



keeping CURRENT

Committed to Conservation and Renewables

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Introduction

Since its inception, the Bonneville Power Administration has been a unique agency - a unique public agency - which has worked to achieve both societal and commercial goals. Perhaps at no time in its six-decade history has it been more important for BPA to maintain a healthy, dynamic balance between these goals than in today's ever-tightening, competitive market. And nowhere is that shifting balance more apparent than in the arenas of conservation and renewable energy.

In just a few years, BPA has seen its role in conservation and renewables shift from being the region's major funder and overseer of such initiatives to becoming a facilitator and catalyst for innovation and development.

Bonneville's commitment to conservation and renewables hasn't changed. The way it - and its customers - implement programs has changed dramatically. The region is currently reviewing the Pacific

Northwest's electric utility industry. This review is looking at the region as a whole, not just BPA; however, much of what BPA is or will continue to be will be affected by the discussion and recommendations. The resulting decision may at some point impact BPA and the region's approach. This publication provides an update on BPA's current efforts in both conservation and renewables. We will continue to keep you informed as things develop.

Conservation - Then and Now

With the passage of the Pacific Northwest Electric Power Planning and Conservation Act in 1980, Congress and the citizens of the region affirmed that cost-effective conservation was an important part of the resource acquisition portfolio. Since then, BPA has invested over \$1.5 billion in conservation as a resource. This conservation was cheaper to acquire in the long run than the generating alternatives.

BPA became a leader in identifying opportunities for improving energy efficiency in the residential, commercial, and industrial sectors. BPA became nationally known for the exciting work that was happening in conservation. This recognition was due to BPA's technical expertise, innovative designs, and cooperation and collaboration with the region's utilities and state and local governments.

Through its investments in several areas, including direct conservation programs, improved building codes and the modernization of aluminum smelters, BPA has realized about 580 average megawatts in energy savings in the past 15 years. That is nearly enough energy to serve the combined electricity needs of Boise and Tacoma.

Achieving a Balance in Energy Efficiency

The region's great strides in efficiency achievements were accompanied by rigorous analysis and evaluation of the costs and benefits of conservation. Many stakeholders followed this analysis, because of their different interests.

Conservation analysts took into account the concerns of environmental groups which advocated conservation as a resource with fewer quantifiable environmental impacts than the generating alternatives. Likewise, conservation was strongly supported by social action groups, who found good value for the consumer in energy savings. These were the benefits.

But conservation came with a price tag. For some utility customers, conserved energy represented lost sales. For other utilities, the cost of rolling conservation into BPA's power rates made BPA power too expensive.

In recent years, there have been significant changes in the utility industry. The effect of the 1992 Energy Policy Act resulted in not only increased competition through open access to the transmission lines, but also gave way to technological advancement and increased supplies of natural gas. The nature of competition itself became very aggressive. Power brokers entered the power marketplace selling Southwest surplus power to BPA's customers over the third AC intertie; independent power producers are successfully selling highly efficient gas generation to Northwest customers. These events have changed the power supply scenario. Power supplies have gone from deficient to significant surplus. The cost of alternative power for planning purposes and in real life dropped like a rock. Suddenly alternative power went from 5.6 cents (a generic coal plant) to 2.0 cents (an efficient gas generator).

These changes in the energy market forced BPA to keep costs down and change the way it funded

conservation. BPA looked for a way to balance the competing interests - a way to keep rates low while continuing a commitment to conservation.

The solution was to drop conservation from the rates equation and let individual utilities fund their own conservation programs - according to local priorities and without being required to fit into "one-size-fits-all" programs. BPA would keep its commitment to helping the region achieve cost-effective conservation through specific leveraged investments.

Bonneville's Role in Today's Market

One of the key points to understanding the balance that BPA seeks is to recognize the different reasons why a government entity might be involved in energy efficiency. Historically, as a power marketer with the mandate to meet customer power needs, BPA planners were able to identify cost-effective conservation that was cheaper in the long run than the generating alternatives. Now that the Northwest has an energy surplus, BPA no longer needs to "acquire" power (or conservation) to meet demand.

Although BPA is no longer the centralized collection and redistribution point for conservation funds, it remains an important voice in regional energy efficiency. Using its large regional presence and identity as a government agency, it can call together regional groups to find regional solutions that cross utility and political boundaries. BPA continues to be a focal point for technologies and strategies, and a resource to help utilities and jurisdictions find ways to leverage their conservation dollars.

