

Approved:
Date March 8, 2001

MINUTES OF THE SENATE UTILITIES COMMITTEE.

The meeting was called to order by Chairman Senator Stan Clark at 9:30 a.m. on March 7, 2001 in Room 231-N of the Capitol.

All members were present except: Senator Tyson, excused

Committee staff present: Raney Gilliland, Legislative Research
Tom Severn, Legislative Research
Bruce Kinzie, Revisor of Statutes
Lisa Montgomery, Revisor of Statutes
Ann McMorris, Secretary

Conferees appearing before the committee:

Ernie Fantini, Passive Solar Structures, Ltd., Lawrence
Peter Scharfenberg, Owens Corning Kansas City, KS
Bill Griffith, Kansas Chapter of Sierra Club, Leavenworth
Dorethy Hancock, citizen, Topeka

Others attending: See attached list.

Chair continued the hearing by proponents on:

SB 299 - Promotion of energy efficiency, income tax credits

Ernie Fantini, designer & builder, Passive Solar Structures, Ltd., Lawrence stated this legislation would be of benefit to the citizens of Kansas. The public needs to be educated on the energy cost savings in building or remodeling. Saving energy in homes not only improves the financial stability and comfort of citizens in Kansas but it also helps our state in subtle ways. (Attachment 1)

Peter Scharfenberg, plant leader, Owens Corning Kansas City, outlined how **SB 299** would positively affect their business, while promoting and improving energy efficiency through the state of Kansas. This bill provides incentives to save energy. (Attachment 2)

A member asked for an estimate on how many homeowners would take advantage of this tax credit. Mr. Scharfenberg said he had not statistics available to answer that question.

Bill Griffith, Kansas Chapter of the Sierra Club, Leavenworth, stated the inefficient use of energy causes many economic and security problems in our country today, and most of the environmental ones. He cited examples of excess use of energy. He explained the use of net metering. He pointed out the last section of the bill on tax credits for renewable generation is long overdue and urged raising the cap on wind turbine investment. (Attachment 3)

Dorethy Hancock, private citizen, Topeka, focused on personal and philosophical aspects of the bill as it would affect all Kansans. She is researching energy efficient methods in her planning to build a bed and breakfast, utilizing solar and wind energy. (Attachment 4)

Kansas Corporation Commission Larry Holloway provided a summary of state "net metering" programs as requested from the committee at the March 6 hearing. (Attachment 5)

Chairman Clark announced he had been provided a packet of documentation on energy savers and since there was only one copy, it would be available from his office if anyone wished to review the materials.

CONTINUATION SHEET

MINUTES OF THE SENATE UTILITIES COMMITTEE at 9:30 a.m. on March 7, 2001 in Room 231-N of the Capitol.

Approval of Minutes

Moved by Senator Barone, seconded by Senator Emler, the minutes of the Senate Utilities meetings on March 1, 2001, March 5, 2001 and March 6, 2001, be approved. Motion carried.

The next meeting of the committee will be held on March 8.

Adjournment.

Respectfully submitted,

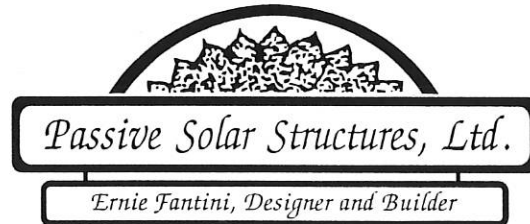
Ann McMorris, Secretary

Enclosures - 5

SENATE UTILITIES COMMITTEE GUEST LIST

DATE: MARCH 7, 2001

Name	Representing
JC Long	UtiliCorp United Inc.
Dorothy Hancock	myself
David Stehly	CertainTeed Corp.
JOHN Julian	CERTAINTEED Corp.
Bill Luff	Kansas Sierra Club
TOM DAY	KCC
GEORGE Phelps	North American Insulation Manufacturers Association (NAIMA)
Richard Freed	Self
Pete Scharfenberg	Owens Corning
Bud Burke	NAIMA
Bruce Graham	KEPCo
Evy Jantzen	Passive Solar Structures LTD.
Martha Jewett	KMHA
Paul Johnson	PACK
Pam Rogers	Farm Bureau
David Rogers	Farm Bureau



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Testimony for Senate Bill 299

Thank you Mr. Chairman and members of this committee for the opportunity to testify on Senate Bill 299.

