

# Agenda Report

March 18, 2024

**TO:** Municipal Services Committee

**THROUGH:** Municipal Services Committee (February 27, 2024)

**FROM:** Water and Power Department

**SUBJECT: INITIAL PROPOSAL FOR REVIEW AND CONSIDERATION TO ENTER INTO A CONTRACT WITH ENERGY AND ENVIRONMENTAL ECONOMICS INC (“E3”) FOR CONSULTING SERVICES FOR THE DEVELOPMENT OF AN INTEGRATED STRATEGIC PLAN FOR ACHIEVING THE CARBON-FREE GOALS OF RESOLUTION 9977**

## RECOMMENDATION:

It is recommended that the City Council:

1. Find that the proposed contract authorization is exempt from the California Environmental Quality Act (CEQA) pursuant to State CEQA Guidelines Section 15262, Feasibility and Planning Studies;
2. Review and consider the initial proposal to enter into a contract, without competitive bidding pursuant to City Charter Section 1002(F), contracts for professional or unique services, with E3 for a period of one-year and an amount not-to-exceed \$180,000, which includes a base price of \$150,000 plus 20% contingency to provide for any necessary change orders, for consulting services related to the development of a detailed integrated strategic plan for achieving the carbon-free goals of the City of Pasadena (“City”) Resolution 9977; and
3. 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; or
4. Provide direction to staff to amend the proposed scope of work and return to the Committee at its next meeting for review and approval.

**EXECUTIVE SUMMARY:**

On December 11, 2023, the Pasadena City Council unanimously approved Pasadena Water and Power's ("PWP") 2023 Power Integrated Resource Plan (hereinafter referred to interchangeably as "IRP," "2023 IRP," and "2023 Power IRP"), which includes the goal to source 100% of Pasadena's electricity from carbon-free sources by the end of 2030, consistent with City Resolution 9977 ("Resolution"). Upon approval of the 2023 IRP, the City Council also issued guidance that the City Manager's Office assist with oversight of the development of an optimized strategic plan utilizing a third-party consultant with expertise in green energy. The City Manager's Office seeks to reengage E3, the firm that performed an independent technical review of the 2023 Power IRP modeling results, to assist with the creation of an Integrated Strategic Plan ("ISP") that will help the City meet its aggressive carbon-free goals consistent with the foundational pillars of the Resolution. E3, which was founded in 1989, is a recognized leader in clean energy policy implementation with a client list that includes the California Energy Commission, California Public Utilities Commission, California Air Resources Board, and a variety of public and private utilities throughout North America and the world.

Through the recent IRP review process, E3 gained a deep understanding of the City's policy goals and is uniquely positioned to quickly help implement Pasadena's accelerated transition towards a carbon-free energy supply. Moreover, as an established California-based firm, E3 has direct knowledge of the energy resource planning landscape in the State and can help PWP and the Council navigate through industry challenges such as market volatility, renewable resource scarcity and project development delays, statewide transmission infrastructure, and uncertainties in emerging technologies.

In addition, E3 will be able to assist PWP in evaluating opportunities available through the Inflation Reduction Act ("IRA") that might help meet IRP goals and will also study the successful clean energy programs of other utilities, such as Sacramento Municipal Utility District's ("SMUD") "2030 Zero Carbon Plan," to identify elements that merit consideration in PWP's ISP.

E3 has developed a proposed Scope of Work (Attachment A) that includes an anticipated project timeline of 3-4 months completion from the date of the Notice to Proceed and a proposed cost of \$150,000. This includes up to 450 hours of research and planning, collaborative discussions with PWP staff, preparation of initial and final drafts, and presentation to the Municipal Services Committee and City Council. Staff proposes a contingency of 20% to cover any unforeseen changes in scope that might arise, for a maximum contract value of \$180,000.

