Union of Concerned Scientists
Citizens and Scientists for Environmental Solutions

NEVADA RENEWABLE PORTFOLIO STANDARD SUMMARY

A. **SUMMARY:** Nevada's history of state renewable portfolio standard (RPS) policies dates back to utility restructuring legislation in 1997. Since that time, Nevada has made several major revisions to its RPS, each time expanding its size and scope. Nevada's current RPS adopted in 2005 requires the state's electric utilities to generate or acquire a minimum of 6 percent of electricity sold to retail customers from renewable energy systems in 2005 and 2006, and gradually increases the standard until it reaches 20 percent in 2015. The RPS includes a solar set-aside of 5 percent of annual renewable energy generation, and allows for energy efficiency to meet up to 25 percent of the annual requirements. The inability of renewable energy developers to secure long-term contracts—due to the creditworthiness of public utilities—lead the Public Utilities Commission of Nevada to create a Temporary Renewable Energy Development (TRED) Program that allows IOUs to collect revenue from electric customers to pay for renewable energy separate from other wholesale power purchased.

B. AUTHORIZING LEGISLATION/REGULATION

1. **Part of Broader Energy Package?** Yes. Part of a broader restructuring program adopted in 1997. The RPS was amended in 2001, 2003, and 2005.

2. **Legislative/Regulatory Intent:** The preamble of the 2005 revision to the RPS (AB 3) provides clarity as to the legislative intent of increasing the use of renewable energy through the RPS. The full preamble reads as follows: "WHEREAS, The construction and operation of the buildings in which we live, work and play require enormous amounts of energy, water and materials and create large amounts of waste, and the location of and how these buildings are built not only affect the ecosystem around us, but the buildings themselves create new indoor environments that present new environmental problems and challenges; and

   WHEREAS, With the threat of rising energy costs, increases in population and numerous environmental concerns, the State of Nevada is already developing and encouraging the use of alternative energy from geothermal, wind and solar resources, and the State should also consider the possibility of encouraging "greener" building requirements; and

   WHEREAS, Green building is a field that uses environmentally sustainable materials to construct buildings that conserve resources and provide a healthy living and working space; and

   WHEREAS, The many elements of green building include energy efficiency and the use of renewable energy, water efficiency, the use of building materials that have a minimal effect on the environment, reduction of waste, and the design and operation of buildings that are healthy for the occupants of such buildings; and

WHEREAS, The Nevada Legislature encourages a sound financial economy, the reduction of usage and demand of fossil fuels, and a reduction of harmful emissions; and

WHEREAS, The Nevada Legislature encourages the construction, rehabilitation and maintenance of buildings in this State in such a manner as to promote better environmental standards, improve energy efficiency and increase generation of energy through renewable and clean-energy technologies, and to improve the health and productivity of building occupants by meeting advanced criteria for indoor environmental quality.**”**

3. **Applicable Legislation/Regulation:**
   Nevada Revised Statutes Chapter 704 – Regulation of Public Utilities Generally, Portfolio Standard (NRS 704.7801-704.7828)

   Nevada Administrative Code, NAC 704.8831 through 704.8939, Portfolio Standard for Renewable Energy and System of Renewable Energy Credits

   Legislative History
   6/01 – SB 372

   5/03 – RPS amended by AB 296

   6/03 – RPS amended by AB 429

   6/05 – RPS amended by AB 3

4. **Date Enacted:** June 8, 2001

5. **Date Effective:** June 8, 2001

C. RULEMAKING

1. **Implementing/rulemaking Authority:** Public Utilities Commission of Nevada (PUC)

2. **Rulemaking Completed to Date:**
   Nevada Administrative Code, NAC 704.8831 through 704.8939, Portfolio Standard for Renewable Energy and System of Renewable Energy Credits

   5/02 – PUC issues final order implementing RPS regulations (Docket No. 01-7029), codified as NAC 704.8831 – 704.8893

