The Regulatory Assistance Project

Green Power Newsletter

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Retail green markets open--but are they competitive?

Green power is now available from alternative suppliers in California and will likely be in Massachusetts soon. Concerns about green washing are also being addressed through the introduction of policy-mandated information disclosure and market-response product certification. But competition is not yet thriving. Here's why:

In setting the new market rules, regulators have mandated high stranded cost and other access charges, and low default prices (the rates paid by people who do not actively choose a supplier). This makes it difficult for marketers, green or not green, to compete.

The good news is that it's a temporary phenomenon. As stranded costs are recovered, access charges will fall. Low default prices will also rise or disappear. For the time being, the tough price situation means that market entrants must compete on the environmental and other qualities of their electricity products.

Marketers in California began advertising their products late in 1997 in anticipation of a January 1 start date, but this was delayed due to software problems with the Power Exchange and Independent System Operator, and a new opening date was set for March 31. **Green Mountain Energy Resources, Edison Source, and Enron Energy Services** have been marketing green electricity products to retail consumers, and other companies are actively selling green power into the wholesale market, including **Foresight Energy** and **PacifiCorp. Sacramento Municipal Utility District** also offers retail green power products, but it is not yet marketing widely outside its own service territory. California retail green power offers are shown in the table.

Offering green products is one thing, but getting consumers to choose an alternative supplier is quite another. So far, very few Californians have decided to switch suppliers. This should change with time as the transition charges decline and consumers get more comfortable with choice.

The Massachusetts market, which officially opened on March 1, is also off to a slow start. Green marketers are interested but have not yet launched their promotions. They and other marketers face an economic challenge that may temporarily deter a truly competitive market. In Massachusetts the default electric supply, called the Standard Offer, is set initially at 2.8 cents/kWh, much lower than the current market price. Consequently, vigorous competition may be delayed until stranded costs have been recovered.

California Retail Green Power Products

Company	Product	Resource Mix	Price or Premium	Comments
Edison Source	EarthSource 100 Green-e certified	100% renewables	15% over 1997 utility tariff; about \$.03 or 27% over 1998 utility rates*	Geothermal, biomass, wind, sm hydro, solar. Contract not required; price fixed for 1998
Edison Source	EarthSource 50 Green-e certified	50% renewables, 50% system power	Same as 1997 utility tariff for baseline use (give up 10% discount); about \$.013 or 12% over 1998 utility rates*	System power includes nuclear and coal. Contract not required; price fixed for 1998
Enron Energy Services	Earth Smart Power Green-e certified	50% renewables (geothermal & wind, including new wind in So. Calif. Remainder excludes nuclear, coal, oil	\$.01/kWh premium over 1998 utility tariffs (about 9%)	Contract not required; price fixed for 2 years
Green Mountain Energy Resources	Wind for the Future SM Green-e certified	75% renewables, will include 10% from new wind by November 1998; no more than 15% large hydro or 10% system power	\$.021/kWh premium over Calif. Power Exchange; 19% over 1998 utility rates*	For every 3,000 customers enrolled, 1 wind turbine will be built at WY wind farm. Price fixed for 3 yrs; 3 yr oral contract; \$25 early exit fee
Green Mountain Energy Resources	Renewables Blend Green-e certified	75% renewables from geothermal, sm hydro and biomass; 15% large hydro, 10% system power	\$.012/kWh premium over Calif. Power Exchange; 11% over 1998 utility rates*	Price fixed for 1 yr; 1 yr contract; no termination fee
Green Mountain Energy Resources	Water Power Blend	90% large & sm hydro, 10% system power	\$.00975/kWh premium over Cal. PX; 9% over 1998 utility rates	Price fixed for 1 yr; 1 yr contract; no termination fee
PG&E Energy	Clean Choice	100% renewables (not specified)	\$11-12 /mo. premium	Clean Choice product info

