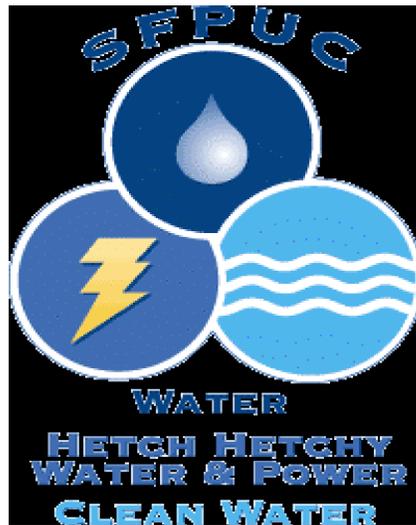


2003 Urban Water Conservation Proposal

San Francisco Public Utilities
Commission



Commercial Clothes Washer
Rebate Program

December 3, 2002

***Application Part A — Project
Description, Organizational, Financial
and Legal Information***

A-1 Urban Water Conservation Grant Application Cover Sheet

1. Applicant (Organization or affiliation): San Francisco Public Utilities Commission
2. Project Title: Commercial Clothes Washer Rebate Program

3. Person authorized to sign and submit proposal:

Name, Title Michael Carlin
Mailing address 1145 Market St, Suite 401
Telephone 415 934 5787
Fax 415 934 5750
E-mail mcarlin@puc.sf.ca.us

4. Contact person (if different):

Name, Title Suzanne Arena
Mailing address 1145 Market St, Suite 401
Telephone 415 934 5701
Fax 415 934 5750
E-mail sarena@puc.sf.ca.us

5. Funds requested (dollar amount): \$75,000
6. Applicant funds pledged (local cost share) (dollar amount): \$28,448
7. Total project costs (dollar amount): \$103,448

8. Estimated net water savings (acre-feet/year): 12.5
Estimated total amount of water to be saved (acre-feet): 105
Over years 8 years
Benefit/cost ratio of project for applicant: \$.143/\$1.00_
Estimated \$/acre-feet of water to be saved: _\$2,750_____

9. Project life (month/year to month/year): 10/03-10/05

10. State Assembly District where the project is to be conducted: 12 & 13

11. State Senate District where the project is to be conducted: 3 & 8

12. Congressional District(s) where the project is to be conducted: 8

13. County where the project is to be conducted: San Francisco

14. Do the actions in this application involve physical changes in land use, or potential future changes in land use?

(a) Yes

(if yes, complete the land use check list at

http://www.calfed.water.ca.gov/adobe_pdf/Questionnaires_EC_Permits_LandUse.pdf and submit it with the proposal

(b) No

No

A-2 Application Signature Page

By signing below, the official declares the following:

The truthfulness of all representations in the application;

The individual signing the form is authorized to submit the application on behalf of the applicant;

The individual signing the form read and understood the conflict of interest and confidentiality section and waives any and all rights to privacy and confidentiality of the application on behalf of the applicant; and

The applicant will comply with all terms and conditions identified in this Application Package if selected for funding.

Signature

Name and title

Date

A-3 Application Checklist

Complete this checklist to confirm all sections of this application package have been completed.

Part A: Project Description, Organizational, Financial and Legal Information

_____ A-1 Urban Water Conservation Grant Application Cover Sheet

_____ A-2 Application Signature Page

_____ A-3 Application Checklist

_____ A-4 Description of project

_____ A-5 Maps

_____ A-6 Statement of work, schedule

_____ A-7 Agency authority

_____ A-8 Operation and maintenance (O&M)

_____ A-9 Innovation

Part B: Engineering and Hydrologic Feasibility (construction projects only)