   4/04 – PUC issues regulations for REC trading program (Docket No. 03-8010), codified as NAC 704.8901 – 704.8939

1/06 – PUC issues order adopting amendments to the RPS regulations (Docket No. 05-7050), codified as NAC 704.8831 – 704.8899

D. TARGETS AND TIMETABLES

1. **Overview:** The legislation revising the RPS (AB 3) requires Nevada's investor owned electric utilities to generate, acquire, or save a minimum of 6 percent of all electricity sold to retail customers from renewable energy systems or efficiency measures in 2005 and 2006, and increases the standard gradually until it reaches 20 percent in 2015, and each year thereafter. In addition, of the total amount of electricity that the provider is required to generate, acquire, or save from renewable energy systems or efficiency measures during each calendar year, not less than 5 percent of that amount must be generated or acquired from solar renewable energy systems. Finally, electricity providers may not use efficiency measures to meet more than 25 percent of their annual requirement in any given year, and at least 50 percent of that amount must be saved from energy efficiency measures installed at service locations of the provider's residential customers (unless otherwise approved by the PUC).

2. **Schedule:**

Year	Percent of Renewable Generation or Efficiency Savings	Percent of Total Generation from Solar (Minimum)	Percent of Annual Total from Efficiency Measures (Maximum)
2005–2006	6 %	0.3 %	1.5 %
2007–2008	9 %	0.45 %	2.25 %
2009–2010	12 %	0.6 %	3 %
2011–2012	15 %	0.75 %	3.75 %
2013-2014	18 %	0.9 %	4.5 %
2015, and thereafter	20 %	1 %	5 %

3. **Treatment of Existing Capacity:** Renewable energy generation from existing facilities is eligible to meet the RPS requirements. Generation from hydropower facilities using water stored in a reservoir by a dam are only eligible if the dam was in existence as of 1/1/03. Existing energy efficiency measures (installed before 1/1/05) are not eligible to meet the RPS requirements. Renewable energy projects participating in the Temporary Renewable Energy Development Program must have commenced construction on or after 7/1/01.

4. **Review Requirements:** NA

5. **Sunset Clause:** None.

E. DEFINITION AND CERTIFICATION OF ELIGIBLE RESOURCES AND TECHNOLOGIES

1. Eligible Resources:

a. Biomass : Any organic matter that is available on a renewable basis, including:
- Agricultural crops and agricultural wastes and residues;
- Wood and wood wastes and residues;
- Animal wastes;
- Municipal wastes; and
- Aquatic plants;
- Biogas (methane and other gases produced from the decomposition of organic matter), including landfill gases, wastewater treatment gases, industrial digester gases;
- Any product made from agricultural crops or residues, including, without limitation, cooking oils.
- Co-firing

b. Geothermal energy

c. Solar energy
- photovoltaic
- solar thermal electric
- solar thermal energy systems that reduce the consumption of electricity

d. Wind

e. Waterpower less than 30 MW generating capacity. “Waterpower” means power derived from standing, running or falling water which is used for any plant, facility, equipment or system to generate electricity if the generating capacity of the plant, facility, equipment or system is not more than 30 MW. Except as otherwise provided in this subsection, the term includes, without limitation, power derived from water that has been pumped from a lower to a higher elevation if the generating capacity of the plant, facility, equipment or system for which the water is used is not more than 30 MW. The term does not include power: (a) Derived from water stored in a reservoir by a dam or similar device, unless: (1) The water is used exclusively for irrigation; (2) The dam or similar device was in existence on January 1, 2003; and (3) The generating capacity of the plant, facility, equipment or system for which the water is used is not more than 30 MW; (b) That requires a new or increased appropriation or diversion of water for its creation; or (c) That requires the use of any fossil fuel for its creation, unless: (1) The primary purpose of the use of the fossil fuel is not the creation of the power; and (2) The generating capacity of the plant, facility, equipment or system for which the water is used is not more than 30 MW.

f. Energy from a qualified resource recovery process, a system with a nameplate capacity of not more than 15 MW that converts the otherwise lost energy from i] the heat from exhaust stacks or pipes used for engines or manufacturing or industrial processes, or ii] the reduction of high pressure in water or gas pipelines before the distribution of the water or gas to generate electricity if the system does not use additional fossil fuel or require a combustion process to generate such electricity.

