

Agenda Report

July 23, 2007

To: CITY COUNCIL

From: CITY MANAGER

Subject: DEFER CONSIDERATION OF THE 2007 INTEGRATED RESOURCE PLAN

RECOMMENDATION

It is recommended that the City Council defer consideration of the Draft 2007 Integrated Resource Plan (IRP) until certain underlying policies and principles are reviewed and adopted by City Council as necessary or appropriate. The IRP Executive Summary is attached as Exhibit 1 and the full report is posted on the Internet at PWPweb.com.

ENVIRONMENTAL ADVISORY COMMISSION RECOMMENDATION

1. Postpone action on the proposed 2007 IRP and immediately establish a process to review Pasadena Water and Power (PWP) policies and City Council policy directives in order to clearly align policies and the IRP with the City's Urban Environmental Accord goals.
2. Begin thinking about how to transform Pasadena's utility for the 21st Century; to adopt policies that connect the dots between where Pasadena gets its power, the environmental impact, and how to meet the increasing need for energy with strategies that are long term and sustainable; and for City Council to form meaningful, strategic partnerships with city and other technological leaders to take advantage of innovative green and clean power solutions for the benefit of our community and our future.
3. Provide resources to support an independent study of the renewable energy goals for the City, including an examination of the potential for local renewable energy generation from City, residential, commercial and other institutional properties, and for procurement of renewable energy from remote sources as part of the RPS goals for PWP, and provide a substantial stakeholder in-put process. The study should include the feasibility of various technology options for local renewable energy generation and procurement from remote sources, the financial and economic implications for various renewable energy goals, and the policy mechanisms necessary for implementation.
4. Conduct research, analysis and planning to identify the benefits of increased energy efficiency efforts and to identify any feasible options that may be

exercised regarding the City's long-term contracts for fossil fuels, with the goal of reducing reliance on this form of energy, which is polluting communities in other areas.

BACKGROUND

Pasadena Water and Power (PWP) first presented the IRP to the Environmental Advisory Commission (EAC) as an information item on April 17, 2007. On May 15, 2007, PWP requested the EAC to support the IRP recommendations "in concept". The EAC and members of the public expressed concerns about certain policies, the least cost planning approach, and recommendations of the IRP. As a result, the EAC established an ad-hoc committee that provided its report and proposed recommendations to the EAC during the June and July EAC meetings. On July 17, the EAC adopted the ad-hoc committee's recommendations with minor modifications.

PWP's correspondence with the EAC and ad-hoc committee, including PWP's response to the committee's proposed IRP recommendation, is included in Exhibits 2 and 3. Exhibit 4 is the EAC Ad Hoc Committee's report on the IRP.

Staff agrees with all of the Commission's recommendations for further study and strategic partnerships.

In 2005, PWP initiated a power resource planning process that culminated in the draft 2007 IRP, which is a least-cost resource plan to meet the City's electric loads within the constraints and objectives of existing policy and regulatory requirements such as safety, reliability, environmental stewardship, and rates stability.

Highlights of the Draft 2007 IRP include:

- Key objectives are to balance costs, stable rates, reliability, environmental impacts, and meeting regulatory requirements in the IRP process;
- Recommendation to improve the efficiency and reliability of PWP's aging local generation facilities in order to ensure reliable local energy supply, meet regulatory requirements, and to reduce power procurement costs, fuel consumption, and emissions. This effort would entail replacing approximately 125 MW of permitted capacity from Broadway 3 and Gas Turbine Units 1 and 2 with up to 130 MW of new advanced combustion turbines in a combined-cycle configuration;
- Continued procurement of cost-effective renewable resources to meet the existing Renewable Portfolio Standard (RPS) and recommendations to enhance RPS goals; and,
- Expansion of PWP's cost-effective energy efficiency programs to reduce the amount of electricity consumed by PWP's customers.

While the IRP was initiated and largely completed prior to the City Council's adoption of the United Nations Urban Environmental Accords (UEA), staff believes it is generally consistent with the UEA goals and supports progress towards those goals.

As work on the IRP was being finalized in late 2006, the state passed a number of legislative bills with direct impact on power resource procurement plans such as PWP's IRP. These bills include: SB-1 (Million Solar Roofs initiative); SB-107 (Renewable Portfolio Standard) that advanced the state's goals for renewable resources; SB-1368 (Green House Gas emissions standard) that sets a maximum emission rate for new base-loaded power resources and contracts; AB-32 (Global Warming Solutions Act) that establishes statewide Greenhouse gas (GHG) reduction targets; and, AB-2021 (Energy Efficiency) that establishes a statewide energy efficiency goal of 10% over ten years and requires municipal utilities to adopt 10-year energy efficiency goals.

The City's adoption of UEA goals and the new state legislation require PWP to accelerate its energy efficiency, photovoltaic, renewable resource, and GHG reduction efforts. Since the adoption of such goals may impact the conclusions of the IRP, it would be prudent to revisit the IRP analysis after the City Council reviews and approves the applicable goals and resource procurement policies, several of which are currently being drafted and/or considered by the EAC. As this process may take several months, the updated IRP is expected to be delayed until early 2008.

Over the next few months, staff anticipates bringing forward specific policy recommendations that will impact subsequent IRP analysis, including:

- Energy efficiency and demand reduction goals;
- Solar photovoltaic program goals;
- Enhanced renewable portfolio standard targets; and
- Resource adequacy policies related to reserve capacity and local generation capacity requirements for reliability.

How to balance costs and environmental impacts is another policy issue that may need to be addressed in advance of the IRP analysis. In general, environmental impacts (such as emissions) must either be assigned a monetary per-unit value (e.g., \$10/ton of GHG emissions) or be included as a constraint (e.g., a hard limit on a portfolio's emissions either in total tons or tons/MWh of energy sold) in order for the portfolio optimization analysis to be performed.

In addition to policy updates, PWP will conduct additional research and analysis on potential resource technology options or alternatives, as suggested by the EAC, in the following areas:

- Update information on cost and availability of remote renewable resource opportunities;

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- Research potential local renewable resource opportunities; and
- Explore the development of strategic partnerships with technological leaders, including those available in Pasadena, in order to take advantage of innovative green and clean power solutions.
- PWP may also opt to update underlying assumptions for resource costs and market prices for fuel and energy contracts. Doing so would require that all new analyses be performed for all scenarios, rather than building upon prior studies by only adding new scenarios.

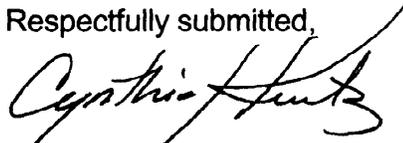
PWP anticipates retaining outside consultants, extending existing contracts, and possibly procuring planning software as appropriate to effectively and efficiently complete the studies and additional IRP analysis outlined above. PWP will return to Council to request contract authority and budget amendments as needed.

PWP will also proceed with additional detailed site-specific feasibility and economic studies for local generation technology options utilizing engineering firms retained under Pasadena's General Engineering Services Contracts. PWP may utilize these vendors for other studies outlined above as appropriate.

FISCAL IMPACT

Deferring the IRP will have no direct fiscal impact; however, depending upon the extent of additional research and analysis performed to update the IRP, staff estimates the total cost of such efforts could range from \$100,000 to \$250,000. No additional funding or contract awards are being requested at this time.

Respectfully submitted,



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