

Agenda Report

April 9, 2007

To: CITY COUNCIL
Through: MUNICIPAL SERVICES COMMITTEE

From: CITY MANAGER

Subject: DIRECT THE CITY ATTORNEY TO DRAFT AN ORDINANCE AND RETURN WITHIN 60 DAYS APPROVING THE MILFORD WIND CORRIDOR PHASE I, LLC WIND GENERATION PROJECT POWER SALES AGREEMENT AND AUTHORIZE THE CITY MANAGER TO ENTER INTO THIS AGREEMENT WITH THE SOUTHERN CALIFORNIA PUBLIC POWER AUTHORITY FOR THE PURCHASE OF FIVE MEGAWATTS OF THE PROJECT'S OUTPUT AT AN ANNUAL AVERAGE COST OF APPROXIMATELY \$947,000 PER YEAR OVER 20 YEARS

RECOMMENDATION:

It is recommended that the City Council direct the City Attorney to draft an ordinance and return within 60 days approving the Milford Wind Corridor Phase I, LLC Wind Generation Project (Project) Power Sales Agreement (PSA) and authorize the City Manager to enter into the PSA with the Southern California Public Power Authority (SCPPA) for a 5 MW (2.5% of 200 MW) share of the Project. This PSA is exempt from competitive bidding pursuant to City Charter Section 1002(h), contracts with other governmental agencies or their contractors.

BACKGROUND:

Since 2003, the City has pursued a goal to be a model of environmental stewardship. Towards that end, the City has adopted a number of policies and resolutions to achieve that goal:

- A. On October 13, 2003, The City Council adopted a renewable portfolio standard (RPS) for Pasadena Water and Power (PWP). 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 and 20% by 2017;
- B. On September 18, 2006 the City of Pasadena adopted the United Nations Urban Environmental Accords and endorsed the US Mayors' Climate

Protection Agreement. One of Pasadena's goals under the UEA is to reduce greenhouse gas (GHG) emissions to 7% below 1990 levels by 2012; and

- C. The City also fully supports and actively strives to fulfill the principles of environmental laws recently passed by the State legislature:
1. AB-32, "California Global Warming Solutions Act of 2006: Greenhouse Gases," was signed into law on September 27, 2006. AB-32 is intended to reduce California's GHG emissions to 1990 levels by 2020;
 2. SB-107, which accelerates the state's RPS to require retail sellers of electricity (excluding municipal utilities) to procure at least 20% of their retail sales from renewable power by 2010 instead of 2017. Municipals are requested, and being pressured, to similarly accelerate their RPS goals; and
 3. AB-1368, which sets limits on carbon dioxide (CO₂) emissions of new contracts signed by utilities in California. While the specifics are still being negotiated, this zero-carbon resource will comply.

The proposed Agreement is in compliance with the RPS and aids the City in achieving its environmental goals. This new renewable resource will help Pasadena meet load without additional GHG emissions in alignment with AB32 and AB1368. With this agreement, Pasadena will have exceeded its current RPS goals established in 2003 and approach the accelerated RPS of SB107 (see Table 1, below).

PWP's share of the Project will be 5 MW (2.5% of 200 MW) of the Project capacity. As a result of purchasing this energy, Pasadena's renewable energy portfolio will increase by approximately 12,700 MWh per year (at a projected 29% capacity factor), representing about 1% 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 which currently includes the High Winds Energy Center in Solano County, the Ormat Geothermal Project in Imperial Irrigation District, the Minnesota Methane Landfill Gas Generator Project in West Covina, the Ameresco Landfill Gas Generation Project in Valencia, plus hydroelectric energy from Azusa Hydro and Hoover Dam. Upon successful completion and operation of this additional wind project and the Ameresco landfill gas projects in FY2009 and FY2008, respectively, Pasadena's renewable energy resources portfolio will be able to supply approximately 228 GWh of energy per year, or 18.5% of Pasadena's FY2010 total annual retail sales as

shown in Table 1 below:

Table 1: Renewable Energy Portfolio Summary (GWh)

FY	2007	2008	2009	2010
Hoover	55	55	55	55
Azusa	5	5	5	5
PPM Wind	17	17	17	17
Geothermal	11	12	12	12
Land Fill Gas (current)	37	75	75	75
Land Fill Gas (Ameresco)		26	53	53
UPC Wind			6	13
Total Renewable	125	190	223	230
Retail Sales	1,205	1,217	1,229	1,241
% Renewable	10.4%	15.6%	18.1%	18.5%
% Renewable w/o Hoover*	5.8%	11.1%	13.7%	14.1%

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.