2. **Special Incentives/Exclusions:** Customer-sited solar PV and participants in the Solar Energy Systems Demonstration Program (see below) receive 240 percent standard credits. Other on-site renewable generation or any energy efficiency measure receives 105 percent of standard credits to account for line loss factors. Electricity generation saved by a utility provider during peak load periods receive a credit of 200 percent. Energy derived from waste tire facilities using reverse polymerization technology receives a credit of 70 percent.

   The Solar Energy Systems Demonstration Program was created by the Nevada legislature in 2003 to provide an incentive for the development of solar energy systems. Utilities are required to offer participants dollar per watt rebates on a sliding scale (ranging from $5/watt to $2/watt) over time. Eligible participants include schools, public buildings, residential customers, and small businesses. Originally set to expire in 2007, the program was extended by the legislature (AB 3) through June 30, 2010.

   The legislation specifically excludes coal, natural gas, oil, propane, or any other fossil fuel, and nuclear energy as eligible resources. The use of tires to generate electricity (other than by reverse polymerization) is also not eligible.

3. **Treatment of Self-Generation:** Any excess kilowatt-hours fed back to the provider during the compliance year from net metering systems used by customer-generators are eligible. If the provider has subsidized, in whole or in part, the acquisition or installation of a solar thermal energy system which qualifies as a renewable energy system and which reduces the consumption of electricity, the total reduction in the consumption of electricity during each calendar year that results from the solar thermal energy system shall be deemed to be electricity that the provider generated or acquired from a renewable energy system for the purposes of complying with its portfolio standard.

4. **Rules governing Location of Generating Facilities:** A renewable energy system is RPS eligible if it is located in Nevada. Generation from out-of-state renewable energy systems is also eligible provided that it is tied to a dedicated transmission or distribution line that connects with a facility or system owned, operated or controlled by an in-state provider of electric service. The power line cannot be shared with more than one other non-renewable generator. Energy efficiency measures used to comply with the RPS must be installed at the service location of a retail customer of an electric service provider in Nevada.

5. **Eligibility of Green Pricing:** Though not explicitly stated in statute or regulations, it appears that the intent is not to allow the use of a renewable energy credit for both a voluntary green power programs and the RPS. For non-utility generation, the RPS regulations state that the owner is required to attest that the energy “(a) Has not been and will not be sold or otherwise exchanged for compensation or used for credit in any other state or jurisdiction; and (b) Has not been and will not be included within a blended energy product certified to include a fixed percentage of renewable energy in

any other state or jurisdiction." The regulations do not address utility-owned generation or purchased RECs.

G. COVERED UTILITIES

1. **Covered utilities:** The RPS requirements only apply to Nevada's public utilities. They do not apply to municipal utilities, cooperatives, or general improvement districts.

2. **Share of state sales/capacity/delivered power covered:** ~ 88 percent of total 2004 state electric sales.

3. **Apportionment of obligation among utilities:** Obligations are apportioned separately to each affected utility.

4. **Any exemptions by customer class**: None.

H. COST PROVISIONS

1. **Cost Cap for Retailers:** There are no explicit cost caps in the legislation or regulations. However, all new contracts must be reviewed and approved by the PUC. If the PUC determines that there is not a sufficient supply of electricity or a sufficient amount of energy savings made available to the provider from renewable energy and energy efficiency contracts with just and reasonable terms and conditions, the PUC shall exempt the provider, for that calendar year, from the remaining RPS requirements or from any appropriate portion thereof, as determined by the PUC. The price for electricity delivered under the contract is one factor in determining the just and reasonableness of the contract.

