Agenda Report

March 28, 2005

TO: CITY COUNCIL

FROM: CITY MANAGER

SUBJECT: AUTHORIZATION TO ENTER INTO A CONTRACT WITH THE SOUTHERN CALIFORNIA PUBLIC POWER AUTHORITY FOR THE PURCHASE OF THREE MEGAWATTS OF THE ORMAT GEOTHERMAL ENERGY PROJECT'S OUTPUT

RECOMMENDATION

It is recommended that the City Council Authorize the City Manager to enter into a Long Term Firm Power Purchase Agreement (Contracts) with the Southern California Public Power Authority (SCPPA) for a 3 MW share of the Ormat Geothermal Energy Project (Project).

These Contracts are exempt from competitive bidding pursuant to City Charter Section 1002(h), contracts with other governmental agencies or their contractors.

BACKGROUND

The City Council adopted a renewable portfolio standard (RPS) for Pasadena Water and Power (PWP) on October 13, 2003. The RPS calls for the addition of cost-effective renewable resources to meet 10% of Pasadena's retail electric energy needs by 2010 through a combination of long-term and short-term power purchases.

The Project meets the criteria for renewable resources, and the proposed Contract is in compliance with the RPS. PWP's share of the Project will be 3 MW of the Project capacity. As a result of purchasing this energy, Pasadena's renewable energy portfolio would increase by approximately 25,000MWh per year (at a projected 95% capacity factor), representing about 2% of Pasadena's retail energy sales when fully operational.

The addition of this Project will help increase the diversity and volume of Pasadena's renewable energy resources portfolio that currently includes the High Winds Energy Center in Solano County, California, the recently approved Ameresco Landfill Gas Generation Project, plus hydroelectric energy from Azusa

Hydro and Hoover Dam. Upon successful completion and operation of the geothermal and landfill gas projects in FY2007 and FY2006, respectively, Pasadena's renewable energy resources portfolio will be able to supply approximately 120.3GWh of energy per year, or 9.9% of Pasadena's FY2010 total annual retail sales as shown in Table 1 below.

Table 1: Renewable Energy Portfolio Summary (GWh)

FY	2005	2006	2007	2010
Hoover	50.00	53.00	55.00	55.00
Azusa	5.00	5.00	5.00	5.00
PPM Wind	17.52	17.52	17.52	17.52
Land Fill Gas		8.89	17.79	17.79
Geothermal		7.28	19.76	24.97
Total Renewable	**72.52**	**91.70**	**115.07**	**120.27**
Retail Sales	1,166	1,172	1,184	1,213
% Renewable	**6.2%**	**7.8%**	**9.7%**	**9.9%**
% Renewable w/o Hoover*	**1.9%**	**3.3%**	**5.1%**	**5.4%**

** Note that while the Pasadena's RPS counts hydroelectric energy from Hoover as renewable, there is significant debate regarding whether large hydroelectric facilities should be counted.*

Project Selection Process

In February 2002, SCPPA issued a request for proposals (RFP) for renewable energy projects on behalf of its members, including Pasadena. A total of 44 proposals were received for various types of renewable energy projects including wind, solar, geothermal, biomass, and landfill gas. The proposals were reviewed by the SCPPA Resource Planning Committee, which recommended retaining 20 proposals for further consideration. Since that time, SCPPA has received a number of additional proposals that have been considered, including the proposed Ormat Geothermal Energy Project.

This Project was selected by SCPPA due to increased portfolio diversity, appropriate size that matches member interest, project technical feasibility (proven technology, multi-unit reliability, transmission availability), and the relatively low risk profile of a volumetric contract that has no associated fixed charges. Pasadena will only pay for the energy actually received from the Project.

Power Purchase Agreement Summary

Source: New wells and generating facilities to be constructed at the Heber Known Geothermal Resource Area and East Mesa Known Geothermal Resource Area near the Salton Sea.

Quantity: 10 MW at Heber and 10 MW at East Mesa.

Delivery: Devers Receiving Station in SP15 with a default back to the Mirage Receiving Station if at some point in the future the IID OATT transmission rate to Devers becomes higher than that to Mirage.

