



State of Rhode Island and Providence Plantations

DEPARTMENT OF ATTORNEY GENERAL

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Patrick C. Lynch, Attorney General

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PUBLIC UTILITIES COMMISSION

February 15, 2010

VIA HAND DELIVERY & ELECTRONIC MAIL

Luly E. Massaro, Commission Clerk
Rhode Island Public Utilities
89 Jefferson Boulevard
Warwick, Rhode Island 02888

Re: Docket 4111 – Review of Proposed Town of New Shoreham Project Pursuant to RI General Laws § 39-26.1-7
Response to Data Request

Dear Ms. Massaro:

Enclosed please find ten (10) copies of the Division of Public Utilities and Carriers supplemental response to Deepwater Wind Block Island, LLC's First Set of Data Requests 1-11 (o) in the above-captioned proceeding. The Division in response 1-11 (o) referenced two pdf documents, which the Division inadvertently failed to file with said response. The referenced documents are attached to complete the response of the Division.

Thank you for your attention in this matter and if you should have any questions, please feel free to contact me.

Very truly yours,

Jon G. Hagopian
Special Assistant Attorney General

JGH
Enclosure

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
PUBLIC UTILITIES COMMISSION

IN RE: REVIEW OF PROPOSED)
TOWN OF NEW SHOREHAM)
PROJECT PURSUANT TO)
R.I. GEN. LAWS § 39-26.1-7)

DOCKET No. 4111

**The Division of Public Utilities and Carriers Supplemental Responses to Deepwater Wind
Block Island, LLC's Data Requests
Set 1**

DWW 1-11: Mr. Hahn's Exhibits RSH-6, RSH-7 and RSH-8 compare Deepwater Wind's Block Island Wind Farm Project to 17 other generic and specific projects. For these exhibits:

- a. Please explain what is meant by "Gross Levelized Cost" as it applies to the 17 other projects.
- b. Please explain what is meant by "Net Levelized Cost" as it applies to the 17 other projects.
- c. Please explain what is meant by "Adjusted Gross Levelized Cost" as it applies to the 17 other projects.
- d. What is the delivery point assumed for each of the other 17 projects?
- e. Please identify which projects are: (i) located within New England, or (ii) located in New York, New Brunswick, or the Hydro Quebec system and have its output deliverable into New England.
- f. Are any of the prices for the 17 other projects delivered on Block Island?
- g. If the answer to f. is "yes," what costs and assumptions are included?
- h. If the answer to f. is "no", please have Mr. Hahn calculate the per MWH cost for all projects listed in Exhibit RSH-6 including the cost of a transmission line to deliver such power to Block Island.
- i. Are there any transmission costs associated with the delivery of power to their respective PPA delivery points for the 17 other projects?
- j. If the answer to i. is "yes," how are these costs included in his real levelized cost calculations?

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PUBLIC UTILITIES COMMISSION

- k. Please provide copies of all technical and financial assumptions, calculations, workpapers, and supporting documentation used to develop the real levelized prices for the 17 projects other than Deepwater Wind in each of Exhibits RSH-6, RSH-7 and RSH-8.
- l. What annual average capacity factor is assumed for each of the 17 other projects?
- m. Please identify which of these projects is larger than the 30 MW limit that applies with respect to this Docket in light of RI G.L. Section 39-26.1-7?
- n. For each project greater than 30 MW, what would its real levelized price be in each of Exhibits RSH-6, RSH-7 and RSH-8 if the project were constructed at a size of 30 MW?
- o. The Linden Wind Energy and Milford Wind facilities are identified by Mr. Hahn as both being “located in California”.
 - i. Please identify the town or county on California where each project is located.
 - ii. Provide copies of the PPAs and any amendments that are in effect for each project.
 - iii. When did the projects achieve commercial operation?
- p. For the projects entitled “wind offshore”, Euro offshore-DPN”, and “BlueWater Wind”, for each project please identify the water depth and a distance from shore.

