

Agenda Report

July 31, 2006

To: City Council
Through: Municipal Services Committee

From: City Manager

Subject: AUTHORIZATION TO ENTER INTO REVISED CONTRACTS WITH THE SOUTHERN CALIFORNIA PUBLIC POWER AUTHORITY FOR THE PURCHASE OF UP TO FOUR MEGAWATTS OF AMERESCO LANDFILL GAS POWER PROJECT OUTPUT

RECOMMENDATION:

It is recommended that the City Council Authorize the City Manager to enter into a revised Power Purchase Agreement and a Scheduling Service Agreement ("Contracts") with the Southern California Public Power Authority ("SCPPA") for up to a 6.67MW share of the Ameresco Landfill Gas 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, and 20% by 2017, through a combination of long-term and short-term power purchases.

On December 15, 2003, the City Council also authorized the City Manager to enter into a Power Purchase Agreement and a Scheduling Service Agreement ("Contracts") with the Southern California Public Power Authority ("SCPPA") for up to a 4.5 MW share of the Ameresco Landfill Gas Project ("Project"). These contracts were contingent upon the successful construction and operation of the landfill gas to electricity project. Due to uncertainties in the actual Project cost and feasibility prior to completion of detailed design, Ameresco and SCPPA retained the right to terminate the contract prior to Project financing. Such termination would automatically terminate Pasadena's contract with SCPPA for the Project.

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Due to unforeseeable changes in Southern California Air Quality Management District ("SCAQMD") emission requirements for the Project, it was repeatedly delayed and redesigned until ultimately Ameresco concluded that only a complete redesign of the project (from a piston type internal combustion engine to a gas turbine design) would allow them to meet the SCAQMD's standards. In May, 2006, Ameresco partially exercised its right for early termination and requested measured relief from the original contract in the form of this amended and revised agreement. This new contract reduces the total project output from 13.4MW to 8MW and increases the cost of the power from \$54/MWh to \$65.25/MWh.

The Project as currently reconfigured meets the criteria for renewable resources, and the proposed Contracts are in compliance the RPS. PWP's share of the project is expected to be 4MW, but may be as high as 6.67MW depending upon the final participation level of other SCPPA members for the initial Project capacity. At a later date, Pasadena may elect to obtain additional expansion capacity should it become available in the future. As a result of purchasing this energy, Pasadena's renewable energy portfolio would increase by approximately 33,300MWh per year, representing about 2.7% of retail energy sales in FY2010.

Pasadena's current retail energy portfolio includes 6% to 7%¹ renewable energy. The addition of this Project will help increase the diversity and volume of Pasadena's renewable energy resources portfolio which currently includes the High Winds Energy Center in Solano County, California, geothermal energy from the SCPPA-Ormat contract, plus hydroelectric energy from Azusa Hydro and Hoover Dam. With the addition of this proposed landfill gas energy contract and the proposed Minnesota Methane Landfill Generator project, Pasadena's renewable energy portfolio will be 10% to 13% of retail sales².

Assuming the concurrent approval of the proposed contract with Minnesota Methane and upon successful completion and operation of approved geothermal and landfill gas projects in FY2007 and FY2008, respectively, Pasadena's renewable energy resources portfolio will be able to supply approximately 169.1GWh of energy per year, or 13.9% of Pasadena's FY2010 total annual retail sales as shown in Table 1 below.

¹ The actual percentage will vary depending on annual fluctuations in hydro conditions.

² The new renewable percentage will also depend on the final Project Contract share.

Table 1: Renewable Energy Portfolio Summary (GWh)

FY	2006	2007	2008	2010
Hoover	53	55	55	55
Azusa	5	5	5	5
PPM Wind	17.52	17.52	17.52	17.52
Geothermal	3.64	19.76	24.97	24.97
Minnesota Methane				
Land Fill Gas		16.64	33.29	33.29
Ameresco Land Fill Gas			22.19	33.29
Total Renewable	79.16	113.92	157.97	169.07
Retail Sales	1,172	1,184	1,196	1,220
% Renewable	6.75%	9.62%	13.21%	13.86%
% Renewable w/o Hoover*	2.23%	4.98%	8.61%	9.35%

** 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.*

The amended and revised contract includes performance guarantee terms. Ameresco must successfully complete the project on time. It is PWP's intent to abandon this project if any further delays, cost increases, or changes in output are proposed by Ameresco.