Considering E3's knowledge and expertise implementing clean energy policy, an exemption from Competitive Bidding and Competitive Selection is in the best interests of the City as it will also allow PWP to leverage knowledge gained through the IRP technical review without the additional time and cost of conducting a new solicitation process and acclimating a new vendor. While it is also important that this work be

completed as soon as possible, it is more important that the proposed scope of work will result in an ISP document consistent with Council's direction. In this regard, staff has identified a fourth potential recommendation to allow for additional discussion and direction to staff regarding the proposed scope of work.

**BACKGROUND:**

The City has undertaken several recent initiatives in support of ambitious clean energy objectives of the 2023 Power IRP; specifically, to meet the goals of Resolution 9977, which was adopted by the City Council in January 2023, and has been incorporated in the IRP. Resolution 9977 directs the City Manager to use the IRP process to plan multiple approaches to achieve the policy goal to source 100% of Pasadena's electricity from carbon-free sources by the end of 2030, while optimizing for affordability, rate equity, stability, and reliability.

A challenge arises for the Council, staff, and stakeholders in understanding how each of these efforts will align together and contribute to the City's broader energy sector objectives. The central goal of this ISP is to comprehensively identify the various concurrent workstreams and studies that have been completed and adopted or are in the process of being undertaken and to ensure that they are collectively aligned to support and advance adopted policy.

E3 has worked extensively with utilities throughout California and North America to develop high-quality, robust IRPs, providing both direct analytical support and critical review to utilities that are working to decarbonize while maintaining reliability. Also, because of the services provided for the City's 2023 IRP, E3 has gained a comprehensive understanding of the opportunities and challenges associated with PWP's IRP and specific clean energy goals and is in an excellent position to provide the associated ISP development services.

E3 assisted SMUD in a similar effort by helping to develop its "2030 Zero Carbon Plan," which includes a similar accelerated decarbonization plan and was used as a reference source in the development of PWP's 2023 Power IRP.

Under the proposed scope of work, E3 proposes a plan to support PWP staff and the City Manager's Office to draft, revise, and finalize the ISP. The ISP will represent an effort to synthesize and critically review PWP's existing plans and workstreams to articulate a clear set of actionable next steps that will allow the utility to optimize its progress toward its goals. As a synthesis document, the ISP will not include original or new technical analysis itself but will instead build upon the learnings from PWP's existing studies and identify areas where additional study is needed.

The ISP will incorporate the following details:

- Provide details and concepts for potential risk mitigation strategies and a flexible pathway to achieve the carbon-free goals.
- Incorporate a Waypoint Framework to facilitate progress review, identify areas requiring adjustment, formulate options, and develop interim guidance to continue a trajectory of aggressive decarbonization.
- Provide incremental information and plans on developing the Distributed Energy Resources ("DER") and Demand Response ("DR") resource types.
- Provide natural gas generation resource options and strategy.
- Provide interim guidance and analysis of optimum financial strategies and options to assist PWP in the 2024 Cost of Service and Rate Design Study.
- Research supplemental information regarding current and forecasted carbon-free resource market conditions, challenges, and opportunities.
- Provide guidance and analysis regarding new and emerging technologies.
- Provide concepts and guidance regarding business model strategies including customer and government affairs.

E3 has proposed a price of \$150,000 on a Time and Materials basis with an expected project timeline of 3-4 months from the date of the Notice to Proceed. This includes up to 450 hours of research and planning, collaborative discussions with PWP staff, preparation of initial and final drafts, and presentation to the MSC and City Council. Staff proposes a contingency of 20% to cover any unforeseen changes in scope that might arise for a maximum contract value of \$180,000. PWP's Power Supply staff will be managing the contract and will award any contingency through an internal change order process subject to approval by PWP's General Manager.

It is respectfully requested that an exemption be granted from Competitive Bidding pursuant to City Charter Section 1002(F), contracts for professional or unique services; and Competitive Selection pursuant to Pasadena Municipal Code Section 4.08.049(B) contracts for which the City's best interests are served, and a contract in the amount of \$180,000 be awarded to E3 for development of PWP's 2023 ISP.

