Hanford Site prepares for high energy costs

Access to cheap and abundant water resources has made hydroelectric power generation a mainstay for both the Northwest and the Hanford Site. But hydropower is only as reliable as the water source.

This year, the region is experiencing perhaps the lowest water yield since record-keeping began. Low water, tight supplies and unheard-of wholesale prices are converging to shape the new Bonneville Power Administration wholesale rates to be announced later this month.

Unless immediate actions are taken, the fiscal year 2002-2006 rates, to go into effect Oct. 1, could increase a whopping 250 percent for the first six months. The rate structure includes an adjustment clause that will vary every six months, depending on the amount of power BPA has to buy and the market price. Forecasts of market prices anticipate lower costs in future years as the region's supply and demand come into better balance.

To support rate calculation efforts, BPA has requested a cooperative effort by all customers to commit to significantly reduced loads for the fiscal 2002-2006 rate period. BPA's expectation of Hanford is a 10 percent reduction of the site's 31.3 average megawatt load, or 3.13 megawatts. This request is consistent with the calls issued by the governors of Oregon and Washington for government agencies, businesses and citizens to cut energy consumption by 10 percent.

"At Hanford, these unprecedented conditions have the potential to more than triple the site electric bill from $6 million to $21 million in FY 2002," said John Wood, Fluor Hanford vice president of Hanford Site Operations. "As Hanford must work within existing resources to meet the cleanup goal, all viable energy reductions become a means to help achieve that goal."

The Department of Energy Richland Operations Office responded quickly to the forecast of electrical shortages by requesting, earlier this year, that contractors update their electrical load reduction activities.

DOE-RL strongly supports energy conservation as an immediate approach to solving the problem of looming triple-digit rate increases. The measures could be implemented without expensive retrofits and without jeopardizing the containment of contamination or compromising the safety of employees, the general public or the environment.

"With the rising cost of electricity, it is in the best interests of Hanford Site contractors to re-examine ways of operation, building maintenance and processes with an eye toward discovering where energy consumption and costs can be minimized," said Steve Wisness, director of Site Services for DOE-RL.

Roundtable discussions hosted by DOE-RL with BPA and Hanford contractors have identified key load reductions, and evaluations are in progress to respond to BPA with a commitment by a June 22 deadline. "All Hanford workers will play a critical role in implementing the final solutions to reduce energy consumption," said Wisness. "The sum of good energy conservation habits can make a difference." ❖

What the Hanford Site can do

On May 3, President Bush issued a memorandum to federal agencies directing them to take appropriate actions to conserve energy use at their facilities.

Load-reduction measures under consideration at Hanford include:

- Reducing building heating and cooling to minimum levels (per 41 CFR Ch 101, Federal Property Management Regulations, sec. 20.107, 65 degrees Fahrenheit during the heating season, 80 degrees Fahrenheit during the cooling season).
- Turning off office and storage building lights when not in use, removing unnecessary bulbs from fixtures and relocating personnel to eliminate underutilized or unnecessary buildings.
- Replacing incandescent lamps with screw-in fluorescent or lower-wattage bulbs.
- Limiting use of equipment to needed times by rescheduling or through automatic controls.
- Installing time clocks or motion sensors on lighting systems, and photocell timers on exterior lights.
- Installing motion-sensing vending machines.
- Terminating or reconfiguring once-through exhaust ventilation systems where feasible.
- Rescheduling activities to cut back heating and lighting hours.
- Cycling (rather than continuous running) of chillers.
- Operation of on-site electrical generation equipment.

What you can do

As the summer progresses and energy demand increases, it is particularly important to practice conservation at DOE facilities. Here are some specific actions you can take to conserve energy:

- Turn off fluorescent lights when leaving your office or area.
- In offices or work areas with sufficient daylight, turn off lights. Adjust blinds, if available, to reduce glare.
- Turn off printers and monitors when not in use.
- Ensure ENERGY STAR power-down features are activated.
- If computers do not have ENERGY STAR features available, turn them off when leaving the office for more than 30 minutes. Use blank screen savers instead of colorful wallpaper designs.
- Ensure personal appliances, such as coffee pots and radios, are turned off when not in use.
- Limit the use of copiers during peak demand periods. Turn off selected copiers. Ensure power-saver switches on copiers are enabled.
- Power down PC workstations and associated peripherals at the end of each workday (especially on weekends) or when not in use.
- Turn off the lights and other energy-using devices in your office when you leave at the end of the workday. For group offices, ensure the last person to leave the area in the evening turns off the lights and other devices.

You can find the President's energy directive and additional measures you can take to conserve, both at the office and at home, at **www.eren.doe.gov/femp/**; click on the "Presidential Directive" icon as it flashes. ❖