Agenda Report

July 14, 2025

TO: Honorable Mayor and City Council

THROUGH: Municipal Services Committee (June 24, 2025)

FROM: Water and Power Department

SUBJECT: **UPDATE ON THE ELECTRIC RATE STUDY AND THE ENERGY RESOURCE PORTFOLIO**

RECOMMENDATION:

It is recommended that the City Council:

1) Find that the proposed actions are statutorily exempt from the California Environmental Quality Act ("CEQA") pursuant to CEQA Guidelines Section 15262, Feasibility and Planning Studies; and

2) Direct staff to proceed with the rate study consistent with Municipal Services Committee ("MSC") guidance to prepare a two-year rate plan using the cost assumptions up to 2029.

MUNICIPAL SERVICES COMMITTEE RECOMMENDATION:

On June 24, 2025, the Municipal Services Committee provided guidance to prepare a two-year rate plan using the cost assumptions up to 2029. This consensus was based on discussion of draft financial results showing all the cost scenarios presented, until 2029, are not significantly different. MSC also reiterated that proposals would include rate increases as steadily as practical using all financial tools available, including the use of debt financing and cash balances.

EXECUTIVE SUMMARY:

Pasadena Water and Power ("PWP") is conducting an Electric Rate Study ("ERS") to develop a cost-based, forward-looking rate plan aligned with the City's goals for affordability, reliability, and carbon-free electricity by 2030. The study includes a comprehensive cost of service analysis, financial modeling, and public engagement strategy tailored to customer profiles to enhance transparency and participation. In parallel with the ERS, several energy resource scenarios were evaluated as part of the Optimized Strategic Plan ("OSP") process, including options that accelerate local solar

and storage development while preserving the Glenarm Power Plant as a limited-use backup. Revenue requirements and system-wide effective rate impact projections were developed for each scenario, showing annual systemwide revenue needs and average system wide effective rates. Once Council selects a preferred scenario, PWP will present the MSC and City Council with proposed approaches to advance local solar and storage initiatives and further refine forecasts to inform upcoming rate recommendations.

BACKGROUND:

The ERS's purpose is to evaluate and develop a recommended rate plan that aligns with established Council policies and legal constraints. The objective is to collect sufficient revenue while also supporting community and utility resiliency goals. This is achieved by sending price signals to customers that incentivize behaviors that are beneficial for both the community and the utility. With the use of empirical data and industry best practice, PWP will ultimately explore rate structures and pricing incentives that will accommodate evolving electric industry trends and customer practices. To achieve this purpose, there has been significant efforts and coordination with the OSP, specifically to integrate the power supply costs into the long-range forecast.

On October 8, 2024, PWP presented an update on the Electric Rate Study to MSC. The consultant, NewGen Strategies and Solutions, LLC ("NewGen"), had completed its initial phase, which included data collection, and was actively working on the cost of service analysis and development of the financial model. This model is designed to reflect the utility's cost to serve, establish revenue requirements, incorporate economic forecasts, and adhere to established policies and parameters. The ERS will also align with the Optimized Strategic Plan ("OSP"), which outlines key case studies to achieve the City's goal set forth in Resolution 9977 of sourcing 100% of its electricity from carbon-free sources by 2030.

On March 11, 2025, staff provided an update of the ERS public participation plan. PWP will implement a diverse and tailored approach to public engagement by segmenting participation based on customer profiles. Actively involving customers in the rate-setting process enhances transparency, builds trust, and fosters a deeper understanding of cost structures and service value. Public engagement efforts are underway.

On May 5, 2025, the City Council directed staff to complete the OSP final report, which includes four options with pathways that enable the Glenarm Power Plant to operate on a limited basis, and engage in market purchases to ensure electricity remains reliable and electric rates are optimized for affordability. The selected OSP options include annual and hourly methods of procuring clean energy where consumption is matched with production on an annual or hourly basis, ensuring every kilowatt-hour of electricity used is offset by carbon-free generation. In addition, each method includes options for accelerated local solar and storage energy resources.