Supplemental Response:

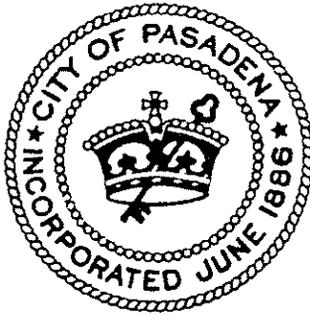
- a. The Gross Levelized Cost for the 17 other projects is calculated in the same manner as described in Mr. Hahn’s testimony.
- b. The Net Levelized Cost for the 17 other projects is calculated in the same manner as described in Mr. Hahn’s testimony.
- c. The Adjusted Gross Levelized Cost does not apply to the other projects. Only the Deepwater PPA price was adjusted, as explained in Mr. Hahn’s testimony.
- d. The assumed deliver point is the existing power grid.
- e. All but the projects labeled as Euro offshore-DPN, Bluewater Wind, Linden CA wind, geothermal, and Milford CA wind have output that is deliverable into New England.
- f. No. As stated in the testimony of Mr. Hahn, the commercially reasonable benchmark for newly developed renewable energy projects does not include a requirement that the project to which Deepwater is being compared deliver their output directly to Block Island.
- g. Not applicable.
- h. The requested calculation has not been performed by Mr. Hahn.

- i. Yes.
- j. The project labeled as offshore wind included a 20% adder to its capital costs for transmission, which is consistent with the Deepwater project. The project labeled as onshore wind included a 10% adder to its capital costs for transmission. For the other projects, connection to the grid was included in the capital costs.
- k. Please refer to the response to DWW 1-1.
- l. Please refer to the response to DWW 1-1.
- m. Please refer to the response to DWW 1-1.
- n. The requested calculation has not been performed by Mr. Hahn.
- o. The Milford Wind Project is located in Millard County, Utah, and a portion of its output was purchased by the City of Pasadena, CA. Relevant documentation is provided in the attached file labeled Pasadena Milford Terms.pdf. The Linden Wind Project is located in Klickitat County, Washington, and a portion of its output was purchased by the City of Glendale, CA. Relevant documentation is provided in the attached file labeled Glendale - Linden Wind.pdf. Mr. Hahn's testimony should have stated that the purchasers of the output are located in California. Mr. Hahn does not know the date of commercial operation of these projects. Since First Wind, an affiliate of Deepwater appears to own the Milford Wind Project, it is in a better position to know the details of this project.
- p. Mr. Hahn does not know the exact water depth of these projects.

Attachments:

Pasadena Milford Terms.pdf
Glendale - Linden Wind.pdf

Prepared by: Richard S. Hahn and Division Counsel Jon G. Hagopian (with respect to objection)



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

SCPPA Milford Wind Energy Contract

April 9, 2007

Page 7 of 10

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

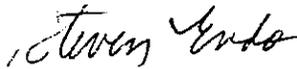
base transaction. If either party believes that the PTCs are likely to be renewed, then there will be a waiting period of up to one year in which SCPPA would not make the prepayment on the commercial operation date and SCPPA would pay an additional \$52.50/MWh until the PTC issue is resolved, but not 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.

1

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.

Prepared by:



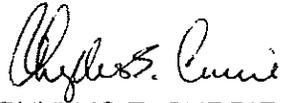
STEVE ENDO
Principal Engineer
Power Supply
Water and Power Department

Respectfully submitted,



CYNTHIA J. KURTZ
City Manager

Approved by:



PHYLLIS E. CURRIE
General Manager
Water and Power Department



CITY OF GLENDALE CALIFORNIA
REPORT TO CITY COUNCIL

August 4, 2009

AGENDA ITEM

Linden Wind Project Power Sales Agreement with the Southern California Public Power Authority and Contract for Sale and Purchase of Linden Wind Energy with the Los Angeles Department of Water & Power and the Southern California Public Power Authority.

1. Ordinance approving the Linden Wind Energy Project Power Sales Agreement.
2. Resolution authorizing the Linden Wind Energy Project Power Sales Agreement and Contract for Sale and Purchase of Linden Wind Energy.

COUNCIL ACTION

Public Hearing []	Ordinance [X]	Consent Calendar []	Action Item []	Report Only []
Approved for <u>August 4, 2009</u> calendar				

ADMINISTRATIVE ACTION

Submitted
Glenn Steiger, General Manager-GWP.....
 Prepared
Jack Dolan, Energy Marketer/ Trader.....
 Reviewed
Steven G. Lins, Assistant General Manager-Supply.....
 Approved
James E. Starbird, City Manager.....
 Reviewed
Scott H. Howard, City Attorney

Signature

RECOMMENDATION

It is recommended that the City Council pass an ordinance approving the Linden Wind Energy Project Power Sales Agreement, and adopt a resolution authorizing the City Manager, or in the City Manager's absence, the General Manager of Glendale Water & Power, to execute the Linden Wind Energy Project Power Sales Agreement and Contract for Sale and Purchase of Linden Wind Energy.

