Water and Power Associates, Inc.

Newsletter

Year 39, Volume 3 - July 2010



President's Notes

Kent W. Noyes

Power

As I mentioned in the April 2010 Newsletter, one issue the Associates had been focusing on was Proposition 16. which would have amended the California constitution to require a 2/3 majority vote for a community to exercise the option of providing municipal power. The proposition was so poorly worded that it may have had *unintended consequences* such as requiring a 2/3 majority for the City to annex property or for a municipality to build a new transmission line.

We all know now this proposition failed, but *by only by 2.6 percent of the votes*. It is scary that PG&E was nearly successful in changing the constitution in a self serving way by enormous spending, between \$45 and \$50 million, when publicly owned utilities could not spend any rate payer money to explain to the voters the impact this proposition could have. (*Continued on page 2*)

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Proposition 16 Defeated



Press Conference speakers: Phyllis Curry, General Manager Pasadena water and Power; Jan Perry, L.A. City Councilperson, 9th District; Janice Hahn, L.A. City Councilperson, 15th District; Tom Labonge, L.A. City Councilperson, 4th District; Ron Deaton, Former LADWP General Manager; Marty Adams of Water Operations who is also a commissioner at Burbank's Municipal Power Agency; John Geesman, former California Energy Commissioner; Lynn C. Kronzek, Registered Fundraising Counsel, Burbank; and other representatives from Pasadena, Burbank, Riverside, Pasadena and AARP.

Summary re Prop 16

Water and Power Associates played a key role in trying to generate publicity against Prop 16, PG&E's effort to buy an election and stop further growth of municipal electric utilities in the state by requiring a 2/3rds vote to approve the start or expansion of service. The Associates lobbied to get the City Council to unanimously oppose Prop 16.

Then Energy and Environment Chair, Jan Perry, agreed to host a press conference, to focus attention on the issue shortly before the election, that included those in the picture above. Special thanks to Councilwomen Perry and Janice Hahn and Councilman Tom LaBonge. Former GM Ron Deaton and AGM Eldon Cotton were of particular assistance in the effort. The press conference was featured in an NBC news spotlight on Prop 16. Such free publicity was essential in defeating the measure that PG&E spent \$50 million to pass. We can all be thankful that the public saw through their scheme. ❖

We Thank Our Guests



Ali Morabbi, PH.D., P.E. LADWP Manager Power System Information & Advanced Technologies



Michael S. Webster LADWP Assistant Director Resource Planning, Procurement and Development

President's Notes (from page 1)

The Association believed that because of the misleading wording most voters and some politicians did not understand the full impact that this proposition could have on the City. Associate members worked very hard with councilpersons to raise public awareness and to help voters realize the consequences. Councilwoman Jan Perry presented a resolution, seconded by Councilwoman Janice Hahn, opposing Proposition 16 which the City Council passed unanimously. That resolution and a subsequent press conference helped the voters in Los Angeles decide how to vote. This was important because PG&E knew that the voters in their service territory would not support Proposition 16 and were counting on getting enough votes in the southern part of the state to win. That did not happen.

At a recent LADWP Board of Commissioners Meeting the Department announced it was considering the sale of assets to help fund the renewable energy program and reduce the impact the program is projected to have on rates. One asset is the Navajo Generating Station and specifically whether the Department should accelerate the sale. While we agree it is appropriate that the Department review all their assets to make sure they are being used in the best possible way to meet their goals, we believe that the analysis of the sale of any asset should consider both the short term and long term benefits and costs. The sale of some assets could show an immediate benefit but result in substantial long term cost increases to the Department and its' ratepayers. We will continue to follow this issue

Water issues are addressed in the accompanying article by Gerry Gewe. ❖

Water Bond in California



By Gerald Gewe,

Governor Schwarzenegger has proposed removing the proposed Water Bond from the November 2011 ballot and having it placed before the voters in 2012.

Last year after much political wrangling, the state legislature approved putting an eleven billion dollar bond measure on the November, 2010 ballot. Like most bond measures, the final proposal was made up of a "Christmas Tree" of measures designed with a little something for every involved interest group to gain support. The heart of the measure involved substantial sums for dealing with environmental issues in the Bay-Delta which have substantially reduced the reliability of Southern California's supply of water from the State Project. In addition there were funds for supporting conservation, recycling, groundwater management, along with many other programs that are minimally related to water supply reliability.

