

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 AN ENERGY STORAGE CONTRACT WITH GLENARM BESS, LLC A SPECIAL PURPOSE ENTITY CREATED BY EPC ENERGY INC. FOR BATTERY ENERGY STORAGE FOR AN AMOUNT NOT TO EXCEED \$55,310,000 FOR THE WATER AND POWER DEPARTMENT

RECOMMENDATION:

It is recommended that the City Council:

1. Find that the recommended actions do not constitute a “project” subject to the California Environmental Quality Act (CEQA) pursuant to Section 21065 of CEQA and Sections 15004(b)(4) and 15378 of the State CEQA Guidelines and, as such, no environmental document pursuant to CEQA is required;
2. Authorize the City Manager to enter into a contract, as the result of a competitive selection process, as specified by Section 4.08.047 of the Pasadena Municipal Code, with Glenarm BESS, LLC a Special Purpose Entity created by EPC Energy Inc. (“EPCE”) for the design and future purchase of 25 megawatts (“MW”) of dispatchable storage capacity for up to four hours at a time, from the Glenarm Battery Energy Storage System (“Glenarm BESS”), for a service rate of \$12.18/kW-month over a 15-year delivery term estimated to begin January 1, 2027, and with a total contract price not to exceed \$55,310,000 which includes the base contract amount of \$54,810,000 over the 15-year contract term and a \$500,000 contingency amount for any necessary change orders. Competitive price bidding is not required pursuant to City Charter Section 1002(F) for contracts for professional or unique services; and
3. Authorize the City Manager to enter into a License Agreement with Glenarm BESS, LLC for its use of the land on which the Glenarm BESS will be installed; the term of the License Agreement would coincide with that of the abovementioned contract.

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.

EXECUTIVE SUMMARY:

City of Pasadena (“City”) Resolution 9977, which was adopted by the City Council on January 30, 2023, sets a goal to source 100% of Pasadena’s electricity from carbon-free sources by the end of 2030. This ambitious target, which has been incorporated into Pasadena Water and Power’s (“PWP’s”) recently adopted 2023 Integrated Resource Plan (“IRP”), calls for a complete shift to zero-carbon resources 15 years before the 2045 target year established by Senate Bill (“SB”) 100. Pasadena’s goal greatly exceeds the requirements of California’s Renewables Portfolio Standard (“RPS”) program, both in resource qualifications and in timeline. PWP has consistently exceeded State RPS compliance targets, focusing on resources that support ratepayer affordability while meeting Pasadena’s unique energy needs.

As the 2030 target quickly approaches, PWP is diversifying its power resource portfolio by planning to add a Battery Energy Storage System (“Glenarm BESS”) at the Glenarm Power Plant. The proposed 25 MW, 4-hour BESS, which would connect to the nearby Glenarm Receiving Station, would be designed, constructed, owned, and operated by Glenarm BESS, LLC on behalf of the City. Under an Energy Storage Agreement (“ESA”), Glenarm BESS, LLC would charge the City \$12.18/kW-month for energy storage as a service, which amounts to \$54,810,000 over the 15-year contractual life of the facility. The ESA would also allow the City to purchase the facility for an estimated \$47,131,181 at the time it enters service (approximately January 1, 2027), or for reduced purchase prices at numerous points thereafter. PWP would separately seek City Council approval before exercising any such option, in accordance with City purchasing policy.

The recommended contract and License Agreement with Glenarm BESS LLC are conditioned on compliance with the California Environmental Quality Act (“CEQA”). The contract and License Agreement do not grant any vested development entitlements prior to CEQA compliance; do not bind any party, or commit to any definite course of action, prior to CEQA compliance; do not restrict the lead agency (City) from considering any feasible mitigation measures and alternatives, including the “no project” alternative; and do not restrict the lead agency from denying the project.

BACKGROUND:

In December 2018, the Pasadena City Council approved and adopted the 2018 IRP, which includes a commitment to remove carbon-emitting resources from PWP’s energy resource portfolio. A key component of the 2018 IRP is the termination of PWP’s 108 MW interest in the Intermountain Power Project (“IPP”) effective June 2027. In addition, renewable energy resource contracts representing at least 40 MW are set to expire by the end of 2030 and must 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 9977 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, to achieve.