Company	Product	Resource Mix	Price or Premium	Comments
Services	Green-e certified			incomplete at press time
PG&E Energy Services	Clean Choice	50% renewables (not specified)	$8-9/mo. premium	No nuclear or fossil fuel in mix
PG&E Energy Services	Clean Choice	20% renewables (not specified)	$3-4 /mo. premium	No nuclear or fossil fuel in mix
Sacramento Municipal Utility District (SMUD)	Greenergy[SM] All Renewables Green-e certified	100% renewables	$.01/kWh premium over current rates	Currently all geothermal, aim to add new. No contract required
SMUD	Greenergy[SM] Advocate	"more of your electricity from renewable resources"	$.005/kWh premium over current rates	Geothermal. No contract required
SMUD	Community Solar[SM] Green-e certified	adds PV to community sites	$.01/kWh premium over current rates	First project is Sacramento Zoo. No contract required

*Information developed by Ryan Wiser, Lawrence Berkeley National Laboratory, February 12, 1998.

Certification

The California green products have been influenced in part by the recently established certification program call "Green-e." Green-e is a trademark of the San Francisco based Center for Resource Solutions, created for the sole purpose of setting standards for green electricity. In California, Green-e requires a minimum of 50% renewable energy content and the marketers have not only tried to comply with this certification requirement but in several cases have exceeded it.

For example, Green Mountain Energy Resources is offering two products that exceed the Green-e minimum requirement and one that does not qualify because it relies on large hydro. Green Mountain is testing the proposition that there is not a single green market but rather that the market is broad and varied.

Green-e is intended to expand the retail market for renewable energy by increasing consumer confidence in the certified products. Marketers have responded positively because they hope that certification will help increase their market share. Green-e plans a consumer education program to raise awareness and understanding of the logo. Green-e also requires:

• Air emissions (SO_x, NO_x and CO_2 per kWh) equal to or less that the system power average for the non renewable share of the electricity.

• Exclusion of nuclear power except what might be contained in system power purchases (i.e., no identifiable nuclear contracts).

• Participation in a product verification process or audit.

• Professional code of conduct agreed to by participating companies, including standard disclosure of information to consumers.

Green-e is now working with marketers and environmental organizations in New England to develop standards appropriate to that region. The work group is reconsidering the definition of eligible renewables and the minimum percent requirement, because the availability of renewables and the interplay with renewable portfolio standards required by some New England states must be taken into account. Also being discussed are ways to address the environmental impacts of hydro, and ways to promote the development of new renewables resources.

Green-e: Kirk Brown (415) 561-2100

Certification is not the only thing supporting choice of renewable energy. A new factor in the California market is **Automated Power Exchange** (APX), a private company set up to operate an electronic exchange that matches wholesale buyers and sellers and provides week-ahead prices for every hour. To protect against price risk, sellers can set a floor price and buyers can set a ceiling price. APX offers a green exchange which allows green retail marketers to buy some or all of their green power requirements. For example, a green marketer may have a bilateral contract with one or more green generators, but rely on APX for the remaining green power to meet its obligations. Similarly, if a green generator does not have a contract to sell its output, it may offer its output via APX. If consumer demand for green power is greater than the available supply, the market will adjust the price so that consumers will pay more for green power. If consumer demand exceeds the supply and consumers show they are willing to pay a premium price, this will signal developers of green technologies that prices will be high enough to justify more investment in green power resources, and it will spur construction of more electric generation that employs clean technology. APX is working with several wholesale buyers and sellers.

APX: Jan Pepper (415) 949-5719

Recognizing the importance and opportunity afforded by consumer choice, green power marketers have formed a new trade organization called the **Renewable Energy Alliance**. Initial membership includes both retail and wholesale providers of renewable power. Current participants include Edison Source, Enron Energy Services, Foresight Energy, Green Mountain Energy Resources, PacifiCorp Power Marketing, and ReGen Technologies. In cooperation with other appropriate organizations, the REA will be active in important state-level regulatory proceedings and other policy forums in order to support policies that establish a fair market structure for environmentally preferable power. The REA also hopes to support and undertake outreach activities that will expand the market for renewable power to a broad base of consumers.

REA: Linda Latham (562) 438-2287

Disclosure

Uniform information disclosure (labeling) appears to be well on the road to regulatory acceptance as part of consumer protection in restructuring (see *GP News* No. 4). To the potential benefit of green marketing, it will provide consumers with comparable information about how their electricity is generated, give them the opportunity to choose according to their environmental preferences, and generally increase consumer comfort in choosing an alternative provider.