My name is Ernie Fantini, President of Passive Solar Structures, Ltd. We have been in business based in the Lawrence Kansas area for the last ten years. Our specialty is building energy efficient and passive solar, new construction, as well as upgrading energy performance in existing housing. Therefore, it is my intention to testify on Section 2 of Senate Bill 299.

I feel the passage of this legislation would be of benefit to the citizens of Kansas. The provisions in Section 2, part B on improving the energy performance of existing homes by 25% is a realistic and cost effective home improvement. Section 2, part C calling for a minimum 30% increase in efficiency over the model energy code in new construction is again completely feasible. My company usually far exceeds this standard at a relatively small additional cost in new construction.

I find public lack of knowledge of the energy cost savings often for small initial investments, in building construction is the main obstacle to more energy efficient design. If people were aware of the dollar and cents facts in these matters it would make no economical sense not to invest in energy saving techniques.



Passive Solar Structures, Ltd.

Ernie Fantini, Designer and Builder

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Building and remodeling homes can be a very trying process financially for any family. I am frequently asked if there are any tax credits available to help offset the cost of energy related improvements. I am certain that passage of this legislation would be a strong incentive for the improvement of energy efficiency in the home building industry.

I sincerely believe saving energy in homes not only improves the financial stability and comfort of citizens throughout Kansas but it also helps our state in many subtle ways. The less fuel we consume, the less pollution we create, the less utility infrastructure we need, and the less money leaves our state for imported fuels.

Once energy improvements are made to a structure they are there for the life of the home. Day after day, year after year, the cumulative effect of these savings not only benefit the families occupying the homes but the state as a whole.

I hope this testimony in some small way increases the chances of passage of this legislation. Of course I would be more than willing to answer any questions that the committee may have.

Thank you
Ernie Fantini, President
Passive Solar Structures, Ltd.
March 3, 2001

**Testimony of Peter Scharfenberg, Plant Leader
Owens Corning Kansas City
Before the Kansas Senate Utilities Committee
March 7, 2001**

Mr. Chairman and Members of the Committee, on behalf of Owens Corning and the 470 employees and 475 retirees in the state of Kansas, I thank you for the opportunity to testify before this committee in support of SB 299. My name is Peter Scharfenberg and I am the plant manager from Owens Corning's Insulation Plant located in Kansas City, KS.

Owens Corning, headquartered in Toledo, Ohio, has facilities in more than 30 countries and employs 20,000 people worldwide. In the United States, Owens Corning has a presence in every state and congressional district, including the 470 employees and 475 retirees in Kansas.

Owens Corning, the pioneer of technology that invented glass fiber and glass fiber insulation over 50 years ago, is now the world leader in advanced glass and building material systems. Today, Owens Corning's sales are derived from two key businesses - Building Materials Systems and Composites Systems. The Building Materials business serves the home improvement, new construction, commercial and industrial markets with its Insulating, Roofing and Exterior Systems. I represent Owens Corning's Insulating Systems Business and would like to outline for you how SB 299 would positively affect our business, while also promoting and improving energy efficiency throughout the state of Kansas.

It may be useful to note that a typical pound of fiberglass insulation saves twelve times as much energy in its first year in place as the energy used to produce it.

