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WCS seeks NRC license for Texas spent fuel storage facility

BY JEFF BEATTIE

Calling the facility a breakthrough solution to the nation's nuclear waste problem that could open in a mere five years, Waste Control Specialists applied Thursday for a Nuclear Regulatory Commission license to build the nation's first centralized storage facility for spent nuclear fuel in west Texas that would have the capacity to take more than half the spent fuel currently stockpiled at commercial reactor sites across the country.

If successful, the Waste Control Specialists (WCS) project would represent clear progress in resolving the country's enduring nuclear waste stalemate, which has largely occurred

AEP dropping PPA plan; to seek state legislative action on re-regulation

BY GEORGE LOBSENZ

In a quick change of course on a highly controversial issue, the head of American Electric Power said Thursday the utility would not pursue FERC approval of its embattled plan to help some of its financially struggling merchant coal plants in Ohio through ratepayer-funded power purchase contracts, saying the utility instead would seek state legislative action to re-regulate the plants or sell them.

One day after the Federal Energy Regulatory Commission said it would review the plan to ensure it was fair to ratepayers, AEP Chairman, President and Chief Executive Officer Nick Akins made clear the utility would not fight for approval of the plan because such

a proceeding would take too long.

More specifically, Akins said AEP did not want to find itself in the middle of a long-running regulatory case that likely would turn on the issue of whether the Public Utilities Commission of Ohio (PUCO) interfered with FERC jurisdiction over wholesale power markets by approving the power purchase agreements (PPA).

"We have no interest in getting involved in a protracted FERC-state jurisdictional dispute so we will move as expeditiously on Plan B as possible..." Akins told Wall Street analysts on a quarterly earnings call.

He said AEP would take a "two-pronged approach" to finding a solution for the ailing merchant coal plants that were to benefit from the PPAs.

Greenhouse crusader Hansen: Save Illinois nukes to save the climate

BY CHRIS HOLLY

In his most explicit support for nuclear power to date, crusading climate scientist James Hansen has urged Illinois Gov. Bruce Rauner and other top state officials to take legislative action to ensure that Exelon's financially struggling nuclear plants in the state keep operating, saying loss of their carbon-free power would be a disaster for efforts to reduce greenhouse emissions.

Hansen signed an April 4 letter by dozens of environmental scientists, conservationists and philanthropists that called on Rauner (R) and other Illinois officials to "find a fair and

reasonable solution to keep all Illinois nuclear plants running for many years to come." The letter specifically suggested that one solution might be to expand Illinois' renewable portfolio standard (RPS) to include nuclear energy—one of several options Exelon has floated in the past.

Hansen's unusual foray into nuclear energy politics is all the more notable because the letter bluntly rejects the climate solution championed by anti-nuclear environmental groups, who say natural gas-fired generation and renewables can provide an acceptably low-carbon replacement for nukes being forced into retirement due to intense competition from plants fueled by cheap shale gas.

And by signing the letter, Hansen gives Exelon and the nuclear industry a high-profile backer with impeccable credibility among climate activists and green groups, who view him as an icon due to his early warnings on global warming and his impassioned advocacy for accelerated emission reduction.

Hansen's emergence as a nuclear proponent comes as Exelon and the nuclear industry are gaining traction in some states on new support mechanisms to keep financially ailing reactors on line. In perhaps the most surprising development, New York Gov. Andrew Cuomo (D) recently added a pro-nuclear component to his aggressive clean energy program by proposing to give credits to several upstate New York nuclear plants at risk of retirement, say-



More cost overruns hit Kemper clean coal project

Only three months after it announced a \$142 million cost increase in the clean coal project, Mississippi Power Co. disclosed this week another \$61 million in cost overruns at its Kemper County gasified coal plant, again due to problems with components of the plant's two gasifiers.

In a joint Securities and Exchange Commission filing Tuesday with corporate parent Southern Co. and in a monthly report to the Mississippi Public Service Commission (PSC) for March, Mississippi Power also said startup of the long-delayed project has been pushed back from the August 31 date set in February to September 30—and that further delays were possible.

And in a quarterly earnings report issued Wednesday, Southern said it was taking a \$53 million write-off on its Kemper plant investment in the first quarter.

But despite the new cost hit—and warnings of possible additional delays—Southern Co. Chairman, President and Chief Ex-

ecutive Officer Thomas Fanning gave Wall Street analysts a surprisingly sunny outlook for the project, saying he is “very happy with the way it’s going.”

He expressed confidence that the plant would be operating by the third quarter and said the difficulties were typical for complex, first-of-a-kind projects.

“Getting it done right the first time is really important to us,” Fanning said. “We are making improvements along the way.... We will demonstrate a reasonable history of reliable operations and then file a rate case.”