As a public agency, BPA also offers a public forum in which decisions can be made. The public - utilities and other stakeholders - all participate in determining how conservation funds are invested. As part of its mission, BPA encourages such diverse groups to be involved.

And along with participation comes accountability. BPA makes its processes and results available to all interested parties. In doing so, BPA empowers others to help them develop better investments.

In order to remain competitive, BPA must pursue short-term goals and business objectives. But the agency also provides the leadership of long-term planning, something others fail to do. This focus on the energy horizon allows BPA to:

- work towards long-term goals in market transformation;
- calculate cost-effectiveness on the long-term desired outcome; and
- not limit its scope as much as a different type of organizational entity might.

BPA also provides leadership by investing in research and development, an investment that others may be unable to make in a competitive environment. BPA must look beyond a need for immediate revenue impact to a long-term public benefit.

BPA's Investments

BPA believes the marketplace will make a substantial contribution toward providing the region with cost-effective conservation. However, BPA also believes it is not realistic to assume that everything can be achieved solely in this way. BPA proposes the following elements to help the region meet collective goals.

BPA's continued investments in energy efficiency will be delivered under its Energy Services umbrella in four new ways.

First, BPA will honor previous commitments. For example, BPA has existing financial arrangements with its utilities to help them pay for conservation in their service territories. BPA also has paid for performance commitments, including competitive acquisitions, targeted acquisitions, and billing credits. In addition, utilities which have exercised "flex" agreements will continue to use BPA funds through 1999, funds which otherwise would have run out in the mid-1990s. These utilities have approximately \$29 million that they can combine with their own funds to use in their service territories for energy-efficiency programs.

Second, BPA has offered up to \$12.5 million in interim funding for the next few years to the states and public utilities in the Northwest. This money, to be partially matched by the local utilities and others, will pay for low-income weatherization programs. BPA's investment should generate up to \$2.1 million in matching regional expenditures over the next few years. This will result in energy savings far into the future for the region's low-income residents. Though conservation at most income levels is expected to be market-driven, energy savings in low-income households would probably not be realized without BPA's investment. BPA considers its additional investment for low-income weatherization programs to be a transitional effort, pending the conclusion of the Regional Review, which currently has a draft report out for public comment.

Third, BPA will continue its leadership role to remove market barriers by investing up to \$15 million each year to support and promote market transformation. This strategic intervention in markets will bring about lasting structural or behavioral changes in how energy is used. These changes should result in increases in the adoption and penetration of energy-efficient technologies and practices. Market transformation covers a range of activities, including investments in research and development, regional infrastructure, information dissemination, national collaborations and specific targeted ventures. BPA's funds are leveraging investments and partnerships with the investor-owned utilities and other regional stakeholders.

And Fourth, BPA has proposed to market Energy Services using our existing conservation expertise. We would supply the region with conservation products and services to increase conservation activity by expanding the size of the marketplace for energy efficiency.

In addition to these investments BPA will strongly encourage a voluntary system whereby both public and investor-owned utilities (pending Public Utility Commission approval) would set a standard for developing megawatts or contributing a percentage of their gross revenues toward regional benefits which will include conservation.

The Emerging Market for Renewables

The development and aggressive marketing of renewable energy products are important components of BPA's overall commitment to help preserve the environment in the Pacific Northwest. The months ahead present a unique opportunity for BPA to increase the market share for renewable energy as the region's utilities are looking at an increasing number of options.

BPA is pursuing opportunities to participate with developers and other utilities in several renewable resource projects. To date, BPA has signed a purchase power agreement on Newberry Geothermal, but has not made final decisions on any of the remaining projects. BPA will make decisions on the remaining projects using information from environmental analysis now in progress along with other important information such as costs and rate impacts. In developing such renewable projects, BPA once again is transforming the marketplace instead of passively waiting for the market to expand. Its "green"

marketing effort is focused on developing new markets for renewable power and it is actively promoting "green power" products. However, BPA is not as yet committing to sell the power generated from a specific renewable resource to a particular customer.

Initial interest encouraging

BPA continues to invest in the development and marketing of renewable energy resources. New wind and geothermal resources currently cost substantially more to develop and operate than the going rate for block sales of wholesale power. Bonneville is actively working to close this gap through aggressive marketing.

In order to spur the creation of a market for green power, BPA is packaging a power product which contains energy from renewable projects in the Northwest. BPA is offering this product to utilities at a special, below-cost introductory price to stimulate interest in and growth of the renewable sector of the market. Additionally, contract commitments are being kept short - as little as one year, thus giving utilities even more flexibility. This short-term, specially priced product provides utilities with a low-risk opportunity to determine if their retail customers will support the use of green power.

