

**Before the
NEW MEXICO PUBLIC REGULATION COMMISSION**

COMMENTS OF



**Union of
Concerned
Scientists**

Citizens and Scientists for Environmental Solutions

**ON PROPOSED RULE
RENEWABLE ENERGY AS A SOURCE OF ELECTRICITY
TITLE 17 CHAPTER 10 PART 573
UTILITY CASE 3619**

by

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Introduction & Summary

Thank you for the opportunity to offer comments on behalf of the Union of Concerned Scientists (UCS) on the draft renewable portfolio standard (RPS) and renewable energy rule issued by the Utility Division of the New Mexico Public Regulation Commission (Commission). Established in 1969, UCS is an independent nonprofit alliance of 60,000 committed citizens and leading scientists across the country. We augment rigorous scientific analysis with innovative thinking and committed citizen advocacy to build a cleaner, healthier environment and a safer world. We seek to ensure that all people have clean air, energy, and transportation, as well as food that is produced in a safe and sustainable manner. We strive for a future that is free from the threats of global warming and nuclear war, and a planet that supports a rich diversity of life. Sound science guides our efforts to secure changes in government policy, corporate practices and consumer choices that will protect and improve the health of our environment globally, nationally and in communities throughout the United States.

The UCS Clean Energy Program focuses on developing a sustainable energy system—one that is affordable and non-depletable, and that does not degrade natural systems or public health. The Program analyzes, develops, and promotes innovative technology- and market-based strategies to commercialize renewable energy technologies, and provides information to policymakers, the media, and the public about energy's impact on public health and safety, the environment, and the economy.

UCS has been a leading analyst of and advocate for minimum renewable energy requirements at the state and federal levels. Our most recent publications on the subject include:

- *Clean Energy Blueprint: A Smarter National Energy Policy for Today and the Future*
- *Renewing Where We Live: What a Renewable Energy Standard Means for Your Region*

- *Powering Ahead: A New Standard for Clean Energy and Stable Prices in California.*¹

Clean Energy Blueprint analyzes the environmental and economic costs and benefits of adopting a suite of policies to promote energy efficiency and renewable energy development including a national RPS. *Renewing Where We Live* analyzes the economic and environmental impact of a national RPS on specific regions and states, including New Mexico. *Powering Ahead* analyzes the costs and benefits of a RPS in California. These studies have shown a strong RPS is affordable to consumers and can provide significant environmental, economic development, and energy diversity benefits. UCS has played an active role in discussions of RPS adoption and implementation before legislatures and commissions in the other states where they have been enacted including Arizona, California, Connecticut, Maine, Massachusetts, New Jersey, Nevada, and Wisconsin.

We appreciate the Commission's support for a strong RPS in New Mexico. If implemented effectively, the 10% renewable energy level by 2010 will put New Mexico among the upper tier of states with RPS policies. UCS believes that is appropriate given New Mexico's strong renewable resource base and current heavy reliance on coal and natural gas. New Mexico is blessed with abundant wind, solar, geothermal and biomass resources that could theoretically support over 123,000 megawatts of capacity in the state or more than 16 times its current electricity needs.² The New Mexico RPS rule will stimulate development of new renewable energy projects in New Mexico and contribute to a cleaner environment and more secure energy future.

In particular, UCS would like to express its strong support for the Commission's decision to ensure that renewable energy generation is procured by the state's investor owned utilities for a period of at least 10 years. Short-term energy procurement cycles are incompatible with the longer-term contractual commitments necessary for the financial success of renewable-fueled generation. Many renewable-fueled generation technologies have higher capital costs and lower operating costs than traditional generation resources. Because of this cost structure, many renewable technologies require long-term contractual commitments from credit-worthy buyers in order to attract financing. Investors appear to require commitments for renewable attributes, or both attributes and energy, of at least five years for landfill methane generators, and ten years or longer for more capital-intensive resource types such as wind. In recent testimony before the California Public Utilities Commission, the Union of Concerned Scientists requested 15 to 20 year commitments for

¹ Steven Clemmer, Deborah Donovan, Alan Noguee, and Jeff Deyette, *Clean Energy Blueprint: A Smarter National Energy Policy for Today and the Future*, Union of Concerned Scientists, Cambridge, Mass., October, 2001. *Renewing Where We Live: What a Renewable Energy Standard Means for Your Region*, Union of Concerned Scientists, Cambridge, Mass., February 2002. Deborah Donovan, Steven Clemmer, Alan Noguee, and Peter Asmus, *Powering Ahead: A New Standard for Clean Energy and Stable Prices in California*, Union of Concerned Scientists, Cambridge, Mass., September, 2001. All publications available on-line at: <http://www.ucsusa.org/energy/>