The latest increase in Kemper’s price tag brings the total estimated cost of the integrated gasification combined cycle plant to \$6.72 billion—more than three times the \$2.2 billion estimate when the project was announced in 2009, at which time Mississippi Power said the plant would be operating by May 2014.

The higher costs and associated schedule setback are due to continuing repairs and

modifications to the refractory lining inside each of the Kemper plant’s two gasifiers and to allow time to inspect and evaluate the need for additional refractory work, which the utility said could further affect the start-up date and cost estimates.

The 582 megawatt Kemper project is a high-profile clean coal project aimed at showing coal-fired power plants can meet new policies aimed at reducing carbon and other air pollutants. The gasifiers are crucial components that use intense heat and high pressure to convert lignite—low rank coal with a relatively low heat content—into a synthesis gas. The plant also is designed to strip carbon dioxide and other pollutants out of the gas before it is burned in a combined cycle turbine.

Southern and Mississippi Power said any extension of the in-service date beyond September 30 could result in additional base costs of about \$25 million to \$35 million per month plus an additional \$14 million per month in costs not subject to a \$2.88 billion cost cap established for the project by the Mississippi PSC in 2012. So far, Mississippi Power has been forced to absorb about \$2.5 billion in cost overruns.

Greenhouse crusader Hansen: Save Illinois nukes... *(Continued from p. 1)*

ing the state could not achieve its greenhouse reduction goals if it lost their emissions-free power.

Chicago-based Exelon has made the same case in Illinois, warning for several years that it may have to close one or more of its Illinois nuclear plants because they are increasingly unable to compete with lower-cost natural gas-fired generation and federally subsidized wind energy.

Exelon also says state action is needed because closing the plants would cost hundreds of jobs and dramatically reduce Illinois clean energy production just as the state is gearing up to comply with the Obama administration’s Clean Power Plan, which seeks to reduce carbon dioxide emissions from existing power plants by 32 percent below 2005 levels by 2030.

In response, Illinois lawmakers in early 2015 introduced legislation that would require the state’s two largest distribution utilities—Exelon subsidiary Commonwealth Edison and Ameren Illinois—to obtain 70 percent of their power from nuclear or other “low-carbon” sources. The bill also would impose a surcharge on the utilities’ customers to help support those climate-friendly power

sources.

About the same time, a separate bill—strongly supported by environmentalists—was introduced that would increase the Illinois RPS and strengthen the state’s energy efficiency standards.

Neither of the bills has advanced, and lawmakers reportedly are trying to find a way to take provisions from each to form a new bill that can win majority support in both chambers of the General Assembly.

In the April 4 letter to Rauner and state legislative leaders, Hansen and his co-signers warned that closure of the two Exelon reactors the utility suggests are most vulnerable—Clinton and Quad Cities—would cause a massive increase in greenhouse emissions if their generation was replaced by gas-fired plants.

“If Clinton and Quad Cities nuclear plants were replaced by natural gas, carbon emissions would immediately increase the equivalent of adding two million cars on the road,” the letter asserted. “If they were replaced with coal, the carbon emissions would more than double.”

The letter also said it would take many years for the Illinois wind and solar sectors,

which account for about 6 percent of the state’s current generation capacity, to grow rapidly enough to replace the output of Illinois’ nuclear plants. And it warned that wind and solar cannot provide the reliable baseload generation provided by nuclear plants and as a result, coal- or gas-fired generation would be needed to provide that service.

“Illinois is at an urgent juncture,” it said. “Failure to keep all of Illinois’ nuclear power plants running for their full lifetimes will result in more air pollution, and further cause Illinois to underperform on climate.”

Hansen also has waded into the presidential campaign to lobby for nuclear power, recently blasting Vermont Sen. Bernie Sanders—a favorite of many green groups in the race for the Democratic presidential nomination—for saying in an April 4 campaign speech in New York that he would shut down Entergy’s Indian Point nuclear plant because it is “a catastrophe waiting to happen.”

Hansen ripped Sanders for participating in “an orchestrated campaign to mislead the people of New York about the essential safety and performance of [Entergy Corp.’s] Indian Point nuclear plant to address climate change.”

Wagstaff tapped to lead Dominion Questar after merger

Craig Wagstaff, the current president of Salt Lake City-based Questar Gas Co., will become president of Dominion Questar when the merger of Dominion and Questar is completed, the two companies announced Wednesday.

The selection of Wagstaff to lead Dominion Questar's natural gas operations in western

states came the same day that Questar announced that Ronald Jibson, the company's current chairman, president and chief executive officer, announced that he will retire once the Dominion Questar transaction is completed.

As president of Dominion Questar, Wagstaff will be responsible for all current Questar operating companies, including what are now

the Questar Gas local utility, Questar Pipeline and Wexpro, the affiliated gas production company that for decades has provided gas to Questar on a cost-of-service basis.