Much of the data gathering and financial plan development has been completed and the analysis and options being presented to Council will enable movement of the ERS to

the new phase of scenario refinement. The OSP cost data for resources has been integrated into the financial plan in order to show the proportional impact on revenue requirement and system-wide rates and is presented in this analysis.

Analysis

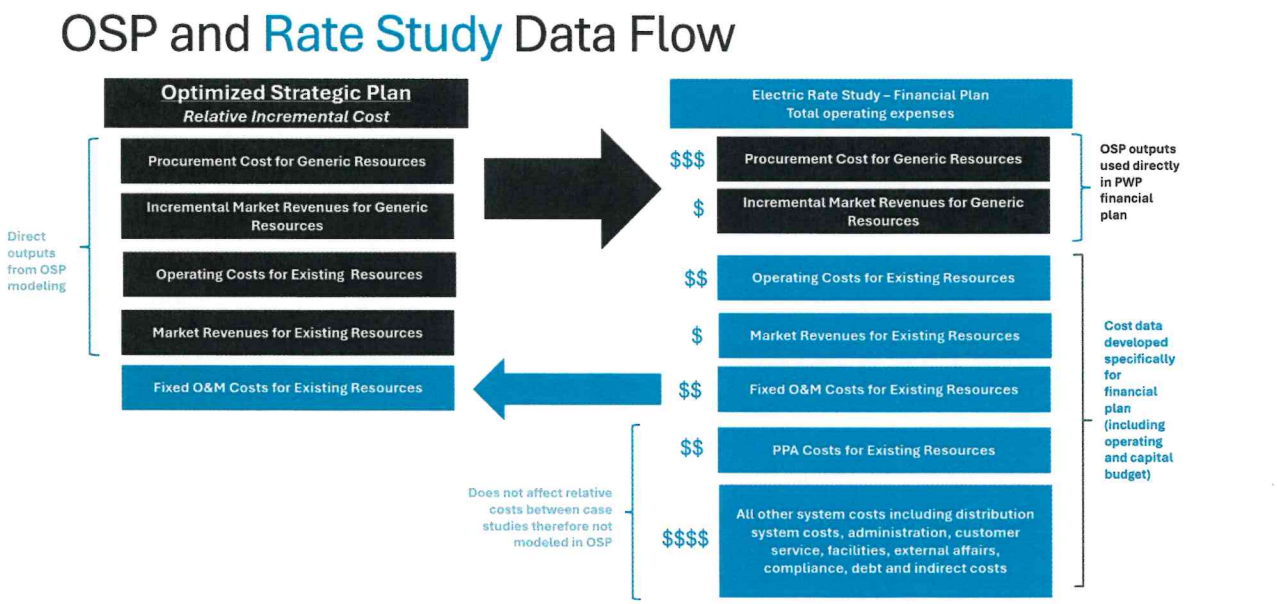
Financial Model and Revenue Requirements

The financial model determines whether the revenues from rates are sufficient to meet projected revenue requirements for the electric system. The developed model is based on the cost of service analysis utilizing fiscal year 2026 operating and capital budgets as the baseline and the utility's revenue requirements. Although the rates likely to be proposed are for a two- to three-year time period, the model provides a 10-year outlook aligned with economic forecasts and established policies and parameters to project future revenue needs. The long-term outlook enables the ability for stabilization of any proposed rate increases.

As a result of MSC's guidance, staff incorporated costs associated with the OSP scenarios to identify the revenue requirement impacts. Ultimately the model enables staff to evaluate the scenarios and provide the rough magnitude of customer rate impacts that may be proposed. All scenarios are also compared to the most recent forecasts as included in the Fiscal Year ("FY") 2026 proposed budgets, which is represented as "Base Case with Rate Adjustments". The selected portfolio balances the goal to source all power from carbon-free sources with affordability, rate equity, stability, and reliability to meet the goals of Resolution 9977.