SUMMARY

Glendale *Water & Power* (Glendale) has participated with other Southern California Public Power Authority ("SCPPA") members in investigating renewable energy resources. These resources include generation of energy from small-hydro, wind, solar, geothermal, biomass, and landfill gas. Glendale and the Los Angeles Department of Water & Power ("LADWP") have determined that this proposal for the purchase of wind-powered electrical energy provides an option for a reliable and cost-effective renewable resource, as well as for resource diversification.

Through SCPPA, LADWP and Glendale have negotiated the Linden Asset Purchase Agreement (Linden APA) with Northwest Wind Partners, LLC (Seller). Upon execution of the SCPPA-LADWP and SCPPA-Glendale Linden Wind Project Power Sales Agreements (PSAs), SCPPA will execute the Linden APA. The Linden APA is described in detail in the remainder of this report.

The Linden Wind Project (Project), located in Klickitat County, Washington, will have a capacity of 50 MW. The Project will be completed in March 2010. The Project's substation will interconnect with Klickitat Public Utility District's (KPU D's) E.E. Clouse Substation, and then connect to Bonneville Power Administration's (BPA's) Harvalum Substation, approximately nine miles from the Project, on a 230 kV transmission line. Glendale will make additional arrangements to have the energy delivered to the Nevada-Oregon Border (NOB) on the Pacific HVDC Intertie (Intertie) for ultimate delivery to the Glendale electric system.

The SCPPA-LADWP and SCPPA-Glendale PSAs for the Project set forth the participant shares as follows:

- LADWP 45 MW, or 90 percent of the Project.
- Glendale 5 MW, or 10 percent of the Project.

The Linden APA provides for SCPPA to purchase the assets of Northwest Wind Partners, LLC, which includes turbines, towers, collector system, substation, transformers, transmission lines, leases of Project land, and transmission credits.

After the Project bonds are paid off, SCPPA will transfer ownership of the Project to LADWP and Glendale in accordance with their project participant shares, with certain conditions described in the Contract for Sale and Purchase of Linden Wind Energy (Layoff Contract).

LADWP will serve as the Project Manager to administer the Project on behalf of SCPPA and Glendale. LADWP will bill SCPPA for this service and SCPPA will bill Glendale for its share of costs.

FISCAL IMPACT

This fiscal impact analysis is based on the following assumptions:

- Glendale will recapture its entire Project share of 5 MW.
- The Project will generate the anticipated amount of energy.
- SCPPA's interest rate on its bonds is 5 percent.
- Costs for operation and maintenance are \$10.00/MWh and shaping and transmission are \$15.00-\$25.00/MWh.

Starting in fiscal year 2013-14, each year, Glendale will:

- Receive an annual 14,500 MWh of energy.
- Pay approximately \$1.5-\$1.65 million for all of its SCPPA and transmission costs related to delivering its Project output into Glendale.
- Pay approximately \$102-\$112/MWh for all of its SCPPA and transmission costs related to delivering its Project output into Glendale.

In twenty years, after the Project bonds have been paid off, Glendale will have paid between \$30- and \$33-million to SCPPA under the PSA, including transmission to the Intertie.

Annual expenses for the PSA and transmission are included under Account No. 45510, Fund 552.

BACKGROUND

The City Council adopted a Renewables Portfolio Standard (RPS) for Glendale on December 16, 2003. The RPS calls for the addition of cost-effective renewable resources to meet 20%, and the possibility of 23% of Glendale's retail electric energy needs by 2017. Additionally, the RPS outlined the strategies for accomplishing said goals through a combination of long-term, short-term, and local projects. Acquiring renewable energy associated with this Project would be an important step in meeting Glendale's RPS goals, and in reducing the production of greenhouse gases.

In 2007 and 2008, SCPPA received sixty-three (63) proposals for renewable energy projects. Of these, twenty-six (26) were considered and fourteen (14) developed into negotiations. Glendale ranked the proposals based on factors such as costs, delivery to Glendale on available transmission interconnection points, likelihood of completion, and how well it would complement other Glendale energy sources.