Many states, like Kansas, have seen fuel prices soar. It is not an option to stop heating our home, nor is it beneficial to curtail business operations due to unexpected fuel bills. The best "insulation" from this pricing volatility is the efficient use of the energy we buy. Energy efficiency improvement is an investment that saves the individual money, collectively reduces demand for fuel, and helps the economy in State of Kansas. The economy benefits when businesses become more productive, and home owners have more disposable income when they pay less for their utility bills.

The Owens Corning plant would also benefit in two ways. First, as a business, we can potentially qualify for the tax credit for buildings we occupy. Secondly, our insulation products, many of which are produced here in Kansas, will likely be used by homeowners and building operators to qualify for the tax credit.

The United States is experiencing dramatic increases in the price of energy not seen since the days of the OPEC oil embargo of the 1970's. Demand continues to drive average prices up. Homeowners and businesses are having to cope with these higher prices and there is little relief in site for the next two to three years according to Cambridge Energy Research Associates.

The most recent report in the U.S. Energy Information Agency says that Kansans average use of energy per person in 1997 was 397 million BTUs, 13% above the nation's average rate of 351 million BTUs. To reduce demand for energy and to lower prices legislation is needed to provide tax incentives for homeowners and business owners to improve the energy efficiency of their homes and buildings. The legislation this committee is considering, Senate Bill No. 299, provides these incentives to save energy. We strongly support the effort to provide Kansans with relief from high energy prices while improving energy efficiency.

According to the U.S. Department of Energy, heating and cooling account for 50 to 70% of the energy used in the average home, and one of the most cost-effective ways to reduce utility bills is to add insulation. Inadequate levels of insulation and air leakage are leading causes of energy waste in homes. Fiberglass insulation can be added to attics and crawl spaces by the homeowner or contractor. And, when a home is being remodeled insulation can be easily added in the walls. Fiberglass insulation can be purchased easily from just about any home improvement store, lumberyard or installed by a local insulation contractor. Kansas homeowners are fortunate to have major insulation producers, like our plant, in the state to efficiently supply additional insulation when needed.

Commercial buildings also consume significant energy, and traditionally are insulated to even lower levels than homes. There is an equally important opportunity in Kansas to bring commercial buildings up to modern insulation standards.

According to the Kansas Corporation Commission (KCC) "The price of natural gas is higher than it has been in the past and is predicted to climb even higher as demand increases in the upcoming winter. The price of natural gas has been deregulated at the Federal level and is driven by market forces of supply and demand. At this time, there appears to be a shortage of available natural gas when most utility companies are trying to build up reserves...while we cannot affect the price of gas we want to do everything we can to educate consumers so they can prepare for high winter heating bills through budgeting and energy conservation measures. Thousands of Kansas families could be economically devastated by the bills we expect this winter." Senate Bill No. 299 goes right to the heart of energy conservation by helping Kansas families save energy.

Senate Bill No. 299 is a wise investment in the energy future of Kansas. It will improve energy efficiency in the long run, give homeowners and businesses some of their hard earned tax dollars back and provide relief from rising energy prices. Without this type of incentive embodied in Bill No. 299, Kansas will be hard pressed to address its future energy needs. We applaud your efforts to pass this vital legislation and stand ready to support you.

Thank you for letting me testify. I will be happy to answer any questions you may have.

SB 299

BILL GRIFFITH
OF THE
KANSAS CHAPTER OF THE SIERRA CLUB

Thank you Mr. Chairman and members of the committee for the opportunity to speak on behalf of SB 299. This legislation can be an important step forward in solving our state's energy problems.

I would like to comment on Section 1, the net metering proposal first. This is a very well written proposal. **31 states have enacted net metering** in some form and this proposed legislation would be recommended reading for any state considering action in this area.

Kansas now has the largest discrepancy of any state between what a customer-generator is charged for electricity and what he or she is paid by their utility. This is a cause of consternation in many people I talk to. One of the questions I was asked over and over at the wind conference in Manhattan was, "Will the legislature stand up to the utilities and allow us net metering?" My reply was that I knew many legislators would be supportive but more education was needed.

