

- **Board of Directors**
Asset and Real Property Committee

February 14, 2006 Board Meeting

7-1

Subject

Appropriate \$963,000 to implement Phase II of the Energy Management System and authorize increase of \$670,000 to professional services agreement with Fortech for Metropolitan's power operations(Approp. 15397)

Description

The Energy Management System (previously called the Power Management System) is a key element of Metropolitan's IT Strategic Plan. EMS replaces manual data handling and paper records associated with managing and administering power operations for Metropolitan's hydroelectric generators, the Colorado River Aqueduct pumps and, potentially, treatment plant operations. On average, Metropolitan consumes approximately 1.7 million megawatt hours of power per year to run the CRA pumps and treatment plants. In addition, Metropolitan produces 500,000 megawatt hours each year through hydroelectric generation at its power plants. In total, Metropolitan's energy portfolio is larger than many power utilities in the United States.

Phase I of the EMS project was recently completed, providing software from Fortech to assist staff in managing power generation at Metropolitan's 16 hydroelectric plants, which produce approximately \$20 million per year in revenue. This action authorizes Phase II of the EMS project, which will expand on the software already implemented and focus on managing the power scheduling and purchase of approximately \$10 to \$20 million in energy per year required to operate the pumps on the CRA. As part of the scope of Phase II, an assessment will be performed to determine the practicality of using EMS to also monitor and manage the approximate \$5 million in energy required to run Metropolitan's treatment plants. If the return on investment proves positive, staff plans to return to the Board for approval of a Phase III effort to enhance EMS to assist with managing the power needed to run the treatment plants.

Historically, managing and administering energy transactions for the CRA have been accomplished using a combination of paper records and spreadsheets. While this was sufficient in the past, new regulatory changes have made the rules regarding managing and administering energy much more complicated. Participation in the power market is complex and requires coordination with multiple outside entities. It is becoming difficult to effectively manage Metropolitan's energy activities using manual methods. The energy transactions now require electronic tagging and faster settlement processing. Completion of the EMS project will allow Metropolitan to effectively manage its energy portfolio, while complying with the increasing regulatory requirements.

EMS will improve the recording of energy transactions for the CRA by automating the billing and payment approval process, improving transaction settlement processing with counter parties, and providing the ability for trading information to be easily reviewed by operations, financial and audit personnel. This is particularly important in that the power scheduling, trading and settlement processes are much more involved for CRA energy purchase transactions (Phase II) than they are for transactions associated with Metropolitan's power generation (Phase I) operation. Improvements are also expected through the reduction of errors encountered in the manual processing of data using multiple spreadsheets. Without the modernization of its energy management practices, additional staff would be needed to handle the recordkeeping required by regulatory agencies.

Fortech was selected through a competitive process (Request for Proposals 662) to provide the new EMS software and associated implementation support. This evaluation process considered which proposal provided an integrated software solution that best met Metropolitan's needs for all three phases of the project. Metropolitan's Board authorized an agreement with Fortech in June 2004 to implement Phase I. Phase I is now complete and Fortech performed well during this phase. Phase II builds on the software already installed in Phase I to

implement additional modules that meet Metropolitan's power scheduling and purchasing needs for the CRA. In addition, Phase II includes an assessment of the feasibility of using EMS to manage power for the treatment plants. Accordingly, staff recommends an increase to the existing Fortech agreement of \$670,000 (from \$320,000 to \$990,000) to complete and implement Phase II.

Westin Engineering will provide project management support for the Phase II effort under an existing professional services agreement. Westin was selected through a competitive process (Request for Proposals 666) to assist Metropolitan with project management support for a number of IT projects, including energy/power management.

This action appropriates \$963,000 in budgeted funds, and authorizes Phase II of the EMS project and an increase of \$670,000 to the existing agreement with Fortech for a new not-to-exceed total of \$990,000.

This project has been evaluated and recommended by Metropolitan's Capital Investment Plan Evaluation Team and funds have been included in the fiscal year 2005/06 capital budget. See [Attachment 1](#) for the financial statement.

Policy

Metropolitan Water District Administrative Code Section 5108: Appropriations

Metropolitan Water District Administrative Code Section 8121(a): Award of Contracts over \$250,000

California Environmental Quality Act (CEQA)

CEQA determination for Option #1:

The proposed action is categorically exempt under the provisions of CEQA and the State CEQA Guidelines. The proposed action involves the funding of a study and minor modifications to existing public facilities with negligible or no expansion of use and no possibility of significantly impacting the physical environment. In addition, the proposed action consists of basic data collection and resource evaluation activities that do not result in a serious or major disturbance to an environmental resource. This may be strictly for information gathering purposes, or as part of a study leading to an action which a public agency has not yet approved, adopted, or funded. Accordingly, the proposed action qualifies for both Class 1 and Class 6 Categorical Exemptions (Sections 15301 and 15306 of the State CEQA Guidelines).

The CEQA determination is: Determine that pursuant to CEQA, the proposed action qualifies under two Categorical Exemptions (Class 1, Section 15301 and Class 6, Section 15306 of the State CEQA Guidelines).

CEQA determination for Option #2:

None required

Board Options/Fiscal Impacts

Option #1

Adopt the CEQA determination and

- a. Appropriate \$963,000 in budgeted funds to implement Phase II of the Energy Management System; and
- b. Authorize an increase of \$670,000 to the existing agreement with Fortech for a new not-to-exceed total of \$990,000.

Fiscal Impact: \$963,000 of budgeted funds under Appropriation 15397

Option #2

Do not proceed with Phase II of the Energy Management System.

Fiscal Impact: No additional expenditures of budgeted capital funds. However, deferral of the EMS project would not realize the benefits to be gained from implementation of the software and additional staff would be needed to handle the recordkeeping required by regulatory agencies.

Staff Recommendation

Option #1



Roy L. Wolfe
Manager, Corporate Resources

1/18/2006

Date



Debra C. Man
Interim CEO/General Manager

1/18/2006

Date

Attachment 1 – Financial Statement

BLA #4133

Financial Statement

A breakdown of Board Action No. 2 for Appropriation No. 15397 is as follows:

	Previous Total Appropriated Amount (Oct. 2002)	Current Board Action No. 2 (Feb. 2006)	New Total Appropriated Amount
Labor	\$ 1,783,500	\$ 129,000	\$ 1,912,500
Materials and Supplies	3,271,900	4,000	3,275,900
Incidental Expenses	139,100	-	139,100
Professional/Technical Services	2,752,800	730,000	3,482,800
Operating Equipment	650,000	-	650,000
Administrative Charges	954,400	-	954,400
Remaining Budget	1,448,300	100,000	1,548,300
Total	\$ 11,000,000	\$ 963,000	\$ 11,963,000

Funding Request

Program Name:	CSEP Program		
Source of Funds:	Both Revenue Bonds and Cash Financing		
Appropriation No.:	15397	Board Action No.:	2
Requested Amount:	\$ 963,000	Capital Program No.:	15397
Total Appropriated Amount:	\$ 11,000,000	Capital Program Page No.:	E-15
Total Program Estimate:	\$ 20,300,000	Program Goal:	Enhanced Reliability