In addition to E3's proven experience on similar projects, the knowledge gained through the recent technical review of the 2023 Power IRP provides leveraging opportunities that will save the time and cost of conducting a new solicitation process and acclimating the new vendor. To meet the quickly approaching 2030 target of Resolution 9977, it is imperative that an informed ISP plan be in place as soon as possible.

E3 has been awarded one City contract (2023) in the amount of \$70,510 for the technical review of PWP's 2023 Power IRP. Considering the anticipated efficiencies and cost savings to be realized by the firm's previous related work, no other outreach was performed for this Recommendation.

**COUNCIL POLICY CONSIDERATION:**

Developing the strategic plan supports an increase in renewable 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 action is the execution of a contract for professional consulting services to assist in the preparation of an IRP related document. This action has 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. Execution of a professional services contract for the preparation of an IRP does not commit the City to undertaking any improvements or other actions that would result in a physical change in the environment.


**FISCAL IMPACT:**

The total cost of this action will be for an amount not-to-exceed \$180,000. It is estimated that the entire amount will be spent in Fiscal Year 2024.

Funding for this action will be addressed by the utilization of existing appropriations in the Power Operating Fund 401 Consultant Services (Object 811500).

There are no anticipated impacts to other operational programs or capital projects as a result of this action.

Respectfully submitted,

  
for DAVID M. REYES  
Acting General Manager  
Water and Power Department

Prepared by:

  
Kelly Nguyen  
Assistant General Manager, Power Supply

Approved by:

  
MIGUEL MARQUEZ  
City Manager

Attachment A - Proposed Scope of Work for Integrated Strategic Planning Support



## Energy+Environmental Economics

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Date: February 21, 2024  
From: Nick Schlag, E3  
To: Kelly Nguyen, Pasadena Water & Power  
Re: Proposed Scope of Work for Integrated Strategic Planning Support

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E3 is pleased to submit this proposal for a scope of work to assist Pasadena Water and Power (PWP) in the development of its upcoming Integrated Strategic Plan. E3 has worked extensively with utilities throughout North America to develop high-quality, robust system plans to address future challenges, providing direct analytical support, strategic advice, and critical review to utilities seeking to decarbonize their portfolios while maintaining reliability. In multiple instances – including with Arizona Public Service (APS), Public Service Company of New Mexico (PNM), Salt River Project (SRP), and the Sacramento Municipal Utilities District (SMUD) – E3 has worked closely with utilities to develop visionary, compelling narratives of the planned changes to their system. Notable examples of initiatives that bear some similarities to the efforts being undertaken by PWP include:

- SMUD’s [2030 Clean Energy Vision](#), an ambitious and visionary plan detailing how SMUD can progress towards a goal of achieving a 2030 goal of providing carbon-free electricity to its customers. E3 provided technical and strategic support to the development of this plan.
- SRP’s [Integrated System Plan](#), a first-of-its-kind effort to develop a plan for how all elements of the electric system – including generation, transmission, distribution, and customer programs – could together support achievement of SRP’s objectives of affordability, reliability, and sustainability. Over the course of the three-year period during which this plan was developed, E3 was a partner to SRP and supported the scoping, execution, and synthesis of the plan.
- PNM’s [2020](#) and [2023 Integrated Resource Plans](#), each of which focused on identifying viable pathways for PNM to achieve its 2040 goal to achieve a carbon-free system. In both cases, E3’s team members were embedded within the resource planning team to provide strategic advice, technical review, and narrative development support of the plans.

Upon approval of the 2023 IRP, Pasadena City Council also issued guidance that the City Manager’s Office should subsequently develop an optimized plan to meet its 2030 objectives:

“City Manager’s Office to engage 3rd party consultant with expertise in green energy to advise in development of optimized plan. Optimized plan development to be completed within six months and presented to the Municipal Services Committee.”