Wagstaff, who has been with Questar for 32 years in various management and executive positions, also will become a senior vice president of Dominion.

Virginia-based Dominion announced in February it was buying Questar for \$4.4 billion. The merger is expected to be finalized later this year.

AEP dropping PPA plan; to seek state legislative action... (Continued from p. 1)

Akins said the utility would immediately launch a "strategic process" to evaluate sale and other options for those plants.

The second prong, he said, would be to pursue state legislative action under which AEP could transfer the merchant plants covered by the PPAs back to its regulated distribution utility, AEP Ohio, or otherwise recover their costs.

"We will push for re-regulation in the Ohio legislature to repeal and replace [the state's 2008 electricity restructuring law] or enable the transfer of and cost recovery of certain resources in AEP Ohio, thereby eliminating the need for a PPA," Akins said. "This will secure Ohio's role in determining its own resource mix with a structure that enables long- and short-term deployment of generation-related resources in the state.

"These two prongs will progress in parallel and whichever results in AEP becoming fully regulated earliest will be completed," he said.

In announcing the utility's new course of action, Akins took a shot at FERC and its regulation of wholesale power markets such as the Mid-Atlantic market operated by PJM Interconnection LLC, where the AEP plants covered by the PPAs are located. He said FERC's rules effectively prevent states from determining how best to meet their electricity needs.

"All of these state-related issues are occurring out of frustration with organized markets such as PJM that have an inherent inability to allow states to make decisions regarding their own resources," Akins said.

"Ohio needs to decide expeditiously: Does it want to control its own development of resources within the state or leave it to PJM and

the federal government, who have conflicting multi-state interests."

Akins praised the PUCO for approving the PPAs, under which ratepayers served by AEP Ohio would pay for PPAs to support the utility's merchant plants through non-bypassable charges on their electric bills.

In a decision Wednesday, FERC raised concerns about those non-bypassable charges, saying they effectively made AEP Ohio's ratepayers into "captive customers" of AEP's merchant generation unit.

Akins said AEP believed the PPA plan ultimately would pass legal muster, but acknowledged that FERC's decision set up hurdles that could unacceptably delay the utility's overall strategy to become a fully regulated utility.

"Obviously, we are disappointed with the FERC decision to review our PPA arrangement...based upon the presence of non-bypassable charges," he said. "But that being said, we embarked on the best mechanism within the existing Ohio legislation that we felt could withstand legal scrutiny that would allow the Ohio commission to have a say regarding the long-term viability of resources and the development of new resources within the state.

"And the positive note regarding Ohio activities during the first quarter is that the PUCO did the right thing. They approved the PPA and not only sent a message regarding investment and resources located within the state, but also focused on moving toward a balanced set of resources that included renewable development that would have advanced any potential Clean Power Plan objective," he added, referring to the Obama administra-

tion's greenhouse reduction rule for existing power plants.

"But FERC has spoken, and unless we have the patience for what could be a lengthy review process by FERC, this option could be off the table," Akins concluded.

Akins provided no other details on what sort of legislation he would seek from Ohio lawmakers, but the company likely will face opposition from other merchant generators, consumer advocates and other groups that support electricity competition in the state.

FERC Wednesday also issued a decision saying it would review similar PPAs approved by PUCO for merchant coal and nuclear plants operated by FirstEnergy, which has not announced whether it will now seek FERC approval for the PPAs.

However, some market analysts say FirstEnergy already is working on a similar re-regulation proposal for consideration by state legislators.

The fight over the PPAs comes amid a number of other jurisdictional tussles between FERC and state utility regulators.

Most notably, the Supreme Court recently struck down a plan by Maryland regulators to guarantee certain payments to generators picked by the state to build new plants in the state, with the high court saying that plan infringed on FERC's jurisdiction.

However, the court said the Maryland plan only was impermissible because the state-approved compensation was directly tied to prices in FERC-regulated capacity auctions in PJM markets—and that state regulators otherwise had broad leeway to develop plans to boost generation within their borders.

Editor's note: Based on a Federal Energy Regulatory Commission notice dated April 20, *IHS The Energy Daily* reported Thursday that Puget Sound Energy's cost of replacing 15 wells at its Jackson Prairie natural gas storage facility would be approximately \$15 million. A FERC "errata to a notice" published later Thursday said the correct estimated cost is \$1.5 million, as outlined in Puget Sound's original filing.

WCS seeks NRC license for Texas spent fuel storage... (Continued from p. 1)

because of the Obama administration's opposition to pursuing development of the proposed Yucca Mountain nuclear waste disposal repository in Nevada.

Because of the delay in the Yucca project and its failure to site other storage facilities, the Energy Department has been unable to meet contractual requirements with utilities to take the spent fuel. The agency is accruing hundreds of millions of dollars in liability for its failure to open a geological repository for spent fuel in 1998, as was required under the contracts with utilities.

