006 Climate Action Team Report to the Governor and Legislature,* March 2006, http://www.climatechange.ca.gov/climate_action_team/reports/2006-04-03_FINAL_CAT_REPORT_EXECSUMMARY.PDF
[4] Center for Resource Solutions, *Achieving a 33% Renewable Energy Target*, prepared for California Public Utilities Commission, November, 2005, p. 2 and 107.

California Energy Commission is investigating the effect on electricity rates of the 33 percent renewable goal as part of its 2007 Integrated Energy Policy Report that will be published in late 2007.

ii. Its benefits in greenhouse gas emission reductions?

California's Climate Action Team report estimates that achieving California's RPS goal of 33 percent will reduce GHG emissions by 11 million metric tons of CO_2 by 2020.[5] This is a significant portion of the emissions reductions required under the California Global Warming Solutions Act of 2006 (Assembly Bill 32).

iii. Its implications for electricity reliability, security, and grid management?

California has done extensive analysis of the implications of increased renewable generation for electricity reliability, security and grid management. The California Energy Commission's Intermittency Analysis Project has analyzed scenarios that include a 2020 case with 33 percent renewable energy in the state's mix, including 12,700 megawatts of wind and 6000 megawatts of solar energy. Analysis indicates that these levels of intermittent resources can be accommodated by the electric grid without compromising reliability or security.[6]

iv. Its implications for jobs and economic development?

A growing number of studies show that renewable energy sources are more labor intensive, and offer greater local economic benefits, than conventional forms of generation.[7] The California Climate Action Team's report to the Governor and Legislature confirms this claim, finding that a selection of carbon-reduction strategies (including aggressive renewable energy deployment) could increase employment in California by 83,000 net jobs by 2020.[8]

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[5] Climate Action Team, *2006 Climate Action Team Report to the Governor and Legislature,* March 2006, http://www.climatechange.ca.gov/climate_action_team/reports/2006‐04‐03_FINAL_CAT_REPORT.PDF.

[6] GE Energy Consulting, presentation at February 13, 2007 PIER Workshop, *Results of Operations Analysis and Impacts: 2010 & 2020* available at: http://www.energy.ca.gov/pier/notices/2007-02-13_workshop/presentations/07_2007-02-13_MILLER+JORDAN.PDF.

[7] California Energy Commission, 2006 Integrated Energy Report Update, CEC-100-2006-001-CMF January 2007, page 55.

[8] Climate Action Team, *2006 Climate Action Team Report to the Governor and Legislature,* March 2006,

Further, in 2004 the Renewable and Appropriate Energy Laboratory at the University of California, Berkeley issued a report that combined the results of 13 previous reports and concluded that, "All states of the Union stand to gain in terms of net employment from the implementation of a portfolio of clean energy policies at the federal level."[9]

v. Its implications for utility capital investment?

In California, most investment in new renewable resources is carried out by developers with long-term contracts to sell electricity to utilities. Renewable energy can also replace older, inefficient fossil fuel plants. With an RPS in place, utilities may also find it more cost-effective to invest in their own renewable generating facilities.

vi. Other relevant factors?

2. Portfolio Inclusions and Exclusions

a. What is the principle that should determine inclusion or exclusion of any energy source from an adopted portfolio standard? (i.e., excludes all fossil-fired generation, includes all generation that emits no GHG, excludes all generation below given energy-conversion efficiency, etc.)

In general, states should be authorized to determine which renewable energy sources should be included in their RPS. A Federal RPS should be designed to generally exclude energy sources that emit GHGs.[10] Possible language: "Only sustainable sources that have relatively small negative environmental impacts on a "cradle-to-grave" basis should be included." Although both energy efficiency and clean fossil generation that uses sequestration to prevent GHG emissions may have environmental benefits, these sources should not be included in a renewables portfolio standard. California's *2005 Integrated Energy Policy Report*[11] (IEPR) recommends longer-term research

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http://www.climatechange.ca.gov/climate_action_team/reports/2006‐04‐03_FINAL_CAT_REPORT.PDF.