Because this project includes acquisition of real property through leases with a private entity and the United States Bureau of Land Management, counsel for SCPPA have advised the Participants that each City must adopt an ordinance rather than a resolution approving this agreement per Government Code Section 54241 which provides in substance that certain types of facilities agreements between a city and a public leaseback corporation which require payments by the city to be used by the corporation to pay principal and/or interest on financing bonds must be adopted by ordinance. This statute may apply to the Power Sales Agreement and, accordingly, it is prudent to approve the Power Sales Agreement by ordinance, as provided by this statute.

Project Selection Process

In September 2005, SCPPA issued a third Request for Proposals (RFP) for renewable energy projects on behalf of its members, including Pasadena. A total of 30 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 17 proposals for further consideration.

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 price.

Although the original proposal from Milford was to provide a straight volumetric sale of electricity, Milford was open to additional financial, operational, and administrative enhancements that would bring costs down from the original proposal. These enhancements are fully discussed in the "Project Cost and Financing" section, also below.

The Agreement also allows for ownership of the facilities by SCPPA which is also described in the "Project Cost and Financing" section below.

Power Sales Agreement Summary

Source: Milford Wind Corridor Phase I Project, a new 200 MW wind generating facility to be constructed in Millard County, Utah. The total output of the facility will be divided among three SCPPA members: LADWP (185 MW, 92.5%), Burbank (10 MW, 5%), and Pasadena (5 MW, 2.5%).

Capacity: Pasadena's Project share is 2.5%, or 5 MW.

Energy: The Project's guaranteed minimum energy output is 8,500 GWh over 20 years or 425 GWh per year on average (10,625 MWh per year for Pasadena). Total Project output is expected to average 508 GWh per year (12,711 MWh per year for Pasadena)

Delivery: IPP Switching Station in Delta, Utah, down the Southern Transmission System (STS) to the LADWP Adelanto Switching Station to LADWP's Sylmar Receiving Station to Pasadena's T.M. Goodrich Station.

Term: 20 years, with an early buyout option at the fair market value price not to exceed \$150 million (\$3.75 million for Pasadena) on the 10th anniversary of the commercial operation date.

Price: SCPPA will prepay Milford for the guaranteed minimum energy output at an expected average cost of \$32/MWh. Energy generated in excess of the guaranteed minimum energy output will cost \$56.94/MWh the first year and be escalated at 1.75% per annum thereafter. Pasadena's share of estimated excess energy output is 2,086 MWh per year. The total cost of the energy from the project is expected to be \$65.05 per MWh the first year and \$74.48 per MWh on average over the term of the agreement.

The Project is expected to begin commercial operation by January 1, 2009.

SCPPA will purchase the entire output of this facility and resell this output to the participating SCPPA members. Currently, the Cities of Burbank (10 MW) and Pasadena (5 MW) and the LADWP (185 MW) have agreed to purchase shares in this Project, subject to approval by their respective governing boards.

Project Scheduling

The Milford Wind Corridor Phase I project is located in Millard County, Utah approximately sixty miles from the Intermountain Power Project (IPP) Switching Station located in Delta, Utah. The output of the plant will be delivered to SCPPA at the IPP Switching Station. As an IPP participant, Pasadena will be allowed to take delivery of the power from the Project at the IPP switching station and transmit it down Pasadena's existing share of the Southern Transmission System to Pasadena. It is anticipated that transmission line losses will be the only extra costs incurred for the delivery of power from the Project. However, due to the transient nature of wind generated electricity, the Participants are examining options for truing the Project's output including using IPP generation to balance the Project's output to schedule on an hourly basis, implementing dynamic scheduling capability for IPP for real-time balancing, relying on the CAISO system, or even contracting with LADWP to manage intra-hour fluctuations. The cost of this truing up or balancing service is unknown at this time. However, PWP currently has a similar truing up arrangement with Anaheim for delivery of Ormat geothermal project output at market rates.