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 received a number of additional proposals that have been considered, including the proposed Ameresco Landfill Gas Project.

Initially, this Project was selected by SCPPA due to competitive fixed-cost pricing, appropriate size that matches member interest, Project technical feasibility (proven technology and multi-unit reliability), location and transmission availability, and the relatively low risk profile of a volumetric contract that has no

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associated fixed charges. Pasadena will only pay for the energy actually received from the Project. Additionally, the location is such that it will have added benefits to local air quality by destroying green house gases emitted from the Chiquita Canyon Landfill in Valencia, California.

Although the price will be higher under the amended agreement, the Project remains a cost effective in comparison to other available renewable resource alternatives.

REVISED POWER PURCHASE AGREEMENT SUMMARY

Source: 8MW Landfill Gas electric generating facility ("Project"), to be located at the Chiquita Canyon Landfill in Valencia, California, and developed, owned and operated by Ameresco Chiquita Energy LLC ("Ameresco")

Quantity: Actual metered output from PWP's contract share (4MW) of the Project, or approximately 33,300MWh per year

Delivery: Delivered unit contingent firm to high side of step up transformers that interconnect with SCE grid for delivery into the California ISO at SP-15

Term: 20 years

Price: New fixed price of \$65.25/MWh for energy produced, with no escalation over the term, plus costs associated with the Scheduling Agreement and transmission.

SCPPA will purchase the entire output of this facility and resell this output to participating SCPPA members. Currently, the Cities of Glendale (33.33%), Burbank (16.67%), and Pasadena (50%) have expressed interest in this project.

Due to uncertainties in the actual Project cost and feasibility prior to completion of detailed design, Ameresco and SCPPA has retained the right to terminate this contract. In the event this occurs, Pasadena's contracts with SCPPA (if executed) would likewise be terminated without incurring any costs.

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 for this service is a fixed monthly fee, which will translate to about \$1.00/MWh.

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 at a fixed price of \$65.25/MWh or 6.525¢/kWh, without 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 new project's price is somewhat higher than the original project's price, the price is still competitive with market prices. Being fixed for the term of the contract will contribute to PWP's rate stability objectives and it will not significantly increase near-term purchased power costs versus alternative short-term market supplies.

At a 4MW Project share, PWP's annual cost for the expected average output of 33,300MWh (approx 95% capacity factor) is \$2.17million. Based on current market forecasts provided by Henwood Energy Services, Inc. that Pasadena uses for stranded investment calculations, the Project cost is expected to average \$300,000 per year higher than non-renewable local spot market energy sources over the 20 year contract, resulting in a system-wide average energy rate impact of approximately 0.023¢/kwh over the life of the agreement. This is commonly known as the "premium" paid for the renewable resource. Because of the price is fixed, PWP anticipates it will be at or below market prices beginning around the year 2020.

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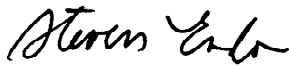
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Renewable energy is an authorized use of Public Benefits Charge ("PBC") funds collected from all customers pursuant to Pasadena's RPS and Assembly Bill 1890 as described in Public Utilities Code Section 385. To the extent such funds become available 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:

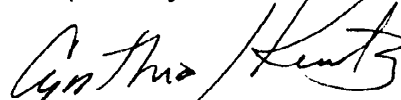
At PWP's planned 4MW Project share, this renewable resource Power Purchase Agreement is expected to cost an average \$300,000 per year more than generic non-renewable spot market power purchases, resulting in a rate premium (spread across all Pasadena customers) of approximately 0.023¢/kwh during the life of the agreement. The impacts will be 67% greater if PWP contracts for the maximum potential 6.67 MW share. All costs (and credits) associated with these Contracts will be recovered in the Energy Charge component of Pasadena's electric energy rates, and will have no impact on the General Fund.

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Respectfully submitted,



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