Figure 1 below shows a conceptual diagram of how the costs presented from the OSP and the ERS are integrated and flow between model or study outputs.

Figure 1: OSP and ERS cost data flow



All scenarios are compared to a base case with rate adjustments. The base case with rate adjustments are reflective of the FY 2026 capital and operating budgets. All assumptions and projections are based on existing PWP forecasts and existing contracts for resources. Of note, the load forecasts for the base case with rate adjustments are based on PWP historical data and the resources required to meet those needs.

The portfolios approved at MSC are briefly described below.

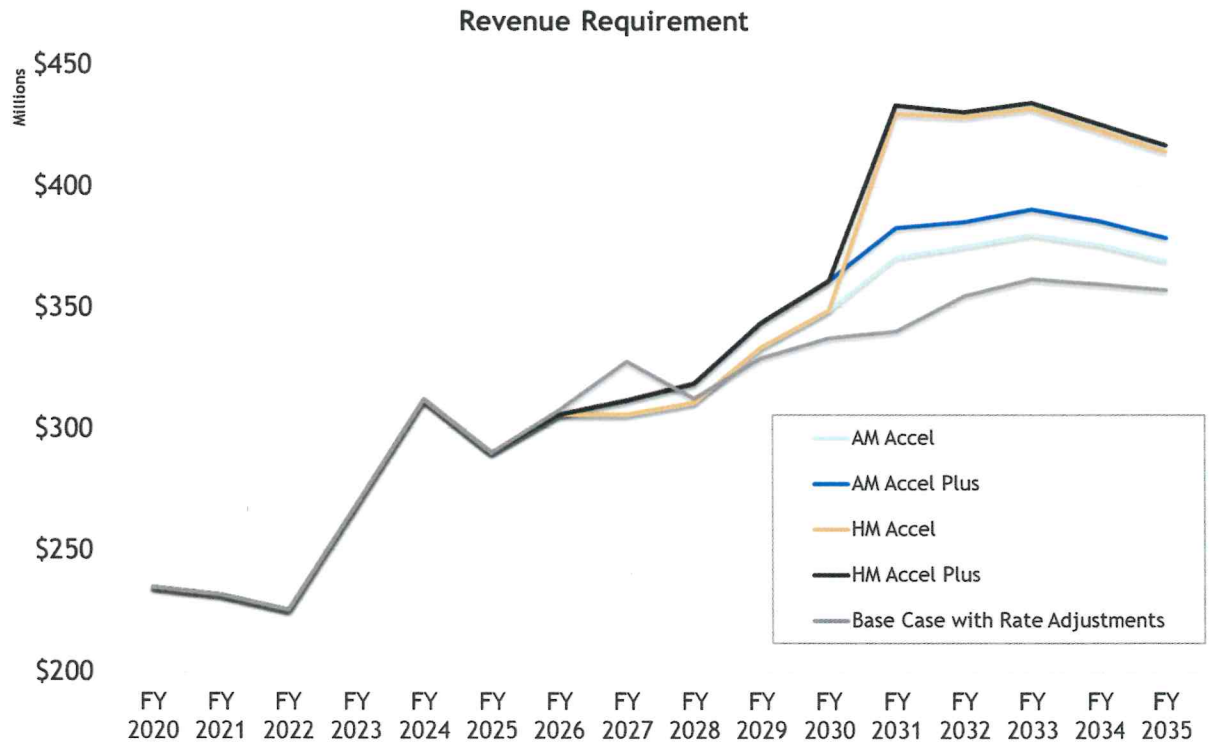
a. Hourly Matching Accelerated Local Resources - Accelerated development of local solar and storage resources within the PWP service territory;
b. Hourly Matching Accelerated Local Resources Plus - Development of demand-side programs and rate structures to encourage load flexibility, managed electric vehicle charging, and other cost-effective demand response;
c. Annual Matching Accelerated Local Resources - Preservation of the Glenarm Power Plant as a "backup" resource for reliability that operates only under a narrow set of conditions; and
d. Annual Matching Accelerated Local Resources Plus - Pursuit of a balanced position in the California Independent System Operator ("CAISO") wholesale energy market, allowing for limited sales and purchases to manage imbalances in supply and demand.