² UCS estimates based on data from the U.S. Department of Energy. Published in *Renewing New Mexico: A National Renewable Energy Standard Will Benefit New Mexico's Economy*, Union of Concerned Scientists, Cambridge, Mass., February 2002. Available on-line at: <http://www.ucsusa.org/energy/>

renewable energy purchases. UCS stated that renewable projects require long-term fixed price contracts in order to be cost-effectively financed. UCS suggested that 20-year contracts will yield the lowest costs and minimize price risk to ratepayers.

Given renewable energy plants' relatively higher upfront capital costs and lower operating costs compared to fossil-fired plants, longer contract terms are a critical driver to reducing renewable energy's average electricity costs. As an example, for a generic wind power project with typical project assumptions, moving from a 20-year contract term to a 10-year contract term increases revenue requirements by 29 percent. Given the substantial impact contract term has on renewable energy's all-in generation costs, policies that support longer contract terms will be a key instrument for effectively and economically meeting state renewable energy targets. As a result, UCS recommended that the CA Commission require contract terms of at least 15 years, but preferably 20 years, for all new renewable energy projects. Similarly, UCS strongly recommends the Commission retain the requirements proposed by the Commission in Section 7.3 of the proposed RPS for New Mexico.

UCS does have some concerns with the draft rule, however. We summarize these issues below. Following this summary we discuss our concerns in greater detail and offer suggestions for strengthening the regulations to ensure a more effective policy.

- The lack of an explicit penalty mechanism to ensure compliance with the requirement could impair the effectiveness of the New Mexico RPS.
- Provisions need to be added to the section on renewable energy credits to ensure an effective mechanism and to prevent the possibility of double counting of the same renewable energy generation for more than one purpose (e.g. RPS compliance and voluntary green purchases).
- As drafted, the definition of biomass could result in the use of unsustainable and hazardous fuels – such as municipal solid waste or contaminated waste wood – receiving credits under the RPS. The definition should be more specific in excluding these types of fuels. In addition, the Commission should strike hydropower as an eligible renewable energy source.
- Clarification is needed on the voluntary renewable energy tariff to ensure that voluntary contributions by consumers result in additional renewable generation above the RPS requirement.
- The Commission should provide more specific guidance on what provisions investor-owned utilities should include in a net metering tariff filing. In addition, the Commission should clarify whether net metering projects are eligible to generate credits towards meeting the RPS and that the owner of the renewable energy resource should receive the credits.

- The Commission should adopt an annual 1% incremental ramp-up starting at 4% in 2004 to the full 10% by 2010 standard instead of having three years gaps between RPS targets.
- The Commission should eliminate section 12 of the draft rule, as it is unnecessary and could result in inequitable distribution of responsibility for achieving the goals of the RPS.

Penalties for Non-Compliance

The draft RPS rule does not include an explicit penalty mechanism for non-compliance. Though the Commission has the ability to assess general penalties under provisions in the New Mexico Public Utility Act, UCS believes it is important to include a penalty mechanism specifically for the RPS that is set at an appropriate level to ensure effective compliance with the standard. This would also ensure that renewable energy resources are actually developed and brought on-line, providing the important environmental and economic benefits intended by adopting the rule. We recommend that the Commission consider adopting a penalty mechanism that is similar to the Texas and Massachusetts RPS programs. These states have a non-compliance penalty equal to \$50 per megawatt hour (MWh) (with an annual adjustment for inflation based on the GDP implicit price deflator) or 200 percent of the average market value of credits for that compliance period.³

Renewable Energy Credit Trading Mechanism

UCS strongly supports the use of tradable renewable energy credits (REC) to meet an RPS requirement and applauds the Commission for including the provision in the draft rule. An RPS with a tradable REC market provides many benefits that can reduce the cost and complexity of implementation, such as

- an easy and efficient system for achieving and tracking compliance
- compliance flexibility
- improved market liquidity by increasing the number of buyers and sellers in a renewable energy market