Net metering is safe and has uniform safety codes to ensure this. The utility is not responsible for anything on the customer side of the meter. If anyone tells you differently that is patently false.

The utilities will say they are opposed to this because it is a subsidy. Is it a subsidy? Yes indeed. A very small one. This subsidy has never affected other customer's bills because it is so minute. Nor will it have an affect on shareholders, either.

I would also pose this question: What about the state of Kansas buying 1500 blocks of power from the green power program of Western Resources at an original cost of over \$80,000.00 annually? Or, property tax breaks for power plants. Net metering pales in comparison, yet it is an economic stimulant for the customer-generator and those considering becoming one. This fits nicely with the governor's goal on encouraging wind development in our state.

Moving on to the energy efficiency section of the proposed bill, we strongly support the proposals as written. Quoting Gary Zacher of Seattle City Light, "There's on cheaper, cleaner power than power you don't have to produce."

The inefficient use of energy causes many economic and security problems in our country today, and most of the environmental ones. Simply using energy in a way that saves money would avoid most of these problems.

Blending efficient energy use with safe, sustainable sources to provide the same or better services, while saving money, abating pollution, and climate change simply makes more sense than anything else we can implement.

To give an example of this consider that there are 15 million households in the beleaguered state of California. If every household replaced 4 100 watt incandescent light bulbs with 4 equivalent compact fluorescent light bulbs, burning an average of 5 hours a day they would be able to shut down 17 power plants.

Now if the California bought these lights for every household at \$2 each, the total cost would be 120 million dollars. Could they build 17 power plants for \$120 million dollars? It's not even close.

This section is critical to the state especially since there is no demand-side management by our utilities. Thinking little about their customer's end-use demands, electric utilities historically believed their business was simply to sell electrons. They created giant centralized systems that depended upon very costly power plants that took years to build, thinking they had no choice but to keep up with demand for electrons. Some still think this, but most now realize that it's usually cheaper to help their customers save electricity than to sell them more of it- because selling more means in the current Kansas utilities thinking we need to have more gas-fired turbines since the fuel cost can be passed straight through to the consumer.

Especially now, since deregulation in Kansas is on the back burner -if not the deep freeze, the cost of saving electricity-or saving any sort of energy should be weighed alongside the cost of producing more of it.

Texas has recognized this and have committed 10% of any new loads are to be off- set through energy efficiency. This is projected to be the equivalent of 300 MW of net installation and a savings to consumers of \$50 million dollars per year.

The Energy Information Administration states that in 1998 Massachusetts utilities invested the most in demand-side management at 1.9% and the state with the lowest was.....Kansas, with nearly zero. Electricity savings in the same year range from a high of 9.2% in Washington to a low of nearly zero in our state of Kansas. We need demand-side management from our utilities and we need the energy savings in this legislation.

The last section on tax credits for renewable generation is long overdue and another piece of the puzzle in giving Kansas a broad resource mix. This will also add distributed generation to the state and give incentive for folks to invest in these technologies. I would urge the committee to raise the cap on wind turbine investment to \$8,000.00 which will stimulate the market and meet the goal of a 25% cap on the incentive, which I believe to be the spirit of the legislation. This will especially help those in the agricultural community who are considering wind energy as a way of helping their bottom line. Thank you.

TESTIMONY FOR KANSAS SENATE BILL 299
by Dorethy Hancock, private citizen,
5647 SW Hawick Ln., Topeka, KS

Chairman Clark and members of the Committee, I thank you for the opportunity to testify in favor of SB 299. My name is Dorethy Hancock, and I have recently taken early retirement from the Topeka Public Library so that I can devote my full time and energies to the planning and building of a 7-room Bed & Breakfast Retreat Center in this region, utilizing solar and wind energy. It will be an all-natural, healing place where people can come to relax in close communion with Mother Earth--the kind of calm serenity that those of us from a rural background were blessed to have as children, and which I wish to share with the weary.