[9] Daniel M. Kammen, Kamal Kapadia, and Matthias Fripp, *Putting Renewables to* Work: How Many Jobs Can the Clean Energy Industry Generate? RAEL Report, April, 2004, University of California, Berkeley.

[10] There may be some exceptions: electricity from biofuels is RPS-eligible in California and produces less GHG emissions than would have been produced if the biofuel stock decomposed and emitted methane, a much stronger GHG than CO2. Furthermore, it may be advisable to allow RPS credits for energy from existing renewable QFs even if a portion of the fuel used for generating electricity is fossil fuel. For biomass and biogas, the criteria should be net emissions of GHG.

[11] California Energy Commission 2005 Integrated Energy Policy Report, November 2005, p. 82

and development on advanced concepts for clean coal, including CO_2 capture systems, for plants coming on line after 2015-2020, but California does not include clean fossil generation with sequestration in its RPS.

b. What generation sources for retail electricity supplies (including efficiency offsets) should be included and should be excluded from any mandatory portfolio requirement that is adopted? Please provide your reasons for excluding any sources.

California has defined the following energy sources as eligible for the its RPS: biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, small hydroelectric generation of 30 megawatts or less, digester gas, municipal solid waste conversion, landfill gas, ocean wave, ocean thermal and tidal current.[12] California also allows RPS-eligible biogas that is cleaned to pipeline grade and injected into a natural gas pipeline system to be used to produce RPS-eligible electricity. For example, pipeline-grade biogas can be produced at dairies, injected into the gas system, and "nominated" to an electric generation facility to produce RPS-eligible electricity. Electricity generated from the following technologies is not RPS-eligible: large hydropower (larger than 30 megawatts), nuclear energy, fossil fuel sources, including those for which carbon is sequestered, and fossil fuel used in fuel cells.

At a minimum, the Federal RPS should include the generation sources that California has deemed "eligible" renewables. Non-generation sources (i.e., efficiency offsets) should not be included, since one of the purposes of the RPS is to provide a market for renewable energy and ultimately reduce the cost of renewable technologies so that they can compete with conventional technologies.

c. To the extent that multiple renewable energy sources and efficiency or other sources are eligible for inclusion, should any tiers among them or separate sub-requirements be adopted?

In general, states should be authorized to set tiers or separate sub-requirements, but, due to the dispersed geographic occurrence of specific renewable resources, a Federal RPS should not set tiers or sub-requirements. Some states or regions may have fewer renewable resources, or resources of only certain types, and should not be constrained to meet specific tier requirements. Even though California has a wide and plentiful variety of renewable resources, it does not use tiers or sub-requirements for distinct renewable technologies within its RPS. Governor Schwarzenegger has, however, set a target for biomass to provide 20 percent of the total

[12] California Public Resources Code, §25741(b).

renewables in the state.[13] California also has a separate program to provide incentives for solar photovoltaic electricity, implemented under the California Solar Initiative, with a goal of 3,000 megawatts by 2017. In addition, California is investigating the potential to accelerate the development of renewable resources through the use of feed-in tariffs, which typically use tiers and different tariff levels for distinct renewable technologies.

d. Should there be any distinction between existing and new sources of generation eligible for inclusion in the portfolio? If so, what would be the threshold date for eligibility?

One primary purpose of an RPS is to increase the amount of new renewable generation in the power mix, both to displace potential fossil fuel generation and to take advantage of economies of scale to reduce the cost of renewable energy overall. California's RPS recognizes this by making funding for above-market costs of renewable energy only available to new resources that begin commercial operations on or after January 1, 2005.[14] However, California also recognizes the need to retain existing renewable resources, including renewable QFs. California's RPS legislation allows RPS eligibility for generation from renewable facilities that use a mix of fossil fuels and renewable fuels if they commenced commercial operations prior to January 1, 2002, as long as the fossil fuel component does not exceed 25 per cent on an annual energy input basis.[15]

e. Would the electricity equivalent of useful thermal energy from eligible sources be credited against the requirement? Why or why not?

