



MEMORANDUM

DATE: September 11, 2017
TO: Members of the Public Utilities Board
FROM: Bryan Langley, Deputy City Manager
SUBJECT: News Article

At the request of Public Utilities Board member Deborah Armintor, I am forwarding a copy of an article posted on the website www.utilitydive.com as an attachment to this memorandum.

Staff has engaged the firm of Enterprise Risk Consulting, LLC, to accomplish the following objectives in relation to the City's energy portfolio and plan:

- 1) Develop a finding of resource needs primarily focusing on the first 10 years of a 20 year planning period.
- 2) Identify the preferred portfolio of supply-side and demand-side resources to meet needs, and;
- 3) Create an action plan that identifies the steps to be taken during the next year to meet the 2019 Renewable Denton Plan goal of 70% to 100% renewable energy resources.

This work is progressing, and staff plans on having the consultant present their initial observations and strategy outline in late September to both the PUB and City Council. The conclusions of the above referenced article will also be addressed as part of this presentation.

If you have any questions, or would like additional information, please let me know.

Best regards,

Bryan Langley
Deputy City Manager

Copy: Todd Hileman, City Manager
Mario Canizares, Assistant City Manager



BRIEF

DOE releases highly anticipated grid study, faults natural gas for baseload retirements

By Krysti Shallenberger • Aug. 23, 2017

Dive Brief:

- On Wednesday night, the Department of Energy released its highly anticipated grid study after months of speculation, controversy and a leaked early draft. The study found cheap natural gas to be the greatest driver of baseload power plant retirements, followed by flat power demand, environmental regulations and the growing penetration of renewables on the grid. Perhaps most notably, the study did not find renewables to be a threat to grid reliability.
- The report contained eight recommendations for stakeholders, including directing the Federal Energy Regulatory Commission (FERC) to expedite the study of wholesale market structures, promoting R&D for grid resiliency, reliability, modernization and renewables integration technologies, and examining infrastructure permitting and regulatory processes.
- The study was conducted by career staffers at the agency, DOE officials told Utility Dive on Wednesday. The officials said Secretary Rick Perry was hands-off during the process.

Dive Insight:

The final grid study conclusion — that low natural gas prices are the biggest driving factor for most, if not all, baseload power

plant retirements — probably won't surprise anyone in the power sector. Indeed, there appear to be very few surprises contained in the official draft of grid study, as many of its conclusions have already been widely documented and published by grid operators, national labs and other key stakeholders.

In an April memo, Secretary Rick Perry ordered the DOE to review the impact of federal and state policies on wholesale markets, including whether wholesale energy and capacity markets adequately compensate baseload resources for providing on-site fuel supply and strengthening grid resiliency. Perry praised baseload generators and appeared to single out intermittent resources for scrutiny — instantly raising concerns among some energy stakeholders that the study was being conducted with a clear-cut political aims in mind.

The memo said the study would examine how so-called "regulatory burdens" have affected baseload power plant retirements. Perry later warned the White House could seek to overrule state energy policies, such as renewables mandates, on national security grounds if reliability was found to be threatened.

The consensus among power sector experts is that persistently low natural gas prices and flat power demand are pushing coal and nuclear plants offline — not renewable energy. The study's findings echo those observations: The now-released DOE grid study found low natural gas prices, flat demand and a wide range of policymaking — such as federal and state environmental regulations and renewable energy incentives — have been responsible for plant retirements, especially since 2011.

The study noted the highest amount of capacity was retired in 2015, which coincided with the compliance deadline for the Mercury and Air Toxic Standard rule (MATS) and finalization of the Clean Power Plan. Merchant plants composed the majority of retired capacity — nearly 70% — between the years of 2002 and 2010. Plant retirements from vertically-integrated regions retired later, highlighting that factors in wholesale power markets played a significant role.

DOE officials noted that grid operators have long addressed reliability concerns as renewable energy penetration has deepened on the grid. However, they stressed the need to focus on resiliency, especially in light of severe weather events. "Ultimately the continued closure of traditional baseload power plants calls for a comprehensive strategy for long-term reliability and resilience," the study said.

The report made eight recommendations. For one, it suggested FERC should accelerate efforts to improve energy price formation in wholesale power markets, and create fuel-neutral markets that adequately compensate resources for essential reliability services to the grid.

An essential service could be storing more fuel onsite, which Perry and EPA administrator Scott Pruitt have said in the past is necessary for grid resiliency and reliability. This could ensure some kind of support for the nation's embattled coal fleet — and fulfill President Donald Trump's campaign promise to help the coal industry. The report stressed these pricing mechanisms be "fuel and technology neutral."

The study also recommended lowering costs and speeding up permitting for grid infrastructure such as hydropower, nuclear and coal generation. The report did not say coal was necessary for grid reliability, but DOE officials did say it was valuable to maintaining a resilient grid.

The study recommended the U.S. Environmental Protection Agency should allow coal-fired plants to improve efficiency and reliability "without triggering new regulatory approvals and associated costs," and that the DOE should target an R&D portfolio to help those plants boost efficiency. It's unclear how the agency would proceed with those efforts, given the recent demise of plans for coal gasification at Southern Co.'s Kemper power plant and the costliness of carbon capture sequestration technologies.

The study also advised DOE and other federal agencies to "explore the potential for utilizing existing Federal authorities

under the Federal Power Act and the DOE Organization Act, among others, to ensure system reliability and resilience."

The report did not find, as some feared, that renewables threatened grid reliability — a conclusion already widely held by grid operators and utility executives. The trend toward future decarbonization was not part of the study's calculus, as the researchers strictly adhered to Perry's memo, DOE officials noted.

In the wake of the report's release, several environmental groups slammed its recommendations. The Sierra Club called the report "an effort to pressure" grid operators, FERC and utilities "to bail out aging coal and nuclear plants by forcing electricity customers to pay more for their expensive electricity."

"DOE's grid study reads like a schizophrenic attempt to support outdated, uncompetitive, and highly polluting power plants," John Moore, director of the Sustainable FERC Project at NRDC, said in a statement. "DOE Secretary Perry appears determined to mold America's transmission grid around support for fossil fuels, but the facts in his own report don't back up that approach."

Several groups highlighted that the DOE's recommendations don't follow the evidence outlined in the report itself. The Rocky Mountain Institute, an energy think tank, said the study "identifies the right issues to address, but in its narrow conception of 20th Century technology as the solution, it misses out on the opportunity to reap the benefits of 21st Century innovation and drive the US grid towards a least-cost, reliable, and resilient future."

There have not been many reactions yet from industry groups. EEI said while they are "still thoroughly reviewing the study, [they have] long advocated that our customers are best served by public policies that promote a balanced and diverse energy mix, which includes both traditional and renewable energy sources, and that also recognize the vital role 24/7 energy sources play in sustaining a secure, reliable, and resilient energy grid."

Before the study came out, utility executives feared the study might preempt state policies, particularly hard-won financial supports for struggling nuclear fleets. Perry promised he would respect state energy policies, a DOE spokeswoman said.

The DOE will take public comment on the study, but did not specify a deadline.