The governor is concerned that under the current financial conditions and with the State budgeting process in such disarray, the public support for the measure which has eroded over the last few months could evaporate and lead to defeat of the measure. That would in turn lead /require the political leadership to start over on developing a program to restore water supply reliability to California and to address the environmental issues that have been so divisive since the defeat of the State Water Project Bonds in the 1980's. He is hopeful that by delaying the vote the political climate would improve. allowing the bond measure to regain support and the program based upon the use of those funds to move forward. \clubsuit

Book Review



UNQUENCHABLE: *America's Water Crisis and What to do About it*, by Robert Glennon. Washington, DC: Island Press, 2009. 415 pp. Maps, Illustrations, Sources, Index. Cloth, \$27.95. Order from Island Press, 1718 Connecticut Avenue, NW, Suite 300, Washington, DC 20009.

My bookshelf is starting to sag under the weight of new books warning of water crises, water wars, water pollution, water and global warming. Some of these books are impressionistic, lacking specific details or with little research to back up assertions. Happily, Robert Glennon's latest book is packed with solid information, done in a very readable style and a wry sense of humor that engages as well as informs readers of modern America's water problems. Glennon is Morris K. Udall Professor of Law and Public Policy in the Rogers College of Law at the University of Arizona. He is also the author of Water Follies, an indictment of the abuse of groundwater. His main target in that book were the purveyors of bottled water, and this new book continues to criticize the waste involved in producing just one bottle of water.

Glennon divides his book into three parts-The Crisis, Real and Surreal Solutions, and A New Approach. In the first part he surveys water shortages, not only the usual suspects in the Southwest but in places not likely to be in the public eye unless you live there, such as Atlanta, Georgia. Glennon wastes no time on transitions, moving from one dreadful example to another-ill-advised dam construction, inadequate sewage treatment, inequality in the quality of water provided to rich and poor, and short-term efforts to meet water problems that fail to consider longterm consequences.

In the second part Glennon examines solutions to water waste that range from trying to create water (cloud-seeding) to toilet to tap (a term coined not in Los Angeles but in San Diego in 1998 "dubbed by a smart-aleck reporter" (p. 165).

Having surveyed the crisis conditions and some of the more creative (if not fantastical) solutions, Glennon offers some cogent proposals in the final part of the book. He urges farmers to consider the profit made from

crops such as alfalfa and cotton against the money to be made by fallowing land and selling the water to thirsty municipalities. City residents need to practice conservation measures, and civic leaders need to implement watersaving policies such as metering water use.

There is one area in which Glennon can't propose a viable solution: population growth. Forty years ago Paul Ehrlich wrote *The Population Bomb*, warning that there will come a time when we'd be standing on each other's shoulders just to get some elbow room. The book helped spawn the Zero Population Growth movement in the 1970s, and for a time it seemed that people might be limiting the size of their families. However, this was pretty

UNQUENCHABLE ROBERT GLENNON

much a middle-class idea that failed to attract the interest of poor people in poverty-stricken nations where large families might be necessary because of high infant mortality and the need for children to help work the farm.

> Today the United States has over 300 million people, a number that includes a growing and graying population. The arguments against illegal immigration aside, the fact is that immigration brings people into the country to do the work older people are unwilling or cannot do.

How many more people can this nation have without further strain on water resources? Surely there will be a tipping point where even the best efforts at water and energy conservation will not be enough to sustain a quality of life level that will be overwhelmed by sheer numbers. \diamondsuit

Review by Abraham Hoffman



Abraham Hoffman teaches history at Los Angeles Valley College.

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Water and Power Associates, Inc. is a non profit, independent, private organization incorporated in 1971 for informing and educating its members, public officials, and the general public on critical water and energy issues affecting the citizens of Los Angeles, of Southern California, and of the State of California.

All persons who subscribe to the purposes of the Corporation, and who agree to aid in the carrying out of said purposes are eligible for Regular Membership.

