March 9, 2006

The Honorable City Council
City of Los Angeles
Room 395, City Hall
Los Angeles, California  90012

Dear Members:

Subject: Membership Memorandum of Understanding with Electric Power Research Institute, Inc.

Pursuant to Charter Section 373, enclosed for approval by your Honorable Body is Resolution No. 006-146, adopted by the Board of Water and Power Commissioners (Board) on March 7, 2006, approved as to form and legality by the City Attorney, which authorizes execution of a Membership Memorandum of Understanding with the Electric Power Research Institute, Inc., (EPRI), for membership in the 2006 and 2007 EPRI Section 316(a) and 316(b) Fish Protection Issues Target 54. As directed by the Board, transmitted to you are supporting documents.

If there are any questions regarding this item, please contact Ms. Winifred Yancy, DWP Council Liaison, at (213) 367-0025, or Ms. Katherine Rubin at (213) 367-0436.

Sincerely,

Barbara E. Moschos
Board Secretary

Enclosures:  DWP Resolution
             Board Letter
             CAO Report
             Membership Memorandum of Understanding

Water and Power Conservation ...a way of life
c/enc: Mayor Antonio Villaraigosa
Ms. Jan C. Perry, Chair, Energy and the Environment Committee
Mr. Gerry F. Miller, Chief Legislative Analyst
Mr. William T. Fujioka, Chief Administrative Officer
Ms. Louisa Lund, Legislative Analyst, CLA
Ms. Winifred Yancy
Ms. Katherine Rubin
RESOLUTION NO. 06-146

WHEREAS, the Department of Water and Power of the City of Los Angeles (LADWP) is required to comply with Sections 316(a) and 316(b) of the Clean Water Act; and

WHEREAS, it is in the best interest of the LADWP to join the Target 54 membership with the Electric Power Research Institute, Inc. (EPRI); and

WHEREAS, it is desirable that the LADWP be a member of the EPRI Target 54 and participate in the work of EPRI.

WHEREAS, the LADWP finds that because of the unique membership arrangement with EPRI, a non-profit organization, and other Target 54 utility members, requiring the LADWP audit clause is impractical and unnecessary, and is hereby waived. Furthermore, LADWP and EPRI have agreed that should LADWP wish to obtain audit information related to the Programs selected by LADWP, EPRI will provide copies of the final Federal Audit Circular No. A-133 audit reports for the years of participation.

NOW, THEREFORE, BE IT RESOLVED, that the Memorandum of Understanding (MOU) between the LADWP and EPRI, now on file with the Secretary of the Board and approved as to form and legality by the City Attorney, be and the same is hereby approved.

BE IT FURTHER RESOLVED, that the said MOU provides for membership in the 2006 and 2007 EPRI Section 316(a) and 316(b) Fish Protection Issues Target 54; and

BE IT FURTHER RESOLVED, that the said MOU provides for the services of EPRI Solutions who shall conduct research and special studies as requested by LADWP and shall deliver the results to the LADWP; and

BE IT FURTHER RESOLVED, that the said MOU provides for access to and the purchase of EPRI technical books and reports for the years that the LADWP was not part of the Target 54 membership; and

BE IT FURTHER RESOLVED, that the Chief Accounting Employee, upon proper certification, is authorized and directed to draw demands on the Water Revenue Fund not to exceed $403,000.00 in payment of obligations arising under said MOU; and

BE IT FURTHER RESOLVED, that the President or Vice President of this Board or the General Manager, or such person as the General Manager shall designate in writing as his designee, and the Secretary, Assistant Secretary or the Acting Secretary of this Board are hereby authorized, empowered, and directed to execute said Memorandum of Understanding for and on behalf of the LADWP upon approval by the Los Angeles City Council pursuant to City Charter Section 373.