To meet overall procurement and duration requirements, and to replace the capacity represented by the 2027 IPP termination and the other expiring renewable energy 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. These products, some of which may come from contracts currently under negotiation, would address a significant portion of the compliance and target-related needs, but would make only small contributions to PWP's still-growing operational reliability needs. This concern is addressed in the 2023 IRP, which calls for special emphasis on power system resources (including energy storage) to be located electrically within the city limits.

The Glenarm BESS Project

The construction of the Glenarm BESS would be accomplished through a separate construction contract awarded by the City using the design supplied by Glenarm BESS, LLC. PWP would be responsible for the construction of the necessary infrastructure from the project site to the Glenarm Receiving Station. The City would enter into a separate License Agreement for Glenarm BESS, LLC to use the underlying land (about 0.7 acres) for this project, and the system would be dispatched by PWP through operating orders.

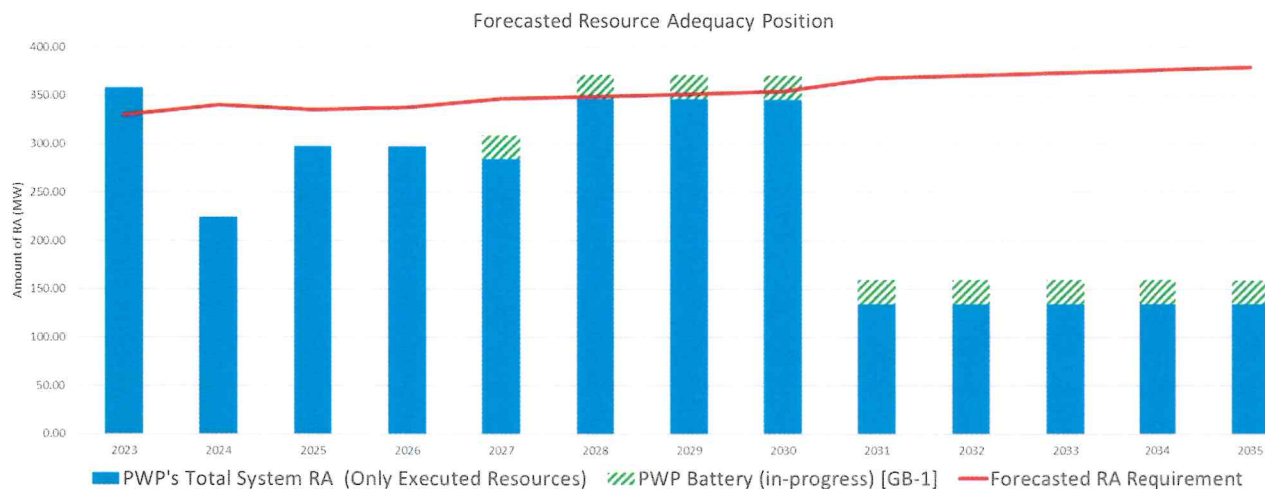
The BESS interconnection point is electrically downstream from the PWP/Southern California Edison interconnection at the T. M. Goodrich Receiving Station ("TMG"), and the facility would be operating from PWP's 34.5 kV subtransmission system. The operation of the Glenarm BESS would shift PWP's electrical load as seen from TMG, but there are no impacts to TMG outside the bounds of PWP's current interconnection agreement limits with Southern California Edison. The California Independent System Operator ("CAISO"), which is still checking this proposed project for impacts on the transmission grid, has, so far, not identified any binding constraints on the deliverability of power from the BESS to the grid.

Operation of the BESS would be limited to PWP and Glenarm BESS, LLC, but Glenarm BESS, LLC would not be allowed to operate the BESS for its own account. The City will have the right to purchase the facility outright at various points during the project's 15-year delivery period. However, if this option is not exercised by the end of the 15-year agreement, Glenarm BESS, LLC would be required to remove the BESS from the Glenarm site and bear all of the associated removal costs.

Projected RA Impact of the Glenarm BESS on the PWP Resource Adequacy Portfolio

The Glenarm BESS Project would provide considerable Resource Adequacy (“RA”) benefits to help PWP meet CAISO’s capacity requirements. Figure 1 depicts PWP’s RA resources and additional requirements for each calendar year through 2035.