Under this proposed scope of work, E3 proposes a plan to support PWP staff and the City Manager’s Office to draft, revise, and finalize PWP’s Integrated Strategic Plan. The Integrated Strategic Plan will represent an effort to synthesize and critically review PWP’s existing plans and workstreams to articulate a clear set of actionable next steps that will allow the utility to progress towards its goals. As a synthesis document, the Integrated Strategic Plan will not include original or new technical analysis itself, but will instead build upon the learnings from PWP’s existing studies and identify areas where additional study is needed. While E3 anticipates the final document will be published under PWP’s name with E3 credited as an advisor, we

anticipate heavy involvement in the drafting and revision process. The following tasks outline E3's view of what will be necessary to complete this project.

### **Task 1: Review Pasadena Planning Documents**

As the final deliverable of this project is a written report that synthesizes PWP's various planning processes and milestones into a cohesive strategy, E3's first task will be to review in detail the documents related to these planning processes. From our work serving as an independent reviewer of PWP's recent IRP filing, we are already closely familiar with the contents and scope of the IRP analysis. E3 will also review PWP's Power Delivery Master Plan and any other documents provided by PWP staff to help E3 become familiar with PWP's future planning efforts. At the same time, E3 will meet regularly with PWP staff to ensure that the team has an appropriate level of familiarity with the various planning processes already underway and expected for the future. These may include:

- PWP's upcoming cost of service study
- PWP's Waypoints established in the IRP
- DERs and community solar planning
- Other upcoming studies (e.g. emerging technology study, local resources study)
- Any other planning documents provided by PWP

Additionally, E3 will review several other planning documents produced by peer utilities in a similar position (e.g. SMUD) to serve as a basis for discussion with PWP as to what elements of those documents make them most effective and might merit consideration in this process.

During the course of this review, the E3 team will meet several times with PWP's team to discuss key themes and messaging related to these documents. These conversations and research will ensure E3 has adequate context and familiarity with the PWP system, the challenges it faces, and the various planning processes to assist in the development of the Strategic Roadmap.

### **Task 2: Develop Annotated Outline for Integrated Strategic Plan**

To ensure alignment on narrative and content, E3 will begin by drafting a detailed annotated outline for the Integrated Strategic Plan. This will build upon the preliminary outline (see attachment) developed in the scoping process (to be reviewed and revised by the Municipal Services Committee) and will serve the purpose of identifying key themes, developing a narrative arc, and illustrating how content will be organized throughout the document.

E3 will provide the annotated outline to PWP with the expectation that formal feedback can be provided within a week of receipt.

*Deliverable: Annotated outline in Microsoft Word, 5-7 pages*

*Timing: Provided to PWP four weeks after project kickoff*

### **Task 3: Develop First Draft of Integrated Strategic Plan**





Incorporating feedback from PWP staff on the annotated outline, E3 will lead the development of a first draft of the Integrated Strategic Plan. This first draft will build upon themes developed in the outline process and through ongoing discussions with PWP.

To make the document as accessible as possible to broad audiences, E3 will prioritize succinct, direct explanations and thoughtful visualizations to accompany the text. We anticipate targeting a document of 30-50 pages in length – sufficient to convey the amount of thought and effort that is reflected in PWP’s plans but short enough to feel overly dense to PWP’s diverse audiences.

*Deliverable: First draft of ISP report for PWP review and comment, targeting 30-50 pages*

*Timing: Provided to PWP eight weeks after project kickoff*

#### **Task 4: Revise Integrated Strategic Plan to Incorporate PWP Feedback**

Feedback from PWP will be invaluable to ensuring that the Integrated Strategic Plan establishes the right themes and achieves the goal of providing a unified vision of PWP’s plans to work towards its goals. After delivering the draft report, E3 anticipates a two-week review period for PWP staff to allow for sufficient time to review, digest, and comment upon the draft document. Thereafter, E3 will work to incorporate any feedback provided by the PWP team.

E3’s budget and timeline anticipates one round of iteration on formal comments between Tasks 3 and 4 (though discussions between E3 and PWP will be ongoing throughout the project). Following the delivery of the updated/revised draft, E3 anticipates that any final changes to the document would be made by PWP.