A number of utilities have shown interest in this product. In January 1996, Salem Electric announced it would buy BPA's renewable energy product as it becomes available to meet up to 17 percent of its load.

Renewables under development

BPA has developed a number of renewable products from various combinations of resources. Customers have been most interested in the wind projects because they are relatively inexpensive in the near term, but BPA is actively marketing geothermal as well. Among the new projects BPA is considering are two wind power and two geothermal projects:

- **Foote Creek Rim Wind Project**, located in Carbon County, Wyo., would have 68.1 megawatts of capacity, BPA's share would be 20.5 megawatts. BPA is participating in this project along with PacifiCorp (the project manager), the Eugene Water and Electric Board, and the Public Service Company of Colorado. The environmental impact analysis on this project is complete, but a decision has not been made pending resolution of environmental issues. Operation could begin in 1998.
- **CARES Columbia Wind Farm No. 1**, located in the Columbia Hills of Klickitat County, Wash., would have 25 megawatts of capacity. Contract participants are Conservation and Renewable Energy Systems (CARES) and FloWind. The environmental impact statement has been completed, but a decision has not been made pending resolution of environmental issues. Operation could begin in 1998.
- **Four-Mile Hill (a.k.a. Glass Mountain) Geothermal Project**, located in Siskiyou County, Calif., would have 33 megawatts of capacity. Contract participants are Calpine Siskiyou Geothermal Partners and Springfield Utility Board. The project area consists of 13,725 acres of federal geothermal leases. Approximately three years of environmental baseline data have been collected, some exploratory drilling has been done and an environmental impact statement for the power plant and transmission line is being conducted by the Bureau of Land Management. BPA is cooperating. The project could go on-line in October 1999.
- **Newberry Geothermal Project** is planned to have 33 megawatts of capacity. The project is located in the Deschutes National Forest on the west flank of Newberry Volcano (Newberry site) in central Oregon. The project participants are BPA, CE Newberry Inc., and the Eugene Water and Electric Board. The federal environmental review process is complete for the Newberry site

and the State of Oregon has issued a Site Certificate for that site. Exploratory drilling began in 1995, and two exploration and two production wells have been drilled. CE Newberry Inc., the developer, has notified BPA that they believe there are insufficient resources at the Newberry site and has requested a contract amendment with BPA to relocate the project from the Newberry site to the Glass Mountain Unit Area in the Modoc National Forest in northern California. In order to consider CE Newberry's request to relocate the project to the Glass Mountain Unit Area, BPA will prepare the necessary environmental documentation, pursuant to NEPA. Upon completion of the NEPA process, BPA will make a decision on CE Newberry's request. The NEPA review for the Glass Mountain relocation has been initiated by CE Newberry by submitting a proposed project description to the Bureau of Land Management.

In addition to these renewable projects, BPA is also providing product options that include the Wauna biomass-fueled cogeneration plant and the new Cowlitz Falls and Clearwater hydropower projects. BPA has other renewable projects that may also be included in future product options.

Conclusion

In providing products and public benefits over its history, BPA has often adapted to reflect changing values and changing markets. This certainly has been the case in conservation and renewables. Though BPA's leadership in these areas has been a constant, its methods of delivering products, managing programs and fostering innovation have changed and will continue to do so.

Current market conditions call for collaboration with the region's utilities and greater latitude for those utilities in designing conservation programs which uniquely fit their circumstances. BPA must temper its efforts at cost-consciousness by being mindful of its social responsibilities. It must lead the region in the development of a long-range vision for alternative resource development which pays heed to trends in market conditions.

In short, in times of diminished ability to financially support such programs, BPA must aggressively innovate and collaborate as it continues its role as the region's foremost balancer of competing interests. BPA will continue to provide the leadership necessary to ensure that conservation and renewable initiatives continue throughout the region.

For more information

For more information about BPA's conservation and renewable resource programs, please contact your account executive or district office. If you do not know who your account executive is, contact the nearest BPA office listed below:

Boise, Idaho
(208) 334-9137

Missoula, Mont.
(406) 329-3060

Portland, Ore.
(503) 230-3478

(800) 622-4519

Seattle, Wash.
(206) 216-4272

Spokane, Wash.
(509) 358-7402

Vancouver, Wash.
(360) 418-8600

Walla Walla, Wash.
(509) 527-6225

Washington, D.C.
(202) 586-5640

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It was posted on the Internet by Ken Kane, krkane@bpa.gov.