To join, contact any Board Member or the Treasurer, Carlos Solorza, at mgscvs@aol.com. Meet Our New Board Member



Philip Shiner

I was an attorney in the Los Angeles

City Attorney's Office for over thirty two years. The last twelve years were spent at the Department of Water and Power. I came to the Department in 1991 as the assistant to the Chief Assistant City Attorney for Water and Power. By the time that I retired in 2003, I had risen to the position of the Chief Assistant in charge of approximately twenty six attorneys and a support staff of approximately fifty.

Prior to my assignment to the Department, I had been a prosecutor for two years and, as a member of the City Attorney's Liability Division spent nineteen years defending the City in personal injury and property damage lawsuits. Since my retirement, I have spent my time reading, playing some tennis, traveling, volunteering at a homeless shelter and serving on the Board of Directors of my condominium association. \clubsuit

> Summary of the defeat of Prop. 16 was written by *Michael T. Moore.*

Preface to the reprint of the Green by 2010 article by *John Schumann.*



The current highly publicized issues facing LADWP regarding budget, rate increases, the high costs of renewable energy and system reliability are nothing new and have been the subject of numerous newspaper articles for more than three years.

The Mayor, City Council, DWP's previous Board and General Managers chose to defer rather than address the issues.

Can the DWP go green by 2010?

This article was published in the September 23, 2007 edition of the Los Angeles Times Op-Ed: Sunday Current. It was reprinted in the October 2007 edition of this newsletter.

L.A. should increase its usage of renewable energy, but doing so under a tight deadline could make us worse off.

By Richard Dickinson September 23, 2007

The L.A. Department of Water and Power is already under fire from customers for seeking a 9% boost in rates over the next three years primarily to pay for an upgrade of its aging electric system, parts of which broke down during the recent heat wave. A city mandate that 20% of the utility's electricity come from renewable energy sources by 2010 could send rates higher.

In an effort to slow global warming by reducing greenhouse gas emissions, the Legislature last year passed a law requiring California's investor-owned utilities to get 20% of their electricity from such renewable energy sources as solar, wind and geothermal by Dec. 31, 2010. Los Angeles city leaders and Water and Power commissioners decided that the DWP also should meet this goal.

LADWP Green by the End of 2010

Currently, 6% to 8% of the public utility's electricity comes from renewable energy sources. Bringing that level up to 20% -which would supply 800,000 residents -- in such a short time while maintaining the system's reliability may be impossible without raising rates higher than the DWP anticipates.

Three years may not sound like such a short time, but in California's regulatory environment, it probably amounts to half the normal lead time needed.

For starters, you can't just build a wind farm anywhere. You need a site where there is steady wind. Solar power is most abundant in the desert. And geothermal energy requires underground reservoirs of hot water or at least hot rocks to make steam. And you need power lines to import the energy.

As a result, for the DWP to reach the 20% goal, it will probably have to go out of California for most of the electricity generated by wind, geothermal steam or the sun. The problem is that demand for renewable energy has skyrocketed, supply is limited and the 2010 deadline undercuts price competition. For instance, sellers of wind or solar power, aware that utilities are under time constraints, will be freer to charge higher rates because they control a very tight market for the relatively few renewable resources available.

California put itself in a similar box in the late 1990s when it gave so much market leverage to out-of- state power suppliers when writing the rules for deregulation. Rather than allow them to sign long-term contracts for power, the utilities were forced to buy electricity in the spot market, which was being manipulated by the Enrons of the world. That scheme was scrapped in 2001 as angry consumers protested impending rate increases and increasingly frequent emergency power cutbacks and blackouts.

The "greening" of the DWP is likely to increase rates for another reason. Renewable energy tends to be more expensive than such traditional energy sources as natural gas or coal. The facilities to harness wind and solar power are costly to build. Such power is not always available around the clock, so there are fewer hours each day to produce the revenue needed to pay off debt and cover expenses.

And if the sun isn't shining or the wind isn't blowing, you can't depend on solar energy or windmills. For instance, during the summer heat wave, virtually none of the thousands of megawatts of wind- generated electricity was available during peak periods of demand. So the DWP will have to provide backup power for renewables from additional natural-gas or coal-fired generators, which will add costs.

In making the DWP more green, it's also important that the reliability of the electric grid be maintained when adding sources of renewable energy to it. For instance, during the deregulation era, transmission lines often became bottlenecks for power coming from outside sources because they lacked the capacity to carry the extra load.