Cogeneration or combined heat and power facilities result in more efficient fuel use, making them a powerful end-use efficiency strategy for California businesses. In general, for cogeneration facilities that provide useful thermal energy, the electricity equivalent of that energy (which is typically used on site) should not be credited against an RPS requirement. Although there are significant benefits to cogeneration, the thermal output does not result in the production of electricity from a renewable source or the associated benefits from generating renewable energy outlined earlier.

f. To the extent energy efficiency is included:

i. How would the required savings be measured and verified?

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[13] Governor Schwarzenegger's Bioenergy Action Plan, July, 2006, CEC-600-2006-01, available at http://www.energy.ca.gov/2006publications/CEC-600-2006-010/CEC-600-2006-010.PDF.
[14] California Energy Commission, *New Renewable Facilities Program Guidebook,* CEC-300-2007-002-CMF, March 2007.
[15] California Energy Commission, *Renewables Portfolio Standard Eligibility Guidebook,* CEC-300-2007-006-CMF, March 2007

ii. Against what base consumption period (historic or projected)?

California recognizes the benefits of energy efficiency and gives it the highest priority as a resource to meet the State's electricity needs. However, energy efficiency is not included in California's RPS and should not be included in a Federal RPS. Furthermore, states should be authorized to set their own energy efficiency standards that exceed Federal standards.

3. Percentage Requirement and Timing

a. What target percentage of total retail power deliveries should achieved by the required portfolio?

California has set RPS targets of 20 per cent renewable energy by 2010 which is set in statute, and 33 per cent by 2020 (The 2010 goal is in statute but the later target is a policy recommendation by the Governor and the subject of proposed legislation). California does not have specific recommendations for a Federal target, and defers to Congress to set such a target, as long as the federal standard does not pre-empt more ambitious state standards. In addition, we note that aggressive targets will be necessary both to ensure a robust electric system and to reduce greenhouse gas emissions sufficiently to prevent economic, environmental, and public health calamities from human-induced climate change.

b. What is the target year for reaching the ultimate mandated portfolio percentage?

California target years are mentioned above. Again, California defers to Congress, provided that more ambitious state targets are not pre-empted.

c. Should there be a straight-line, accelerating, or other form of "ramp-up" to the ultimate target percentage?

California's RPS legislation set the targets mentioned above, and also required utilities to increase renewable generation by at least one per cent (of total load) per year. However, most electricity retail sellers in California will need to exceed one percent per year to meet the 2010 statutory requirement. Therefore, we recommend that there should be a "ramp-up" sufficient to bring utilities to the required level, at least on a straight line basis, using annual targets to facilitate progress checks.

d. Should there be any "off-ramps" or other built-in automatic changes in requirements as a function of contingencies? If so, what should they be?

(e.g., price or cost thresholds, contingencies for natural or climate conditions, lack of adequate transmission, etc.)

California's RPS includes cost containment provisions that exempt investor-owned utilities from their RPS obligations if the above-market costs — based on the cost of electricity from a conventional combined cycle gas turbine — of meeting those obligations exceeds the amount of public goods charge funding set aside to support the RPS. [16]

However, it is important to note that renewable resources may not be more expensive than conventional resources, as demonstrated by California's experience to date. Projects that are new or repowered and win a long-term contract (contract terms must be at least 10 years) as result of a competitive RPS solicitation may be eligible for funding from the Energy Commission. Funding is available to cover the above market costs of the renewable electricity generation, within cost constraints. Funding is available from public goods charge funds and would be distributed as production incentives to the generator from the Energy Commission

Since the RPS was established in 2002, the California investor-owned utilities have signed more than 70 contracts for as much as 4,433 megawatts of new and existing renewable energy projects. However, among these contracts, only five projects were above the market cost for electricity, representing 162 MW or about 4 per cent of all capacity under contract to comply with the California RPS. Three of the five projects priced above the market price were existing facilities, and as such, are ineligible for funding from the Energy Commission. Two projects were priced above the market price and were potentially eligible for funding from the Energy Commission. Both projects resulted in applications for public goods charge funds to cover the above market costs but both applications were subsequently withdrawn by the applicant. Consequently, to date the market has not needed public funds to serve California's RPS and the vast majority of contracts have been priced at or below the market price.