Yesterday you heard testimonies from persons in the energy field who gave you facts and figures, and I am grateful for their expertise. My focus is more on the personal and philosophical aspects of the passing of this bill, as it will affect all of us. I've never been an activist before, but this is a crucial subject about which I feel compelled to speak. Perhaps my views are too broad to discuss with you in these few minutes in any concrete way. They are the result of many years of reading articles and books on all manner of renewable energy and conservation subjects.

We hear so much talk nowadays about global warming and other disastrous results of our over-consumption of energy, that it is tempting to let it go in one ear and out the other. However, according to Thom Hartmann in *The Last Hours of Ancient Sunlight*, our earth may have only about 45 more years of fossil fuel left, at the present rate of consumption. (Lest we forget, the term "fossil fuel" indicates that it took millions of years to accumulate, and we have used it up in only 150 years!) Native Americans urge that before we take action we consider 7 generations hence; but in just 45 years *our grandchildren's* lifestyles will most definitely be affected. (And many of us already know who our grandchildren are.) It is clear that we need to speed up our research and utilization of alternative means of power, in order to maintain even part of the lifestyle to which we have become accustomed. We humans have raped the earth. It is time to conserve, and to take care of our home before our lifestyles do it irreparable damage. In agreement with one who testified in yesterday's meeting, I say "Why wait until we're in a crisis situation before we act?"

Many people (and I am one of these) would like to be able to be self-sufficient, preparing them/ourselves for the inevitable increase in power failures resulting from greedy consumer habits. Yet, like me, most people are hard pressed for the funds necessary for the initial cost of installing these systems. Why these tax incentives are even debated is a mystery to me: the power companies should have no fear from the few who wish to "make" their own energy. But I believe that, in our free enterprise system, if someone wants to harness the energies *provided freely by mother nature* and allow his neighbors to use the excess, then why not help him a little bit, for it helps us all. These small producers are helping their communities to have sound ecology and are providing future generations

with a wholesome way of life. If those qualities were truly the concern of the large power companies, they wouldn't double-charge for wind energy, as they are now doing.

If money is the bottom line, then I'd be very disappointed. I think Kansans have better values. At some point in time, each of us must conclude that the quality of life begins at home. If *each* person is not responsible, then *none* of us are. Please join me in the power of ONE, and add Kansas tax incentives to the grassroots efforts of responsible citizens who are actively doing something about the world's energy crisis. Please vote YES to SB#299! THANK YOU.

A short bibliography for further reading:

Asmus, Peter: "Green Wires: Deregulation Means a Clean Power Option for Many Americans," in *E: the Environmental Magazine*, Nov./Dec., 1999.

Database of State Regulatory Incentives for Renewable Energy (DSIRE), a DOE supported program administered by the Interstate Renewable Energy Coordinating Council (IREC). See www-solar.mck.nesu.edu/regulat.cfm.

Griggs Lawrence, Robyn: "Comfortably Off the Grid," in *Natural Home Magazine*, Jul./Aug., 2000.

Hartmann, Thom: *The Last Hours of Ancient Sunlight*, 1998.

Houlihan, Meghan: "Powering the next Millennium" in *Greenpeace Magazine*, Fall, 1999.

Mallove, Eugene F., ScD: "Cold Fusion Memo to President Clinton," in *Infinite Energy Magazine*, (www.infinite-energy.com)

Perez, Richard: "Utility-Intertied PV Workshop, John Day, Oregon, July, 2000", in *Home Power Magazine*, Dec.2000/Jan.2001.

Real Goods: *Solar Living Sourcebook: The Complete Guide to Renewable energy & Sustainable Living*. 10th ed., 1999

von Brethorst, Bill & Kathleen: "A Sustainable Home & Business on a Budget," in *Home Power Magazine*, Aug./Sep. 2000.

