

Agenda Report

June 17, 2024

TO:

Honorable Mayor and City Council

THROUGH: Municipal Services Committee (June 11, 2024)

FROM:

Water and Power Department

SUBJECT: AUTHORIZE THE CITY MANAGER TO ENTER INTO A POWER

PURCHASE AGREEMENT ("CONTRACT") WITH CALWIND

RESOURCES, INCORPORATED FOR RENEWABLE WIND ENERGY FOR

AN AMOUNT NOT-TO-EXCEED \$47,100,000 FOR THE WATER AND

POWER DEPARTMENT

RECOMMENDATION:

It is recommended that the City Council:

- 1. Find that the proposed action is exempt from the California Environmental Quality Act ("CEQA") pursuant to State CEQA Guidelines Section 15061(b)(3) (Common Sense Exemption);
- 2. Authorize the City Manager, to enter into a contract, without competitive bidding pursuant to City Charter Section 1002(F), contracts for professional or unique services, with CalWind Resources, Incorporated ("CalWind") for the purchase of renewable energy and capacity that includes daily delivery from a wind turbine facility named Wind Resource II Project ("Project") of a maximum of 20 megawatts ("MW") of wind energy during a 10-year contract term beginning May 1, 2025, for a total amount not-to-exceed \$47,100,000; and
- 3. It is further recommended that the City Council grant the proposed contract an exemption from the Competitive Selection process pursuant to Pasadena Municipal Code Section 4.08.049(B), contracts for which the City's best interests are served.

MUNICIPAL SERVICES COMMITTEE RECOMMENDATION:

On June 11, 2024, with one member absent, the Municipal Services Committee ("MSC") unanimously approved the staff recommendation to the City Council.

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EXECUTIVE SUMMARY:

On January 30, 2023, the City Council approved City of Pasadena ("City") Resolution 9977 that sets a goal to source 100% of Pasadena's electricity from carbon-free sources by the end of 2030. Resolution 9977 ("Resolution") has been incorporated in Pasadena Water and Power's ("PWP") recently adopted 2023 Integrated Resources Plan ("IRP"), which requires that the City continue a path to zero-carbon resources, 15 years before the 2045 target year established by Senate Bill ("SB") 100. California's Renewable Portfolio Standard ("RPS") Program requires all electric load serving entities to procure 60% of its electricity portfolio from eligible renewable energy resources by 2030. Pasadena's goal greatly exceeds the requirements of both SB 100 and the RPS Program in resource qualifications and timeline while focusing on resources that support the best value of resources while meeting Pasadena's unique energy needs.

The Wind Resource II Project

CalWind is a small wind operating company, operating two wind sites located in Tehachapi, California totaling around 30 Megawatts ("MW"). PWP is seeking 20 MW of RPS-eligible wind generation from the Project. The Project will be undergoing a repowering project starting in June 2024 to retrofit and modernize the existing wind turbine fleet.

Through an open Request for Proposals ("RFP") by the Southern California Public Power Authority ("SCPPA"), a Joint Powers Authority ("JPA") and government entity comprised of eleven municipal utilities (including PWP) and one irrigation district, PWP learned of the opportunity to receive 20 MW of wind generation of the Project. At the time of the RFP by SCPPA, PWP had a need for short-term Renewal Energy Credits ("REC") and energy. To secure the needed energy and associated attributes, PWP entered into a short-term contract with CalWind from October 1, 2023, through June 30, 2024, for a total amount not-to-exceed \$5,690,769, which was subsequently extended through December 31, 2024, for an additional \$1,150,000. Due to the success of the short-term arrangement, PWP and CalWind commenced negotiations for a 10-year contract to begin on May 1, 2025.