4. Relationship to State Portfolio Standards and Utility Regulation

a. Should an adopted Federal portfolio standard set:

> *i. A minimum standard, allowing States to set or maintain higher targets?*
>
> *ii. A preemptive standard, prohibiting States to set higher or different targets?*

[16] California Public Utilities Code §399.15(b)(5).

iii. Merely a mandate for a standard, allowing States to set their own targets at any level?

iv. Merely a given percentage target, allowing States to elect generation or efficiency sources eligible to meet it?

v. A standard applying only to States without prior portfolio requirements, grandfathering all prior standard programs?

California embraces the policy laid out in 4(i) and rejects 4(ii) and 4(iii). First we explain this response, and then consider 4(iv) and 4(v).

Any adopted Federal portfolio standard should be a minimum standard, allowing states to set, maintain, and re-set higher mandatory targets. California opposes any Federal portfolio standard that pre-empts the ability of states to set higher standards. Furthermore, states must have the authority to determine whether or not any renewable energy credits or environmental attributes associated with renewable energy resources used to meet state goals in excess of federal standards can be sold, transferred, or otherwise used for purposes of meeting the federal standards or any other standard or market claim.

The proposed Federal RPS that is before the Senate would effectively allow “double counting” of Renewable Energy Credits; such double counting is directly contrary to recommendations of California state law and the National Association of Attorneys General, and to the goal of increasing renewable energy deployment in the nation. As currently drafted, the Federal RPS would allow California utilities to: 1) “count” renewable energy towards the California RPS requirement and 2) sell the renewable energy credits associated with the amount of renewable energy that exceeds the Federal standard to utilities in other states to use towards their Federal RPS compliance. Double-counting would undermine confidence in the nascent renewable energy credit market.

It is critical to the integrity of the market that renewable energy be counted once and only once. To ensure this, the California Legislature and Governor enacted Public Utilities Code, Section 399.16(a)(2) as follows: “a renewable energy credit shall be counted only once for compliance with the renewables portfolio standard of this state or any other state, or for verifying retail product claims in this or any other state.” Further, the National Association of Attorneys General (NAAG) adopted a resolution finalizing its Environmental Marketing Guidelines for Electricity. In the resolution, the NAAG "urges the electric power industry to conform its advertising of electricity products and companies to the Guidelines" and "encourages each Attorney General, in the absence of relevant state law, to promote use of the Guidelines as a model for legislation and rulemaking." The

Guidelines, which apply to marketing claims concerning the environmental attributes of electricity products offered for sale, establish general principles for determining whether advertising claims are misleading or deceptive and include provisions to ensure that renewable attributes are not "double sold."[17]

The proposed Federal standard would require a 3.75 per cent renewable portfolio in 2010 ramping up to 15 per cent in 2020. Although the current language allows states to set their own standards, it also allows RECs to be "double counted" to meet both a state obligation and be sold outside the state for others to use towards their Federal obligation. The effect of allowing the sale of Renewable Energy Credits in a utility's portfolio that represent the amount over and above the Federal standard is that in 2010, presuming California achieves its 20 per cent target by 2020, California's portfolio could become 3.75 per cent renewable. Without added safeguards, the California utilities would be allowed to sell Renewable Energy Credits representing the 16.25 per cent in excess of the Federal standard to other states. To allow the 16.25 per cent to count towards California's RPS and the Federal RPS would be "double counting."

Further, if Federal portfolio standard legislation pre-empts States from retaining and setting higher standards, then opportunities to increase the national portfolio of renewables will be foreclosed. As currently drafted, the Federal standard represents the maximum amount of renewables the nation would achieve. If instead, states are authorized to set higher standards as we recommend, then the national standard will become a minimum, rather than a cap, on the amount of renewable generation achieved.