Typically, renewable power sites are in remote areas. To connect them to DWP customers will require the construction of transmission lines in and out of state, which must clear regulatory hurdles to take a particular path. In California, obtaining the necessary environmental permits can take two years even without any legal challenges. The DWP is already experiencing the difficulties that lie ahead. Environmentalists opposed a proposed transmission line to import power generated by renewables in the Imperial Valley because it would cross an environmentally protected area east of the San Bernardino Mountains.

The 2010 deadline also puts potential suppliers of renewable energy in California at a disadvantage because they face greater regulatory, environmental and permitting obstacles than do out-of-state suppliers. This means that many of the economic benefits associated with building renewable facilities, including good-paying jobs, will not be available here.

The DWP has long prided itself on providing reliable power to customers at a substantial discount, compared with investorowned utilities. In fact, that was one of the reasons it chose not to participate in the state's deregulation experiment. L.A. rate payers still benefit from that decision. The city's elected leaders should be mindful that in turning to more green power they must not forget the mandate to provide lowcost electricity to its customers.

These are some of the problems created by the 2010 deadline that seem to leave few options for the DWP. But that is not to suggest that the mandate to make the utility more reliant on renewable energy sources should be abolished. Indeed, the green requirement is an important pressure on the utility to perform. But a rigid deadline may prevent the DWP from making the smartest choices for its customers. \bigstar

LADWP General Manager Austin Beutner Presents Strategic Plan

Addresses Long-Term Water and Power Strategies to Meet Regulatory Compliance, Reliability; Simplify Rate Structures; Establish Ratepayer Advocate

Keeping his pledge to begin a new era of transparency, accountability and financial discipline at the Los Angeles Department of Water and Power (LADWP), General Manager Austin Beutner presented the LADWP's 2010 Long-Term Strategic Plan to the Board of Water and Power Commissioners and business and environmental leaders. "This Strategic Plan offers a very clear picture of what needs to happen for the Department to keep the lights on and water flowing for Los Angeles, to meet regulations and environmental commitments, to revamp outdated financing strategies and to find new internal funding sources so that ratepayers are not asked to pay for big increases, especially during this difficult economy," Mr. Beutner said.

LADWP is at a critical juncture in its 100-year plus history. Among the many challenges are to replace or upgrade aging water and power infrastructure to maintain reliability; comply with stringent and costly water quality requirements such as covering open-air reservoirs; and meet legislation and policy goals to reduce greenhouse gas emissions and increase renewable energy resources. At the same time, LADWP's internal and customerfocused information systems and other business processes are in need of modernization.

Strategic Plan Highlights

Power System

Goals - LADWP's Power System long-term goals are to:

- Invest in infrastructure reliability on a consistent basis;
- Maintain regulatory compliance;
- Reduce carbon emissions by 50%;
- Invest in renewable energy on a consistent and sustainable basis; and
 Maintain lower rates for customers than other utilities in the Los Angeles area.

Financing Strategies: The Power Plan outlines new financing strategies to begin work on power resource goals and necessary capital investments without increasing base rates during fiscal year 2010/11. Strategies to generate up to \$1 billion involve better utilizing such assets as real estate, natural gas reserves, excess working capital, and the Navajo Generating Station, a coalfired power plant in Arizona.

Regulatory Compliance: The Power System must reduce emissions of inbasin natural gas plants to meet air quality requirements (costing \$1.1 billion over the next 10 years); and eliminate ocean-water cooling of its coastal power plants (costing \$2.2 billion over next 10 years). It must also undertake a much larger effort to reduce greenhouse gas emissions.

Energy Resources: To meet longterm energy resource goals, LADWP must invest in strategies to reduce dependence on carbonbased generation. The strategies will involve consistent, sustained investments in renewable energy procurement and selling Navajo Generating Station and studying options to reduce emissions from Intermountain Power Project in Utah. Under the current SB 1368 provisions of the state's greenhouse gas emissions limits, LADWP will not be allowed to renew its contracts with these plants when they expire in 2019 and 2027, respectively. Continuing its commitment to environmental responsibility, the Department will continue its role as a leader in this area. LADWP will increase its spending of efficiency programs and renewable energy from the prior year. The Department will also continue its in-basin solar program and develop and implement a feed-in tariff program, while also evaluating the potential of large-scale solar development in the Owens Valley.

