

1 BILL No. _____ INTRODUCED BY _____ DATE: _____

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3 AN ACT to require certain providers of electric service to purchase
4 electricity from eligible electric generators; to prescribe the powers
5 and duties of certain state agencies and officials; and to provide for
6 penalties.

7

8 THE PEOPLE OF THE STATE OF NEVADA, REPRESENTED IN SENATE AND ASSEMBLY,
9 DO ENACT AS FOLLOWS:

10

11 Sec. 1. This act shall be known and may be cited as the "Nevada
12 Renewable Energy Payments and Jobs Creation Act".

13

14 Sec. 2. The purpose of this act is to do the following:

15 (a) Enable the rapid and sustainable development of Nevada's
16 abundant renewable energy resources for the clean generation of
17 electricity.

18 (b) Protect Nevada's atmosphere from air pollution.

19 (c) Protect Nevada's water and other natural resources.

20 (d) Reduce Nevada's climate changing greenhouse gas emissions.

21 (e) Reduce the volatility of future electricity prices.

22 (f) Reduce the long-term costs of electricity.

23 (g) Comply with Nevada's renewable energy portfolio standards.

24 (h) Place Nevada at the forefront of north America's renewable

1 energy revolution.

2 (i) Stimulate the development of new jobs, technologies, and
3 industries in Nevada.

4 (j) Allow all citizens and residents to participate in renewable
5 electricity generation.

6 (k) Create a Nevada marketplace for the development of renewable
7 energy by insuring that energy policies in Nevada are forward looking,
8 equitable, stable, and predictable.

9 (l) Demonstrate leadership in our nation's efforts to become energy
10 independent and to foster United States energy security.

11

12 Sec. 3. As used in this act:

13 (a) "Average specific yield" means the average production in
14 kilowatt hours for the first 5 years of production of a wind-powered
15 plant, less the maximum and minimum years of production, divided by the
16 rotor-swept area in square meters.

17 (b) "Capacity" means the electrical capacity that an eligible
18 electric generator may produce during regular operations, not including
19 standby capacity.

20 (c) "Commission" means the Public Utilities Commission of Nevada.

21 (d) "Electric utility" means that term as defined in NRS 704B.050
22 or NRS 704B.060 or NRS 704B.070; and includes a cooperative association,
23 nonprofit corporation, nonprofit association or provider of electric
24 service which is declared to be a public utility pursuant to NRS 704.673

1 and which provides service only to its members.

2 (e) "Eligible electric generator" means a system for the generation
3 of electricity that is fueled by a renewable fuel in this state.

4 (f) "Reasonable profit" means a profit of not less than 8% but not
5 more than 15%.

6 (g) "Renewable fuel" means solar, hydroelectric, wind, geothermal,
7 landfill gas, sewage treatment gas, biofuel, or biomass. For the
8 purposes of this subdivision:

9 (i) "Biofuel" means a fuel that is composed of a gas or liquid
10 which is made entirely from biomass.

11 (ii) "Biomass" means organic waste or dedicated crops grown
12 for energy production.

13 (h) "Small wind turbine" means any wind turbine with a rotor blade
14 swept area of no more than 2,000 square feet.

15

16 Sec. 4. (1) An electric utility shall connect an eligible electric
17 generator to the utility's distribution systems within 60 days of such a
18 request by an eligible electric generator. An electric utility that
19 refuses to connect an eligible electric generator to the utility's
20 distribution systems is subject to fines of not more than \$100.00 per
21 day that the electric utility is in violation of this subsection.

22 (2) The commission shall establish standards for the
23 interconnection of eligible electric generators with the distribution
24 systems of electric utilities. Metering of an eligible electric

1 generator to the utility's distribution systems will be separate and
2 distinct from any consumption metering at the eligible electric
3 generator's location. The standards shall be consistent with generally
4 accepted industry practices and guidelines and shall be established to
5 ensure the reliability of electric service and the safety of customers,
6 utility employees, and the general public. The costs associated with the
7 interconnection of eligible electric generators shall be included in the
8 surcharge under subsection (4).