In order to show the proportional differences, there were several assumptions in the financial plan output from the ERS that were held constant, despite the utility's ability to leverage those tools to stabilize rates. For all of the figures presented, there is the assumption that no debt will be issued. Debt being issued requires balancing several other financial metrics and is dependent on the type of investment being made. For example, if something being invested in does not have a useful life of 30 years, debt financing is not a tool that can likely be used. All scenarios also assumed that rate changes would not be made until cash reserve levels dropped below a pre-defined acceptable level. In all scenarios that did not increase revenues, the cash balance would become negative, which is not an option, so associated rates were adjusted when the reserves reached a pre-defined floor. PWP can also smooth out rates over time. Rate smoothing options will be presented with final staff recommendations. All figures presented are draft outputs that provide the best available information at this time, but they have not yet gone through the rigor that the final rate recommendations will have gone through.

As presented in Figure 2, to keep up with escalating costs and future investments, the system will have additional revenue requirements that increase from $306 million in FY2026 to the current forecast of the "base case with revenue adjustments" in FY2031 of $340 million. The OSP-generated case studies are also represented on the chart to show the varying levels of revenue requirements based on the selected pathway that PWP is directed to take. The scenarios all begin with the FY2026 budgeted revenue requirement and diverge from there. The greatest deviation is in FY2031, when the lowest annual revenue requirement is $340 million as compared to the highest annual revenue requirement of $434 million. These case studies slightly deviate from approved operating and capital budgets, which include moving BESS II, emerging/pilot project as

they increase Distributed Energy Resources ("DER") and storage (in the OSP- increase purchased power costs).

Figure 2: Draft Revenue Requirements



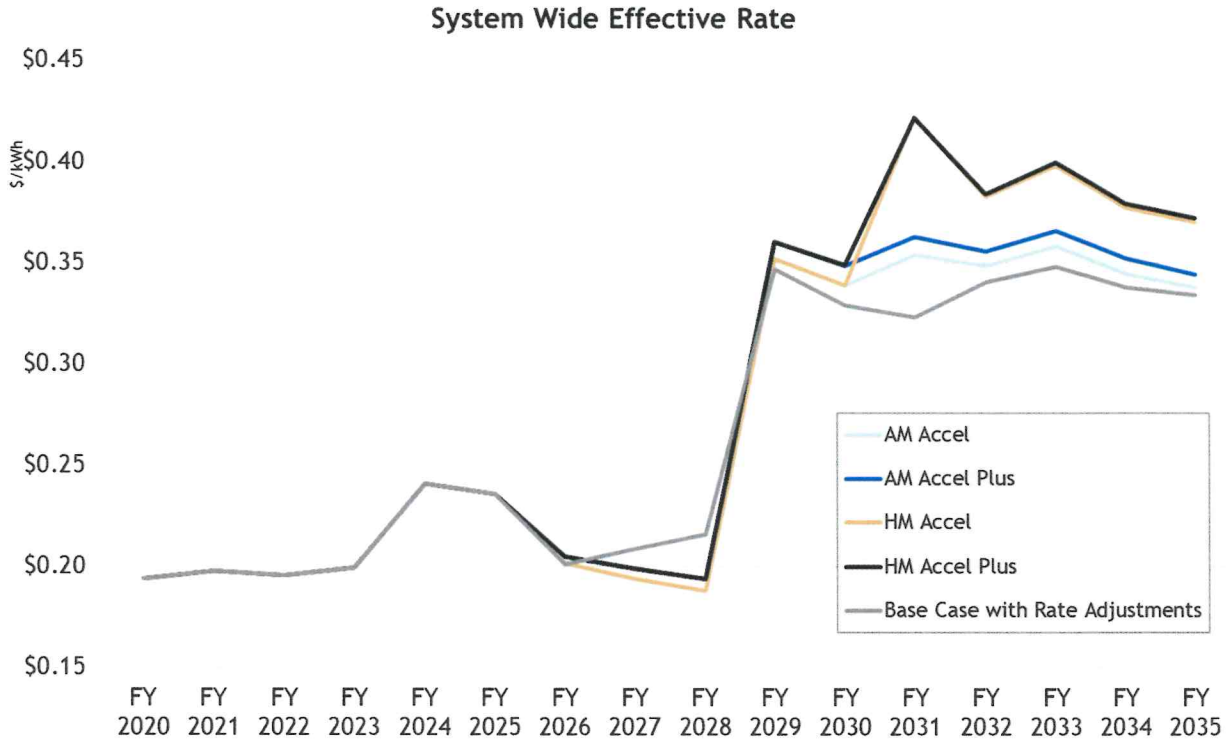
In order to present comparable data from a system wide effective rate perspective, rates were adjusted to keep the days cash-on-hand above 180 days. These rates are presented to exemplify differences in scenarios. This methodology is the simplest way to illustrate how various case studies may change rates if the utility were to adopt "just-in-time" rates. The utility can employ methods such as phasing-in rate increases and issuing debt in order to manage stable rates. The final recommendation, after receiving direction from the City Council, will be to propose steady increases as possible balancing debt issuances.

