

Agenda Report

DATE: July 16, 2007

TO: CITY COUNCIL

FROM: CITY MANAGER

SUBJECT: CONSIDERATION OF ADOPTION OF NEW FEDERAL STANDARDS RELATING TO ELECTRIC UTILITIES UNDER THE PUBLIC UTILITIES REGULATORY POLICIES ACT AND THE ENERGY POLICY ACT OF 2005 FOR THE WATER AND POWER DEPARTMENT.

RECOMMENDATION:

It is recommended that the City Council, following a public hearing, adopt the attached resolution which:

1. Finds that Pasadena Water and Power Department existing rates and policies are in compliance with four of the five new federal standards added by the Energy Policy Act of 2005 amendments to the Public Utility Regulatory Policies Act of 1978; and
2. Determines not to adopt certain aspects of the Smart Metering standard and directs staff to evaluate the cost effectiveness of offering additional Time of Use pricing schedules and Smart Metering technology in the future.

BACKGROUND:

The Energy Policy Act of 2005 ("EPACT 2005") was signed into law on August 8, 2005. EPACT 2005 amended the Public Utility Regulatory Policies Act of 1978 ("PURPA") to require certain utilities to consider, among other things, whether to adopt the federal standards for (1) Net Metering, (2) Fuel Sources Plan, (3) Fossil Fuel Generation Efficiency, (4) Smart Metering, and (5) Interconnection ("Standards"). These Standards, which are described further below, must be considered by all publicly owned electric utilities with total annual retail sales greater than 500 million kWh. Pasadena Water and Power Department ("PWP"), which has annual retail sales of 1,200 million kWh is subject to the requirement.

EPACT 2005 states that the utility must consider each of these Standards and make a determination concerning whether or not it is appropriate to implement the Standards. Utilities are not required to adopt the Standards, only consider them. However, if a determination is made that a particular Standard is not appropriate to implement and is declined, the utility must state in writing the reason for the decision in a public document. These Standards are defined by the Federal government and do not give the City discretion to adopt a different standard. Therefore, the City Council, in the context of a public hearing, shall make the determination concerning whether or not it is appropriate to implement the Standards provided by EPACT 2005.

EPACT 2005 triggered the following deadlines to begin consideration and make a determination concerning whether or not it is appropriate to implement federal Standards. For Smart Metering and Interconnection Standards, consideration must commence by August 8, 2006 and a determination be made by August 8, 2007. For Net Metering, Fuel Sources Plan, and Fossil Fuel Generation Efficiency, the dates are August 8, 2007 to begin consideration and August 8, 2008 to make a determination. In all cases, enforcement actions may be initiated starting August 8, 2008.

PWP began consideration of the Standards shortly after the American Public Power Authority published its "Reference Manual and Procedures for Implementation Of the 'PURPA Standards' in the Energy Policy Act of 2005" in March 2006. In staff's consideration, it was determined that a consultant was needed to assist in the evaluation and analysis of PWP's current standards to those required under EPACT 2005. In March 2007, EES Consulting was retained by PWP to conduct an analysis on each of the five Standards, evaluate PWP's current status with each Standard, and recommend any required actions needed to comply with the Standards. The final report from EES is included herein as Attachment 1 and is also available on PWP's website at www.pwpweb.com. Staff has reviewed and considered the consultant's recommendations in developing the following assessment of current status and the proposed recommendations:

1. **Net Metering** – This Standard requires an electric utility to make net metering service available to any electric customer, upon request. Net metering means service to an electric consumer under which electric energy generated by that electric consumer from an eligible on-site generating facility and delivered to the local distribution facilities may be used to offset electric energy provided by the electric utility to the electric consumer during the applicable billing period.

PWP's current status: PWP meets the Net Metering Standard by offering net metering service to all PWP customers with cogeneration or self-

generation through rate schedule SG: Self-Generation Service, as referenced in the Pasadena Municipal Code 13.04.178 – Section B.

Staff Recommendation: The City Council finds that PWP meets the Net Metering Standard.

- Fuel Sources Plan** – This Standard requires an electric utility to develop a plan to minimize dependence on one fuel source and to ensure that the electric energy it sells to customers is generated using a diverse range of fuels and technologies, including renewable technologies.

PWP's current status: PWP fulfills this Standard through several approved plans. PWP incorporates geographic and fuel diversity as a goal in its resource planning process. In November of 2001, the City Council adopted the 2001 Strategic Resource Plan (SRP) which calls for both geographic and fuel diversity of PWP's fuel sources to reduce risk from market price and outages. The City's Renewable Portfolio Standard (RPS), adopted by the City Council in October of 2003, requires that renewable resources be used to meet at least 20% of PWP's retail load by 2017.

Staff Recommendation: The City Council finds that PWP meets the Fuel Sources Plan Standard.

- Fossil Fuel Generation Efficiency** – This Standard requires an electric utility to develop and implement a ten-year plan to increase the efficiency of its fossil-fueled generation facilities, such as natural gas or coal-fired power plants.

PWP's current status: PWP's existing planning process includes consideration of the need to increase efficiency of Pasadena's fossil fuel generation facilities. The 2001 SRP laid out a 10-12 year plan to replace PWP's aging local generation infrastructure and initiated the replacement and retrofit of 135 MW of Pasadena's generation to achieve higher efficiency and reduce emissions. Additionally, the Intermountain Power Authority has upgraded the Intermountain Power Project steam turbines to increase energy output and efficiency in recent years.