Term: 25 years, with each Party having a unilateral right to cancel after 15 years upon 180 days written notice to the other party.

Price: Energy price begins at $57.50/MWh for the first year. A 1.5% contract escalation over the term results in a final contract price of $77.44 in year 20.

The Heber plant is expected to be in commercial operation by November 2005 providing Pasadena with half of the contracted amount of energy. The second plant, East Mesa will be completed one year later by November 2006 whereupon Pasadena will receive its full contracted amount of 3MW.

SCPPA will purchase the entire output of this facility and resell this output to participating SCPPA members. Currently, the Cities of Anaheim (12MW), Banning (2MW), Glendale (3MW), and Pasadena (3MW) have agreed to purchase shares in this project.

Project Scheduling Agreement

SCPPA will be responsible for scheduling the Project output into the California ISO system and to the various Project participants. However, because SCPPA does not currently maintain the required staff and infrastructure, SCPPA will need to contract these duties to one of its members or a third party vendor.

SCPPA, with Project participants' input, is currently in negotiations with a third party vendor for scheduling and settlements services for the energy produced by the Project. Responsibilities under the agreement, in addition to providing daily and hourly scheduling, include monthly reporting, outage reporting to CAISO as well as to the participants, tagging and checking out, resolving disputes with the CAISO, and monitoring and implementing future CAISO market design changes. The initial term of the proposed contract will be eighteen months with an early exit option for the participants. The charge under discussion for this service will be a fixed monthly fee, which should translate to less than $1.00/MWh, or less than 0.1¢/kWh.

In the event SCPPA is unable to reach such an agreement with the aforementioned or another third party or should the participants exercise its early exit option, PWP is prepared to provide these scheduling services for the Project. Should PWP assume this duty, the cost structure will be designed such that any ISO charges/credits associated with the Project will be charged/reimbursed to SCPPA. Experience gained from the third party assistance will help determine an appropriate charge for services rendered. Any Scheduling Agreement designating Pasadena as scheduling agent will include terms for adjusting the fee or terminating services with six months notice by either party.

Project Economics

Energy produced by the Project will be sold to SCPPA initially at $57.5/MWh or 5.75¢/kWh with a 1.5% annual escalation over the term. In addition to this energy charge, SCPPA will incur transmission, scheduling, and ISO settlement charges and fees that will be paid for by the participating members in proportion to their share of the project. These fees, which are typical for any generation project connected to the ISO grid, are expected to be less than $2/MWh in total.

Although the project's price is somewhat higher than current market prices, its fixed escalation will contribute to PWP's rate stability objectives. It will not significantly increase near-term purchased power costs versus alternative short-term market supplies.

The annual cost for the expected average output of 25,000 MWh will be $1.44million for the first year. The levelized annual cost over the life of the project will be approximately $1.58million per year. Based on the latest available market forecasts provided by Global Energy Decisions (formerly Henwood Energy Services, Inc.) that Pasadena uses for stranded investment calculations, the Project cost is expected to average approximately $475,000 per year more than non-renewable local spot market energy sources, resulting in a system-wide energy rate impact of less than 0.04¢/kwh (4 hundredths of one penny per kWh) during the life of the agreement. This is commonly known as the "premium" paid for the renewable resource.

Renewable energy is an authorized use of Public Benefits Charge (PBC) funds collected from all customers pursuant to Pasadena's RPS and Assembly Bill 1890 as described in Public Utilities Code Section 385. To the extent such funds become available in the future, Pasadena may opt to offset some or all of the cost premium for this resource by applying revenues from PBC charges. Additionally, Pasadena may offset cost premiums associated with the Project by applying premium revenues collected from any customers that participate in Pasadena's green-rate program.

FISCAL IMPACT:
This renewable resource Power Purchase Agreement is expected to cost on average $475,000 per year more than generic non-renewable spot market power purchases, resulting in a rate premium (spread across all Pasadena customers) of less than 0.04¢/kwh during the life of the agreement. All costs associated with these Contracts will be recovered in the Energy Charge and possibly the Public Benefits component of Pasadena's electric energy rates, and will have no impact on the General Fund.

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