This Project met Glendale's requirements because it was competitively priced and the ultimate point of delivery of energy is to NOB, where Glendale has transmission rights.

Description of the Linden Wind Project

The Project is being developed by Northwest Wind Partners, LLC, a subsidiary of enXco, Inc. in Klickitat County, Washington, on the northern shore of the Columbia River. The Project occupies approximately

three square miles and will have a capacity of 50 MW. The Project is designed to use 25 wind turbine generators provided by REPower, Inc. The COD is expected in March 2010.

The Project's substation will interconnect with KPUD's E.E. Clouse Substation, approximately nine miles from the Project, and then connect to BPA's Harvalum Substation on a 230 kV transmission line. Glendale will make additional arrangements to have the energy delivered to the NOB on the Intertie for ultimate delivery to the Glendale electric system.

The cost of purchasing the assets of the Project is \$139,950,000, or \$2,799 per kW. The Project assets include turbines, towers, the collector system, leases of Project land, the switchyard, substation and transmission lines.

Reasons for Selection of the Linden Wind Project

The Project is one of the better alternatives available from the SCPA proposals for the following reasons:

- The price of the energy associated with the Linden APA is competitively priced.
- SCPA or Glendale will arrange to transmit the Project output to Glendale through BPA's system to the point at NOB on the Intertie. Glendale has ownership rights in the Intertie and, consequently, will be able to deliver the energy to its service area.

The Linden APA

The Linden APA provides for the purchase of the Project for \$139,950,000, which includes turbines, towers, collector system, substation, transformers, transmission lines, leases of Project land, and transmission credits.

The following schedule of Project milestones sets forth the payment schedule by SCPA to the Seller.

Milestone	Payment Amount
Issue Notice to Proceed (estimated 9/1/09)	\$13,995,000
Commence Digging Foundations (estimated 11/01/09)	\$13,995,000
Delivery of Turbines to Site (estimated 12/01/09)	\$34,987,500
Mechanical Completion 23 of 25 Turbines	\$27,990,000
Substantial Completion 23 of 25 Turbines	\$41,985,000
Final Completion (estimated 3/31/10)	\$6,997,500
Total	\$139,950,000

Transmission and Scheduling Considerations

Additional arrangements are necessary for Glendale to effectively use the energy generated from this project.

- The Linden APA transfers approximately \$10.5 million of credits to SCPPA for use of the BPA transmission system from the point of delivery, E.E. Clouse Substation, to Mid-C. In order for Glendale to bring the energy into its system, the project output must be delivered from Mid-C to the Intertie on which Glendale owns an undivided interest in transmission.
- The delivery of Project energy into the Glendale system must be predictable. The Project generates energy only when the turbines are turning from wind. All schedules for energy are non-binding. The energy from the Project must therefore be "shaped" to make its delivery predictable.

If and when Glendale takes output from the Project, it will enter into an agreement with another party that will take delivery of its Project output at Mid-C and redeliver the energy in a shaped form to Glendale on the Intertie. At this time, the total cost to provide this shaping and transmission service from Mid-C to the Intertie is approximately \$15-\$25/MWh.

The Layoff Contract between LADWP, SCPPA and Glendale

Through the Layoff Contract, Glendale will have a three-year window of time to determine the amount of Project output it will take under its PSA. Several factors will be involved in its decision, including the availability and cost of other renewable resources, the performance of the Project, legislative and regulatory developments, and the results of asset optimization studies. The Layoff Contract provides Glendale with a no-cost option to take three years to make critical decisions that will affect its electric system and customers for at least the next twenty years.

The Layoff Contract provides for LADWP to purchase Glendale's 5 MW share of the Project, with the option for Glendale to recall any portion of its share within three years of the COD. The Layoff Contract contains the following key terms:

- Glendale will be participant for a 5 MW share under the PSA for the life of the PSA.
- LADWP will take the output associated with Glendale's entire Project share for the life of the PSA and reimburse Glendale for all of its SCPPA costs.
- Glendale will have a one-time option to recapture any portion of its Project share by providing 60-days notice to LADWP prior to the third anniversary of the Project's COD.
- If Glendale exercises its recapture option, Glendale would begin taking its recaptured share on the first day of the month following the third anniversary of the Project's COD.
- Glendale shall have all future rights and residual value for that portion of its Project share that is recaptured.
- LADWP's obligation to reimburse Glendale for its non-recaptured share of SCPPA costs is as equally binding as LADWP's obligation to pay its own share of costs to SCPPA.

