



Los Angeles
Department of
Water & Power

geothermal

hydropower



solar

Wind



biomass

GREEN POWER

2004 ANNUAL REPORT



Dear Green Power for a Green LA Customer:

The Los Angeles Department of Water and Power (LADWP) wants to thank you for being our partner and supporting the use of clean renewable energy through your voluntary participation in the LADWP's Green Power for a Green LA Program.

2004 was an exciting year for renewable energy proponents. In June 2004, the City approved a resolution supporting a Renewable Portfolio Standard (RPS), designed to increase the amount of energy it generates from renewable power sources to 20% of its energy sales to retail customers by 2017, with an interim goal of 13% by 2010 without compromising power reliability or the financial stability of the Department and its customers.

As the LADWP acquires more renewable energy in its mix to fulfill these RPS goals, Green Power for a Green LA customers will continue to demonstrate environmental leadership since your voluntary contributions will provide renewable energy above and beyond LADWP RPS goals. As such, Green Power customers will continue to receive their specified percentage of new renewable energy in addition to the LADWP's overall renewable resources under the RPS.

The enclosed program report covers the 2004 calendar year. In this report, we have also included information about the proposed future direction of the Green Power Program. In 2004, all program demand was provided from the purchase of wind energy. We expect all future energy supplied to customers of the Green Power Program will either be from similar open market renewable energy purchases and/or from newly developed local renewable resources.

Again, we want to thank you for your continuing support of the Green Power Program and for your vision and leadership. The LADWP Green Power Program combined with our award winning customer service and low electric rates are reasons for all Angelenos to be proud.

In accordance with California power content reporting requirements, LADWP's 2005 annual power content label including the disclosure for Green Power is located at the back of this report.

Sincerely,

Los Angeles Department of Water and Power



OVERVIEW

On May 13, 1999, the Los Angeles Department of Water and Power (LADWP) launched the Green Power for a Green LA Program. Customers participate by making a voluntary contribution, with the monies going toward the purchase of additional renewable energy or to help construct renewable energy generation units. LADWP's Green Power Program is the fourth largest program in the country in terms of number of customers participating in 2004 according to a recent study by the U.S. Department of Energy's National Renewable Energy Laboratory. The Green Power Program gives Los Angeles residents, businesses, and governmental agencies a stake in helping to preserve and protect our environment through their purchases of renewable energy. The use of green power provides electricity from sources that are clean, renewable, and environmentally friendly. Available energy-efficiency products and services provided by other LADWP programs may offset the slightly higher costs of choosing green power for many customers.

PROGRAM HIGHLIGHTS

The year 2004 represented the sixth year of operation for the Green Power Program. Program customer participation derived from 26,824 residential and non-residential meters. This accounted for purchases of over 75,000 megawatt-hours (MWh) of renewable energy, enough to power 12,000 average homes in one year, which avoids 101 million pounds of CO₂ emissions¹ if generated by conventional means. In 2004, program demand was met entirely by purchases of wind power, consistent with the stated goal from the 2003 Annual Report that all future program renewable energy demand will be from newly developed local renewable resources and/or from open market renewable energy purchases.

¹ CO₂ emission reductions from the Green Power program are estimated using LADWP's 2002 California Climate Action Registry report of electricity deliveries metric (1,341.76 lbs CO₂/MWH) that has been 3rd party certified.



GREEN POWER AND THE RENEWABLES PORTFOLIO STANDARD

There have been major developments pertaining to the use of renewable energy in California over the past several years. In 2002, the California Legislature passed Senate Bill 1078 that established the California Renewables Portfolio Standard (RPS) Program, which set a goal for all investor-owned utilities to increase their use of renewable resources by at least 1 percent per year, until 20 percent of their retail sales are procured from renewables, which must occur by 2017. Although SB 1078 exempted municipal utilities such as the LADWP from these specific goals, the bill required municipal utilities to establish their own renewable resource goals consistent with SB 1078. As a result, In June 2004, the Los Angeles City Council and Mayor approved a resolution supporting a framework for achieving an RPS goal of 13% renewables by 2010 and 20% renewables by 2017. The RPS framework provides a long-term plan to achieve the 20 percent goal without compromising power system reliability or the financial stability of LADWP.

