



PALMDALE WATER DISTRICT

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FOR IMMEDIATE RELEASE

PWD FIRST IN THE STATE TO USE NEW TECH TO REMOVE CARBON & ELIMINATE BRINE WASTE AT PURE WATER AV

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Palmdale, CA – The Pure Water Antelope Valley (PWAV)

Demonstration Facility will be the first advanced water treatment plant in California to implement the use of cutting-edge, direct air technology to remove carbon using brine, according to an agreement between Palmdale Water District (PWD) and Capture6.

The PWD Board of Directors approved a Memorandum of Understanding (MOU) with Capture6 that calls for the California and New Zealand-based public benefit corporation to install its technology at the Pure Water AV Demonstration Facility as part of the first phase of the agreement. After successful testing of the Capture6 system at the demonstration site, PWD expects to proceed to the second phase, which will involve using the technology in the Pure Water AV full-scale project.

Capture6 is a carbon capture, climate resilience and industrial

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decarbonization company with a mission to deploy affordable gigaton-scale direct air capture within the next decade to help limit global warming to 2.7 degrees Fahrenheit by the year 2100.

“Successful deployment of this first kind of technology will bring great opportunity to save ratepayers money and allow us to generate nearly all the 5,325 acre-feet of recycled water we are allowed,” said PWD Engineering Manager Scott Rogers. “There is synergy between what PWD needs for the disposal of the brine and the brine needed for Capture6’s carbon capture technology. The collaboration will benefit both organizations. It is a long-term solution for us as we move forward with Pure Water AV.”

Scheduled to open in 2024 on the most easterly portion of PWD’s property at Avenue Q and 20th Street East, the Demonstration Facility will serve as a test site for treating recycled water for one full year before a full-scale project can be constructed. The demonstration site, estimated to cost \$15 million, will be a miniature version of the final project that will be an indirect potable reuse project. It will run tertiary water through micro-filtration filters, reverse osmosis filters and ultraviolet light with advanced oxidation. Through this process, brine will be created and require disposal.

With Capture6’s technology, brine can be turned into usable byproducts like hydrochloric acid that can be used in membrane cleaning cycles. It would eliminate PWD’s need to acquire, construct, maintain and operate about two miles of pipeline and 72 acres of evaporative ponds for the management of the brine from the full-scale project, which is scheduled for 2027 and at an estimated cost of \$155 million.

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“With Capture6, there will be zero discharge of brine,” Rogers said. “This provides us with a lot of resiliencies. It looks like our savings will be about 20% to 40% for the lifetime of the cost of the project.”

According to the MOU, Capture6 will cover the cost of installing and testing its equipment in the Demonstration Facility. The year-long results will be reviewed by an outside expert and presented before an independent panel prior to PWD and Capture6 developing an agreement for treatment of brine at the full-scale project.

“We’re thrilled at the opportunity to partner with PWD to help increase their water production and drive efficiencies while removing CO2 from the atmosphere,” said Dr. Ethan Cohen-Cole, CEO and founder of Capture6.

Since 1918, the Palmdale Water District has provided high-quality water at a reasonable cost. We pride ourselves on providing great customer care; advocating for local water issues that help our residents; educating the community on water-use efficiency; and leading our region in researching and implementing emerging technologies that increase operational efficiency. For more information about PWD, visit www.palmdalewater.org.

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