With both the 50% reduction in capacity from the Intermountain Power Project ("IPP") coal contract in mid-2025 and the eventual IPP contract termination in 2027, the Project will add 3 MW of Resource Adequacy ("RA") capacity to partially offset the 108 MW that will be reduced through the reduction in capacity in 2025 and eventually eliminated in 2027. In addition, it is a zero-carbon wind resource that will provide electric reliability, and partially replace energy in compliance with requirements of the California Energy Commission ("CEC") and California Independent System Operator ("CAISO").

BACKGROUND:

In December 2018, the Pasadena City Council approved and adopted the 2018 IRP, which includes a commitment to ensure that all new future long term energy generation be from renewable and or zero carbon emitting resources. A key component of the 2018 IRP was

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the termination of PWP's 108 MW interest in IPP, effective June 2027. In addition, energy resource contracts representing at least 40 MW are set to expire by the end of 2030 that needs to be replaced.

The 2023 IRP, which was approved and adopted by the City Council in December 2023, expands on the goals of the 2018 IRP and outlines multiple pathways to reach the Resolution goal to source 100% of Pasadena's electricity from carbon-free sources by the end of 2030. Pasadena's target is considerably more ambitious than the 2045 zero-carbon goal mandated by SB 100 and associated RPS compliance requirements and will take accelerated planning and procurement in a highly competitive energy resource market.

The State's RPS Program includes other related regulatory requirements, such as portfolio disposition and duration targets, which PWP must also meet. Specifically, 65% of a utility's required procurement target must be met by owned or contracted resources that are at least 10 years or more in duration. Furthermore, at least 75% of the target must be met by resources classified as Portfolio Content Category ("PCC") 1, which carries the highest environmental value and represents the highest cost compared to qualifying lower-grade resource classifications allowed in the RPS Program.

To meet overall procurement and duration requirements, and replace the capacity represented by the 2027 IPP termination and the other expiring renewable contracts, PWP plans to procure a mix of both long-and short-term zero-carbon energy products that support reliability, meet current and future state and local compliance requirements, and limit potential exposure to long-term stranded investments. The Project, a 10-year opportunity that provides valuable PCC-1 RECs, will help meet both portfolio disposition and long-term RPS requirements, while also contributing to the zero-carbon goals of Resolution 9977.

Project Selection Process

SCPPA issues an RFP through its website for Renewable Energy Resources and Energy Storage Solutions on a rolling annual basis. During the evaluation process, over 16 proposals were considered based on criteria focusing on resource type and location, electricity reliability, contract duration, and comparability with existing member wind contracts. The proposal for the Project offered the most competitive price and was ultimately determined to be the most responsive for PWP because it qualifies for RPS compliance, diversifies the resource portfolio mix, meets the goals of Resolution 9977, and provides approximately 3 MW of RA capacity to help meet requirements set by CAISO.

PWP is not aware of any local businesses that develop utility-scale renewable energy projects with associated environmental attributes and therefore did not conduct any local outreach.

To provide an objective, third party analysis of the Project offer, PWP requested Alliance for Cooperative Energy Services Power Marketing LLC ("ACES") to perform a thorough review of the contract terms to determine if the new offer would be a best-fit, least-cost

resource for PWP. ACES offers a broad suite of energy risk management and transaction execution services and is currently under contract with PWP to perform energy portfolio management services, including analysis of renewable project proposals as due diligence prior to PWP pursuing contract negotiations. ACES compared forward market price data from the beginning of 2023 to pricing for the term of the deal and determined that the Project is optimally sized and provides a favorable cost/benefit ratio compared to those of other similar market offerings. ACES concluded that the Project fulfills PWP's need for resources that meet RA and RPS mandates, and the Resolution goal.

Projected RPS Impact on the PWP RPS Energy Portfolio

The Project provides considerable REC benefit to assist PWP's renewable and zerocarbon resource portfolio. Figure 1 depicts PWP's RPS position as compared to California's compliance requirements and projected load.