*Deliverable: Updated draft of ISP report for PWP final review*

*Timing: Provided to PWP thirteen weeks after project kickoff*

#### **Task 5: Support Presentations to MSC & City Council**

E3 will advise the PWP team in the development and presentation of content at future MSC and City Council meetings related to the Integrated Strategic Plan. This task will cover review of presentation materials and participation in preparation meetings and dry runs, and attendance at presentations.

#### **Project Team**

This effort will be led by Nick Schlag, a partner at E3 with fourteen years of industry experience and a long history of working with utilities to support integrated resource planning. The project will be managed by Jonathan Blair, Senior Managing Consultant, whose background working as General Manager of a small utility will facilitate E3’s work to synthesize the elements of the strategic plan. The team will also be supported by Nathan Lee, Managing Consultant, who previously oversaw E3’s independent review of the IRP, and additional E3 staff as necessary.





**Nick Schlag, Partner** Mr. Schlag’s principal area of expertise is electric integrated resource planning, with an emphasis on renewable integration, system flexibility needs, and resource adequacy. He also has extensive experience in distributed resource cost effectiveness, market analysis, and gas-electric coordination. Recent projects include engagements with Arizona Public Service, NV Energy, the Sacramento Municipal Utilities District (SMUD) and Xcel Energy to support their recent respective integrated resource plans. He has been the lead author on several high-profile planning studies of electric infrastructure

in the Western Interconnection, including *Pacific Northwest Low Carbon Scenario Analysis* and the *Western Interconnection Flexibility Assessment*. Prior clients include the Balancing Authority of Northern California, Bonneville Power Administration, the California Public Utilities Commission, the California Independent System Operator, Los Angeles Department of Water and Power, the New York State Energy Research & Development Authority, Portland General Electric, the Western Electricity Coordinating Council, and the Western Interstate Energy Board. Mr. Schlag holds a Master of Science in Civil and Environmental Engineering (Atmosphere and Energy) and a Bachelor of Science in Earth Systems, both from Stanford University.



**Jonathan Blair, Senior Managing Consultant** Mr. Blair is a member of E3’s Integrated System Planning team where he supports utilities across the country with a variety of planning initiatives. Most recently, he has been involved in developing integrated resource plans for utilities in Arizona and New Mexico, while supporting related initiatives in Washington, Georgia, and Yukon. Prior to joining E3, Mr. Blair served as the General Manager for a public electric utility in Massachusetts, where much of his work focused on the development and implementation of strategic goals related to power supply, customer

programs, rate management, and electrification. His experience includes the maintenance and operation of electric generation, transmission, and distribution systems, as well as coordination with stakeholders, including municipal water and wastewater. Mr. Blair holds an M.B.A. from Boston University and a B.S. in Nuclear Engineering from Purdue University.



**Dr. Nathan Lee, Managing Consultant** Dr. Nathan Lee supports E3’s work in integrated system planning. He spent six years at the National Renewable Energy Laboratory (NREL) where he supported multiple power system planning and grid integration efforts around the globe. Additionally, he led NREL research on decision science for energy transitions. Nathan’s doctoral research focused on decision support methodologies for national energy planning in emerging economies. He completed his Ph.D. and Masters in Sustainable Energy Systems with the MIT Portugal Program at the University of Porto. He also earned a B.S.

in Engineering Physics from Miami University of Ohio.



### Budget and Schedule

This project will take place over a three-to-four month period, designed to allow PWP to bring its Integrated Strategic Plan back to City Council by the end of the six month window provided. The division of time across the tasks is expected to roughly be split as follows:

- + First month: Tasks 1 (Review Pasadena Planning Documents) and 2 (Develop Annotated Outline for Integrated Strategic Plan)
- + Second month: Task 3 (Develop First Draft of Integrated Strategic Plan)
- + Third month: Task 4 (Revise Integrated Strategic Plan to Incorporate PWP Feedback)

E3 will complete this work on a Time and Materials basis for a budget of \$150,000. E3 is pleased to offer our discounted rates for this work (15% below standard rates) to PWP as a public power entity. To ensure delivery of a quality product at each stage, E3 has budgeted hours roughly equivalent to a full-time employee over the three-month period, to be spread across the team. The rough breakdown of hours by task are shown in the table below. Discounted billing rates by title are included in the subsequent table.