According to a summary by the Center for Clean Air Policy:

•California, Illinois, Maine, Massachusetts, Nevada and Rhode Island have adopted legislation requiring disclosure of specific information,

•Montana, New Hampshire, New Jersey, and Pennsylvania are in rulemaking,

•Regulatory commissions or their staffs have recommended it in Colorado, Delaware, Kansas, Maryland, Michigan and Virginia,

•Commissions are studying it in Arizona and New York,

•A legislative subcommittee in Ohio has recommended it,

•Legislation is under consideration in North Carolina and Vermont,

•It is required in pilot programs in Oregon and Washington, and

•It has been discussed in public hearings in Georgia and Louisiana and Minnesota.

All told, at least 26 states are actively engaged in disclosure policy and implementation. Marketers are now beginning to confront what one calls the Balkanization of disclosure policy. Each state has varying content requirements making it expensive to comply for the same product sold in the same power and advertising markets. This may be a rare instance in which Federal legislation will be welcomed to bring some uniformity to the practice of disclosure, and indeed some restructuring bills before Congress would require uniform disclosure.

The need for regional uniformity is being addressed by the New England Conference of Public Utility Commissioners. Following the New England labeling collaborative led by RAP and conducted under the auspices of the National Council on Competition and the Electric Industry, NECPUC issued a proposed model rule based on RAP's recommendations. State commissions will now consider the model rule which may be read at www.rapmaine.org.

CCAP: Paige Shelby (202) 408-9260

In Portland General Electric's retail access pilot program, **Electric Lite** is now selling a green power product to customers in the four towns eligible for the pilot program. For one cent per kWh extra, Electric Lite Green will result in at least 50 percent of the customers' energy generated by renewable resources (wind, solar and geothermal), and low impact sources such as landfill gas. Additionally, about 35 percent of the electricity will come from hydro and natural gas. The remainder will be generated by nuclear and coal. This compares to a regional average resource mix of 54 percent hydro, 32 percent coal, eight percent natural gasand six percent nuclear. Electric Lite is a North Carolina company and competitive supplier in the Oregon pilot program.

Electric Lite: Jan Burreson (503) 464-9938

Canadian competition

Competitive green marketing is also emerging north of the border with an innovative twist. **VisionQuest Windelectric, Inc.** of Alberta operates two merchant wind turbines from which it is selling energy in 100 kWh blocks for C$9.50/ month or 1,000 kWh blocks for C$68/month with accompanying emission reductions of 1,200 kg and 12,000 kg/year, respectively. Vision Quest will sell larger volume, longer term energy streams for lower unit prices and in fact prefers to sell to utilities which can more easily market to smaller customers. So far, Vision Quest's customers include two utilities, about forty private individuals or small businesses, and Suncor, a large oil company. Customers are really buying the environmental improvement because they are not actually choosing an alternative electricity supplier. That choice will not be available until 2001.

Vision Quest will also sell unbundled electricity products, including emission reduction credits for offsetting specific emissions of CO_2, SO_x, NO_x and particulates. Credits are good for the Canadian federal government's Voluntary Challenge and Registry Program (like the US Climate Challenge/Climate Wise programs and 1605 reporting system). These products and the bundled green energy are Eco-logo certified by the Canadian Environmental Choice Program and are verified by the Power Pool of Alberta. Purchasers receive audited and accounted for emission reductions/offsets.

Vision Quest: Jason Edworthy (403) 289-4553

Utility Green Pricing

After conducting a series of Deliberative Polls in its subsidiary territories in 1996 and 1997, **Central & South West Corporation** has initiated its first green pricing program in the City of San Angelo, within the serviceterritory of **West Texas Utilities**. Clear Choice^{SM} offers participation level options: customers may choose to pay $5 per month for 250 kWh, $10 for 500 kWh or $20 for 1000 kWh. Initially the energy will be supplied from an existing small hydro plant, but CSW is negotiating for new wind and landfill gas plants. The program will be extended to other cities this year.

CSW: Kathy Jones (918) 594-4060

The **Texas PUC**, led by Chairman Pat Wood III, recently initiated rulemaking to require all Texas utilities to offer their customers a green pricing option. The rule would define green power, the appropriate price relative to cost, green power acquisition methods, and a deadline for having tariffs in place.

