

Drought cuts into state's hydro power supplies

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Published: Tuesday, Feb. 4, 2014 - 12:00 am
Last Modified: Tuesday, Feb. 4, 2014 - 7:31 am

Never mind the restrictions on watering your lawn. The drought is drying up California's supply of hydroelectricity, prompting SMUD and other utilities around the state to scramble.

With summer's peak electricity demand season looming, officials who oversee California's power supply say they don't expect blackouts but are getting nervous about the meager snowpack. Few states rely on hydro as much as California, where water accounts for about 15 percent of the total power supply in a normal year.

"We are certainly concerned," said spokeswoman Stephanie McCorkle of the Independent System Operator, which runs the California transmission grid. "We do not have a forecast for blackouts this summer as a result of the drought. It doesn't mean we're not keeping a close eye on it."

Officials at [Sacramento Municipal Utility District](#) and PG&E said they don't anticipate shortages, and energy experts believe the drought's impact is likely to be felt in terms of cost. While there should be enough power to go around, it could become somewhat more expensive.

The reason is that some utilities this summer will likely have to resort to more electricity from natural gas-fired plants, which is considerably more expensive.

"We're going to miss some of our lowest-cost resources ... at a time when we really need it," said Robert Weisenmiller, chairman of the [California Energy Commission](#). "Hydro is really attractive." Hydro is appealing for environmental reasons, too: no [carbon emissions](#).

Gas-fired electricity is at least three times more expensive than hydro power in normal years, according to the U.S. Energy Information Administration. But all utilities employ a blend of different electricity sources, and it's almost impossible to predict what will happen to prices this summer.

“How bad? We’ll see as the year goes on,” said Tyson Brown, a hydro power analyst with the EIA. “This is definitely a point of concern.”

Andrew Kotch, a spokesman for the [Public Utilities Commission](#), said “a fairly minor impact” on rates is most likely for the state’s rate-regulated utilities. Any rate increase because of the drought would take effect in 2015, he said.

SMUD said it is using a couple of financial tools to limit the price impact from the drought.

“The good news is that we have prepared for this,” said Jennifer Davidson, manager of budget and enterprise performance at SMUD.

SMUD is one of the most hydro-dependent utilities in the state. It gets 25 percent of its power from hydro, much of it generated at a series of plants it owns along the [American River](#).

With so much riding on rainfall, SMUD maintains a “rate-stabilization fund” that can be used to buy power during a drought. The money comes from the savings SMUD banks during wetter-than-usual winters, when the utility can float on a cascade of cheap hydro. The fund currently has \$27 million, Davidson said.

In addition, Davidson said SMUD has previously entered into hedging contracts – essentially, financial bets that pay off when seasonal rains drop below 35 inches. With the latest rain measured at around 5 inches, the contracts were expected to pay SMUD around \$19 million for January alone, she said.

Utilities are also being a lot more careful about running their hydro plants, holding off as much as possible until summer.

“We can hold onto water and use it during the summer,” said [Paul Moreno](#), spokesman for [Pacific Gas and Electric Co.](#) “We are managing our available [water resources](#) so this summer we’ll be able to deliver power.”

Experts don’t foresee a repeat of the California energy crisis of 2000-2001. That’s when energy companies, according to some experts, seized on a mild shortage of hydro power in the [Pacific Northwest](#) to manipulate the overall supply picture. The result was [skyrocketing prices](#) and a flurry of rolling blackouts.

Since the end of that crisis, McCorkle said California has significantly increased its [power supplies](#). The state's generating capacity, including solar and wind units, has grown by about one-third. In addition, state and federal regulations are much tougher than they were a decade ago.

"We are in much better shape now than in 2000," she said.