2. **Cost Cap for Consumers:** NA

3. **Cost Recovery Mechanisms:** If the PUC approves the terms and conditions of the contract between the utility provider and the other party, the contract and its terms and conditions shall be deemed to be a prudent investment and the utility provider may recover all just and reasonable costs associated with the contract.

   For a renewable energy or energy efficiency contract longer than three years, utility providers may request the PUC approve mitigation for the imputed debt on the capital structure of the utility.

4. **Supply Contract Requirements:** The term of a renewable energy or energy efficiency contract entered into by an electric provider must be not less than 10 years, unless the other party agrees to a contract with a shorter term. New contracts must be submitted for PUC approval, and the terms and conditions of the contract must be just and reasonable as determined by the PUC. The PUC describes in detail the conditions that define "just and reasonable" in NAC 704.8885.

5. **Special funds:** The inability of renewable energy developers to secure long-term contracts in the first few years of RPS implementation—due to the creditworthiness of public utilities—lead the PUC to create a Temporary Renewable Energy Development (TRED) Program. Adopted through the regulatory process in September 2004 (and codified by the legislature in 2005 via AB 3), the TRED Program allows public utilities to collect revenue from electric customers to pay for renewable energy separate from other wholesale power purchased. The PUC established an independent TRED Trust to administer the TRED fund. The goal of the program is to ensure a prompt and guaranteed revenue stream for renewable energy developers in order to allow them to receive the financing necessary to complete proposed renewable energy projects.

I. COMPLIANCE AND ENFORCEMENT

1. **Certification, tracking, and trading mechanism[s]:** Each provider shall comply with the RPS by generating, acquiring, or saving electricity from a renewable energy system or efficiency measure in the amounts required for that compliance year. The burden of proof for RPS compliance is placed on each electric utility provider. In calculating compliance, each provider may count: (a) generation from the provider's own renewable energy systems during the compliance year; (b) generation acquired or saved during the compliance year from either preexisting or new renewable energy or efficiency measures contracts; (c) equivalent generation attributable during the compliance year from solar thermal systems; (d) excess generation fed back to the provider during the compliance year from net metering systems used by customer-generators; (e) any generation saved during the compliance year as a result of an energy efficiency measure; and (f) any credits authorized to carry forward from previous compliance years.

   In 2002, the PUC created an intra-state, certificate trading system which can be used to track and verify compliance. Credits began accruing in 1/1/03. The credit trading system was revised by the PUC in 2006 to incorporate the changes made to the RPS in AB 3.

   A portfolio energy credit (credit) equals 1 kilowatt-hour of electricity generated or saved by a portfolio energy system or efficiency measure. If a renewable energy system has entered into a contract with an electric service provider before December 8, 2003, the credits generated as a result of the contract are awarded to the provider (unless otherwise determined in a PUC proceeding). Therefore, by implication, generators receive ownership of credits generated from contracts signed after December 8, 2003. In addition, any credits associated with net excess generation from a distributed generation systems or from solar energy systems that were funded by the Solar Energy System Demonstration Program belong to the electric utility provider.

   The Nevada PUC has also been monitoring activity with respect to the formation of the WREGIS regional certification and trading system.

2. **Flexibility Mechanisms**: A portfolio credit exists for 4 years from the date created, and upon PUC approval, may be carried forward for future compliance.

   Credit multipliers for certain solar energy technologies, distributed generation, and energy efficiency measures can help reduce an electric service provider's overall annual requirements.

   If the PUC determines that there is not a sufficient supply of electricity or a sufficient amount of energy savings made available to the provider from renewable energy and energy efficiency contracts with just and reasonable terms and conditions, the PUC shall exempt the provider, for that calendar year, from the remaining RPS requirements or from any appropriate portion thereof, as determined by the PUC.

3. **Penalties, Procedures, Powers, and Sanctions:** No more than 30 days after a provider submits its annual report, the PUC must issue an order stating whether the provider has complied with the RPS during that compliance year.