Project Cost and Financing

As noted above, SCPPA and Milford agreed to structure this transaction as a 20 year Power Purchase Agreement (PPA) with a 10-year buyout provision. SCPPA will sign a PPA with Milford to take delivery of the entire output of the Project then sell this energy to the Project participants under terms of the PSA. Milford will retain ownership of the generating facility unless and until SCPPA executes the buyout option. This arrangement enables SCPPA to extract maximum benefit by taking advantage of Production Tax Credits (PTC), depreciation laws, and tax-exempt bond financing opportunities.

To further decrease the cost of power from the Project, SCPPA will prepay a portion of the Project's anticipated energy output. In order to realize this portion of the transaction, the generating plant's output has been divided into two types: a guaranteed minimum output paid for by SCPPA with a prepayment for the entire amount and an excess generation output paid for by SCPPA with a volumetric charge. Milford expects and guarantees that over a 20 year period the plant will generate a minimum of 8,500 GWh. SCPPA will issue \$270 million in tax-exempt bonds to fund the prepayment of the minimum generation amount which will be secured by the Project participants' PSAs, much like other SCPPA project debt which has been sold since the early 1980s.

Milford estimates that the plant will generate an additional 1,669 GWh in excess of the guaranteed minimum energy over the 20 year contract life. This incremental energy will be purchased by SCPPA at a volumetric rate of \$56.94/MWh the first year and escalated at 1.75% per year thereafter. An

additional benefit of bifurcating the plant output into guaranteed minimum/excess generation is that the volumetric payment will serve as an incentive to Milford staff to operate and maintain the plant at optimum levels.

The SCPPA/Milford PPA includes an option for SCPPA to purchase the plant in the tenth anniversary of commercial operation at prevailing market prices, not to exceed \$150 million. By securing this buyout option, SCPPA and the parties will be able to reach their goal of plant ownership while taking advantage of Milford's production tax credits eligibility. This innovative approach to the purchasing and financing of this project is projected to save the Participants \$38 million over the life of the project as compared to a straight purchase of the facilities at December 31, 2008, assuming the maximum \$150 million buyout purchase price. Savings can be greater depending on the appraised value of the plant in ten years.

While ownership of renewable energy generating facilities is desirable for reliability and stability reasons, authority to execute the buyout option is not being requested at this time. At this time, the future value and effectiveness of the Project, terms of any bond financing, and even the desirability of owning the Project are not known. However, when all facts are known and as the tenth anniversary of commercial operation approaches, Staff will come back to apprise Council and possibly request authorization to exercise the buyout option.

The average annual cost over the life of the project will be approximately \$947,000 per year. Based on the latest available market forecasts provided by Global Energy Decisions that Pasadena uses for stranded investment calculations, the Project cost is expected to average approximately \$307,000 per year more than non-renewable local spot market energy sources, resulting in a system-wide energy rate impact of less than 0.023¢/kwh during the life of the agreement. This is commonly known as the "premium" paid for the renewable resource.

While the Project's price is somewhat higher than current market prices, it will contribute to PWP's rate stability and environmental objectives. It will not significantly increase near-term purchased power costs versus alternative short-term market supplies.

The projected 20 year average price of \$74.48 per MWh is about \$10 per MWh to \$12 per MWh higher than the average cost of energy procured under previous renewable energy project agreements. This higher average cost is largely attributable to the lower capacity factor of wind generated energy projects as compared to geothermal and landfill gas projects, the provision in the agreement to purchase the facilities in the 10th year for reliability reasons, a general inflation in parts, labor, and real estate costs, and an increase in demand for renewable

energy resources due to changes in State law and more aggressive pursuit by neighboring utilities to meet their RPS'.

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 remain 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.