A Federal RPS should follow the example of the Federal Clean Air Act, which allows the Federal Government to waive application of certain sections of the act to a state which has adopted standards that are at least as protective of public health and welfare as applicable Federal standards.[18]

In the case of the RPS, it is important that neither existing RPS standards, nor new RPS standards or targets that states may set in the future, are pre-empted by Federal law. For example, California's target of 33 percent renewable electricity by 2020 has not yet been legislatively set. If Federal law setting a target of 15 per cent were enacted, California should not be pre-empted from codifying that 33 percent standard after the Federal law takes effect.

In response to 4.(iv.), states should be allowed to elect which renewable generation resources to include in their own standards, but only sources

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[17] National Association of Attorneys General Marketing Guidelines: http://www.eren.doe.gov/greenpower/mkt_regcert.html#naag (see Jan. 2000)
[18] Federal Clean Air Act, Section 209(b)(1), http://www.epa.gov/air/caa/caa.txt.

eligible for the Federal standard should counted towards the Federal standard. As previously noted, energy efficiency should not be allowed to qualify towards the federal RPS.

In response to 4.(v), pre-existing state standards should be allowed to remain in place, but states should be allowed to set standards that are higher than an existing Federal standard or even their own pre-existing standards. The term "grandfathered" implies a standard that is frozen in time, but to maximize the benefits of renewable sources, a Federal RPS should not in any way pre-empt the authority of states to set their own standards.

b. Can and should State regulatory agencies be required to pass through the costs of complying with Federal portfolio standards requirements in retail rates?

As stated earlier, over the long term the costs of a generation mix that includes higher fractions of renewable energy may actually be lower than costs of a mix highly dependent on fossil fuels. California's *2006 Integrated Energy Policy Report Update* discusses the need to properly consider risks associated with volatile natural gas prices and the value of a diverse portfolio in minimizing cost and risk ultimately born by ratepayers.[19]

As far as passing through costs in retail rates, in California over 90 per cent of all RPS contracts have been priced below the market reference price that reflects the cost of natural gas generation. California law has provisions to pay for above-market costs using public goods charge funds that are collected on retail electric sales and paid for within electric rates, but the California Public Utilities Commission has also approved several bilateral contracts with above-market contracts and allowed the investor-owned utilities to recover those costs in their rates. State regulatory agencies should be allowed to pass through costs of complying with Federal portfolio standards in retail rates subject to their own reasonableness review, and should be allowed to develop alternative mechanisms to cover the costs if needed.

5. Utility Coverage

a. Should any retail sellers of electricity be exempt from the portfolio requirement? (e.g., municipal utilities, rural cooperatives, utilities selling less than a minimum volume of power, unregulated marketers in States with competitive retail markets, etc.)

[19] California Energy Commission *2006 Integrated Energy Policy Report Update* CEC-100-2006-001-CMF January 2007, p. 52

Exempting certain entities from ”paying the costs” while enjoying the benefits of attaining RPS goals creates a free-rider problem, particularly if public funds are used to subsidize RPS generation. That said, there should be an exemption process for very small utilities or entities that may have difficulty in complying with RPS goals because of contractual obligations, small load, slow growth rates, and the lack of locally available renewable resources.

To maintain political and administrative consistency, no electricity sellers should be exempt from RPS requirements, with the possible exception of very small municipal utilities (see 5c below). In California, while publicly owned utilities are not subject to the same RPS requirement as investor-owned utilities, electric service providers, and community choice aggregators, they are nonetheless responsible for implementing an RPS that recognizes the Legislature’s intent to encourage the development of renewable resources. Our experience has shown that this approach is problematic. First, the RPS policies of the 36 publicly-owned utilities (POUs) in California vary widely, ranging from 5 to 40 percent renewable sales with target dates from 2007 to 2017.

Second, POUs provide about 25 percent of the state’s electricity load and play a significant role in the ability of the state to meet its goal of 20 percent of California’s load served by renewables by 2010. To meet that goal, the POUs combined would need to increase their renewables sales by nearly 12 percent when compared to 2005 total retail sales.

b. Should any standard apply to wholesale power markets or sales?

