



Day of Reckoning Nears for Clean Energy

Proposals to increase energy efficiency investments and renewable electricity supplies were left in limbo after a special legislative committee declined to make any recommendations on utility public benefits programs to the Legislature. The special committee's inability to agree on a set of recommendations will make it very difficult to enact public benefits legislation on a stand-alone basis this session.

During the committee's deliberations, RENEW Executive Director Michael Vickerman, one of 22 members on this panel, advanced several proposals for improving the environmental performance of the electric utility industry in Wisconsin (see Winter 1998-1999 issue of the *Wisconsin Renewable Quarterly*). Among the funding and programs commitments sought by RENEW) were:

- a renewable portfolio standard (RPS) that increases the percentage of renewably produced electricity sold in the state;
- \$105 million/year for energy efficiency measures and conservation practices;
- \$59 million/year for weatherization and other low-income services;
- \$5 million/year for programs encouraging customer use of renewable energy; and
- \$2 million/year for environmental research and monitoring;

Though these proposals had the support of utilities and organizations affiliated with the Customers First! Coalition, the committee as a whole decided not to bring any specific recommendations to a final vote.

However, just as the special committee ran out of steam in April, the political landscape changed in a way that could breathe new life for comprehensive public benefits legislation favored by RENEW and other clean energy organizations. The driving forces behind this opportunity

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are utility holding company reform, Item No. 1 on the large utilities' legislative agenda, and electric reliability, a pressing concern for the Customers First! Coalition as well as the Governor's Office. These large and interrelated issues are triggering discussions among the various players in hopes of forging a consensus legislative package backed by Governor Thompson. Because energy efficiency, renewable power generation and distributed generation are as much reliability measures as they are pollution reduction strategies, a comprehensive public benefits program could easily be folded into an omnibus bill.

Issue No. 1 - Asset Cap Repeal

The parent companies of the four largest regulated utilities in Wisconsin are seeking changes to the state's

holding company act to permit increased investments in nonutility business ventures. Under current law, no utility holding company can have more than 25% of its asset base in non-utility assets.

The intended goal of the asset cap formula is to ensure that utilities devote most of their capital to utility-related activities. Repeal of the asset cap would encourage utility holding companies to pursue investments that promise a much higher rate of return than the return on investments allowed by the Public Service Commission. Of course unregulated ventures are inherently riskier than utility investments and could result in losses. While some utilities have done well in their diversification efforts, others have wound up swallowing much red ink, the effects of which invariably have

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flowed back to their utility customers in the form of higher rates. Even a modest increase in a utility's cost of capital translates into millions of dollars in rate increases.

The principal fear arising from asset cap repeal is that when an attractive, unregulated investment outside of Wisconsin promises to pay 25% return and a regulated investment in utility infrastructure will return only half that amount (albeit a guaranteed return), the holding company will most likely choose the one offering the higher return. The result is that investing in Wisconsin's infrastructure (which would include renewable power projects and distributed generation sources like fuel cells and microturbines) will take a back seat to potentially more profitable yet riskier out-of-state or overseas ventures.

Through his speech the Governor signaled a desire to build upon the measures and reforms of last year's Electric Reliability Act. Apart from transmission-related initiatives, however, Thompson's address was short on specifics, leaving the door open to proposals for attacking the root cause of the state's reliability problems, namely energy waste. Energy conservation, it should be remembered, was conspicuously absent from the set of measures prescribed in last year's Electric Reliability Act, a mistake that the state can ill-afford to repeat.

While new transmission lines loom large on the Governor's to-do list, there is a window of opportunity right now to

overreliance on electricity imports. Only with strong public benefits provisions in place will Wisconsin customers--business and residential--have the means to cut back on their electricity consumption, thereby saving themselves money, and select cleaner energy resources to serve their needs.

The Customers First! Coalition, of which RENEW is a member organization, has made utility public benefits one of its bottom-line requirements in any comprehensive bill that addresses electric reliability and asset cap relief. However, there is bound to be resistance to public benefits from some quarters, especially from large industries and their allies in the Legislature. Citizen pressure on the Legislature is a critical ingredient for overcoming political opposition to public benefits.

