Committee on Resources,

Subcommittee on Water & Power

water - - Rep. Ken Calvert, Chairman
U.S. House of Representatives, Washington, D.C. 20515-6204 - - (202) 225-8331

Witness Statement

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Testimony of Richard L. Erickson, Secretary-Manager
before the

Subcommittee on Water and Power
Committee on Resources
United States House of Representatives
Hearing on Maximizing Power Generation at Federal Facilities

April 26, 2001

"Bonneville Power Administration's Voluntary
Energy Load Reduction Program –
Columbia Basin Project, Washington"

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United States House of Representatives
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Subcommittee on Water and Power
1522 Longworth House Office Building
Washington, D.C. 20515

Honorable Members of the Subcommittee on Water and Power:

Thank you for the invitation to provide information to the Subcommittee about the opportunities and challenges of Bonneville Power Administration's Voluntary Energy Load Reduction Program on the Columbia Basin Project. The Columbia Basin Project, constructed by the United States Bureau of Reclamation and now primarily operated by the East, Quincy and South Columbia Basin Irrigation Districts presently provides irrigation water to approximately 640,000 acres of farmland. This irrigation is accomplished by diverting, at Grand Coulee Dam, approximately 3% of the Columbia's flow. The Project is authorized by Congress to ultimately irrigate 1,095,000 acres.

The first inkling of this energy load reduction program came in a January 31st phone call from Bonneville

to the CBP Irrigation Districts' management asking if there would be any possibility for the Districts to make operational changes to bring about reduced diversions from the Columbia River at Grand Coulee Dam for the 2001 irrigation season. BPA's stated purpose in this inquiry was to develop strategies to respond to the developing energy and drought emergencies in the Pacific Northwest. The Districts were unable to offer much in the way of an encouraging response to this initial BPA request because the CBP's extensive network of reservoirs and canals is operated in direct response to irrigation delivery orders placed by individual farmers. In other words Reclamation and the Districts only put into the canals what the farmers ask for. Any operational tweaking of the system by the Bureau of Reclamation or the Districts would be truly miniscule in terms of Columbia River flows. It was suggested to BPA that the only way to reduce CBP diversions would be to reduce water use by individual farmers. Since the CBP is already very water efficient, both on-farm and operationally, such a reduction could only come about by idling acres. That initial discussion also included a recognition that the present and prolonged downturn in crop values could possibly make the temporary idling of some acres a serious consideration for some farmers.

Shortly thereafter BPA asked the three Districts' Boards of Directors to authorize discussions with BPA and Reclamation to attempt to develop a voluntary CBP land fallowing program that would result in an energy load reduction of irrigation pumping at Grand Coulee Dam plus increased hydropower generation at both Grand Coulee and Chief Joseph Dams. Prior to responding to this overture by BPA the three Boards directed their attorneys and management to research any potential adverse impacts of such a program to the balance and inter-relationships of CBP reservoirs and canals, to CBP water rights, to CBP repayment contracts between Reclamation and the Districts and also possible inadvertent economic or social impacts to others. Among other things this research concluded that USDA's Payment-In-Kind Program in the early 1980's had idled over 70,000 CBP acres thus providing something of a model and that Washington State water laws and CBP's reclamation contracts

provided sufficient flexibilities during droughts. Research also estimated that effects on the balance of the irrigation system and effects on others should be dispersed if the idled acres were limited and dispersed. Based on this information the three Boards, in conjunction with their own judgement that the combination of depressed crop values and the developing power emergency presented unique circumstances for irrigation and hydropower interests to work together, authorized negotiations with BPA and Reclamation. Negotiations in earnest began on February 14th.

To understand the value and complexities of these negotiations requires some discussion of Columbia River and Columbia Basin Project plumbing. Irrigation water for the CBP is pumped at Grand Coulee Dam into Banks Lake, a lift of 280 feet normally. The present drought has increased that lift to about 370 feet. The energy for that pumping lift is generated by other water falling through the turbines at Grand Coulee. That falling water then is used for generation at Chief Joseph Dam and 9 other dams further downstream on the Columbia. An acre foot not pumped to the CBP and then also becoming available to generate at Grand Coulee and Chief Joseph Dams is equivalent to about 1 megawatt hour, not to mention the potential at the 9 lower dams. In normal times the wholesale value of that megawatt hour is $20 or less. This year that wholesale value has, at times, ranged between $200 and $700. Each irrigated acre on the CBP uses 3 to 4 acre feet, equivalent to about 3 or 4 megawatt hours. Until recently, the crops grown by that irrigation

exceeded $1000 per acre in average annual value. That is not true this year or the past several years. Through the course of negotiations those numbers caused BPA to offer CBP irrigators $330 per acre to not irrigate, equivalent to $80 to $110 per megawatt hour. While well below the $1000 per acre norm, this $330 turned out to be a good alternative for lands slated for lower valued crops this year.