Several states with RPS programs, including Arizona, Texas and Wisconsin, currently use credit trading for RPS compliance. The New England states have also implemented a credit-trading system for identifying all generation. The Generation Information System, or GIS, is used in disclosing the fuel mix to customers, complying with emission portfolio laws as well as serving as the source of RECs for the RPS programs in Massachusetts and Connecticut.⁴ In addition, the national RPS that passed the U.S. Senate includes a REC trading system. REC trading is similar to the Clean Air Act emission cap and allowance

³ For more information, see Public Utility Commission of Texas Substantive Rules, section 25.173(o)(2); and www.state.ma.us/doer/rps/225cmr.pdf

⁴ For more information on the New England Generator Information System, see www.nepoolgis.com and www.iso-ne.com/committees/generation_information_systems/

trading system, which permits lower-cost, market-based compliance with air pollution regulations.

Though the current draft rule specifies that REC trading be implemented under the RPS, there are very few guidelines explaining how this system should be developed. To ensure that the most effective RECs program is employed, UCS recommends that the Commission outline the components of the mechanism in its final rule. Such a mechanism should include, but not be limited to the following elements:

- A renewable energy credit represents one kilowatt hour (kWh) of electrical energy which is produced by eligible renewable energy technologies as set forth in Section 7.4 and which is sold at retail or consumed in New Mexico.
- RECs may be traded, sold, or transferred by their owner to any other party. Such transfer does not require the physical delivery of electrical energy but may consist of accounting entries reflecting the transfer.
- Once a retail electricity provider applies a renewable energy credit to meet an RPS requirement, that renewable energy credit is considered retired and unavailable to meet the RPS requirement for a future year or for another retail energy provider.

Without language of this sort, the potential exists for a REC—which represent the attributes of the renewable energy—to be counted more than once. Such double counting can jeopardize public and market confidence in the RPS, can make compliance difficult and unwieldy, and threaten the development of a prosperous and successful renewable energy market in New Mexico.

Experience in other states with RPS programs employing a REC mechanism have shown a potential for uncertainty with respect to the legal rights to RECs issued to Qualifying Facilities (QFs) with existing PURPA contracts predating the RPS. To avoid this confusion, UCS recommends that the Commission insert the following statement in its REC trading program guidelines: “When a generator sells electric energy generated through the use of a renewable energy resource to a retail electric supplier under a contract subject to section 210 of the Public Utility Regulatory Policy Act, the retail electric supplier is treated as the generator of the electric energy for the purposes of the issuance of credits under the credit trading program.” UCS believes that it may be appropriate to assign rights to renewable credits to power purchasers under existing PURPA contracts to the extent that above-market QF contracts enable the QFs to continue to operate, and that the transfer of attributes to the power purchaser is used to reduce stranded cost recovery associated with the contracts.

The most appropriate candidates for managing a credit trading program are the Public Regulatory Commission or the state energy office. These agencies have the greatest expertise and knowledge in state government for administering this type of program. UCS recommends that the Commission designate an entity that is directly accountable to the public. Other states that have adopted RPSs have favored this approach. Furthermore, all federal RPS proposals have designated the equivalent federal energy agency – the Federal Energy Regulatory Commission (FERC) or the U.S. Department of Energy – as the administrator.

UCS does not believe it is necessary for a commodities exchange to play a formal role in the trading program. However, the Commission should adopt rules that allow the market to develop a commodities exchange if one is needed.

The commission or other agency designated to administer the trading program would perform a number of important duties and oversight responsibilities. This would include dispensing credits to renewable generation companies; collecting administrative costs through credit sales; ensuring that everyone complies with the law and files truthful reports; issuing penalties for non-compliance; certifying that potential projects meet established eligibility requirements; and keeping records for tracking the cost and effectiveness of program. UCS recommends that these responsibilities be spelled out in the Commission's final ruling.

Eligible Renewable Energy Definition

As currently drafted, the definition of biomass is too expansive and could result in unsustainable and hazardous fuels – such as municipal solid waste, contaminated waste wood, or tires – receiving credits under the RPS. UCS recommends that the Commission strike the section in definition 7.4 renewable energy stating “including but not limited to agriculture or animal waste, small diameter timber, salt cedar and other phreatophyte or woody vegetation removed from river basins or watersheds in New Mexico,” and replace it with a new, separate definition of biomass using the following language:

“Biomass – The Term ‘biomass’ means—

(A) organic material from a plant that is planted for the purpose of being used to produce energy; and

(B) nonhazardous, lignocellulosic or hemicellulosic matter or agricultural animal waste material that is segregated from other waste materials and is derived from—