- If Glendale establishes a more aggressive RPS program than the one established on December 16, 2003, then Glendale may request any portion of its Project share prior to the third anniversary from the Project's COD with 60-days notice.

Project Economics

The following factors are included in the analysis of project economics:

- Energy: The amount of energy each year that will be generated from the Project, assuming a capacity of 50 MW and a capacity factor of 33 percent, is 145,000 MWh.
- Debt Service Cost: The annual amount required of SCPPA to pay off the cost of the Project of \$139,950,000 at an interest rate of five percent is \$11.23 million per year for twenty years.
- Operating and Maintenance Cost: Estimated to be \$10.00 per MWh based on preliminary proposals.
- Transmission Cost: Estimated to be \$15.00-\$25.00/MWh to shape and deliver energy to the Intertie for each scenario.

The following table summarizes Glendale's average annual cost for energy and cost per unit of energy for the first twenty years of the Project, assuming that Glendale recaptures all 5 MW of its Project share:

Cost Component	Amount (\$ million)	Cost (\$/MWh)
Debt Service	1.123	76.76
O&M	0.145	10.00
Transmission	0.218-0.363	15.00-25.00
Total	1.486-1.631	101.76-111.76
Based on Glendale receiving 14,500 MWh of energy		

Comments on the table:

- If Glendale does not recapture any of its Project share, it will have no payments and no Project output delivered to it.
- If Glendale recaptures any amount less than its entire Project output, 5 MW, the amounts of expenditure in the table would be proportionately reduced, but the cost per MWh would remain the same.

EXHIBIT(s)

(none)

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY OF GLENDALE, APPROVING
THE LINDEN WIND ENERGY PROJECT POWER SALES
AGREEMENT

WHEREAS, pursuant to the provisions relating to the joint exercise of powers found in Chapter 5 of Division 7 of Title 1 of the Government Code of the State of California, as amended (the "Joint Powers Act"), the City of Glendale (the "City") and certain other public agencies (collectively, the "Members") have entered into a Joint Powers Agreement, as amended (the "Agreement"), creating the Southern California Public Power Authority (the "Authority"), a public entity separate and apart from the Members; and

WHEREAS, the Authority proposes to enter into an Asset Purchase Agreement with Northwest Wind Partners, LLC and related arrangements and mechanisms necessary to provide for the acquisition by the Authority of a wind generation project and its related properties, permits, leases, facilities, rights, entitlements, structures, and administrative and operating agreements and the attendant rights, entitlements and assets associated therewith, including interconnection and transmission related rights and entitlements, referred to as the "Linden Wind Energy Project" and located in the State of Washington; and

WHEREAS, the Council of the City of Glendale finds and determines that it is in the best interests of the City and its residents to purchase a share of the output, rights and other tangible and intangible benefits derived by the Authority with respect to the Linden Wind Energy Project, including energy, capacity rights and environmental attributes ("Facility Output"), pursuant to the Linden Wind Energy Project Power Sales Agreement between the City and the Authority (the "Power Sales Agreement"), a form of which has been submitted to this Council; and

WHEREAS, in accordance with the Agreement and the Joint Powers Act, the Authority has the power to enter into the Power Sales Agreement to sell Facility Output of the Linden Wind Energy Project to the City; and

WHEREAS, payments by the City pursuant to the Power Sales Agreement will be used in part for payment of the principal of, premium, if any, and interest on certain of the bonds, notes or other evidences of indebtedness issued by the Authority to finance the acquisition of the Linden Wind Energy Project.

NOW, THEREFORE, BE IT ORDAINED by the Council of the City of Glendale:

1. The Council hereby approves the entering into of the Power Sales Agreement by the City.
2. Pursuant to Section 54241 of the Government Code of the State of California, this Ordinance is subject to the provisions for referendum applicable to the City.

3. The City Clerk shall certify to the passage and adoption of this Ordinance and shall cause this Ordinance to be published after adoption as required by law for ordinances of the City generally.
4. Thirty (30) days from and after its enactment, this Ordinance shall take effect and be in full force, in the manner provided by law.

Passed by the Council of the City of Glendale on the _____ day of _____, 2009.