Reliability cannot be achieved and sustained without mechanisms for reducing unnecessary electricity consumption and expanding the use of cleaner power sources

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Issue No. 2 - Electric Reliability

Though the supply constraints that plagued Wisconsin utilities in the previous two summers have largely disappeared, Governor Thompson is taking no chances. In a speech delivered last March in Milwaukee, the Governor expressed his intentions to submit to the Legislature a package of incentives and measures for reinforcing the state's electric infrastructure.

About 15% of the electricity sold in Wisconsin is imported from other states. Imports are expected to climb further as load growth keeps increasing at the rate of 2% a year. These statistics help explain why so much attention, from the Governor on down, is fixated these days on "fixing" the state's capacity to import more power.

"The bad news is Wisconsin ranks dead last in the Midwest in the number of transmission connections with other states," said Gov. Thompson said in his March address.

do more good than harm here. One potentially positive outcome from additional reliability legislation would be the formation of a single transmission company to operate the eastern Wisconsin power grid. Such a company, called a transco in utility jargon, would impose uniform pricing on electricity shipments that flow across the eastern two-thirds of the state. Among other benefits, uniform transmission pricing would lower the cost of delivering windpower generated along the Niagara Escarpment to southern Wisconsin customers.

RENEW's Bottom Line

Whatever form a follow-up reliability initiative may take, RENEW's bottom line remains the same: a comprehensive public benefits package must be part of the equation. In our view, reliability cannot be achieved and sustained without mechanisms for reducing unnecessary electricity consumption and expanding the use of cleaner power sources, emphasizing technologies that can be sited at or near load centers to minimize the state's

WHAT YOU CAN DO

- 1: Read the blue insert in this issue.
- 2: Call or write a letter to your legislator on this issue (sample letter on reverse of insert).
- 3: Forward your legislator's response to RENEW.

The confluence of these issues described above gives clean energy organizations like RENEW more leverage than usual to press forward with our vision for the future. But this rare opportunity to advance conservation, renewables and distributed generation will go for naught unless clean energy supporters seize the initiative and make their voices heard. There may not be a next time.

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Paper Mill Sludge to Power 2,000 Homes

Needing to acquire 11 megawatts of new renewable generation by 2001, Alliant Energy entered into a contract to purchase power from a facility that recycles paper mill sludge into glass aggregate. A steam turbine will be installed this summer at Minergy Corporation's Neenah plant, capable of producing up to 6.5 MW of electricity. Minergy is a nonutility subsidiary of Milwaukee-based Wisconsin Energy Corp., the holding company that includes Wisconsin Electric Power.

Minergy's Neenah plant, constructed in 1998, recycles wastewater sludge from nearby paper mills by converting it into glass aggregate. The process requires the production of steam to dry the paper mill sludge into pellets. The fiber content in paper mill sludge provides the fuel source for steam production, while the inorganic component of sludge is processed into such products as sand blasting grit, roofing shingle granules, asphalt aggregate, and road base and chip seal aggregate.

Operating 24 hours a day, Minergy's plant accepts on average 1,200 tons of sludge each day from nine paper mills in Wisconsin and Upper Michigan. While the paper mills pay Minergy to use their sludge, the amount is less than what landfill operators would charge them for disposing of this residue, said Terry Carroll, a Minergy spokesperson. In addition to being a less costly arrangement for paper companies, recycling sludge into glass aggregate "stops their downstream liabilities," Carroll said.

With the capability of powering on average 2,000 households, the turbine represents the first utility-scale increase of Wisconsin's biomass generating capacity this decade. The largest biomass generators in the state are at French Island and Bay Front, which together can produce about 75 MW of power from wood and refused-derived fuel. Northern States Power owns and operates both units.

Though burning paper mill sludge does produce air emissions, generating electricity from this fuel source will displace generation from nearby coal-fired units, which discharge significantly more pollutants per kilowatt-hour than biomass generators. Moreover, Minergy's energy recovery process yields both electricity *and* process heat from a renewable fuel source that would otherwise have been landfilled.

For more information about the project, visit Minergy's web site at www.mineral.com/minergy/glass/html.

