

Agenda Report

DATE: JULY 13, 1998

TO: ATTENTION DEREGULATION COMMITTEE
CITY COUNCIL

FROM: ACTING CITY MANAGER

SUBJECT: AUTHORIZATION TO ENTER INTO CONTRACTS WITH THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR (ISO) TO FACILITATE THE BUYING AND SELLING OF ELECTRIC CONTROL AREA AND ANCILLARY SERVICES

RECOMMENDATION

It is recommended that the City Council authorize the General Manager of the Water and Power Department to enter into contracts with the ISO to facilitate the buying and selling of electric control area ancillary services.

BACKGROUND

In accordance with Assembly Bill 1890, the ISO was established to operate the Investor Owned Utilities' (IOUs) electric transmission facilities. The ISO commenced operations on April 1, 1998 and has been operating successfully for over three months.

The ISO is responsible for safely and reliably delivering electric energy to various load centers throughout California. To accomplish this, the ISO controls the transmission grid and coordinates all energy resources feeding into the grid and all electric loads taken out of the grid. This system of loads and resources is known as a "control area."

The three California IOUs, Southern California Edison Company, Pacific Gas and Electric Company, and San Diego Gas and Electric Company, have all relinquished their previously established control areas, and the ISO now operates one statewide control area on their behalf. The IOUs are no longer responsible for balancing loads and resources within their service territories. Attachment 1 graphically depicts this restructured electric market.

AB 1890 established the ISO to break up the market power of the IOUs and allow all electric generators to bid on the power supply or "ancillary" services required to reliably operate the new statewide control area. These ancillary

services include spinning reserves, non-spinning reserves, and energy regulation. The IOUs previously self-provided these services with their own generators, and there was very little trading of these services between control areas. With the divestiture of the IOU local generation and the formation of the ISO, a robust ancillary services market has indeed developed, and it appears that Pasadena could substantially benefit from this market. **As shown in Attachment 2, Pasadena could increase net revenues by \$4 to 11 million per year from the sale of ancillary services into the ISO market, under current market conditions.**

Staff recommends that the Water and Power Department enter into the contracts necessary to buy and sell ancillary services to and from the ISO market. The contracts may include any combination of the following agreements: i) a Utility Distribution Company Agreement, ii) a Participating Generator Agreement, iii) a Meter Service Agreement, iv) a Scheduling Coordinator Agreement, and v) a Reliability Must Run Agreement. These agreements are described as follows:

1. **Utility Distribution Company Agreement (UDC):** This would establish Pasadena as a UDC participant within the ISO control area. Pasadena would no longer be a control area, and it would procure the necessary control area ancillary services from the ISO market. As a UDC participant, Pasadena would indeed buy back some of the same services it was selling into the ISO market under the Participating Generator Agreement, but i) Pasadena would sell in much more than it was buying back, and ii) Pasadena would have access to the lowest cost ancillary services even if its generators were not available. The ancillary services required by Pasadena's distribution system would cost approximately \$1.38 million per year. Additionally, the ISO would assess a \$520,000 per year grid management charge, and the total UDC cost would be approximately \$1.9 million per year. This cost is \$1.7 million less than the current operation in which Pasadena self-provides ancillary services to its own control area, but it cannot sell the excess ancillary services into the ISO market.
2. **Participating Generator Agreement:** This would allow Pasadena's generators to bid ancillary services into the ISO market. The above UDC agreement made Pasadena part of the ISO control area, therefore Pasadena's generators would no longer be limited to self-providing ancillary services and they would have full access to the ISO market. The ancillary services that could potentially be sold under this agreement are valued at \$2.7 to 20.9 million per year, depending on the number of generators available to provide these services. This revenue is also based on current market levels, therefore a major shift in the ISO ancillary services market would substantially lower these revenue projections.
3. **Meter Service Agreement:** The ISO requires revenue quality meters to be installed at each generator location and at the interconnection with the ISO at

Goodrich Receiving Station. Pasadena would require five generator meters and one interconnection meter. These meters are estimated to cost approximately \$150,000. The Meter Service Agreement with the ISO establishes maintenance protocols that must be followed by Pasadena to ensure accurate metering.

4. **Scheduling Coordinator Agreement:** Pasadena will have to either become an ISO Scheduling Coordinator through this agreement or contract with another scheduling coordinator to submit schedules to the ISO on behalf of Pasadena. Pasadena may choose the latter to accelerate the start date, but staff anticipates that it will be in Pasadena's interest to become a scheduling coordinator shortly thereafter.
5. **Reliability Must-Run Agreement:** If Pasadena executes the above agreements prior to the completion of the distribution system upgrades, then at least one generator will be assigned a "must-run" status by the ISO. This means that all costs associated with that unit will be charged to the UDC, which is also Pasadena, and therefore this must-run unit would be limited as to the ancillary services it could sell into the market while it was deemed must-run. This would slightly reduce the revenue projections shown in Attachment 2 until the distribution system upgrades are completed.

It is important to note that staff is not recommending that Pasadena become an ISO Participating Transmission Owner (PTO) at this time. Unlike the IOUs, Pasadena will not relinquish control of its external transmission entitlements until the ISO Board acts on the transmission access fee issue and it can be proven that it is in Pasadena's best interest to become a PTO.

FISCAL IMPACT

Under current market conditions, staff projects that the combination of buying ancillary services for Pasadena's needs and selling all available ancillary services produced by its local generators into the ISO market will increase net revenues by \$4 to 11 million per year, as shown in Attachment 2. Staff does expect this market to soften over time as outside control areas are allowed to bid operating reserves into the ISO control area, but energy regulation should remain a viable market for Pasadena into the future. If the ISO market does indeed soften, then the net revenue projections shown above may decrease down to approximately \$2 to 4 million per year within a year.

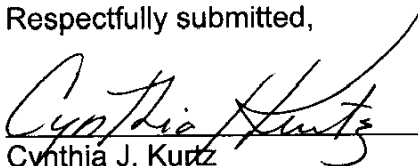
The recommended ISO agreements will require approximately \$150,000 in new metering and approximately \$100,000 in project management services. Sufficient funds are budgeted in the Light and Power Fund Capital Improvement Program under Item 3073, Supervisory Control and Data Acquisition System (SCADA) Expansion. This capital project anticipated the use of project management

City Council
July 13, 1998
Page 4


services to procure and implement the SCADA Expansion. Additionally, the SCADA system will no longer require an automatic generation control (AGC) module because the ISO will control the generators directly and Pasadena will no longer operate a control area. These AGC savings combined with the new ability to move to a lower-end SCADA product have freed up sufficient funds to pay for the additional project management services required for the ISO infrastructure and stay within the budgeted amount for the project.

From a global perspective, the \$250,000 needed for metering and project management services is expected to be recovered in the first full month of selling ancillary services into the ISO market.

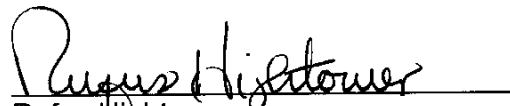
Respectfully submitted,


Cynthia J. Kurtz
Acting City Manager

Prepared by:


Manuel A. Robledo
Business Unit Director, Power Supply

Approved:


Rufus Hightower
General Manager, Water and Power Department