Website on Net Metering News: www.seia.org/ This lists the 30 states which currently have passed net-metering laws within the last two years. (Copy provided for Committee Chair of this hearing.)

Website on "Repowering the Midwest: The Clean Energy Development Plan for the Midwest", at www.repowermidwest.org.

SUMMARY OF STATE "NET METERING" PROGRAMS (CURRENT)

State	Utilities	Eligible Fuels	Eligible Customers	Limit on System Size	Limit on Overall Enrollment	Treatment of Net Excess Generation (NEG) ⁽¹⁾	Enacted	Citation / Reference
Arizona	IOUs and RECs	Renewables & cogeneration	All customer classes	≤ 100 kW	None	Monthly NEG purchased at avoided cost	1981	Ariz. Corp. Comm. Decision No. 52344
California	All utilities	Solar and wind	Residential and small commercial	≤ 10 kW	0.1% of 1996 peak demand	Customers are billed annually; excess generation is granted to the utility. CA also allows bi-directional time-of-use metering	1995	Cal. Pub. Util. Code § 2827 (as amended 1998 and 2000).
Colorado	Individual utilities	All resources	All customers	≤ 10 kW	None	NEG carried over month-to-month	1994	Public Service Co. of CO, Advice Letter 1265; Decision C96-901; and various RECs
Connecticut	IOUs	Solar, wind, hydro, fuel cell, sustainable biomass	Residential <u>only</u>	No limit	None	Not specified	1998	Conn. Gen. Stat. 16-243h
Delaware	All utilities	Renewables	All customer classes	≤ 25 kW	None	Not specified	1999	DE Legislature, S Amend 1 to HB 10
Idaho	IOUs	Renewables & cogeneration	Idaho Power only; residential and small commercial	≤ 100 kW	None	Monthly NEG purchased at avoided cost	1980	ID PUC Orders No. 16025 (1980); 26750 (1997)
Illinois	Com Ed only	Solar and wind	All customer classes	< 40 kW	0.1% of annual peak demand	Monthly NEG purchased at avoided cost	1999	Special billing experiment (effective 4/1/00)
Indiana	IOUs only	Renewables & cogeneration	All customer classes	≤ 1,000 kWh/month	None	Monthly NEG granted to the utility.	1985	170 IN Admin Code § 4-4.1-7
Iowa	IOUs only	Renewables	All customer classes	No limit	None	Monthly NEG purchased at avoided cost	1983	IA Legislature & IA Utilities Board, Utilities Division Rules § 15.11(5)
Maine	All utilities	Renewables, fuel cells & recycled municipal solid waste	All customer classes	≤ 100 kW	None	NEG credited to following month; at end of annual period any unused credits are granted to utility without compensation	1998	Code Me. R. Ch. § 313 (1998); see also Order No. 98-621 (December 19, 1998).
Maryland	All utilities	Solar <u>only</u>	Residential customers & schools	≤ 80 kW	0.2% of 1998 peak demand	NEG carried over to following month; otherwise not specified	1997	MD Legislature, Art. 78, Sec. 54M
Massachusetts	All utilities	Renewables & cogeneration	All customer classes	≤ 60 kW	None	Monthly NEG purchased at avoided cost	1997	Mass. Gen. L. ch. 164, § 1G(g); Dept. of Tel. & Energy 97-111
Minnesota	All utilities	Renewables & cogeneration	All customer classes	< 40 kW	None	Monthly NEG purchased at "average retail utility energy rate"	1983	Minn. Stat. § 261B.164(3)
Montana	IOUs	Solar, wind or hydro	All customer classes	≤ 50 kW	None	NEG credited to following month; at end of annual period any unused credits are granted to utility without compensation	1999	S.B. 409
Nevada	All utilities	Solar and wind	All customer classes	≤ 10 kW	100 customers for each utility	Annualization allowed; no compensation required for NEG	1997	Nev. Rev. S. Ch. 704
New Hampshire	All utilities	PV, wind & hydro	All customer classes	≤ 25 kW	0.05% of annual peak	NEG carried over to following month	1998	NH Rev. Stat. §§362A:1-a & 362-A:9
New Jersey	All utilities	Photovoltaic and wind	Residential and small commercial	No limit (100 kW limit proposed)	0.1% of peak or \$2,000,000 annual financial impact	NEG credited to following month; at end of annual period any unused credits are purchased at avoided cost.	1999	N.J. Rev. Stat. § 48:3-87 Sec. 38(e)
New Mexico	All utilities	Renewables & cogeneration	All customer classes	≤ 10 kW	None	At utility's option, customer is credited on the next bill for (1) purchase of NEG at utility's avoided cost; or (2) kilowatt-hour credit for NEG that carries over from month to month.	1999	17 N.M. Admin. Code 10.571
New York	All utilities	PV <u>only</u>	Residential <u>only</u>	≤ 10 kW	0.1% of 1996 peak	NEG credited to following month; at end of annual period any unused credits are purchased at avoided cost	1997	N.Y. Pub. Serv. Law § 66-j
North Dakota	IOUs only	Renewables & cogeneration	All customer classes	≤ 100 kW	None	Monthly NEG purchased at avoided cost	1991	N.D. Admin. Code § 69-09-07-09
Ohio	All utilities	Solar, wind, biomass, landfill gas, hydro, microturbines, or fuel cells	All customer classes	No limit	1.0% of peak demand for each retail electric provider	NEG purchased at unbundled generation rate, appears as credit on following bill	1999	Ohio Rev. Code. § 4928.67