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World Wide Web Address: <http://www.mailbag.com/users/renew-wi>

RENEWABLE ENERGY CALENDAR - 1999

June 10	Daylighting Goes Mainstream: How to Daylight Every Office Building. Madison, Dane County Expo Center. Presented by the Daylighting Collaborative. Sponsored by Energy Center of Wisconsin's Daylighting Collaborative. The instructors for this seminar are Steven Ternoey and Donald Aitken. Registration contact: Becky Punzel: (608) 238-8733 x20, bpunzel@ecw.org .
June 18-20	10th Anniversary Midwest Renewable Energy Fair , Portage County Fairgrounds, Amherst. Fairgrounds open 9:00 AM each day. Call MREA at (715) 592-6595 for details.
July 6	RENEW Board Meeting , E3971 Bluebird Road, Forestville, (home of Mick Sagrillo). Meeting begins at 11:00 AM. Tour of wind farms follows. Call RENEW for details.
October 4-5	Clean Energy in Wisconsin - The Doors Are Opening , Paper Valley Hotel and Conference Center, Appleton, WI. RENEW's Fall 1999 conference and trade show. (See insert for more details.)

RENEW acknowledges ..

Grant Abert and Nancy Ward of Hillpoint for their generous contribution to our organization earlier this month. Their gift made it possible to publish this issue of the Wisconsin Renewable Quarterly.

Credit For Windpower Still Up in the Air

THE RACE IS ON!

All across the country, construction crews are working round-the-clock to build and commission an unprecedented amount of wind generating capacity before a valuable tax credit expires. Barring unforeseen delays or mishaps, more than 400 megawatts (MW) of wind generating capacity nationwide, including 22 MW in Wisconsin, will be placed into service this year by June 30th, the last day a project can qualify for the federal Production Tax Credit (PTC). The first of 35 turbines to be installed in Wisconsin arrived in mid-May, leaving a construction window of about 45 days.

Established as part of the Energy Policy Act of 1992, the PTC provides a 1.7 cents/kWh tax credit for wind generation owned by investor-owned utilities and independent power producers. Industry response was slow at first, largely a reaction

to the uncertainties created by electric utility deregulation, but the pace of new installations has taken off in the last 18 months. With the PTC, large windpower projects in the Great Plains can generate electricity at prices comparable with combined cycle gas-fired generators. Smaller projects in less windy states like Wisconsin also derive significant benefits from the PTC, which serves to minimize the spread between the cost of a new wind installation and a new fossil unit.

The PTC also applies to new closed loop biomass generators. (Closed loop biomass means plants or crops grown for the purpose of producing electricity.) If extended, the PTC will very likely stimulate the establishment of such biomass fuels as hybrid poplars and switchgrass in the next decade.

Momentum is building in Washington to extend the tax credit another five years. Identical legislation (H.R. 750/S. 414) establishing a new sunset date (July 1, 2004) for the PTC has been introduced in the House and Senate. Already 118 representa-

tives and 24 senators--about one-quarter of the members of both houses--have publicly expressed their support for this legislation. The Clinton Administration supports extending the tax credit, which is also available to closed loop biomass systems.

Three of Wisconsin's nine-member House delegation--Tom Barrett, Ron Kind, and Gerald Kleczka--are cosponsors of H. R. 750. It is not clear where the other six representatives stand on this issue. Sen. Kohl recently became a co-sponsor of S.414. We have not yet heard back from Sen. Feingold's office.

Please write or call Sen. Feingold and ask him to join Sen. Kohl in cosponsoring S. 414 (extends the federal Production Tax Credit for wind and closed loop biomass energy for five years). If your Representative is not a cosponsor of H.R. 750, please ask him or her to do so. Phone numbers, addresses, and a sample letter appear below. Feel free to mail copies of your letters and the responses to them to the RENEW office. Thank you!

LET'S GET THE ENTIRE DELEGATION ON BOARD!