Task	Approximate Hours	Budget
Review Pasadena Planning Documents	30	\$10,000
Develop Annotated Outline for Integrated Strategic Plan	30	\$10,000
Develop First Draft of Integrated Strategic Plan	150	\$50,000
Revise Integrated Strategic Plan to Incorporate PWP Feedback	225	\$75,000
Support Presentations to MSC & City Council	15	\$5,000
<b>Total (including optional tasks)</b>	<b>450</b>	<b>\$150,000</b>



Title	Discounted Rate
Founding Partner	\$660
Managing Partner	\$555
Senior Partner	\$555
Partner	\$510
Senior Director	\$465
Director	\$445
Associate Director	\$420
Senior Managing Consultant	\$390
Managing Consultant	\$355
Senior Consultant	\$320
Consultant	\$270
Associate	\$225
Analyst	\$180



## Appendix: Draft Outline for Integrated Strategic Plan

The following provides a rough tentative outline of potential topics to cover in the Integrated Strategic Plan

1. Executive Summary
  - Tear-off with that includes roadmap graphics and synthesis for time-constrained audience (1-2 page)
2. Introduction
  - Purpose
    - The City of Pasadena and PWP have undertaken several recent initiatives in support of ambitious energy objectives.
    - The purpose of this Roadmap is to comprehensively outline the various concurrent workstreams and studies undertaken by the city and PWP to provide a holistic understanding of how these initiatives align with the broader energy objectives of the city.
    - The aim is to elucidate the interconnectedness of these planning processes, demonstrating how they mutually support each other and contribute to ongoing operations, future development, and broader energy sector objectives of the city.
    - The Strategic Plan will also identify a clear set of concrete and actionable steps that PWP will take to advance towards the 2030 goals
  - PWP Opportunities and Challenges
    - Inflation Reduction Act
    - Rising costs and inflation across economy
    - Rapid pace of infrastructure development
    - Uncertainties in emerging technology
3. Objectives for the City of Pasadena and PWP
  - Affordability
  - Equity
  - Clean Energy
  - Reliability
4. PWP's System Today
  - Generation portfolio
  - Transmission & distribution systems
  - CAISO market participation
  - Customer programs retail rates
5. Key Planning Processes and Milestones
  - Integrated Resource Plan
  - Power Delivery Master Plan
  - Cost of Service Study
  - 2026 Waypoint
  - 2028 Waypoint
6. Integrated Power System Roadmap
  - Invest in renewables & energy storage to reduce utilization of fossil resources
    - *Renewable & storage resource needs identified in the IRP*
    - *Current resource procurements (Sapphire, Calpine, Bonanza)*



- *Expectations for upcoming RFPs (Timing? Targeted? All source?)*
  - Study options for Glenarm conversion or replacement
    - *Role of Glenarm in PWP portfolio (current & near- term outlook)*
    - *CAISO resource adequacy requirements*
    - *Impacts on local reliability*
    - *Options for conversion to green H2 or biofuels*
    - *Options for replacement with new technology*
  - Design customer programs & retail rates to enable customer choice in an equitable manner and support clean energy goals
    - *New rate structures under consideration in Cost of Service study: TOU, NEM, EVs*
    - *Rate structures for low income customers*
    - *Updates to energy efficiency program design*
  - Invest in distribution system to enable growth and customer choice
    - *Advanced metering infrastructure*
    - *Distribution system upgrades to support load growth and electrification*
  - Expand transmission access to facilitate market access, grid balancing, and reliability
  - [Other elements of roadmap possible...]
- 7. Conclusion
  - Aggregated Roadmap / Strategic Plan that brings together actions
  - Identification of inflection or key pivot points of concern/importance for Pasadena
  - Ongoing and planned work