Figure 1: Pasadena’s Projected RA Procurement Need by Calendar Year



This RA helps PWP in two ways. First, it directly replaces some of the RA that PWP will lose through the expiration and/or termination of existing major resource contracts, including IPP. Second, it supplies RA without emitting carbon dioxide – an important feature, considering that other components of PWP’s power resource portfolio (primarily solar and wind) contribute very little RA relative to their installed sizes in MW. As renewable and carbon-free resources play an ever-increasing role in PWP’s resource portfolio, PWP will need more RA-rich resources (such as battery storage) to provide this essential reliability component.

Other Projected Benefits of the Glenarm BESS

Locating a BESS electrically inside Pasadena’s city limits provides powerful operating flexibility. As PWP develops the capability to harness the community’s Distributed Energy Resources (“DERs”), as outlined in the 2023 IRP, the Glenarm BESS could be used to absorb surplus output from these systems for redelivery to PWP customers later as a carbon-free energy supply. PWP could re-sell some of the stored energy, energy storage service, and ancillary services (such as upward and downward regulation) to CAISO to augment PWP’s wholesale revenue stream and thereby reduce the fiscal burden on PWP’s retail customers. The Glenarm BESS could also serve as a source for “black start” energy to assist in PWP’s recovery of service in case of a system-wide blackout. With such multi-role capability, the Glenarm BESS will provide strategic value to PWP and its customers.

Glenarm BESS Selection Process

On July 6, 2023, PWP issued a Request for Proposals (“RFP”) through the OpenGov Procurement portal for the design and supply of the major equipment of a BESS to be installed and operated at PWP’s Glenarm Power Plant site. The RFP required that the successful Respondent own and operate the BESS on City property, as directed by PWP, in exchange for a service rate (in \$/kW-month), which would be paid by the City for use of the BESS. The RFP also required a fixed-price buyout option that allows the City to purchase the BESS at various points throughout the 15-year agreement.

OpenGov sent notices to 3,598 recipients. A total of 96 vendors downloaded the RFP documents from the procurement portal.

A total of four responsive proposals were received by the RFP closing date of October 18, 2023, none of which were local businesses (see below). PWP Staff from the Power Supply and Power Delivery Divisions evaluated the four responsive proposals, focusing on the proposed solution, project viability/technical strength, and project management. In addition to PWP’s internal evaluation process, PWP engaged Ascend Analytics, a well-known utility-related consulting firm, to assess the overall economic value of each proposal with regard to both the service rate and the buyout price. The combined evaluation found that the proposal from EPC Energy Inc. met the requirements of the RFP at the most competitive price.

A summary of the scoring is shown below in Table 1. The combined evaluation found that the proposal from EPCE met the requirements of the RFP at the most competitive price. Detailed scoring is included in Attachment A

Table 1: Evaluation Summary

Company	Location	Aggregate Score
EPC Energy Inc.	San Jose, CA	79.5
NextEra Energy Resources	Juno Beach, FL	55.3
Ameresco, Inc.	Framingham, MA	46.5
174 Power Global	Irvine, CA	43

EPCE is headquartered in San Jose, California, and specializes in integrated energy storage systems powered by automotive-grade lithium-iron-phosphate (“LFP”) battery cells. Within the past five years, it has supplied seven complete BESS installations similar in size to the Glenarm BESS, with four of those installations in California. EPCE has established a special purpose entity (“SPE”), Glenarm BESS, LLC, specifically for the Glenarm BESS project; therefore, the ESA would be executed with this named EPCE subsidiary as a matter of contractual propriety. The creation of the SPE is routine in the utility scale industry. An SPE protects the project and the City from any legal ramifications of the parent company.

Upon investigation, PWP is not aware of any local businesses that develop utility-scale battery energy storage systems and, therefore, did not conduct any local outreach.

EPCE has not been awarded any purchase orders or contracts by the City in the past five years.

Grant Funding to Offset Costs of the Glenarm BESS Project

PWP was recently awarded a \$9,660,000 grant from the California Energy Commission (“CEC”) for the CEC’s Distributed Electricity Backup Assets Program, Bulk Grid Asset Enhancements for Grid Reliability (“DEBA/Bulk Grid Grant”). This effort was supported by the 2023 IRP, which includes the strategy to pursue grant funding to offset decarbonization costs. The City Council authorized the City Manager to enter into the associated grant agreement with the CEC on April 8, 2024.