(i) the following forest-related resources—

(I) harvesting and mill residue;

(II) precommercial thinnings;

(III) slash; and

(IV) brush;

(ii) an agricultural crop, crop byproduct or residue resource;

(iii) miscellaneous waste such as waste pallet, crate, dunnage, and landscape or right-of-way- tree trimmings;

but not including—

(I) incineration of municipal solid waste;

(II) recyclable postconsumer waste paper;

(III) painted, treated, or pressurized wood;

(IV) wood contaminated with plastic or metals; or

(V) tires;

(iv) animal waste; and

(v) black liquor provided that it is converted to electricity in new or retrofitted generators that use advanced gasification technologies.”

As drafted, the rule would permit use of existing renewable energy facilities to meet the portfolio standard. This approach may run the risk of limiting the development of new non-hydro powered renewable energy projects. The biggest risk comes from RPS requirements being satisfied by credits sold or traded to investor-owned utilities by recipients or sellers of existing federal or municipal hydropower generation. Therefore, UCS recommends that the Commission not issue tradable RECs for renewable energy generation from facilities that are owned by or under contract to utilities that are not required to meet the RPS targets, including municipal utilities, rural electric cooperatives, and public power authorities. UCS suggests that the Commission consider adding provisions to the RPS rule allowing such utilities to opt in to the RPS.

UCS further recommends that the Commission strike hydropower from the definition of an eligible renewable energy source. Hydropower is a mature technology, as it comprises approximately 10% of our nation's current supply of electricity. It is often the least expensive generation available, and existing hydro facilities generally do not need the support of an RPS to continue operating. In New Mexico, hydropower accounts for just 1% of current electricity supply and the potential for environmentally sensitive expansion of hydro in the state is limited. However, the potential exists for retail providers in New Mexico to purchase generation from large hydro facilities outside the state, thereby swamping the RPS and significantly limiting the development of new renewable energy in the state. By eliminating hydropower from the definition of eligible renewable energy sources, the Commission would avoid this risk.

Finally, UCS recommends that the Commission ensure that its requirements for documentation of delivery of renewable energy from outside of New Mexico be clarified. Based on experience in other states, it is important to avoid confusion about what the criteria are for eligible resources. One way the Commission might achieve this is to require that generation from eligible renewable energy technologies not located in New Mexico must be physically delivered to the state's transmission or distribution system.

Voluntary Renewable Energy Tariff

Section 10.4 requires each retail electricity provider to offer a voluntary renewable energy tariff for customers wishing to purchase renewable energy above and beyond what is required under the RPS. UCS supports green power purchasing programs as a means for consumers to voice their support for clean, sustainable energy sources and to stimulate new renewable energy development. We applaud the Commission for including this provision in the draft RPS rule. However, UCS recommends that the Commission clarify in its final RPS rule that electricity purchased or acquired under the voluntary renewable energy tariff is not eligible to receive credits towards meeting the RPS.

UCS strongly believes that the voluntary renewable energy tariff should support the development of new renewable energy above and beyond the requirements under the New Mexico RPS. Otherwise, electric utilities could conceivably assign their RPS requirements to a premium green power product, resulting in participating customers paying twice for the

same product, while not receiving the added green power supply they were promised. These customers would bear a disproportionate burden of the cost of an RPS while all New Mexico residents would share RPS benefits. This would also undermine the credibility of the green market program as customers who voluntarily pay a premium for a green product ought to be assured that their additional payment is helping to add new renewable energy supplies to the system, and not simply subsidizing a utility's costs for complying with the RPS. The implementation of a GIS system like the one in New England makes the separate tracking of renewable energy used for RPS compliance and that used for incremental voluntary green purchases straightforward.

Net Metering

Section 10.6 requires each retail electricity provider to offer a reasonable net metering option to renewable energy generators with less than 100 kW of capacity that “avoids any harm to the operation and safety of the utility electrical system.” UCS supports net metering programs because they allow consumers to more affordably choose and use small-scale clean energy technologies like rooftop solar panels, small wind turbines, and fuel cells. Currently, many residential and commercial energy consumers seeking to generate electricity from on-site renewable energy sources face significant barriers including onerous and expensive requirements for connecting to the grid. Often, utilities unnecessarily require customers to install separate meters for measuring renewable energy output, and impose unfair compensation practices for generating excess electricity.