   If it's determined that the provider did not comply, the PUC may, after notice and hearing, impose an administrative fine that is assessed against the provider on each kilowatt-hour by which the provider failed to comply with the RPS, or take other administrative action against the provider, or do both.

   Administrative fines can be at least the cost differential between the cost of renewable energy or energy efficiency and the cost of system power, unless a electric provider can claim an exemption because insufficient renewable energy or efficiency measures were obtainable despite best efforts. Any fines levied on utility providers must be deposited in the state's General Fund, and cannot be claimed in a rate case or paid off by retail customers.

4. **Treatment of emission allowance or reduction credits:** Not specified.

5. **Escape Clauses:** If, for any calendar year, a provider is unable to comply with its requirements through the generation of electricity from its own renewable energy systems or through the use of credits, the provider shall take actions to acquire or save electricity pursuant to one or more renewable energy contracts or energy efficiency contracts. If the PUC determines that there is not a sufficient supply of electricity or a sufficient amount of energy savings made available to the provider from renewable energy and energy efficiency contracts with just and reasonable terms and conditions, the PUC shall exempt the provider, for that calendar year, from the remaining RPS requirements or from any appropriate portion thereof, as determined by the PUC.

I. ADMINISTRATION

1. **Administering Entities, Duties, Powers, and Contact Information:**
   Public Utilities Commission of Nevada
   1150 East William Street

Carson City, Nevada 89701-3109
Phone (775) 687-6007
http://puc.state.nv.us/

J. REPORTING REQUIREMENTS and PROGRAM STATUS

1. **Reporting Requirements for Retailers:** Each electric service provider shall submit to the PUC an annual report that provides information relating to the actions taken by the provider to comply with the RPS. Submission of the report must be not later than April 1 of each compliance year.

   Each renewable energy system or owner of credits who is authorized by the PUC to participate in the portfolio credit tracking system shall, on a quarterly basis, submit to the PUC or Administrator each calendar quarter information concerning the purchase or sale of portfolio credits.

2. **Reporting Requirements by Administrative Entities:** Based on the annual reports submitted by providers, the PUC shall compile information on whether any provider has used energy efficiency measures to comply with RPS, the type of energy efficiency measures used and the savings attributable to each efficiency measure. The PUC must report this information to the Nevada legislature no later than the first day of each regular session; and to the Legislative Commission (if requested).

3. **Cost Information:** No comprehensive study on the actual costs of the RPS has been completed to date.

4. **Program Status:** The public utilities obligated to meet the RPS, Sierra Pacific Power Company (SPPC), Nevada Power Company (NPC), and Avista Energy, have failed to comply with their annual requirements in compliance years 2003, 2004, and 2005. As a result of this consistent non-compliance, the PUC has opened a series of procedural dockets intended to evaluate utility compliance and to determine a plan to achieve compliance at the earliest possible date. In Interim Order (Docket #05-4003) issued on July 27, 2005, the PUC ruled not to fine SPPC and NPC for their non-compliance, and further determined to waive any requirements for compliance years 2003 and 2004, allowing the utilities to carry over credits to compliance year 2005. On September 21, 2005, the PUC issued Interim Order 2 (Docket #05-4003), which found that SPPC and NPC failed to submit an adequate plan for RPS compliance, and failed to commit adequate company resources to achieve compliance. Interim Order 2 required the companies to revise their compliance plan, and opened up new PUC proceedings in an effort to (1) amend and codify regulations for annual reports and compliance plans, and (2) investigate possible rule changes to help facilitate greater RPS compliance.

   For compliance year 2005, all three utilities will have met their non-solar requirements, but not their solar requirements. This is in part due to the PUC's decision to allow SPPC and NPC to carry forward unused credits from the 2003 and 2004 compliance years. The PUC is moving forward with non-compliance hearings for each of the three utilities.

For more information on the RPS compliance status, visit the PUC website at http://www.puc.state.nv.us/Renewable/renew_dockets.htm.