It is important to make clear that all customers' voluntary contributions under the Green Power for a Green LA Program and the resultant subsequent purchases or development activities that produce local renewable resources will provide renewable energy above and beyond any RPS activities. This means that your percentage of renewable energy mix will be higher than the LADWP average by the amount of your participation in the Green Power for a Green LA Program. You may choose 100% Renewable Energy for your home or business by participating in Green Power for a Green LA at the appropriate level.

The continued success and impact of the Green Power Program will benefit generations to come by reducing air pollution and global warming, while preserving the earth's limited natural resources. The program also raises awareness of the importance of protecting our environment, and attracting new industries and jobs to the Southern California region.



GREEN POWER PROGRAM REVENUE AND EXPENSES

Green Power revenues and expenses are determined by the Renewable Energy Option (REO) service rider as it applies to customers served under Schedules R-1, A-1, A-2 and A-3. The REO specifies what must be included in the REO surcharges (the additional charge per kilowatt-hour), and how that money can be used. The REO also stipulates that the program must be self-funded, that all program costs must be borne by participants, and that the program cannot be subsidized by general ratepayers. The actual REO surcharge, a voluntary contribution, is determined by the Renewable Energy Adjustment Factor (REAF), which has been 3 cents per kilowatt-hour since the beginning of the program. The minimum participation (which determines the voluntary contribution) for Residential and small Non-Residential customers is 20 percent of their metered energy use. For Medium or Large Non-Residential customers, the charges are based on minimums of 500 and 1000 kWh per month, respectively.

Table 1 on the following page shows the Statement of Operations for the Green Power for a Green LA Program for the Calendar Year ending December 31, 2004. The statement was prepared in accordance with the REO service rider rate ordinance with data provided by LADWP's Financial Services Organization. For 2004, the Green Power Program collected \$2,265,863 in revenues and had a net expenditure of \$818,428 including the purchase of over 75,000 MWh of wind energy. The Program, after accounting for all expenses including all renewable energy purchases had a net income of over \$1.4 million.



Table 1
Green Power for a Green LA
Statement of Revenues, Other Credits, Expenses For the Calendar Year
Ending December 31, 2004²

Participants	
Residential consumption (kWh)	32,161,229
Non residential consumption (kWh)	43,367,517
Residential customer meters	26,212
Non-Residential customer meters	612
Revenue and Other Credits	
Renewable energy adjustment factor revenue	\$ 2,265,863.38
Total Revenue	\$ 2,265,863.38
Expenses	
Purchased green power ³	\$ 3,916,010.26
less: Energy Services avoided cost credit	\$ (3,293,726.00)
Administration expense	\$ 178,726.28
Marketing expense	\$ 17,418.24
Total Expenses	\$ 818,428.78
Program operating income	\$ 1,447,434.60
Additional charge per ordinance	\$ 40,921.44
Totals	
2004 Net Income	\$ 1,406,513.16
2003 Green Power Cumulative Account Balance	\$ 3,011,020.00
Additional over-recovery due to change in accounting principle ⁴	\$ 146,085.47
2004 Green Power Cumulative Account Balance	\$ 4,563,618.63

² Financial Statement provided by LADWP's Financial Services Organization in accordance with reporting requirements contained in the Renewable Energy Option enabling ordinance.

³ In 2004, renewable energy to meet program sales was obtained through purchases of electricity from wind generators. The Green Power Program purchased an additional 4,471 megawatt-hours of energy at \$50.67 per megawatt hour in December 2004 that will be expensed during calendar year 2005 to meet 2005 customer demand.

⁴ To account for changes in the computation of postretirement healthcare costs in previous years in accordance with generally accepted accounting principles per Financial Services Organization.



LOOKING FORWARD

In a broad sense, renewable energy is about changing the future. Some of the societal benefits of producing and using renewable energy include:

- Improving air quality by avoiding the burning of fossil fuels.
- Reducing the emission of greenhouse gases that contribute to global warming.
- Promoting energy independence and security by reducing reliance on imported fuels.

Also, when renewable energy projects are located in the Los Angeles area, there are additional benefits including:

- Providing local air quality benefits related to cleaner energy production.
- Reducing electricity delivery infrastructure requirements and associated losses and congestion on the power grid.
- Promoting economic development and local job creation.
- Meeting local needs with local resources.