In addition, PWP submitted a Concept Paper for a Federal Grid Resilience and Innovation Partnerships (“GRIP”) Grant. In response to this Concept Paper, the U.S. Department of Energy’s National Energy Technology Laboratory sent PWP a Letter of Encouragement to submit a full application for this grant. The full application was submitted on April 17th, and while waiting for the Department of Energy’s award decisions, PWP will seek separate City Council approval similar to that sought for the DEBA/Bulk Grid Grant.

Conclusion

It is respectfully requested that a 15-year contract be approved with Glenarm BESS, LLC for a 25 MW, 4-hour BESS, to be constructed inside PWP’s electrical system, with delivery beginning approximately January 1, 2027, and ending approximately December 31, 2041, with an estimated service cost of \$54,810,000 over the full 15-year term, with a \$500,000 contingency allowance for any necessary change orders, and with an estimated purchase price of \$47,131,181 or less, depending on when PWP buys the BESS. Should PWP recommend exercising the buyout option, a separate request will be made to the City Council, in accordance with City purchasing policy.

COUNCIL POLICY CONSIDERATION:

The Glenarm BESS Project, which supports PWP’s further acquisition of renewable energy resources to reduce 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 actions to authorize the City to enter into a contract for the design and future purchase of storage capacity and to enter into a License Agreement for the potential use of land do not constitute approval of the potential Glenarm BESS project. These recommended actions do not grant any vested development entitlements, do not bind any party or commit to any definite course of action, do not restrict the City from

considering any feasible mitigation measures and alternatives, and do not restrict the City from denying a future project on either of the involved sites, and, therefore, do not constitute a project subject to the CEQA pursuant to Section 21065 of CEQA and Sections 15004(b)(4) and 15378 of the State CEQA Guidelines. As such, no environmental document pursuant to CEQA is required. The undertaking of, approval of, and/or approval of any physical improvements is fully contingent on compliance with CEQA. Furthermore, any future BESS project at the Glenarm site would require a discretionary land use entitlement (anticipated to be a Conditional Use Permit) and an agreement with a yet-to-be-identified construction contractor. It is anticipated that CEQA review will occur concurrent with the design process for a BESS facility and must be completed prior to granting of the land use entitlement and awarding a contract for construction. In addition, the future Glenarm BESS project is also subject to environmental review under the National Environmental Policy Act ("NEPA"), since final, non-appealable NEPA approval is a condition precedent to PWP's receiving federal grant funding toward this project.

FISCAL IMPACT:

The total cost of this action is \$55,310,000 which is based upon the proposed service rate of \$12.18/kW-month plus a \$500,000 contingency allowance for change orders; the estimated annual cost of the contract is \$3,654,000 from Fiscal Years 2027 through 2042. Funding for this action will be addressed by future appropriations in Power Operating Fund 401.

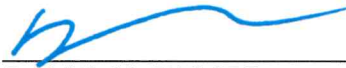
The estimated impact to the electric system average rate is less than half a cent (\$0.0032). This reflects the impact of the additional cost for the project. It does not consider the net impact of the Intermountain Power Project exit or other expiring resources and assumes all other rate components are held constant. Other components will be considered in the Electric Rate Study.

If PWP exercises an asset buyout option for the facility, it will cease paying the above service rate. The estimated maximum purchase price of \$47,131,181 corresponds to the earliest possible buyout (upon Commercial Operation, currently estimated to be January 1, 2027) and decreases thereafter. For example, the estimated purchase price for a January 1, 2032, buyout would be \$10,806,949.

In light of the DEBA/Bulk Grid Grant award, staff will seek corresponding increases to the Power Fund budgets in the amount of \$9,660,000. This will likely benefit the Fiscal Year 2026 budget. Further grant awards, if they occur, would adjust this figure and the affected Fiscal Year budget(s).

As PWP continues to expand its portfolio of zero-carbon resources to meet both regulatory compliance requirements and the goals of Resolution 9977, the net impact to future budgets is currently uncertain. Although no rate adjustments are recommended as part of this action, staff will evaluate the cost impacts and may return to the City Council with rate proposals related to this contract.

Respectfully submitted,



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Attachment A: Detailed Evaluation Scoring