In the event Milford becomes ineligible to receive PTC, the PPA has provisions to convert to an outright purchase of the facilities from the first day of operation. Under the converted PPA, SCPPA will purchase the plant outright at a cost of \$2,050 per kW. The total cost of the plant would be \$410 million. There are risk mitigation safety nets built into the contract (see "Risk Mitigation" section below) which will give SCPPA up to one year after commercial operation date to issue bonds for that amount.

Risk Mitigation

Because the Agreement contains some unique and innovative purchasing and financing arrangements for the Project as described above, it also carries with it some extra risk. However, special provisions have been negotiated to mitigate the foreseeable financial and operational risks:

Prepay: To reap the benefits of the proposed structure, a substantial prepayment must be made to a single purpose entity with no assets other than the facility. Since SCPPA is interested in ultimate ownership of the facility, the agreement was structured to use the facility itself as security for the prepayment. SCPPA will receive a first deed of trust securing all obligations of Milford under the agreement. The construction financing will be paid off at closing, ensuring SCPPA's first position. If Milford defaults on the PPA or seeks bankruptcy protection then SCPPA could foreclose on the facility.

Energy: The favorable average energy costs are based on a minimum guaranteed volume of 8,500 GWh and excess energy generation of 1,669 GWh over the life of the Project. The PPA is absolute on delivery of the minimum guaranteed volume and Milford is required to supply equivalent energy, including Renewable Energy Credits, for any shortfall of energy. An attractive incremental price

for any excess energy generated at the plant serves as incentive for Milford to maximize and optimize plant operation.

- Transmission:** Delivery of power to the City of Pasadena depends upon the availability of the IPP STS. However, the IPP/STS contracts with Utah participants expire in 2027 while one year of the Agreement remains at that time. However, with the IPP contract concurrently expired, the STS should remain largely unloaded. As such, it is anticipated that PWP can purchase transmission capacity rights through the STS owners' OASIS site for the remaining year of the Agreement.
- Bankruptcy:** The PPA requires that Milford Wind Corridor Phase I, LLC, remain a single purpose entity during which the wind project shall be its only business purpose. The PPA also includes various covenants designed to minimize the need for bankruptcy protection.
- Leases:** The facility is to be constructed on property leased from one large landowner, the U.S. Bureau of Land Management, the State of Utah, and several small individual owners. SCPPA has negotiated a lease form that will ensure the assignability of the private leases at the time of purchase and step-in and cure rights should Milford fail to meet its obligations pursuant to the leases. Also, Milford Wind Corridor Phase I, LLC, will be the direct lessee for all generator and transmission property, and will not hold subleases, which may be subject to the performance of other unrelated lessees.
- Wind:** The wind resource is obviously weather dependent, but it is relatively predictable on an annual basis. At least 90-days prior to the commercial operation date, SCPPA will receive an estimate of guaranteed generation, prepared by a third-party wind expert, based on the contract capacity of the facility.
- Quality:** The PPA has a requirement that Milford adhere to prudent utility practices and an internal quality assurance program. SCPPA is protected by having the option not to purchase the facility if the quality of construction or maintenance is not satisfactory.
- PTC:** The expected commercial operation date is prior to the expiration of current production tax credits ("PTC") legislation, however the agreement does have some allowance for the commercial operation date to slip beyond said expiration, and in that case an extension of the PTC legislation would be required to complete the

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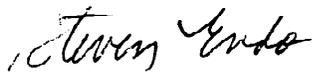
base transaction. If either party believes that the PTCs are likely to be renewed, then there will be a waiting period of up to one year in which SCPPA would not make the prepayment on the commercial operation date and SCPPA would pay an additional \$52.50/MWh until the PTC issue is resolved, but not longer than one year. If the PTCs are not extended by the end of the one year waiting period, then SCPPA would be required to either (i) pay an additional monthly payment to Milford to make them whole for the value of the PTCs or (ii) purchase the facility for \$2,050 per kW of installed capacity. The anticipated cost of purchasing the facility at the Commercial Operation Date is \$410 million.

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Fiscal Impact:

This renewable resource Power Sales Agreement is expected to cost on average \$307,000 per year more than generic non-renewable spot market power purchases, resulting in a rate premium (spread across all Pasadena customers) of less than 0.023¢/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.

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