To target clean renewable energy sources as close to Los Angeles as possible, a number of potential projects have been identified. Funds collected from Green Power customers are used to purchase renewable energy, and the remaining funds are placed in the Green Power Cumulative Account as shown in the financial disclosure statement to support the development of local resources.



POTENTIAL LOCAL RENEWABLE ENERGY SOURCES

- The Terminal Island Digester Gas Project will add gas-processing units to process the digester gas from the Terminal Island Wastewater Treatment Plant for use in an existing state-of-the-art 250 kW fuel cell power plant installed in 2003 and currently operated on natural gas. The gas-processing unit should be in service in 2006.
- LADWP is evaluating several pressure regulating stations on the water distribution system that could be modified to add small hydroelectric generating plants to recover renewable energy.
- The Terminal Island Renewable Energy Project (TIRE) will add an additional 3 to 5 MW of capacity using methane gas recovered from a proposed bio-solid injection process in either a fuel cell or in an engine. This project will be implemented in three phases, and the first phase should be completed in 2008.
- The LADWP-installed solar projects include adding approximately 250 kW^{STC} of solar energy to City of Los Angeles and LADWP facilities on an annual basis. Green Power for a Green LA funds are being considered to increase the number of these potential identified installations. The net result will be that more solar is installed in the City of Los Angeles than had Green Power funds not been appropriated.



SOURCES OF RENEWABLE ENERGY

There are many options for producing energy from renewable resources, including wind, geothermal, hydroelectric, biomass, and solar. The Green Power program is seeking a mix of strategies, including developing locally and regionally produced renewable resources and renewable energy purchases. The program will focus on the following types of renewable generation:



Biomass Energy

Organic matter, called biomass, is found at landfills or wastewater treatment plants, and as it degrades, it creates gases that can be collected and burned in a power plant or used in a fuel cell to create electricity.



Solar Power

Photovoltaic solar cells directly convert sunlight into electricity. Concentrating solar power technologies use reflective materials to concentrate the sun's energy. This concentrated heat energy is then converted into electricity.



Wind Energy

Wind turbines (windmills) use strong, steady wind to create electricity. Wind power emits no pollution and has very little impact on the land. Wind energy can be produced where the wind blows with consistent force.



Geothermal Energy

Geothermal energy is generated by converting hot water or steam from deep beneath the Earth's surface into electricity. Geothermal plants emit very little air pollution.



2005 POWER SOURCE DISCLOSURE

The Los Angeles Department of Water and Power (LADWP) is providing the following information as required by the California Energy Commission so that consumers can see at a glance the fuel sources and technologies used to create the electricity products they are offered. The Power Content Label assists consumers in making informed decisions by providing a uniform way for all electric service providers to deliver clear and accessible information on their existing and new electricity products.

2005 POWER CONTENT LABEL			
ENERGY RESOURCES	LADWP Power^{**} (projected)	LADWP Green Power^{**} (projected)	2004 CA POWER Mix^{***} (for comparison)
Eligible Renewable^{****}	5%	100%	4%
-Biomass & waste	1%	-	<1%
-Geothermal	<1%	-	3%
-Small hydroelectric	3%	-	1%
-Solar	<1%	-	<1%
-Wind	1%	100%	<1%
Coal	53%	-	29%
Large Hydroelectric	6%	-	20%
Natural Gas	26%	-	45%
Nuclear	10%	-	2%
Other	<1%	-	0%
TOTAL	100%		100%
* 90% of LADWP Power is specifically purchased from individual suppliers.			
** 100% of LADWP Green Power is specifically purchased from individual suppliers.			
*** Percentages are estimated annually by the California Energy Commission based on the electricity sold to California consumers during the previous year.			
**** In accordance with Los Angeles City Council's action on 10-5-04 for File No. 03-2688 (RPS).			
For specific information about this electricity product, contact LADWP at 1-800-DIAL-DWP. For general information about the Power Content Label, contact the California Energy Commission at 1-800-555-7794 or www.energy.ca.gov/consumer .			

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Los Angeles Department of Water and Power
1-800-DIAL-DWP (342-5397) or www.ladwp.com