PMComanchePeakPEm Resource

From: Monarque, Stephen
Sent: Monday, June 29, 2009 8:22 AM
To: ComanchePeakCOL Resource
Subject: FW: Waco Trib on Comanche Peak Water Use

Importance: High

-----Original Message-----
From: Donald.Woodlan@luminant.com [mailto:Donald.Woodlan@luminant.com]
Sent: Tuesday, June 23, 2009 10:55 AM
To: Monarque, Stephen
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Importance: High

FYI

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River authority hopes to sell Brazos water to double size of Comanche Peak nuclear power plant J.B Smith Waco Tribune June 23, 009

A pair of nuclear reactors Luminant wants to build at Glen Rose, Texas, would boil away 55 million gallons of Brazos River basin water a day, dwarfing the water consumption of the whole city of Waco.

The Waco-based Brazos River Authority, which would sell the water, says the river basin has adequate supply to serve the expanded Comanche Peak plant. If approved, Units 3 and 4 will provide an additional 3,400 megawatts of electricity, nearly four times as much as the new Sandy Creek coal plant in Riesel.

But in hearings before federal regulators, nuclear opponents are arguing that Texas can't afford to lavish its limited water supply on such projects.

"It's not that big of an issue in other parts of the country, but it's huge here, because we're in such an extraordinary drought in the Southwest," said Eliza Brown, clean energy advocate for the SEED Coalition, an Austin-based environmental group that is seeking to intervene in the federal Nuclear Regulatory Commission process for Comanche Peak 3 and 4.

Brown added, "People are definitely facing water shortages. It just doesn't make sense to pursue the most water-intensive source of energy without an adequate analysis."

Brown and other environmentalists argue that if climate change creates new record-breaking droughts, the water used for nuclear power would threaten flows downstream in the Brazos, harming both wildlife and human users.

Luminant officials say water use for nuclear power is comparable to some coal-burning technologies and that the project will provide needed power without significant air pollution.

"Nuclear power is an excellent source of dependable, cost-effective, clean-air energy," said Luminant spokeswoman Ashley Monts. "We're looking to have a very diverse generation mix. ... We understand water is an important commodity, and it's important to us that we are reasonable with our water use."

The BRA has tentatively promised to sell Luminant 84,000 acre-feet, or 3.7 billion gallons a year, which at current rates would bring the authority $4.6 million a year. The Brazos G Regional Water Group and the Texas Water Development Board last year added that use to the regional and state water plans.

Lake Granbury source

Luminant would take the water from Lake Granbury, which would be replenished by increased releases from Possum Kingdom Lake, upstream on the Brazos River. The new nuclear reactors would consume 61,617 acre-feet a year, or 55 million gallons a day, in cooling towers, with the remainder of the water returned to Lake Granbury.

By contrast, the city of Waco consumes about 32,000 acre-feet of water a year, said Assistant City Manager Wiley Stem.

Stem said the Comanche Peak water consumption from lakes on the Brazos River would have no direct impact on Waco. The city gets its water from Lake Waco, which is on a tributary of the Brazos.

But Stem, who sits on the Brazos G planning board, said he's concerned about the plant's impact on supply for the entire Brazos basin, which stretches from near Lubbock to Brazoria County. Stem voted to include the Luminant demand in the regional water plan and said he believes nuclear power should be part of Texas' energy future. But he has misgivings about the project's water use, given Texas' future population growth and limited water supply.

"The thing that concerns me is that if you look at the whole plan, the state is radically short of water in the long run," he said. "Nobody has said, here's what we've got, here's what we need in 2060, and here's where it's going to come from.

He added, "The question is, how do we want to use water? Do we want it to drink, or produce food or to produce electricity?"

BRA officials say studies already have been done to ensure that the Luminant project will leave enough water for downstream users and wildlife needs. At the request of the Brazos G group, the BRA and the engineering firm HDR did an analysis last year, funded by Luminant.

But that study, and the sale of water to Luminant, assumes that the state of Texas grants the BRA the "systems operation" permit it has been seeking since 2003 to drastically increase the amount of water for sale in the basin. The BRA, a state-chartered water management agency, proposes to free up water by managing its 11 reservoirs as a system to meet its commitments to users downstream.

Luminant, which has extensive water interests in the Brazos basin, at first filed to oppose the systems operation permit. It agreed to withdraw after the BRA promised it would attempt to sell Luminant water for its nuclear plant, said BRA planning and development manager Jim Forte.

Forte said the sale is consistent with the BRA's priorities of ensuring municipal needs first, followed by power, irrigation and industrial needs, and, lastly, mining needs.

Power plant use

Already, power plants account for about half of the water withdrawn by customers in the Brazos basin and Texas as a whole. Most of that water is returned to rivers, leaving power companies responsible for only about 3 percent of water consumed.

Comanche Peak's water consumption would be 0.6 to 0.7 gallons per kilowatt-hour, which would be consistent with the nuclear industry but on the high end for the power industry as a whole.

In Texas in 2006, power companies consumed an average of 0.39 gallons per kilowatt-hour, with wide variations based on the type of fuel and technologies used, according to a report by the state Bureau of Economic Geology.

Some water-cooled gas-fired plants used as little as 0.2 gallons per kilowatt-hour, while coal plants ranged from about 0.4 to 0.7. According to the report, because of environmental regulations, most generation plants built today employ cooling towers, which use twice as much water as cooling lakes.

Monts, the Luminant spokeswoman, said the Comanche Peak plant actually will use less water per kilowatt-hour than many coal plants built with modern emissions controls.

Still, environmental groups plan to make water an issue in nuclear licensing hearings in Texas, and not only for the Comanche Peak plant.
They are warning that the South Texas Nuclear Project, which seeks to double its nuclear plant on the lower Colorado River, will take away water from cities and wildlife-supporting estuaries.

http://www.wacotrib.com/search/content/news/stories/2009/06/23/06232009w
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