9 (3) Electric utilities shall enter into power purchase agreements
10 for a term of not less than 20 years to purchase all electricity from
11 eligible electric generators in this state at the following rates set by
12 the commission:

13 (4) The commission shall, after notice and hearing, annually
14 approve a renewable energy factor that shall be a nonbypassable
15 surcharge payable by customers of a regulated electric supplier in the
16 state of Nevada. The surcharge shall be payable by all customer classes
17 except customers eligible for the Low Income Home Energy Assistance
18 Program. The commission shall set the surcharge at a level sufficient to
19 pay the costs of electricity purchased under subsection (3) and any
20 interconnection costs under subsection (2).

21 (5) The commission shall approve a standard contract to be used in
22 all power purchase agreements under this act. The contract must include
23 the prices paid for each kilowatt hour generated, the duration of the
24 contract, and any adjustments of those prices for inflation. The

1 commission shall provide utilities with standard contracts within 3
2 months of the effective date of this act.

3 (6) The commission shall review the rates in subsection (3) every 2
4 years and adjust those rates as necessary to account for inflation,
5 assist in the profitable development of eligible electric generators,
6 prevent excessive profits for eligible electric generators, and prevent
7 unnecessary costs to ratepayers. The commission shall reduce the rates
8 in subsection (3) to reflect any federal or state subsidies, tax
9 credits, or other incentives that an eligible electric generator is
10 receiving.

11 (7) In each of the first 2 years and every 4 years thereafter, the
12 commission shall file a report with the governor and legislature that
13 shall include all of the following:

14 (a) The number of new eligible electric generators in this
15 state and the environmental effects of the addition of those generators.

16 (b) Recommendations for legislation and changes to the rates
17 in subsection (3), if any

18 (c) Actions taken by the commission to implement this act.

19 (8) Eligible electric generators shall, upon request, provide the
20 commission any information that may be relevant to the commission
21 performing its duties under this act.

22

23 # [AMENDMENT DELEGATING RATES CALCULATION TO THE PUCN WOULD GO HERE]

24 # [NOTE: ALL RATES IN THIS SECTION ARE REPRESENTATIVE ONLY. THEY ARE

1 **# BASED ON RATES FROM OTHER JURISDICTIONS AND WILL LIKELY BE QUITE**
2 **# DIFFERENT WHEN CALCULATED FOR USE IN NEVADA.]**

3 Section 4 § (3) Electric utilities shall enter into power purchase
4 agreements for a term of not less than 20 years to purchase all
5 electricity from eligible electric generators in this state at the
6 following rates set by the commission:

7 (a) For electricity generated by hydroelectric power, the rate
8 needed for development plus a reasonable profit, but no less than the
9 following:

10 (i) \$0.109 per kilowatt hour for projects with a capacity
11 under 500 kilowatts.

12 (ii) \$0.094 per kilowatt hour for projects with a
13 capacity of 500 kilowatts to 10 megawatts.

14 (iii) \$0.087 per kilowatt hour for projects with a
15 capacity greater than 10 megawatts to 20 megawatts.

16 (iv) \$0.065 per kilowatt hour for projects with a
17 capacity greater than 20 megawatts to 30 megawatts.

18 (b) For electricity generated by landfill gas or sewage
19 treatment gas, the rate needed for development plus a reasonable profit,
20 but no less than the following:

21 (i) \$0.107 per kilowatt hour for projects with a capacity
22 under 500 kilowatts.

23 (ii) \$0.090 per kilowatt hour for projects with a
24 capacity of 500 kilowatts to 5 megawatts.

1 (c) For electricity generated by biomass and biogas, the rate
2 needed for development plus a reasonable profit, but no less than the
3 following [*this section should be amended to include fuel bonuses for*
4 *wood wastes (\$0.083), no wood waste (\$0.054), innovative technologies*
5 *(\$0.030), and energy use for district heating (\$0.030)]:*

6 (i) \$0.160 per kilowatt hour for projects with a capacity
7 less than 150 kilowatts.