I HEREBY CERTIFY that the foregoing is a full, true, and correct copy of a resolution adopted by the Board of Water and Power Commissioners of the City of Los Angeles at its meeting held

MAR 07 2006

[Signature]
Secretary

APPROVED AS TO FORM AND LEGALITY
ROBERT J. DELGADILLO, CITY ATTORNEY

BY

[Signature]
Deputy City Attorney

NOV 30 2005
**PURPOSE**

Transmitted for your consideration are the original and duplicate original of the 2006 and 2007 Electric Power Research Institute, Inc. (EPRI) Membership Memorandum of Understanding (Membership MOU) between the Los Angeles Department of Water and Power (LADWP) and EPRI. The purpose of the Membership MOU is to join EPRI's 316(a) and 316(b) Fish Protection Issues Target 54 (Target 54), to have access to the EPRI Solutions studies/research team, and to be able to purchase past EPRI research reports in the years LADWP was not a member of Target 54. The Membership MOU has been approved as to form and legality by the City Attorney.

The work products from EPRI's 2006 and 2007 Target 54 will directly benefit LADWP's compliance efforts with the federal Clean Water Act (CWA) Section 316(b) Rule enacted July 9, 2004. This Rule applies to the operation of LADWP's three coastal generating stations and its provisions will be implemented through each facility's National Pollutant Discharge Elimination System (NPDES) Permit, potentially costing LADWP anywhere from several millions of dollars to several hundreds of millions of dollars. Access to the highly technical and credible science available through EPRI membership is highly desirable and will provide direct, tangible benefits to LADWP.

**BACKGROUND**

**About EPRI**

EPRI is a non-profit, membership-based scientific research and development (R&D) organization, whose mission is to conduct research for electric utilities and the public. EPRI's work is highly technical in nature and energy oriented from the generation of electricity to its use in end use devices. Funding for EPRI R&D projects and their results is obtained primarily from electric utilities around the world who voluntarily commit funds on a collaborative basis for the
conduct of EPRI’s work. Collaborative in this sense means that EPRI’s members designate projects to which they all contribute. EPRI performs the research and then provides the results to only those who funded the work. These results are then made generally available to the public at specified prices. EPRI’s R&D work is primarily conducted in-house by technical leaders with the remaining work being contracted out to highly technical organizations around the world that have been identified as having the expertise or other resources to conduct the required investigations, thereby producing the best results.

**EPRI’s Fish Protection Target 54**

Target 54 was formed for the utility industry in the 1990s so that the industry could scientifically respond to the Environmental Protection Agency’s (EPA) pending 316(b) regulation. These regulations have established performance standards that the utility must meet using the best technology available for minimizing adverse environmental impacts associated with the location, design, capacity, and construction of cooling water intake structures for new and existing facilities.

Research conducted under Target 54 supports specialized topics that focus on compliance with regulations that pertain to aspects of both the thermal [CWA Section 316(a)] and entrainment/impingement [CWA Section 316(b)] impacts caused by steam electric power plants. Target 54 provides research and information on the latest state-of-the-art fish protection technology, life history fisheries data useful in minimizing impacts to fish populations, technology retrofit and maintenance costs necessary for selecting the optimum cost-effective technology, information on thermal risk analyses, and various guidance manuals.

**Other EPRI Membership Benefits**

EPRI sponsors workshops that facilitate the ability for members to dialog and receive in-depth information on relevant Target 54 topics, including on occasion, the ability for EPRI members and EPA to meet and discuss issues pertaining to the 316(b) Rule. Membership also allows member utilities to access and purchase EPRI documents for those years in which the utility was not an EPRI member. Lastly, EPRI membership provides access to EPRI technical experts, including EPRI Solutions, as resources for inquiries on issues affecting LADWP facilities and operations.

EPRI and EPRI Solutions work closely together to support the utility industry in complying with regulations. EPRI focuses on conducting the research necessary for sound science and to provide cost-effective compliance options, while EPRI Solutions focuses on support applications specific to companies and individual facilities.