The RPS should apply only to load-serving entities; market forces would come into play for wholesale power markets or sales.

c. Should there be any basis for discretionary exemptions of certain States or utilities?

While the same RPS targets and timelines should be applied to publicly-owned utilities that are applied to investor-owned utilities, there should be an exemption process for very small utilities or other entities as discussed earlier.

6. Administration and Enforcement

a. Should a Federal Government entity enforce the requirement and decide on any exemptions?

> *i. If so, which one? (e.g., the Environmental Protection Agency? The Department of Energy? The Federal Energy Regulatory Commission? A newly created office or entity?)*

ii. If not, should enforcement be delegated to the States or to regional transmission or electric-system-operation entities?

States that have their own existing RPS standards that meet or exceed Federal standards should enforce the state requirement at the state level. For states without existing RPS standards or those with standards below the proposed Federal level, the Federal standard should be enforced by the appropriate Federal agency, presumably the Department of Energy.

b. How should Federal and State enforcement be coordinated in States with their own portfolio requirements?

States should be delegated enforcement responsibility, and should report annually to the Federal government on their progress toward meeting Federal standards.

c. What penalties should apply for failure of utilities to meet the percentage mandate?

California has instituted a penalty of 5 cents per kilowatt-hour for utilities that fail to meet the required standard, with a penalty cap of $25 million per year per utility. However, the California Energy Commission has recommended that the cap be removed to provide the maximum incentive for California's investor-owned utilities to meet their RPS obligations.

7. Credits and Trading

a. Should tradable credits for qualifying generation be utilized as the mechanism for establishing compliance?

A tradable renewable energy credit system is useful to minimize double-counting and to verify compliance with RPS. California currently does not allow the use of tradable renewable energy credits or certificates toward RPS compliance. However, a system to track renewable energy credits in the Western states (the Western Renewable Energy Generation Information System, or WREGIS) is being developed and once that system is operational, such credits may be used to show compliance with California's RPS. We suggest that the states with standards that exceed the Federal RPS should be authorized to determine if and how renewable energy credits are used as a mechanism to verify RPS compliance.

b. Should credit trading be permitted or required on a national basis in order to achieve least-cost compliance with the portfolio standards?

Renewable energy credit (REC) trading has the potential to reduce the need for new transmission lines, relieve transmission congestion, and help meet renewable energy goals. REC trading should be permitted (not required) on a national basis and states should be allowed to require REC trading for their own RPS standards if they exceed the federal standard. We also suggest building on the REC tracking systems already in place throughout the United States (NEPOOL, ERCOT, WREGIS, MRETS) and working with the North American Association of Issuing Bodies to encourage REC trading to further the least-cost advantage of REC trading and to prevent double counting nationwide.

c. Should there be a cap on credit values to limit costs?

No. The value of credits should be left to the market to determine. Setting a cap on credit values is likely to ensure that the credits will always be traded at the cap.

d. As between a utility purchaser and a qualifying power generator, to whom should the portfolio standard credits be initially allocated?

Renewable energy credit ownership in California depends on when the electricity was generated and whether or not the generator is a 'qualifying facility' under the Public Utility Regulatory Policies Act (PURPA). Specifically, the law states that "no renewable energy credits shall be created for electricity generated pursuant to any electricity purchase contract with a retail seller or a local publicly owned electric utility executed before January 1, 2005, unless the contract contains explicit terms and conditions specifying the ownership or disposition of those credits."[20] Further, "No renewable energy credits shall be created for electricity generated under any electricity purchase contract executed after January 1, 2005, pursuant to the federal Public Utility Regulatory Policies Act of 1978 (16 U.S.C. Sec. 2601 et seq.)."[21] Unless specified as above, however, renewable energy credits should be initially allocated to the renewable generator. Once purchased by the utility, the renewable energy credit should be transferred to the utility and the credit must be "retired" upon use to meet the utility's RPS obligation.

e. What relationship, if any, should portfolio standard credits have to other State and Federal credit trading programs for S02, greenhouse gases, or biofuels?