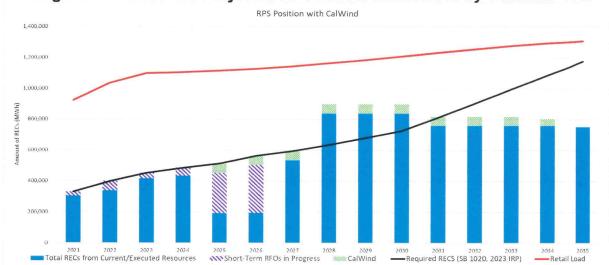


Figure 1: Pasadena's Projected RPS Procurement Need by Calendar Year

Estimated Costs

The annual costs per Megawatt Hour ("MWh") for the wind resource is provided in Table 1. Delivery of power would begin on May 1, 2025, approximately aligned with PWP's decrease in capacity from IPP in mid-2025.

Table 1: Estimated Annual Project Cost for PWP:

Estimated Annual Wind Cost for PWP	May 1, 2025 – April 30, 2035
Wind (\$/MWh)	\$78.50
Annual Cost For Energy (\$)	\$4,710,000

*A current annual negotiated projection of full costs for wind is represented. The wind cost over the course of the contract is estimated to be approximately \$47 million.

The contract term starts shortly before the reduction in capacity from the IPP contract and will partially replace needed RA capacity and benefit the REC and energy requirements.

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Although the cost of the Project will partially be offset through decreased capacity and subsequent termination of the IPP contract in 2027, PWP will need to review the rate impacts of expiring and future renewable energy contracts through a cost-of-service study. Due to the 10-year opportunity of the contract term, which provides valuable PCC-1 RECs to help PWP meet both energy portfolio needs and long-term RPS requirements, this will reduce PWP's need to purchase energy and associated attributes of RECs and RA on the short-term energy market. The short-term energy market has experienced price volatility, with significant price increases for short-term purchases of RECs and RA. A summary comparison of program attributes of the current short-term market and CalWind prices appear in Table 2.

Table 2: A Comparison of CalWind and Short-term Market Prices:

Product	Short-term Market	CalWind
Energy	\$48.93	\$11.39
Environmental Attributes (RECs)	\$34.00	\$34.00
Capacity Attributes (RA)	\$33.11	\$33.11
Total	\$116.04	\$78.50

^{*}Product pricing is based upon current and projected market prices in which PWP is able to transact for energy and associated attributes.

With significant increases in solar generation being added to the bulk power grid ("grid") in California, there are certain times of the day, especially during the Spring season, when the demand for energy is lower than the energy produced. In this instance, high solar penetration, plus lower load, equals excess power for the bulk power grid. Excess power on the grid results in negative market prices, which means there is a cost in providing power to the grid. As PWP continues to seek carbon-free resources, the diversification of resources is vital to providing reliable power sources. Wind has the ability to generate power 24 hours a day, whereas solar panels only generate power during sunlight hours. In other words, the wind production profile also provides energy during the hours solar is not producing and when the CAISO market prices are generally higher, which helps to diversify our resource portfolio and increase wholesale market revenue. Figure 2 provides the Project's 20 MW wind profile shape compared to a sample 40 MW solar profile and the average prices for a 24-hour period.

CalWind's 20 MW Wind Production Compared to Sample 40 MW Solar's Production 24-Hour Load Showing Average Price of Electricity on Wholesale Market (Example Spring Day - April 15th) 150 Wholesale Market (\$/MWh) 50 40 100 .oad Demand (MW) 50 20 10 Average Price of Electricity on 2:00 3:00 4:00 5:00 6:00 7:00 8:00 :00 10:00 11:00 12:00 1:00 2:00 3:00 4:00 5:00 5:00 7:00 8:00 9:00 10:00 11:00 12:00 PM PM -50 -30 -40 -100 ----Average Hourly Load (MW) CalWind's 20 MW Wind Production Sample 40 MW Solar Production Average Hourly Electricity Prices