EPRI Solutions works in conjunction with EPRI and has access to the full range of EPRI products and research in all environmental areas that are of interest to LADWP, not just fish protection. This type of access and knowledge will be invaluable for LADWP’s future regulatory compliance needs.
COST AND DURATION

The Membership MOU fee for the EPRI Target 54, along with access to EPRI Solutions and the ability to purchase EPRI technical reports, is not to exceed $403,000 and is effective January 1, 2006. The Target 54 membership shall be for both the 2006 and 2007 years (January 1 through December 31). Funding to access EPRI Solutions and to purchase technical reports/documents is effective through December 31, 2007. The funds will be dispersed as follows:

- Cost of 2006 EPRI Membership is $70,000.
- Cost of 2007 EPRI Membership not to exceed $50,000.
- Cost of EPRI Solutions and technical reports not to exceed $283,000.

FUNDING SOURCE

Funding source is the Power Revenue Fund.

FISCAL IMPACT STATEMENT

EPRI Membership Cost-Effectiveness

Utilities interested in the reports for research projects initiated in the year for which they were not members are required to purchase the reports. In 2004, EPRI membership was approximately $76,000 and the cost to non-members to purchase the research developed in that year is $118,000. In 2005, membership cost was $73,000 and to date the cost to purchase the currently available 2005 reports for non-members is $100,000 and there are many more reports to come. In 2006, the cost to conduct the identified ten research projects is $3.1 million; LADWP can reap the benefits of this R&D for the membership cost of $70,000.

Benefits to the LADWP

LADWP must comply with, and implement the provisions of, the final 316(b) Rule for existing steam electric generating facilities. Efforts to commence this process are under way and major LADWP studies, research, and technological evaluations will occur in 2006 and 2007. LADWP must determine its chosen 316(b) Rule compliance strategy and submit it to the Regional Water Quality Control Board (Regional Board) for approval by January 2008. Currently, available compliance mechanisms include retrofitting the facility with technological controls, implementing operational controls (such as reduced intake flows with the corresponding reduction in power generation), establishment and maintenance of restoration projects (e.g., wetlands, artificial reefs, fish hatcheries, etc.), or any combination of the previously identified mechanisms. Not all technological controls are feasible due to facility space constraints, their debris and fouling complications, the long distance to return biological organisms unharmed to an unaffected portion of the source water body, or their obstruction impacts to navigation in the water body. Those technologies that may be feasible may impact generation, may require the facility to shut down during installation, and may cost tens to hundreds of millions of dollars. Selection of technological controls and/or operational controls will have a direct impact on the operation of the power plants, their efficiency, and their ability to cost-effectively produce electricity.
Compliance utilizing restoration measures, while not directly impacting the power plant, will incur initial and long-term costs for the establishment and maintenance of the chosen restoration measures.

EPRI's 2006 and 2007 Target 54 is funding research in a number of areas that can support LADWP's 316(b) Rule compliance decision making, which will have a direct impact on LADWP's operating conditions under its NPDES permits. The consequences of not obtaining reasonable operating requirements in the NPDES permits for the three coastal generating facilities are potential shut downs, flow restrictions for the cooling water intake system, or extremely costly technological installations with minimal to no environmental improvement that could cost millions of dollars. In addition, the compliance alternative requirements selected and set forth in the NPDES permits could have long-term operational impacts on the generating stations.