California's RPS law requires that all environmental attributes, with a few specific exceptions, be included within a REC used to satisfy RPS requirements.[22] The environmental attributes may not be disaggregated. In its

[20] Senate Bill 107, Statutes of 2006, Section 399.16. (a)(5)
[21] Ibid, Section 399.16. (a)(6)
[22] California Public Utilities Code §399.12(g)(2).

2007 Integrated Energy Policy Report proceeding, the Energy Commission is investigating the relationship between the RPS and GHG emissions. Participants in that proceeding have pointed out that in any cap and trade program for carbon emission reduction credits, the overall cap must be adjusted downward to account for emission reductions due to the RPS or any other mandatory programs that reduce GHG emissions.[23]

Renewable energy credits should have no relationship to other credit trading programs because doing so would in effect disaggregate the attributes associated with renewable energy generation and reduce or eliminate the value of the REC. Moreover, if a REC is used in more than one credit trading program, it would constitute double counting. In California, a REC includes all renewable and environmental attributes associated with the production of electricity from the eligible renewable energy resource, except for an emissions reduction credit issued pursuant to Section 40709 of the Health and Safety Code and any credits or payments associated with the reduction of solid waste and treatment benefits created by the utilization of biomass or biogas fuels.[24] In its *2006 Integrated Energy Policy Report*, the Energy Commission recommends that the relationship between renewable energy, renewable energy certificates, and carbon emission trading in implementing greenhouse gas reductions be further analyzed to help achieve longer-term RPS goals.[25]

f. What requirements, if any, would there be concerning the length of contracts for qualifying generation and ownership of credit rights?

Beginning in 2002, California's RPS legislation required that RPS contracts be of no less than 10 years in duration, with any exceptions to be approved by the California Public Utilities Commission.[26] In 2006, the Legislature provided for the use of contracts of less than 10 years' duration (short-term contracts) to meet RPS obligations, but only under certain conditions. The CPUC will establish, for each retail seller, minimum quantities of eligible renewable energy resources to be procured either through contracts of at least 10 years' duration or from new facilities commencing commercial operations on or after January 1, 2005. Further, no supplemental energy payments will be awarded for a contract shorter than 10 years' duration.[27]

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[23] See presentations at:
http://www.energy.ca.gov/2007_energypolicy/documents/index.html#031307

[24] Health and Safety Code Section 40709 requires California air districts to establish a system for banking air emissions reductions to be used to offset future increases in air emissions. The system is limited to reductions in the emission of air contaminants that are not otherwise required by any federal, state, or district law, rule, order, permit, or regulation shall be registered, certified, or otherwise approved by the district air pollution control officer before they may be banked and used to offset future increases in the emission of air contaminants.

[25] Integrated Energy Policy Report Update, CEC-100-2006-001-CMF, January 2007

[26] Public Utilities Code Section 399.14(a)(4)

[27] Ibid, Section 399.14(b)(2), added by SB 107 (Simitian), Statutes of 2006, Ch. 464

In May 2007, the CPUC issued an interim order that, beginning in 2007, each load-serving entity is obligated under the RPS program must, in order to be able to count for any RPS compliance purpose energy deliveries from contracts of less than 10 years' duration ("short-term") with RPS-eligible facilities that commenced commercial operation prior to January 1, 2005, in each calendar year enter into contracts of at least 10 years' duration ("long-term") and/or short-term contracts with facilities that commenced commercial operation on or after January 1, 2005 for energy deliveries equivalent to at least 25 per cent of that entity's prior year's retail sales.[28]

When a REC (or for California, a WREGIS Certificate) is used to satisfy a utility's RPS compliance in California, the REC is retired and no longer available to be traded or used for any other purpose, including mandatory or voluntary compliance, thereby preventing double-counting.

[28] California Public Utilities Commission, Rulemaking 06-02-012, Decision 07-05-028, May 3, 2007