Figure 2: Wind Resource II Production Compared to Sample Solar Production

Based on the analysis and the ability of the project to fulfill some of PWP's need for projects that meet RA and RPS mandates, and the Resolution goal, PWP requests approval to enter into a 10-year contract with CalWind to purchase 20 MW of wind generation of the Wind Resource II Project beginning on May 1, 2025, and ending on April 30, 2035, for a total not-to-exceed amount of \$47,100,000 for the full duration. It is respectfully requested that the City Council authorize the City Manager to enter into a contract, without competitive bidding pursuant to City Charter Section 1002(F), contracts for professional or unique services and that the City Council grant the proposed contract an exemption from the Competitive Selection process pursuant to Pasadena Municipal Code Section 4.08.049(B) contracts for which the City's best interests are served.

Market Conditions Update

As California and the nation push to decarbonize the power grid as quickly as possible, overall resource scarcity, transmission constraints, and volatile energy market conditions have resulted in extreme competition for resources. Moreover, power resource project developments and construction schedules continue to be impacted by additional CAISO transmission queue requirements, land use assessments, and environmental impact analyses. Also, while wind projects play an important role in reducing greenhouse gas ("GHG") emissions and mitigating climate change, the potential for environmental impacts associated with this type of technology is unknown. An exemption from CEQA has been cited for this project because it is an existing, operational facility.

PWP will continue to monitor these market trends and shifts in order to identify the least-cost, best-fit projects to meet its zero-carbon goals. While the market prices for renewable and zero-carbon resources continue to increase, the current contract price of the Project is competitive compared to those for other similar projects. The Project is a demonstrably viable resource to expand PWP's portfolio of carbon-free resources. Additionally, the

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Project is the only wind project bid into SCPPA that is in California, with the other offers coming from projects in other states.

COUNCIL POLICY CONSIDERATION:

The Project, which supports an increase in renewable and zero-carbon energy resources and reduction in GHG emissions, is consistent with the City's Urban Environmental Accords; specifically, Action 1, Renewable Energy; Action 2, Energy Efficiency; and Action 3, Climate Change as well as with Resolution 9977, passed by the City Council on January 30, 2023, declaring a climate emergency and setting a goal to source 100% of Pasadena's electricity from carbon-free sources by the end of 2030.

ENVIRONMENTAL ANALYSIS:

The proposed contract has been determined to be exempt from the California Environmental Quality Act pursuant to State CEQA Guidelines Section 15061 (b)(3), the common sense exemption, that CEQA applies only to projects which have the potential for causing a significant effect on the environment. The Project is an already built and operating project that will repower with new more efficient turbines using less space while generating the same amount of energy.

Moreover, since this contract is an existing resource to be repowered and in which Pasadena will have no ownership interest, there is no construction by or for Pasadena, nor is there any other direct physical change in the environment attributable to Pasadena. The use of renewable energy would have a beneficial effect on the environment by reducing GHG emissions and air pollutants. Therefore, as it applies to Pasadena, this contract is exempt from CEQA under the common sense exemption set forth in CEQA Guidelines section 15061(b)(3).

FISCAL IMPACT:

Based on the negotiated price, the total cost of this action is \$47,100,000. A breakdown of components is shown in Table 4 below:

Table 3: Summary of Estimated Costs

Component	Annual	10-years
Total	\$4,710,000	\$47,100,000

The estimated impact to the electric system average rate is less than half a cent (\$0.0043) per kWh. This reflects the impact of the additional cost for the project. It does not consider the net impact of the Intermountain Power Project exit or other expiring resources and assumes all other rate components are held constant. Other components will be considered in the Electric Rate Study.

With the approval of this contract, the fixed pricing for CalWind will offset the approved Fiscal Year 2025 budget (May through June) for short-term market purchases and PCC-1 RECs by an amount of \$1,100,000. Funding for Fiscal Years 2026 through 2035 will be addressed by future appropriations in the Power Fund Operating Budgets.

Respectfully submitted,

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