Rates: Power rates will be reduced by 1 percent from announced levels for the year. The forecast for next year is an increase of approximately 5 percent, far below other utilities.



Water System

Goals - LADWP's Water System goals are to:

• Replace and upgrade infrastructure;

• Maintain regulatory compliance;

• Increase supply of local water; and

• Maintain rates below comparable utilities.

Infrastructure/Reliability: The Water Plan will ensure reliability, as mains and trunk lines, pumping stations, treatment plants and other infrastructure near the end of their lifecycles. LADWP proposes to spend \$250 million in 2010/11 and these projects will also utilize c a pital investments of approximately \$256 million in 2010/11 and \$3.15 billion in the next 10 years.

Regulatory Compliance: The Water Plan projects that major capital investments of up to \$2.6 billion will be needed to achieve regulatory compliance in over the next 10 years. The primary costs are to meet federal and state water quality requirements for covering the city's remaining open reservoirs, and rebuilding or expanding trunk lines to bypass those reservoirs, and converting the citywide disinfectant from chlorine to chloramines.

Water Supply: Pressures on the city's water supply are expected to continue with limited pumping allowed in the Sacramento Delta region, and traditional levels of water supply from the Eastern Sierra reallocated for environmental uses in the Owens Valley. LADWP must continue investing in water conservation and alternative, locally sustainable water supplies.

Water Supply Strategies	2010/11	Next 10 Years
Increase Recycled Water	\$54 million	\$620 million
Increase conservation	\$29 million	\$320 million
Groundwater cleanup	\$14 million	\$940 million
Stormwater capture	\$6 million	\$110 million
Groundwater storage	\$1 million	\$2 million

Rates: Water rates will be reduced by 1 percent from announced levels for the year. The forecast for next year is an increase of 7.3 percent, far below those already announced by other utilities.



Reprinted from the 58th issue of ladwp@work, the electronic newsletter that is distributed to Premier and select Mid-Market commercial/industrial customers

More information and a video presentation by LADWP's General Manager on LADWP's 2010 Long-Term Strategic Plan is available online at www.ladwpnews.com.

Submitted by Thomas J. McDarthy

The strategic plan also includes an overhaul of the LADWP's rate structures for both water and power. Currently, a dozen billing factors are used to determine a single customer's water and power bill. Under the plan set forth in the strategic plan, Power Rates will include two components, a base rate and a fuel pass-through charge, while water rates will be comprised of a base rate and a purchased water pass-through charge. This effort will make bills simpler to understand and the LADWP's costs and corresponding charges more transparent. A much greater portion of the rates will be with the base rate, so the Board and Council can closely monitor planned spending.

Support Systems: The Strategic Plan includes goals for improving customer support to increase operational efficiencies. These goals will also serve to help customers reduce their bills by better managing how much water and power they are using. Going forward, LADWP plans to invest close to \$30 million in 2010/11 and \$120 million in the next 10 years on customer information and billing solutions; tailoring programs, products and services to meet individual customer needs; and integrating smart meters and smart grid technology with customer services operations so that customers can know in real time how much energy or water they are using.

Ratepayer Advocate: LADWP plans to create and fund two full-time positions in the City of Los Angeles to become the Ratepayer Advocates. LADWP has also committed to provide timely and accurate information to the Ratepayer Advocate to help better inform customers and other stakeholders of rate related matters. \clubsuit

THE LOS ANGELES DWP SMART GRID



Dr. Ali Morabbi

The guest speaker at our June Board meeting was Dr.Ali Morabbi, electrical engineer, who previously worked with design of the Energy Control System, and automation of the Management System, among other assignments. Now he is the manager of the Smart Grid, which was the subject of his presentation.

Seven years ago the Los Angeles Department of Water and Power started work with the Energy Control Center, and about five years ago they began bringing in the Smart Grid. Dr. Morabbi distributed graphics (summarized at the bottom of page 9) displaying the proposed Integrated Smart Grid Power System and how it will function. The ultimate concept is that all parts involved with the power system (i.e. electric supply, corporate information system, marketing, corporate services, human resources, operations, energy information, and customer services, together with customer usage) work together in an integrated fashion, storing information and sharing communication, in the right time with the right format, in a superfast system making the electric grid smarter.