A few of the Target 54 research areas include: the effectiveness, feasibility, and cost of alternative fish protection technologies; methods for sizing and maintaining restoration projects; and methods for conducting economic assessments on environmental benefits under the 316(b) Rule's Cost Benefit Test. For example, in 2006, EPRI is conducting research on the Evaluation of Fine Mesh Screens. This research is important to LADWP because EPA has listed fine mesh screens as a possible compliance alternative technology for LADWP's generating stations. The feasibility of this option must be evaluated in the context of both its environmental effectiveness and its engineering/operational constraints and costs. LADWP will apply the findings of EPRI's research to our facilities on a site-specific basis to determine whether installation of fine mesh screens is an appropriate and feasible compliance option, thereby avoiding permit compliance commitments to potentially infeasible alternatives. If LADWP, on its own, was to perform this one research project, out of the ten EPRI projects slated for initiating in the 2006 year, the study cost would be $200,000 (based on EPRI's contractual costs). To perform all ten projects, LADWP would also have had to enter into the lengthy process of issuing requests for proposal, entering into and overseeing multiple contracts, and completing the research in time to effectively utilize the results. As part of the 2006 Target 54, LADWP will receive the benefits from the fine mesh screen project and all the listed 2006 research projects. All of these projects will, in some way, support LADWP's compliance decision making that will be submitted to the Regional Board. Ultimately, LADWP's compliance approach, once approved by the regulatory agency, will be incorporated into the facility's NPDES permit. It is essential to have the best environmental science and control technology evaluations available to LADWP as it makes its compliance selection. The EPRI membership products will provide this decision-making support information.

EPRI also maintains a web-based Fish Protection Synthesis Report (Report), available to its members, that consolidates relevant 316(a) [thermal] and 316(b) compliance information. This Report provides access to EPRI's Fish Protection Technology Reference Manual, a comprehensive review on the current knowledge of all impingement and entrainment reduction technologies for fish and shellfish at cooling water intakes. Much of EPRI's Report can be used directly by LADWP for its compliance submittals.

Lastly, scientifically accurate and rigorous ecological and technical assessments can support regulatory deliberations and permit negotiations. More scientifically complete, risk-based methods for managing environmental resources within a watershed can help ensure appropriate and warranted control requirements.
Board of Water and Power
Commissioners

February 22, 2006

PRE-AWARD CHECKLIST:

- Contract Compliance
- Subcontracting Opportunities
- Service Contractor Worker Retention Ordinance
- Child Support Policy
- Living Wage Ordinance
- Labor Relations Notification
- Charter Section 1022 Findings

CONTRACT ADMINISTRATION

The EPRI membership MOU will be administered by the Water Quality and Operations Business Unit's Wastewater Quality Compliance Group.

FORMAL OBJECTIONS TO AWARD OF CONTRACT

Not Applicable to Membership.

CHARTER SECTION 1022 FINDINGS AND BASIS THEREOF

Not Applicable to Membership.

METHOD OF SELECTION

- Competitive
- Cooperative Purchase
- Sole Source

OUTREACH EFFORTS TAKEN

Not Applicable to Membership.

VENDOR HISTORY

The LADWP was an EPRI member from 1973 to 1994. LADWP discontinued its membership when the annual bundled membership fee reached more than $5 million. EPRI, in response to comments from the electric industry, restructured their membership fees by unbundling the membership portfolio and fee structure so that membership was available in specific target program areas. Since 1997, LADWP has joined EPRI in selected research target programs. A summary of EPRI membership expenditures since 1997 is as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Cost</th>
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</thead>
<tbody>
<tr>
<td>1997</td>
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</tr>
<tr>
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<tr>
<td>2005</td>
<td>$0</td>
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</tbody>
</table>
The Department has also entered into co-funding arrangements with EPRI during the time period from 2000 – 2005 with expenditures in the amount of $1,103,586. (See Attachment 1 for past EPRI contracts and amounts.)

**VENDOR PERFORMANCE**

Not Applicable to Membership.

**ENVIRONMENTAL DETERMINATION**

Not Applicable to Membership.

**RECOMMENDATION**

It is recommended that your Honorable Board adopt the accompanying Resolution approved as to form and legality by the City Attorney, and that the above-mentioned Memorandum of Understanding be executed as authorized in the Resolution.

KR: bdc

Attachments

c/att: Ronald F. Deaton
      Robert K. Rozanski
      Richard M. Brown
      Mahmud A. Chaudhry
      Lillian Y. Kawasaki
      Hal D. Lindsey
      Enrique Martinez
      James B. McDaniel
      Pamela T. Porter
      Ronald O. Vazquez
      Cecilia K.T. Weldon
      Barbara Garrett
      Katherine Rubin
      FileNET

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