8 (ii) \$0.138 per kilowatt hour for projects with a
9 capacity of 150 kilowatts to 500 kilowatts.

10 (iii) \$0.124 per kilowatt hour for projects with a
11 capacity greater than 500 kilowatts to 5 megawatts.

12 (iv) \$0.117 per kilowatt hour for projects with a
13 capacity greater than 5 megawatts to 20 megawatts.

14 (d) For electricity generated by geothermal energy plants, the
15 rate needed for development plus a reasonable profit, but no less than
16 the following [*these tariffs require reevaluation as prices reflect*
17 *2007 dollars*]:

18 (i) \$0.19 per kilowatt hour for projects with a capacity
19 less than 5 megawatts.

20 (ii) \$0.18 per kilowatt hour for projects with a capacity
21 of 5 megawatts to 10 megawatts.

22 (iii) \$0.115 per kilowatt hour for projects with a
23 capacity greater than 10 megawatts to 20 megawatts.

24 (iv) \$0.09 per kilowatt hour for projects with a capacity

1 greater than 20 megawatts.

2 (e) For electricity generated by wind-powered plants, the rate
3 needed for development plus a reasonable profit, but no less than the
4 following:

5 (i) For years 1 through 5, \$0.125 per kilowatt hour.

6 (ii) For years 6 through 20, \$0.125 per kilowatt hour for
7 projects with an average specific yield less than 700 kilowatt hours per
8 square meter per year.

9 (iii) For years 6 through 20, \$0.080 per kilowatt hour
10 for projects with an average specific yield greater than 1,100 kilowatt
11 hours per square meter per year.

12 (iv) For years 6 through 20, for projects with an average
13 specific yield greater than 700 kilowatt hours per square meter per year
14 but less than 1,100 kilowatt hours per square meter per year shall be
15 paid a rate that is a linear extrapolation between the rate at 700
16 kilowatt hours per square meter per year to 1,100 kilowatt hours per
17 square meter per year.

18 (v) For small wind turbines, \$0.25 per kilowatt hour.

19 (f) For electricity generated by solar-powered plants, the
20 rate needed for development plus a reasonable profit, but no less than
21 the following [***this section requires revision to include provisions for***
22 ***concentrated solar and all rates need to be corrected for region and***
23 ***inflation (rates reflect solar incidence in Michigan, not Nevada). Note***
24 ***from Paul Gipe states, "We need to rework this section and add the CSP***

1 ***tariffs.*"]:**

2 (i) \$0.50 per kilowatt hour for free standing or open
3 field projects.

4 (ii) \$0.65 per kilowatt hour for rooftop projects with a
5 capacity less than 30 kilowatts.

6 (iii) \$0.62 per kilowatt hour for rooftop projects with a
7 capacity of 30 kilowatts to 100 kilowatts.

8 (iv) \$0.61 per kilowatt hour for rooftop projects with a
9 capacity greater than 100 kilowatts.

10 (v) \$0.71 per kilowatt hour for facade cladding projects
11 with a capacity under 30 kilowatts.

12 (vi) \$0.68 per kilowatt hour for facade cladding projects
13 with a capacity of 30 kilowatts to 100 kilowatts.

14 (vii) \$0.67 per kilowatt hour for facade cladding
15 projects with a capacity greater than 100 kilowatts.