Staff Recommendation: The City Council finds that PWP meets the Fossil Fuel Generation Efficiency planning Standard.

- Smart Metering** – This Standard requires each electric utility to offer each of its customer classes, and provide individual customers upon customer request, a time-based rate schedule under which the rate charged by the electric utility varies during different time periods and reflects the variance,

if any, in the utility's costs of generating and purchasing electricity at the wholesale level. The time-based rate schedule shall enable the electric consumer to manage energy use and cost through advanced metering and communications technology. Each State regulatory authority shall conduct an investigation and issue a decision whether or not it is appropriate for electric utilities to provide and install time-based meters ("Smart Meters") and communications devices for each of their customers which enable such customers to participate in time-based pricing rate schedules and other demand response programs.

PWP's current status: PWP partially meets the Smart Metering Standard through its time-based current rates. PWP requires a Time of Use (TOU) rate schedule for some customers and offers TOU rates to all customers, subject to TOU meters availability and installation at the customer's expense. As defined, TOU rates means the electric rate varies with the time of day, day of week and/or month or season. PWP offers Load Management Credits under "Curtable Service" for medium and large commercial/industrial customers through the Light and Power Rate Ordinance (Pasadena Municipal Code 13.04). However, PWP does not currently use smart meters or offer the Critical Peak Pricing ("CPP"), which has very high energy and demand charges for peak load hours, and Real Time Pricing ("RTP") rates, which charge customers rates that vary continuously according to market prices, included in the Smart Metering Standard.

Evaluation: Full adoption of this Standard to include the other time-based rates and the offering of smart meters to all customers would require additional evaluation of customer class structure, billing system compliance and rate standards. An initial feasibility study to evaluate this Standard is expected to cost approximately \$150,000.

While a detailed cost-benefit study has not been completed, full implementation of the Smart Metering Standard rates is not expected to be cost effective at this time. The EES report indicated that Smart Metering implementation costs far exceed the benefits for small and medium sized utilities such as PWP, and that studies for large utilities indicate minimal net benefit to warrant up front investment associated with these programs. The estimated cost for PWP to purchase and install new smart meters to replace the current Automatic Meter Read (AMR) electric meter system and to upgrade billing systems is \$39 million, and though not quantified, far exceeds the benefit received. PWP believes at this time such funds would have more impact if directed towards cost effective energy efficiency, demand response, and renewable resource procurement.

The California Public Utilities Commission has authorized the state's investor-owned utilities to make substantial investments in Smart Metering programs. PWP will monitor the programs for additional information and insight into their potential appropriateness for Pasadena. Also, PWP plans to evaluate the additional TOU pricing schedules such as CPP and RTP as part of its electric cost of service study during the next 24 months.

Staff Recommendation: The City Council finds that PWP partially meets the Smart Metering Standard by offering a TOU based rate schedule and TOU meters to all of its customers. The cost effectiveness of offering additional TOU pricing schedules such as CPP and RTP and the implementation of smart metering technology shall be evaluated for future consideration, but not adopted at this time.

5. **Interconnection** – This Standard requires each electric utility to make available, upon request, interconnection service to any electric customer that the electric utility serves. Interconnection service allows an electric consumer to connect a generating facility on the consumer's premises to be connected with the utility's local distribution facilities. Interconnection services shall be offered based upon the standards developed by the Institute of Electrical and Electronics Engineers: IEEE Standard 1547 for Interconnecting Distributed Resources with Electric Power Systems, as they may be amended from time to time. In addition, agreements and procedures shall be established whereby the services offered shall promote current best practices of interconnection for distributed generation, including but not limited to practices stipulated in model codes adopted by associations of state regulatory agencies. All such agreements and procedures shall be just and reasonable, and not unduly discriminatory or preferential.

PWP's current status: PWP currently offers interconnection service through its Distributed Generation Interconnection Requirements – Regulation 23, adopted by the City Council in Resolution #8304 on October 13, 2003. Regulation 23 meets or exceeds the interconnection regulations required under the IEEE 1547 standard as stated in the EPACK 2005.

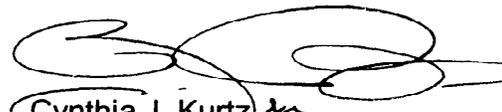
Staff Recommendation: The City Council finds that PWP currently implements the Interconnection Standard.

In summary, PWP currently has in place provisions and policies that meet or exceed four of the five federal Standard requirements under the EPACT 2005 amendments to the PURPA. While PWP's current rates and infrastructure partially meets the Smart Metering Standard contemplated under EPACT 2005, full adoption and implementation of the Smart Metering Standard is not recommended at this time.

FISCAL IMPACT:

Adoption of the attached resolution will not have any fiscal impact upon the City nor the electric rates at this time. Further evaluation to adopt and implement the Smart Metering Standard, including the offering of Critical Peak Pricing (CPP) and Real Time Pricing (RTP), as well as the offering of Smart Meters to each PWP customer per EPACT 2005 will require additional staff time and additional expenses to evaluate implementing these federal guidelines. Consulting expenses, which will be authorized separately, to support further evaluation, are expected to be approximately \$150,000.

Respectfully submitted,

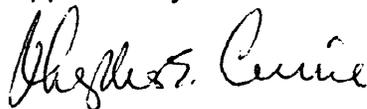

Cynthia J. Kurtz
City Manager

Prepared by:



Fred Lyn
Legislative & Regulatory Affairs Manager
Water and Power Department

Approved by:



Phyllis E. Currie
General Manager
Water and Power Department