To further complicate negotiations and planning you have to understand that CBP is designed for the return flows and spills from the upper two-thirds of the Project to provide the water supply for the lower one-third meaning the idled acres needed to be dispersed and balanced. Plus, the CBP canal system is the site of 7 small hydroelectric plants owned by the Districts having established power purchase contracts with Seattle City Light, Tacoma Public Utilities and Grant County PUD. In view of current wholesale energy prices, these contracts could not be shorted.

The Voluntary Energy Load Reduction Program was opened for applications by CBP irrigators on March 19th. To bring this about we had to develop contracts for the Districts to administer the program with the irrigators on behalf of BPA, also contracts between the individual irrigators and BPA, letters of consent from Reclamation to BPA plus agreements between the three canal system hydropower purchasers and BPA. Also eligibility criteria were developed to attempt to assure that participating acres would yield the energy benefit being sought by Bonneville and to enable monitoring of irrigators for contract compliance to be done in a reasonable fashion. All this was done knowing that February and March is the start of the farming season in the Columbia Basin and being late would assure no participation. Bringing this from an initial phone call to implementation in 6 weeks, considering it was being done by 2 federal agencies and 3 units of local government plus involving 3 public utilities, especially considering all the legal complexities, was done at light speed in governmental terms. However, we'll probably have to wait until October or later to definitively evaluate if it was done well, both for agriculture and hydropower.

The bulk of the applications were received from interested farmers during the last two weeks of March and first week of April. The lateness of this time frame relative to the beginning of the growing season created lots of anxiety and frustration for farmers. In most cases the time required from the initial application by the farmer at the District offices to issuance of an approved contract by BPA was less than two weeks. All contacting was completed before the end of the fifth week following the March 19th opening of the application process.

About 670 farmers have contracted with BPA to not irrigate about 91,196 acres, or about 15% of the Project. Those 91,196 acres should yield something over 300,000 megawatt hours of electricity that otherwise would probably have to be imported from outside the region at a higher cost to BPA and its ratepayers. The participating acreage is somewhat over the initial planning goal of 75,000 acres and the original contracted goal of 83,888 acres. Also, the acreage did not disperse quite as evenly as originally intended. Neither of those factors is expected to be a major problem for the Project and could only have been better orchestrated with the luxury of more time for both planning and implementation.

The East District's Board of Directors has asked me to emphasize two messages with this testimony. The first is that this year's unique coincidence of very low crop values and an energy and drought emergency,

including very high wholesale energy costs, has created a situation where agriculture and hydropower, respective rural and urban interests, have been able to help each other. Meaning some assured income in uncertain times for participating farmers and some degree of lower electric rates for thousands of northwest electric ratepayers. The second message is that these circumstances need to stay unique and rare. Water transfers from agriculture should not be seen as a routine or reliable source of energy or as a substitute for constructing additional generating capacity. In normal times irrigation water should be more valuable for producing food than electricity.

Again, thank you for this opportunity and for your consideration of this testimony.

Sincerely,

Richard L. Erickson

Secretary-Manager

Attached as additional background are copies of the following newspaper articles:

1. Tri-City Herald March 7, 2001 "BPA's buyback efforts focus on irrigation project"
2. Tri-City Herald March 14, 2001 "BPA raises water payout to farmers"
3. Tri-City Herald March 17, 2001 "Basin irrigation districts seek pact with BPA"
4. Columbia Basin Herald March 19, 2001 "Irrigators line up in Othello for BPA buyback program"
5. Spokesman-Review March 20, 2001 "Floodgates open for irrigators"
6. Tri-City Herald March 21, 2001 "Basin farmers eager to entertain BPA buyout"
7. Tri-City Herald April 17, 2001 "BPA buy-back helps farmers, may hurt others"

Also attached is a Curriculum Vitae of Richard L. Erickson and a Disclosure of East District Contracts and Grants with the Federal Government.

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