Mayor

ATTEST:

City Clerk

APPROVED AS TO FORM



CITY ATTORNEY

DATE 7-30-09

STATE OF CALIFORNIA)
 COUNTY OF LOS ANGELES) ss
 CITY OF GLENDALE)

I, ARDASHES KASSAKHIAN, City Clerk of the City of Glendale, certify that Ordinance No. _____ was passed by the Council of the City of Glendale, California, at a regular meeting held on the _____ day of _____, 2009, and that same was passed by the following vote:

Ayes:

Noes:

Absent:

City Clerk

RESOLUTION NO. 09-__

RESOLUTION OF THE CITY OF GLENDALE, AUTHORIZING OFFICERS TO EXECUTE AND DELIVER LINDEN WIND ENERGY PROJECT POWER SALES AGREEMENT AND CONTRACT FOR SALE AND PURCHASE OF LINDEN WIND ENERGY

WHEREAS, in accordance with Ordinance No. ____ of the City of Glendale (the "City"), the City Council of the City of Glendale has authorized entering into the Linden Wind Energy Project Power Sales Agreement (the "Power Sales Agreement"), the material terms of which have been submitted to this meeting in the report entitled "Linden Wind Project Power Sales Agreement with the Southern California Public Power Authority and Contract for Sale and Purchase of Linden Wind Energy with the Los Angeles Department of Water & Power, and the Southern California Public Power Authority," between the City and the Southern California Public Power Authority (the "Authority"); and

WHEREAS, under the Power Sales Agreement the City will be entitled to 10.0000% of the facility output, including without limitation, energy, capacity rights and environmental attributes, from the Linden Wind Energy Project, a wind generation project and its related properties, permits, leases, facilities, rights, entitlements, structures, and administrative and operating agreements and the attendant rights, entitlements and assets associated therewith, including interconnection and transmission related rights and entitlements, located in the State of Washington and to be acquired by Authority (the "Linden Wind Energy Project"); and

WHEREAS, in connection with the Linden Wind Energy Project, the City intends to enter into a Contract for Sale and Purchase of Linden Wind Energy (the "Contract for Sale and Purchase of Linden Wind Energy") with the Authority and the City of Los Angeles acting by and through the Department of Water and Power ("LADWP"), the form of which has been submitted to this meeting, pursuant to which the City will sell and assign to LADWP, for the term described therein, its share of the facility output of the Linden Wind Energy Project, including associated environmental attributes, and LADWP will purchase and pay the cost of such share of the facility output, including associated environmental attributes, all as provided in the Contract for Sale and Purchase of Linden Wind Energy.

NOW, THEREFORE, BE IT RESOLVED by the Council of the City of Glendale:

1. The City Manager, or in the City Manager's absence, the General Manager of Glendale Water & Power, is hereby authorized to execute and deliver the Power Sales Agreement, with such changes, insertions and omissions as shall be approved by the City Manager, or in the City Manager's absence, the Director of Public Service (such approval to be conclusively evidenced by the execution and delivery thereof), and the City Clerk is hereby authorized to attest to such signature.

2. The City Manager, or in the City Manager's absence, the General Manager of Glendale Water & Power, is hereby authorized to execute and deliver the Contract for Sale and Purchase of Linden Wind Energy, with such changes, insertions and omissions as shall be

approved by the City Manager, or in the City Manager's absence, the General Manager of Glendale Water & Power (such approval to be conclusively evidenced by the execution and delivery thereof), and the City Clerk is hereby authorized to attest to such signature.

3. Each of the City Manager, the General Manager of Glendale Water & Power and any other officer of the City is hereby authorized to execute and deliver any and all other documents and instruments and to do and cause to be done any and all acts and things necessary or advisable for carrying out the transactions contemplated by this Resolution, including the Authority's financing of the Linden Wind Energy Project for the benefit of the City and LADWP.

4. This Resolution shall become effective immediately.

Adopted by the Council of the City of Glendale on this _____ day of _____, 2009.

Mayor

ATTEST:

City Clerk

APPROVED AS TO FORM



CITY ATTORNEY

DATE 7-30-09

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) ss
CITY OF GLENDALE)

I, ARDASHES KASSAKHIAN, City Clerk of the City of Glendale, California, do hereby certify that Resolution No. 09-____ was adopted by the Council of the City of Glendale, California at a regular meeting held on the ____ day of _____, 2009, and that same was adopted by the following vote:

Ayes:

Noes:

Absent:

City Clerk