At a Washington, D.C., press conference touting the license application Thursday, WCS unveiled new details of the proposed facility, to be built at the company's sprawling, low-level radioactive waste (LLRW) storage site in Andrews County, Texas.

WCS, recently purchased by privately-held EnergySolutions, is developing the project with NAC International and France's Areva, and would use both companies' nuclear waste shipping and storage technologies.

WCS President Ron Baltzer told reporters the company plans to store 40,000 metric tons of spent fuel, more than half the 70,000 tons currently at reactor sites. He said WCS has applied for a 40-year license for the facility, with plans to apply for 20-year license extensions.

WCS expects NRC to review the application for about three years, in time for WCS to open the facility by 2021 if all goes well, Baltzer said.

However, the WCS project also needs certain other federal-level assurances that are not guaranteed.

WCS intends to operate the storage facility under a contract with DOE, thus solving DOE's liability problems stemming from its failure to take control of utilities' used fuel. And the WCS license application includes a "condition" that a contract with DOE must be in place before the company will start operating the site.

However, sources say DOE lawyers over the years have sent mixed messages on whether they think the department is authorized under current nuclear waste law to sign such a contract with a private company, although Energy Secretary Ernest Moniz indicated in recent Senate testimony that he thinks DOE can do so.

Either way, DOE would need legislation from Congress authorizing it to pay a company like WCS with the Nuclear Waste Fund (NWF), a pot of more than \$25 billion fed by surcharges on nuclear utility ratepayers. Although use of the NWF to pay WCS could let DOE avoid seeking the money in annual appropriations, current law allows use of the money only to develop a repository.

Language in the pending Senate energy and water appropriations bill for fiscal year 2017 clarifies that DOE has authority to contract with a company like WCS, and authorizes the department to spend \$10 million for that purpose.

Two pending House bills would similarly clarify DOE's authority and authorize use of the NWF to contract with a private storage company.

However, the House bills are unlikely to become law because lawmakers in the Republican-controlled House remain furious with the Obama administration for its 2009 cancellation of the Yucca Mountain repository, long the planned burial site for the nation's spent fuel and high-level radioactive waste. Although the administration cited other reasons, Republicans see the decision as a naked political favor to Senate Democratic Leader Harry Reid, who sees Yucca as unsafe for his home state.

As a result, House appropriators are unwilling to abandon Yucca, and added language to their version of the fiscal 2017 energy and water spending bill barring use of the NWF for any other nuclear waste storage or repository projects.

Baltzer declined Thursday to say how much WCS might charge DOE to use its storage facility. However, WCS distributed material describing the total cost of building and running the facility for 40 years at \$5.2 billion. Still, WCS says that will save DOE and taxpayers \$1.5 billion over that period of time compared to the status quo.

Should DOE fail to ink a contract with WCS for any reason, some industry officials have wondered if the company might, as a backup, try to contract with utilities directly to store their used fuel. Under that approach, utilities might seek DOE reimbursement for their

WCS costs just as they have successfully won court judgements and damages from DOE in recent years in compensation for their added on-site storage costs caused by DOE's 1998 breach-of-contract.

"We have looked at the option..." Baltzer said Thursday, before indicating it was unlikely.

"We've had some frank discussions with some of the chief nuclear officers in the industry and they've said 'if [the spent fuel] is still going to be my liability at the end of the day, I'd rather not transfer it [off-site].'"

"We don't think it [the project] has legs unless DOE is involved," Baltzer said.

WCS would not be the first entity to obtain an NRC license for a consolidated spent fuel storage site, but it could be the first to open one. A utility consortium known as Private Fuel Storage (PFS) won a license in 2005 for a storage site on a Native American reservation in Utah, but the project was blocked by Utah's congressional delegation and PFS abandoned it in 2013.

In contrast, WCS' project has been largely embraced in Texas, including by Andrews County commissioners who unanimously passed a resolution last year supporting the project.

State officials have been supportive as well. The Texas Commission on Environmental Quality in 2014 issued a report concluding Texas should begin developing centralized storage facilities for spent fuel stockpiled at Texas nuclear plants—while not ruling out taking other states' waste as well.

Further, Texas House Speaker Joe Straus (R) in 2014 directed the state House Committee on Environmental Regulation to recommend any state actions that might support an interim storage facility. And state legislators have supported nuclear waste acceptance generally, including voting overwhelmingly in 2011 let WCS being accepting LLRW from out-of-state generators.

Just across the state border in New Mexico, local officials in Carlsbad have teamed with Holtec, a New Jersey-based nuclear waste storage and transportation company, to try to develop a competing commercial storage facility. Holtec says it plans to submit a license application to NRC in November.

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