Summary by David J. Oliphant

Historically, Operations and Maintenance simply took all information and stored it. Each part of the Power System would access that information a n d operate separately. First, currently beginning with the operating system, and then with the corporate system, they are gathering all information into a superfast highway. In developing the system, the challenge is what format to use that works satisfactorily with all the different parts, such as customer services, operations, the Water System, etc. So, in developing a smart grid, one has to ask, "what do I want to see, how fast do I want to see it, how can I react to it?"

The operations system today is upgraded and in good shape. The corporate side, however, is still not upgraded. The Department has brought in the University of California at Irvine to assist in upgrading the corporate system but it is expected to take three to five years. The corporate information system is still using IBM programs with COBOL programming. When the business systems moved away from the mainframe they were able to separate them from the corporate IBM dependence. Since they separated, the old Customer Information System can't handle the billing. The Department can purchase a package system but still needs to integrate different applications to be upgraded into the system as needed. Smart [electric and water] meters will be integrated into the system, communicating customer usage directly into the operations and maintenance of the Power System.

The next part of the problem is telecommunications infrastructure. On the information technology side, we have to use contractors to bring in instructors to train our people how to run the smart grid systems. They are looking at package deals now. With business systems they buy core software and provide for updates to integrate. The smart meters will communicate naturally with operation management systems.

On the Smart Grid, every device in the system has to be able to talk to every other device to bring information back to where it is needed. This can be complex. With wind power, for example, 100 MW of wind translates to 10 MW of real power. The smart systems include integration of wind, solar, geotherrmal and storage of power. But it is difficult to integrate because of the variability of output of different renewables at any one period of time.

Then there is the need for reliability. The federal Secretary of Energy, Steven Chu, sees nuclear as a needed direction for enough power to meet national needs reliably while using renewables reliably while the administration is pushing renewables, in the background Chu is also pushing Congress for growth in use of nuclear generation. DWP is already active in geothermal and nuclear usage.

A question was raised as to firewall protections for the smart grid: "How do you prevent hackers from harming the system?" Apparently, it can take only seconds for an expert hacker to break into a utility power system. DWP is spending \$15 to \$16 million on university research into ways to protect the Smart Grid. **Even vendors don't have answers, yet**. A laptop could disrupt the entire grid which creates liability questions for every utility that is on the grid. If all utilities are smarter and all are related using smart grid technology, then we can see how the grid works at any part of its operation.

What are the major benefits from the Smart Grid? Southern California Edison has spent \$3 to \$4 billion to replace its system. The customer is supposed to get smarter in his use of energy. His use will be more sophisticated because he can see it measured on the internet. At the same time, the utility can also manage his usage. It provide for could а customer choosing to balance use between competing appliances thereby saving power during peak periods – a way for utilities to balance output. Experience has already shown that the new smart meters are 5% more accurate so customers are immediately paying more money. It is also becoming the State government mandate. It was noted that there will be different tiers for electric usage dependent upon time of day, which under one view is a socialization of California.

The PUC (Public Utilities Commission) allows the private

utilities like PG&E (Pacific Gas and Electric) and Edison to pass on the costs of upgrading for the Smart Grid, whereas DWP has to get City Council approval for the added expenditures. Electricity can be stored to a certain extent. Japan has energy storage batteries which can store energy up to four hours. They can store 40 MW, enough to power 50 - 100 thousand homes. In 5 – 10 years such storage will be available, here. They can use flywheels but flywheels lose energy. Batteries add 50% to the cost of energy. Energy storage adds costs. Even at Castaic, to generate $1 - \frac{1}{2}$ MWs it takes a $\frac{1}{2}$ MW to pump the water up the hill. It is estimated it will add 50% to energy cost if they use three to four times the present renewable usage and wish to store the energy.

If they pursue all the present goals for renewables at the Department, they must integrate them into a smart grid to get the best use. At UCLA they are partnering to build a clean energy house. Such houses will provide smaller but more efficient homes. The Water System is also looking at a Smart Grid approach.

The DWP is getting \$16 million from the Department of Energy in connection with smart grid development and therefore is obligated to come up with a project that shows results. They are spending \$121 million for the Smart Grid project. At the end of five years they will look at the development and then make a decision how to continue after they see what works.