UCS believes that a net metering provision should prevent electric utilities from assessing arbitrary fees to on-site generators for standby, capacity, or interconnection requirements. We recommend that the Commission should provide more specific guidance to utilities in establishing net metering programs. Specifically, we urge the Commission to adopt net metering and to draft regulations that would:

- provide fair, equitable and nondiscriminatory interconnection standards for small clean energy sources;
- establish technical standards for connecting to the grid; and
- prohibit discriminatory standby, capacity, interconnection charges for clean energy sources and provide that rates and charges for clean energy sources be identical to those charges to other electric consumers in the rate class.

In addition, UCS recommends that the Commission explicitly clarify whether net-metered systems are eligible to meet the requirements under the RPS. If the Commission takes such an approach and deems net-metered systems eligible for the RPS, UCS recommends that the customer who owns the net-metered system, not the retail provider, receive the applicable renewable energy credits.

Portfolio Standard Ramp-up

Research by UCS on the costs and benefits of implementing a national RPS has found that to provide a stable and predictable market for renewable developers and reduce potential

price volatility, renewable energy targets should increase gradually and remain in place over a long period of time.⁵ Section 10.1 of the proposed rule would establish targets that increase 3% every 3 years between 2004 and 2010. UCS recommends that the Commission amend this section so that the portfolio standard increases in annual 1% increments. UCS believes this will provide greater continuity for utilities to comply with the standard and avoid a rush to install all of the generation needed to meet standard in the final year leading up to an increase.

Section 10.1 of the proposed rule also does not specify if the RPS will continue after 2010. We recommend that the rules specify that the credit trading program be allowed to self-sunset when credit prices fall to zero to allow renewable developers and retail suppliers to recover any incremental costs over a reasonable period of time, minimizing the price of renewable energy credits. This could be accomplished by inserting “and thereafter” immediately after the phrase “and by January 1, 2010”. At a minimum, the RPS should continue for at least 10 years after the highest target is reached. This approach was adopted in both the Texas RPS rule and national RPS included in the Senate energy bill.

Exemption, Variance, and Complaints

UCS strongly disagrees with the draft language in Section 12: Exemption, Variance, and Complaints. Allowing one or more affected utilities to argue its way out of responsibility under the RPS would shift an undue burden onto other utilities’ customers and undermine the stated goals of the program. Further, New Mexico has great potential for renewable energy generation, making the need for such exemptions unnecessary. UCS is sensitive to the concerns that utilities and electricity customers may have about the prospect of meeting a new requirement such as the RPS with out any sort of mitigation. As such, UCS believes that there are alternatives to addressing such concerns that are far more equitable than allowing exemptions from the program.

The Massachusetts Department of Energy Resources adopted an alternative compliance mechanism to set an upper bound on the costs of RPS compliance and provide further flexibility for retail electricity suppliers in meeting the state’s RPS requirements. Under the Massachusetts RPS, retail electricity suppliers can obtain credits by generating electricity from eligible renewable energy sources; trading or purchasing credits from another generator; or purchasing the required credits through an Alternative Compliance Payment (ACP) to a government designated entity.⁶ The U.S. Senate passed a national RPS that also includes a similar alternative compliance mechanism. These systems allow retail electricity suppliers to still comply with the RPS requirement in the event that they do not develop new renewable energy sources on their own and credits are unavailable from eligible generators at prices below the ACP rate. In Massachusetts, the cost of the ACP is set at the same level as the penalty for non-compliance, \$50 per MWh (with an annual adjustment for inflation based on the GDP implicit price deflator), and the funds collected are to be used to maximize the commercial development of new renewable energy in the state. UCS recommends that the

⁵ Steven Clemmer, Alan Noguee, Michael C. Brower, and Paul Jefferiss, *A Powerful Opportunity: Making Renewable Electricity the Standard*, Union of Concerned Scientists, Cambridge, Mass: 1999.

⁶ For the detailed RPS regulations issued by the Massachusetts DOER, see www.state.ma.us/doer/rps/225cmr.pdf

Commission consider adopting an alternative compliance mechanism as part of its REC trading program in the final RPS ruling.

Conclusion

UCS appreciates the Commission’s support for a strong RPS in New Mexico. If implemented effectively, this policy will put New Mexico among the upper tier of states that are committed to renewable energy development as a means to achieve a cleaner, more sustainable energy future. We thank you for the opportunity to comment and encourage the Commission to consider the recommendations proposed above.

Respectfully submitted,

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