To Write Your Representative

The Honorable _____
U.S. House of Representatives
Washington, DC 20515

To Write Your Senator

The Honorable _____

Wisconsin Congressional Directory

Wisconsin Senators

District 1	Paul Ryan	(202) 225-3031	Senator Russ Feingold	(202) 224-5323
District 2	Tammy Baldwin	(202) 225-2906	716 Hart Senate Building	
District 3	Ron Kind*	(202) 225-5506	Washington, DC 20510-4904	
District 4	Gerald Kleczka*	(202) 225-4572		
District 5	Tom Barrett*	(202) 225-3571	Senator Herb Kohl*	(202) 224-5653
District 6	Tom Petri	(202) 225-2476	330 Hart Senate Building	
District 7	David Obey	(202) 225-3365	Washington, DC 20510-4903	
District 8	Mark Green	(202) 225-5665		
District 9	James Sensenbrenner	(202) 225-5101		

* Has cosponsored H.R. 750.

*Has cosponsored S. 414.

Dear Member of Congress:

Good news on the environmental front: Wisconsin is one month away from becoming the largest windpower producer of any state east of the Mississippi River. Construction crews are now assembling 35 utility-scale wind turbines at three different locations in eastern Wisconsin. When fully operational, these turbines should produce about 50 million kilowatt-hours of electricity annually, enough to meet the requirements of over 8,000 households.

Three utilities--Madison Gas & Electric, Wisconsin Electric Power and Wisconsin Public Service Corp.--are responsible for this spurt in wind development, investing an aggregate total of about \$26 million in their respective projects. While their 35 turbines should start operating before the federal Production Tax Credit (PTC) expires June 30th, the aforementioned utilities run the risk of absorbing a significant cost penalty if the deadline is not met. Indeed, uncertainty over whether the PTC will be extended has prompted a rush in Wisconsin and elsewhere to finish projects by the June 30 expiration date. Without the PTC in place for the next five years, successor projects in Wisconsin will be virtually impossible to finance.

Extending the federal PTC is essential for promoting the sustained orderly growth of windpower and biomass (plant-based) energy. The tax credit is both a mechanism for reducing the tax penalty borne by capital-intensive renewable power technologies, and a form of restitution for the many tax breaks and subsidies Congress has awarded to fossil and nuclear fuels.

Legislation has been introduced (H.R. 750/S. 414) that would extend the PTC until July 1, 2004. I strongly urge you to support it.

Thank you for your time and attention to this matter. I look forward to your response.

Sincerely,

SAMPLE LETTER

This sample letter can also be downloaded from the RENEW Wisconsin Website:

<http://www.mailbag.com/users/renew-wi>

Fuel Cell Developer Expands Wisconsin Presence

A West Coast company developing hydrogen fuel cells for powering lawn mowers and portable generators is expanding its Madison-area production facility. The company, DCH Technology of Valencia, California, plans to employ 20 people by the end of the year, quadrupling its current work force.

The plant, located in Middleton Industrial Park, will be used for manufacturing fuel cells and integrating them into small power systems, said DCH chairman David Haberman.

Fuel cells are electrochemical de-

vices that generate an electrical current by combining hydrogen and oxygen ions. Because power is generated from a chemical reaction instead of a combustion process, fuel cells are cleaner and more efficient than conventional power sources, and are virtually silent. Fuel cells range in size from under a kilowatt to several megawatts, with efficiencies running between 35% to 65%, depending on the conversion process used.

While most fuel cells are powered by natural gas, a few are powered by hydrogen, including three demonstra-

tion buses operated by the Chicago Transit Authority. The only by-product from using hydrogen fuel is water vapor.

DCH's announcement came after the company unveiled its first prototype fuel cell at the National Hydrogen Association's annual meeting in April. The overwhelmingly favorable response prompted the company to develop the Middleton production facility, Haberman said.

More recently, DCH recently demonstrated a hydrogen fuel cell on a wheelchair, Haberman said.

NEXT RENEW BOARD MEETING

Tuesday July 6, 1999 —
11:00 a.m.

Mick Sagrillo's Home
E3971 Bluebird Road
Forestville, WI 54213

Meetings are open to
RENEW members. If you're
planning to attend, please call
Michael Vickerman at
(608) 255-4044.

We're on the Web!

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The cost of publishing and mailing this newsletter has tripled over the last three years. To help defray these costs, RENEW asks all newsletter recipients to pitch in.

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