UCLA and USC are using their campuses for renewable research. If we all do renewable projects we have to have a smart grid to see what works in order to manage the energy. We are putting solar rooftops on city buildings and these we can monitor directly.

The Associates expect to invite a speaker to our group to inform us on issues of green resources including the security issues. It is believed it will cost \$225 million a year to replace energy lost by switching to renewables.

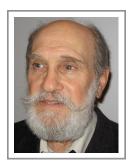
The Department's strategic plan is available on the DWP website. SB 32 mandates the private utilities to reach the 20% renewable standard this year. Municipal utilities are encouraged to approach the same goals, which our mayor has embraced.

We need to understand what is mandated for municipal utilities and what is logical. The **public needs to understand the costs and that there are other options**. Much more needs to be understood about what are the Department's options. \clubsuit

Integrated Smart Grid Architecture - Power System	System Data Integration Forecast Historical Operation & Maintenance Real Time Construction Maintenance Management System Work Management System System Work Management System Energy Management System Outage Management System Outage Management System Supervisory Control And Data Acquisition PI Cond. Monit. Customer Information System Forecasting Finance & Budgeting Human Resources Supply Chain	Resources and Control Sensors Large Scale Renewable Integration Wind Solar Storage Wide area measurement system Substation automation Distributed resources integration Advanced metering Customer Premises Smart Appliances Extra High Voltage Control Access Storage Units	Power Applications Power Procurement Market Operations Energy Control Center Electric Trouble Center Corporations Electric Storage Vision Large Storage Industrial Commercial Residential Fuel Cell Solar Wind Control Hub Substation Communication and Control Links and Power Lines Community Energy Storage
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The Barlow Respiratory Hospital and

the Los Angeles Historic Survey



By David J. Oliphant

On June 24th I attended a presentation sponsored by the Los Angeles Historic Society at the Barlow Hospital in Elysian Park. There were two topics: 1.) the Barlow Hospital's history, presented by Flora Chou of the L A Conservancy, and 2.) the development of a survey of the historical resources of Los Angeles City, **Survey LA**, presented by Janet Hansen, Deputy Manager of the City's Office of Historic Resources.

The Barlow Respiratory Hospital

If you work in downtown Los Angeles, sooner or later you will drive through Elysian Park past the Barlow Hospital. On both sides of Stadium Way it consists of a number of small cottages and permanent buildings designed originally as a sanitarium for the treatment of tuberculosis.

Begun by Dr. Walter James Barlow in 1902, the various hospital buildings were constructed between 1902 and 1972, most before 1930. At the time it was commenced, there were no antibiotics or other medical treatments for TB, so the hospital provided and emphasized use of fresh air, rest and good nutrition to help patients heal. It was built on 25 acres of open space with 40 buildings at its largest, far enough away from the city to avoid its traffic and unhealthy atmosphere. Cleanliness and fresh air were considered important for healing. For those who the doctors found able, there were vocational and occupation training. The rules of the institution provided that when the

doctors think them able, "every patient must do some work about the sanitarium or go away." The hospital was non-sectarian and provided healing to those "reduced in circumstances," "worthy of charity," and "susceptible of healing."

Dr. Barlow, an able fundraiser, helped by being very active in the social life of Los Angeles. He also had a generous board and his family assisted him in purchasing some of the real property from James Lankershim. Initially, patients stayed in cottages, many of which were financed by individual families and relief organizations such as the Shriners.

The first cottages were nonpermanent and replaced by more permanent cottages later. A photograph of the facilities in 1908 shows the sense of privacy and quarantine engendered by the hills around the facility providing for open space and fresh air. In 1910, Williams Hall (the location for this presentation) was built as a permanent recreation hall.

After World War I, the Red Cross became a big supporter, building four permanent cottages. The more permanent buildings after the 1920's included a library and the Guild House. The larger permanent buildings had sleeping porches on three sides and an arcade. In the 1940's, Bosworth Hall was built to provide a facility for nurses training. By the 1950's TB was under control through antibiotics and less of a problem, so Barlow was transformed into a respiratory hospital. Mostly patients from UCLA and USC would be cared for, staying for 30 days.

Now, it is designated a City Historical Monument with 32 of its 39 buildings identified on the National Register.