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17 * ***DRAFT*** * * * ***DRAFT*** * * * ***DRAFT*** * * * ***DRAFT*** * * * ***DRAFT*** * * * ***DRAFT*** *

18 **This draft legislation is based on a Michigan bill introduced in 2007**
19 **and was adapted for use in Nevada by Bob Tregilus of the Electric Auto**
20 **Association of Northern Nevada. This legislation is part of an outreach**
21 **campaign to build a coalition to support the passage of this feed-in law**
22 **which will create a renewable energy payments (REPs) program in Nevada**
23 **in 2011.**

24 **For more information please visit our website at**

1 <http://ElectricNevada.org> (click on the menu item for the Renewable
2 Energy Payments initiative) or call (775) 826-4514. This document is
3 available online at http://ElectricNevada.org/download/REPs_act.pdf
4

5 **NOTES & REVISIONS:**

- 6 1.) Need section exempting low-income and consumers on energy assistance
7 programs. (Complete page 7, sec 4, lines 23-4.)
- 8 2.) Review Gainesville, FL ordinance (> 10kW capped at 4MW per year at
9 discretion of utility manager) and Washington bill (according to Paul is
10 equal to the above bill but we should still look for unique language
11 also need to look up a Mike Nelson in Washington State for more
12 information).
- 13 3.) Who gets the RECs/PECs? (FL law gives all RECs to the utility).
- 14 4.) Perform close evaluation and produce summary of Hawaiian bill. What
15 was the agreement with the power company?
- 16 5.) Fixed error in small wind tariff. (Complete.)
- 17 6.) Evaluate California Energy Commission recommendation regarding PUC
18 determination of tariffs verses legislative. (This is likely the best
19 approach to the rate calculations. Lay down a set of goals to be met and
20 let the PUCN's economists calculate the rates. See note below about fed
21 legislation.)
- 22 7.) Maine bill is brand new language and should be reviewed.
- 23 8.) Governor Charlie Crist of Florida (former Atty General) and
24 Republican is supportive of feed-in laws as is Republican governor Linda

1 Lingle of Hawaii.

2 9.) Add amendment from fed legislation to allow PUCN to determine rates.

3 10.) Added separate metering requirements section 4 § 2. (Complete.)

4 11.) From Dr. Jeffery Michel add: Metering Policies. "The technique of
5 net metering currently employed in North America employs a bidirectional
6 power meter to deduct the amount of renewable power supplied to the grid
7 from regular customer consumption. Since only power differences are
8 measured, however, the specific contribution of renewable energies to
9 reducing grid demand cannot be determined. The Advanced Metering
10 Infrastructures (AMI) now being realized by many utility companies to
11 implement Demand-Side Management (DSM) programs should therefore include
12 a second meter at those customer locations supplying renewable energy.
13 Tariff schedules could be structured to promote the most cost-effective
14 reduction of conventional power generation. A solar array, for instance,
15 would qualify for feed-in incentives only in conjunction with DSM
16 participation, thereby excluding profits accrued in disregard of
17 avoidable power wastage. Feed-in legislation in Europe does not yet
18 account for such complex interrelationships in reducing grid loads,
19 since appropriate metering technologies have yet to be introduced."

20 12.) Need language disallowing CC&Rs &c from prohibiting addition of
21 renewable energy generating capacity. See SB114 (2009) Sec 3 § 1.

22 13.) Need language insuring that regulated utilities may participate in the
23 REPs program on an equal basis with all others, however, there should be an
24 adjustment to account for scales-of-economy enjoyed by the utility.

1 **14.) Add a mechanism, like the UK legislation has, for encouraging**
2 **efficiency by providing a bonus for excess power fed into the grid and not**
3 **consumed.**

4 **15.) Review Delaware legislation on vehicle-to-grid (V2G) their's**
5 **require net-metering. There should likely be a tariff for V2G as well.**

6 **16.) Add bonus for developing brownfields and mine sites into RE**
7 **generation capacity.**

8 **17.) Consider provision enabling dividend application on energy exports**
9 **to offset FITs cost on consumer's utility bills.**

10 **18.) Consider that any renewable energy equipment manufacturer operating**
11 **in the State of Nevada will be taxed on an equal basis as all other**
12 **corporations of similar size, however, a portion of that tax revenue**
13 **will be applied to offset FITs costs on consumer's utility bills once**
14 **that rate equals 2 percent.**

15 **Last updated: 02/25/2010**

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