Figure 3 shows the variations in systemwide effective rates from a different perspective using the same case studies. The systemwide effective rate, used for example purposes only, represents the total costs of the system divided by the kWh of sales. It is important to note that each customer class pays a different rate based on the cost to serve their demands on the system and other cost allocation factors that are discussed in the cost of service process.

As Figure 3 illustrates, each systemwide effective rate, as modeled for "just in time" increases, takes on different trajectories. For example, the base case with rate adjustments comes to a peak in FY2029, primarily due to the large capital spend for the installation for the 100 MW storage on the site of the Glenarm Power Plant and the

funds required to construct the facility (even including offsetting grant projections). The base case with rate adjustments then slopes downward to plateau around 33 cents in FY2033. For the other side of the comparison, there is the Hourly Matching Case Studies (both Accelerated and Accelerated Plus have similar paths). The OSP costs peak in FY2031 as the models for capacity needs selected the latest possible execution time to optimize for costs. The Hourly Matching case studies peak at 42 cents and then slowly return to a flat growth trend around FY2033 to stay at 37 to 38 cents range.

Figure 3: Draft System Wide Effective Rate



Next Steps

To continue with the cost-of-service analysis and to appropriately collect revenue through rates, staff will return to MSC and the City Council with a presentation of solar and storage options for MSC's consideration and selection. Ultimately, staff will present final rate recommendations based on the selected options. The rate plan will cover actions for the next two to three years and will include an outlook on how rates may change in the future.

COUNCIL POLICY CONSIDERATION:

The recommendations are consistent with the City Council's goals to maintain fiscal responsibility and stability; improve, maintain, and enhance public facilities and infrastructure; and increase conservation and sustainability.

ENVIRONMENTAL ANALYSIS:

These actions have been determined to be statutorily exempt from the California Environmental Quality Act (CEQA) pursuant to State CEQA Guidelines Section 15262. This Section states that a project involving only feasibility and planning studies for possible future actions which the agency has not approved, adopted, or funded are exempt from CEQA.

FISCAL IMPACT:

There is no fiscal impact from this action. Council may adopt proposed rate adjustments and fiscal impacts after several other decision points at a future meeting. There is no impact to the General Fund.

Respectfully submitted,

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