Texas PUC: Alison Silverstein (512) 936-7006

Washington Water Power Company has gained approval of a new pilot program offering customers choice in electricity service without actual competition from other providers. About 7,800 customers in two towns will have energy service alternatives, including green power, all offered by WWP. Customers will be able to choose either traditional energy service based on existing retail rates, fixed or variable rates based on market prices, or a renewable resource rate. Under the renewable resource rate, customers may choose to buy blocks of wood or wind power for a premium of $1 per month per block. Participants will get either 73 kWh of energy from wood or 50 kWh from wind in exchange for their purchase. The source of the wind energy is under negotiation from a site in Wyoming. The wood energy will come from WWP's own Kettle Falls plant which operates under capacity. The premium will increase the geographic radius in which it is economical to collect the fuel, due to transportation costs. The pilot, More Options For Power Service II, will run from May 1, 1998 to April 30, 2000. Customers who choose one of the options must commit for at least one year.

WWP: Bruce Folsom (509) 482-8706

Nevada Power Company has reached agreement for a Green Power Option in which customers will be able to choose electricity from two 20 kW photovoltaic arrays, one constructed in 1998 and one in 1999. Scheduled for launch in June, the program will allow customers to round up their electric bill to the next *five-dollar increment* (rather than just to the next $1) or to designate a flat dollar amount to be added to each bill. Funds will be used to purchase additional PV energy.

Revenues will be used to cover marketing and administrative costs as well as capital and operating costs. It is uncertain whether Nevada power will be allowed to use the renewable capacity supported by green pricing to help meet its portfolio requirement (0.2% in 2002 rising to 1% in 2010) adopted by the Nevada legislature. The PUC may address that issue when it adopts implementing rules.

NP: John Chapman (702) 367-5376

Indianapolis Power & Light and three consumer groups recently received approval from state regulators on three pricing options: a 3-year fixed rate plan, a 12-month fixed bill (not adjusted for actual use), and a green rate based probably on Canadian hydro. Since the resource has not been negotiated yet, the price premium is not known, but IPL has agreed not to add a profit margin.

IPL: Marnie Lemons (317) 261-8219

Arizona Public Service has extended its Solar Partners program from its pilot area in Flagstaff to the Phoenix metropolitan area. More than 470 customers signed up in Flagstaff, each paying about $3 for 100 Watts of capacity, and the first project is sold out. A second 82 kW PV array has just been completed in Tempe and is nearly sold out. APS will add capacity to the Flagstaff site later this year.

APS: Cassius McChesney (602) 250-3124

Public Service Company of New Mexico recently established the Enchantment Energy Trust to fund small alternative energydemonstration projects. PNM will match voluntary customer contributions with shareholder funds.

PNM recently invited expressions of interest from developers and potential participants for projects that include both renewable energy and energy conservation or load management. These responses will be screened and a short list will be invited to make formal project proposals. Recipients are to be non-profit or public interest groups to maximize community education benefits.

The Trust is advised by a group of air-quality, consumer, alternative energy and water experts. PNM is providing $100,000 seed money for the first demonstration projects.

PNM: Toni Ristau (505) 241-2015

Public Service of Colorado will soon complete construction of its first 5 MW of wind (seven turbines), and have enough demand to support over 10 MW of wind. PSCo has signed up 5,700 residential customers and 50 large businesses since launching its Windsource program a year ago (*GP News* No. 5). Among the customers are six Windsource "champions." These large businesses have agreed to purchase at least 25 megawatt-hours of wind power monthly. Champions include City of Boulder, the City and County of Denver, Rocky Mountain Steel Mills, Coors Brewing Company, IBM and US WEST.

PSCo has been aided in its marketing efforts by a unique partnership with the Land and Water Fund of the Rockies, a regional environmental group, The LAW Fund is promoting Windsource through a grassroots campaign involving targeted communities, city and county governments, chambers of commerce, business customers, environmental, civic and community groups and media. The program has received increased press coverage because of the unusual partnership.