Senate Utilities Committee
March 7, 2001
Attachment 5-1

5-2

Oklahoma	All utilities	Renewables & cogeneration	All customer classes	≤ 100 kW and annual output ≤ 25,000 kWh	None	Monthly NEG is granted to utility	1990	Okla. Corp. Comm. Schedule QF-2
Oregon		Solar, wind, fuel cell and hydro	All customer classes	≤ 25 kW	No less than 0.5% of utility's historic single-hour peak load; beyond 0.5% eligibility can be limited by regulatory authority	NEG purchased at avoided cost or credited to following month; at end of annual period unused credits shall be granted to low-income assistance programs, credited to customer, or "dedicated to other use" as determined by regulatory authority	1999	Or. Rev. Stat. 757.300
Pennsylvania	All utilities	Renewables only (includes fuel cells)	All customer classes	≤ 10 kW	None	Monthly NEG is granted to utility	1998	52 Pa. Cons. Stat. § 57.34(b)(4), and individual utility tariffs
Rhode Island	Narragansett Electric	Renewables & fuel cells	All customer classes	≤ 25 kW	1 MW	NEG credited to following month; at end of annual period any unused credits are granted to utility without compensation	1998	R.I. PUC, Order, Docket No. 2710
Texas	IOUs and RECs	Renewables only	All customer classes	≤ 50 kW	None	Monthly NEG purchased at avoided cost	1986	Tex. PUC, Substantive Rules, § 25.242(h)(4)
Vermont	All utilities	Solar, wind, fuel cells using renewable fuel, anaerobic digestion	Residential, commercial, and agricultural	≤ 15 kW, except ≤ 125 kW for anaerobic digesters	1% of 1996 peak	NEG credited to following month; at end of annual period any unused credits are granted to utility without compensation	1998	VT. Stat. Ann. § 219a
Virginia	All utilities	Solar, wind and hydro	Residential and commercial	≤ 10 kW (residential); ≤ 25 kW (commercial)	0.1% of annual peak demand	Net metering customers are billed annually; excess generation is granted to the utility	1999	Va. Code Ann. § 56-594
Washington	All utilities	Solar, wind, hydro and fuel cells	All customer classes	≤ 25 kW	0.1% of 1996 peak, with no less than half for renewables	NEG credited to following month; at end of annual period any unused credits are granted to utility without compensation	1998	Wash. Rev. Code § 80.60 (amended 2000)
Wisconsin	IOUs only	All Resource	All retail customers	≤ 20 kW	None	Monthly NEG purchased at retail rate for renewables, avoided cost for non-renewables	1993	Wis. PSC, Schedule PG-4