In 1992 they were planning an upgrade project but the 1994 earthquake interfered and SB 1953, the Hospital Seismic Safety Act, has since added rigorous earthquake safety requirements. A 2006 upgrade plan proved too costly, so they completed a new Master Plan in 2009. Among the problems are that the area is zoned for agricultural use, so they need to rezone the site. There is an issue regarding historic preservation. They can keep nine to eleven of the historic buildings as a core but if they lose 2/3 of the buildings on the site it may no longer be registered as a historic site.

The Barlow board's new plan proposes a hospital with some 56 beds (currently there are 49 beds), a nursing home facility, and construction of an 888 multi-family residence structure. The LA Conservancy is looking to maximize retention of the historic **buildings.** A UCLA students' study showed Barlow could do more to preserve the historic property without the need for the extreme changes proposed. If there is no plan in place by 2013, they will have to close the facility. One person in attendance at the meeting complained of the lack of work within the community to find an upgrade more acceptable than the extreme one proposed. The present facility is committed to health issues and is particularly good for weaning people off respiratory machines. The environmental impact report is expected to be completed this year.

Survey LA

In the City's Planning Department is the Office of Historic Resources. Janet Hansen is the Director of the office. She spoke about the survey of historic places in Los Angeles which is to be conducted between 2010-2013 – Survey LA.

Survey L A will be the first systematic program to survey historic resources throughout Los Angeles and is the biggest survey of its kind in the country. While Los Angeles has over 900 Historic-Cultural Monuments (local landmarks) and 24 Historic Preservation Overlay Zones (Historic Districts), to date only 15% of the city has been surveyed. Hansen had just come from a four-hour training session for current surveyors. The purpose is to recognize the City's historic diversity. To put this Los Angeles project into perspective, the speaker displayed a graphic which showed seven major US cities could fit into the area covered by Los Angeles City (St.Louis and Pittsburgh are included among them). Hence, it is a big project.

The Getty Conservation Institute provided \$2.5 million for the survey with the City providing a matching grant. So, the funding for the project is secured. Through its conservation institute, Getty has since added \$800,000 more for the project.

The project looks at historic context and has custom designed a database to serve as a planning tool. The survey identifies context themes and trends related to property types. It identifies resources related by theme. E.g. the theme may be architectural arts and crafts – from which they develop eligible standards to be appropriate examples of the arts and crafts movement. It is continually revised as they progress.



Barlow Respiratory Hospital 2000 Stadium Way, Los Angeles, CA 90026

There are nine basic contexts with themes and subthemes, with cultural/ethnic/gender themes related to all contexts. In determining eligibility of a building they look at the physical features of the building to see if it exemplifies the standard it represents. I.e. does it have the associated qualities, the character defining features, of the standard, and have they been maintained with integrity.

They use the Field Guide Survey System (FiGSS) to do the survey. Existing resources are all preloaded into the database. The Community Redevelopment Agency database, and other similar databases, can also be input once the project database is in its usable format. They can get c o m m u n i ty in p ut from neighborhood resources. For example, information about persons significant to the building can be added to the database so that if you are a surveyor you can read about the building's related individuals while in the field. All surveys are done from the public right-of-way. They record only properties that appear to be significant. Both individual properties and historic districts are looked at. They did pilot studies in Boyle Heights, the San Fernando Valley and other locations. They have eleven community plan areas. **Community outreach is a most important part of the program,** encouraging participation and input.

Their website is <u>www.SurveyLA.org</u> They have a speakers bureau. If interested in participating, individuals can apply to get involved by filling in a hard copy of the Survey LA form or applying on line. They have a standard form for conducting the surveys.

The guide to Survey LA encourages people to get together as a group. Different activities are suggested for the group: e.g. My Neighborhood encourages walkabouts and photographs, My Story - personal interviews, My Place - research activities to gain more information. Ahead of surveys, they go into areas and speak to people who may help in the surveys. They ultimately will take the survey to the City's Cultural Heritage Board for its approval. Survey LA is an ongoing activity that will never stop, constantly continuing to update its information.

In view of the Associates goal of preserving Los Angeles water and power history, including DWP historic sites in the Survey LA database would clearly be of mutual benefit.

Dave Oliphant, Chairman, W&PA History Committee & Historical Preservation