Both PSCo and the LAW Fund have been marketing in person to business customers, especially to any business where a clean environment or social values matter. TheLAW Fund, with no financial stake in the outcome, has increased the credibility of the utility's environmental product.

PSCo: Andy Sulkko (303) 294-2554

LAW Fund: Rudd Mayer (303) 444-1188

Also enlisting the support of local environmental groups, **Wisconsin Electric** signed a Memorandum of Understanding in February with Wisconsin's Environmental Decade and RENEW Wisconsin relating to its Energy for Tomorrow program (*GP News* No. 4 and 5). Decade and RENEW initially had been critical of WE's program for not including new, local resources, and had filed a lawsuit against the Wisconsin Public Service Commission relating to the approval process for the program. Since then, the two sets of interests have been moving towards accommodation.

In the MOU, the parties agree that the program will emphasize both new renewable energy sources and a diverse portfolio of resources. By April 1, 2000, 75% of the energy marketed will be derived from new renewables located in Wisconsin and Upper Michigan, and no single energy source (e.g., hydro, biomass, wind) will account for more than 75% of the energy capacity offered under the program. "New" can include orphaned, converted or refurbishment of abandoned facilities. The parties also agree to expand the program to commercial, industrial and institutional customers.

In exchange, Decade and RENEW agree to publicly endorse the program and to actively assist in marketing the program by issuing news releases, participating in media interviews and soliciting participation from their membership. They will also withdraw their current legal challenge to the Public Service Commission, and agree not to intervene on issues relating to the program in future proceedings, as long as the MOU is in effect.

In the first year of the program, WE succeeded in enrolling 7,200 customers through an aggressive marketing effort of direct mail and telemarketing follow-up. Marketing was suspended for about nine months while the program was evaluated.With 6,800 participants currently, the customer retention rate is about 94%. WE is currently reviewing plans to build wind turbines to supply power to the program. A new resource

RFP was issued in March for 5 MW of renewable energy, and customer marketing activities will resume again in March as well. It will be interesting to see if WE can exceed its initial success with the active support of the environmental groups.

WE: Chris Schoenherr (414) 221-2798

RENEW: Michael Vickerman (608) 255-4044

Decade: Keith Reopelle (608) 251-7020

Dakota Electric Association reports that it and 11 other distribution cooperatives in Minnesota have sold 3,750 blocks of wind power (at 100 kWh per block), effectively selling all the wind energy expected from two wind turbines in the Wellspring program. Customers signed up for more blocks of power than expected. DEA's participants bought an average of 2.9 blocks each, at $2 per block. Originally advertised at $4, the block price was cut in half when the project was confirmed to be eligible for the 1.5 cent Minnesota state production payment, and project bids showed that the cost of wind had dropped significantly. Most customers simply signed up for twice the number of blocks at the same cost.

Cooperative Power, the G&T cooperative responsible for getting the wind project up, will shortly sign a contract with a developer.

DEA: Jane Sturges (612) 463-6233

CP: Tim Seck (612) 949-8264

Wisconsin's first green pricing program, SolarWise for Schools offered by **Wisconsin Public Service**, has recently been expanded to include two additional options. The newest one is a renewable energy rate in which customers choose to purchase one more units of solar electricity a month for three years. Each unit is 5 kWh and costs $7-8 per month. When enough customers enroll, a 24 kW PV system will be built. Participants are not billed until the PV system is installed and producing power.

The second option is a bill round-up to the next whole dollar. The funds generated will be used to install PV-powered lighting or water pumping for parks, zoos, and nature centers.

These options are in addition to the SolarWise for Schools program begun two years ago, in which about 2,600 customers specify a fixed amount of money to be added to their monthly bills. The donations are used to install PV systems on high school roofs. Three high schools received these systems in 1996 and three more have been identified for installations.

WPS: Chip Bircher (920) 433-5518

Finally, another Wisconsin utility, **Madison Gas & Electric**, is developing an 11.25 MW wind farm (15-750 kW turbines) and will offer 100 kWh blocks to its customers at $4-5 per block. MGE has signed an agreement with Northern Alternative Energy to develop the project, and expects to begin marketingto customers later this year. Project completion is scheduled for 1999.

MGE: Jeff Ford (608) 252-7387

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