⁽¹⁾Net excess generation occurs only when total generation exceeds total consumption over the entire billing period, i.e. the customer has more than offset his/her total electricity use and has a negative meter reading.

SUMMARY OF STATE "NET METERING" PROGRAMS (PROPOSED)

State	Utilities	Eligible Fuels	Eligible Customers	Limit on System Size	Limit on Overall Enrollment	Treatment of Net Excess Generation (NEG) ⁽¹⁾	Enacted	Citation / Reference
California (proposed amendment)	All utilities	No change	All customer classes	≤ 1,000 kW (i.e. 1 MW)	None	No change	Pending	ABX1 43 (introduced January 2001)
District of Columbia (authorized)	All utilities	Renewables, cogeneration, fuel cells, microturbines	Residential or commercial	≤ 100 kW	None	Customer-generator "may receive compensation based on the net metering rules established by the Commission."	Pending	Authorized by District of Columbia Enrolled Bill 13-284; requires further Commission action
Georgia (proposed)	All utilities	Solar, fuel cell, wind	Residential or commercial	≤ 10 kW (residential); ≤ 100 kW (commercial)	0.1% of previous year's annual peak demand for each utility	NEG credited to following month; at end of annual period any unused credits are granted to utility without compensation	Pending	Senate Bill 93 (introduced February 2001)
Hawaii (proposed)	All utilities	Solar, wind, hydro, and biomass	Residential or commercial	≤ 10 kW	1.0% of each utility's peak demand	Customer-generators are billed annually; excess generation is granted to the utility	Pending	House Bill 1385 and Senate Bill 1263 (companion bills introduced February 2001)
Kansas (proposed)		Renewables	All customer classes	≤ 100 kW	10,000 kW or 10% of state's peak demand during 2001, whichever is less	NEG credited to following month; at end of annual period any unused credits are purchased at avoided cost	Pending	Senate Bill 299 (introduced February 2001)
Nebraska (proposed)		Solar, wind, hydro, and biomass	All customer classes	No limit	No limit	NEG credited to following month; at end of annual period any unused credits may be sold to any supplier, and if not sold will be granted to the customer's retail supplier	Pending	Legislative Bill 512 (introduced January 2001)
North Carolina (proposed)	All utilities	Solar, wind, hydro, and biomass	All customer classes	≤ 10 kW (residential); ≤ 100 kW (other)	1.0% of annual peak demand	NEG credited to following month; unused credit is eliminated at end of annual billing period (residential customers only)	Pending	NC Utilities Commission, Docket No. E-100, Sub 83 (November 18, 1998)
Vermont (proposed amendment)	All utilities	No change	Amendment to include net metering systems for groups of customers sharing a system	Limited to ≤ 15 kW for individual systems, and up to 15 kW per customer for group systems, up to a maximum of 100 kW for group systems	No change	No change, except for accommodation of group systems	Pending	Senate 85 (introduced February 2001)
Wyoming (pending)	IOUs and RECs. Munis exempt	Solar, wind, and hydropower	All customer classes	≤ 25 kW	None	NEG credited to following month; at end of annual period any unused credits are purchased by utility at avoided cost	Pending	WY Legislature, HB 195, passed House and Senate, awaiting Governor's action 02/22/01

⁽¹⁾Net excess generation occurs only when total generation exceeds total consumption over the entire billing period, i.e. the customer has more than offset his/her total electricity use and has a negative meter reading.

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