_____ B-1 Certification statement

_____ B-2 Project reports and previous studies

_____ B-3 Preliminary project plans and specifications

_____ B-4 Construction inspection plan

Part C: Plan for Environmental Documentation and Permitting

_____ C-1 CEQA/NEPA

_____ C-2 Permits, easements, licenses, acquisitions, and certifications

_____ C-3 Local land use plans

_____ C-4 State and local statutes and regulations

Part D: Need for Project and Community Involvement

_____ D-1 Need for project

_____ D-2 Community involvement, support, opposition

Part E: Water Use Efficiency Improvements and Other Benefits

_____ E-1 Water use efficiency improvements

_____ E-2 Other project benefits

Part F: Economic Justification, Benefits to Costs Analysis

_____ F-1 Net water savings

_____ F-2 Project budget and budget justification

_____ F-3 Economic efficiency

_____ Benefit/Cost Analysis Tables 1; 2; 3; 4a, 4b, 4c, 4d; and 5

A-4 – Description of Project

The San Francisco Public Utilities Commission is requesting \$75,000 to initiate a financial incentive program for the replacement of water inefficient commercial clothes washers. The financial incentive program would offer a \$300 rebate per machine over a two-year period. The Program would be offered to all commercial and industrial facilities (including laundry facilities, hotels, hospitals, jails and other appropriate local government agencies) that own their commercial washing machines and that are served by the SFPUC in San Francisco.

The primary objective of the program is to save water in a cost-effective manner that is responsive to customer needs. The estimated lifetimes savings per commercial High Efficiency Clothes Washer (HECW) is an average of 25,240 gallons of water per year. An additional benefit of the installation of HECW's is substantial energy savings.

A total of 250 rebates over a two-year period would be made available to qualified facilities. Annually, the rebates would yield a total of 23 AF in water savings and with an eight-year lifespan of a commercial washer, the total savings would be 184 AF.

The primary objective of the program is to accelerate the replacement of existing low efficiency washers by offering a "first come, first served" rebate of \$300 per HECW. The SFPUC believes that a \$300 rebate will provide sufficient incentive to retrofit an existing washer.

The SFPUC and its customers have a proven record of, commitment to, and implementation of water conservation programs. This new program would compliment existing SFPUC conservation programs such as interior and exterior water audits, residential plumbing retrofits, leak detection, landscape, residential HECW rebates, and ultra-low-flush toilet rebates. The SFPUC would like to expand into the commercial sector for potential water savings. The project is straightforward and will yield verifiable and quantifiable water savings. Over the lifetime of the washers, the benefit to cost ratio is \$1.43/\$1.00 (\$148,810-230 AF x \$647 per AF divided into \$103,448-total cost of the program).

The goal of the Proposition 13 Water Conservation Program is to accelerate the implementation of cost effective actions to help meet the growing demand for clean and abundant water supplies throughout the state. The SFPUC believes that a HECW rebate program will help achieve this goal by yielding significant water savings in an area yet to be reached in San Francisco. The SFPUC believes that this grant will allow for the establishment of a new and exciting water conservation program and will allow staff to gauge the interest of the commercial and eventually industrial communities in San Francisco.

A-6 Statement of Work, Schedule

The SFPUC's Water Conservation Unit will administer the program. The Water Conservation Unit has a proven track record of administering water conservation

rebate programs in the San Francisco region. The Unit will be responsible for the following tasks:

1. Design, marketing and promotion of the HECW rebate program to laundry facilities, hotels, hospitals, jails and other appropriate local government agencies in San Francisco
2. Act as a liaison between the targeted facilities and the SFPUC
3. Design and print rebate forms
4. Process rebates
5. Develop and maintain a database of customer's receiving the rebates
6. Oversee and verify retrofit
7. Administer a customer satisfaction survey
8. Submit requisite programmatic and fiscal reports of program activities and successes

See Attachment A for schedule of tasks

A-7 Monitoring and Evaluation

The SFPUC Water Conservation Unit will conduct monitoring and assessment of the new program. The Unit will maintain a database indicating customer rebate amounts paid, rebates received and balance due (year to date). On a quarterly basis, the Unit will also provide the Commission (the overseeing governing body of the SFPUC) a spreadsheet listing the name, address and account number of the applicant, customer satisfaction information, and post-project water savings information after their washer has been retrofitted. Customer satisfaction surveys will be administered to gauge the success of the program and to solicit comments and suggestions. Quarterly reports will be issued to the Department of Water Resources (DWR) as required.

Expected outcomes:

Quantification of water savings will be based on information from the California Urban Water Conservation Council's "Discussion Handout: Preliminary Estimates of Energy and Water Savings Potential for Residential Clothes Washers, Commercial Clothes Washers, and Commercial Dish Washers".

Quarterly spreadsheets will document the actual water savings.

Performance measures:

1. Complete development and printing of rebate materials by end of 1st Quarter
2. Begin marketing and liaison activities by beginning of 2nd Quarter
3. Review customer satisfaction surveys and take corrective measures as necessary end of 4th Quarter
4. Document water savings end of 4th Quarter

A-8 Qualifications of the Applicant and Cooperators

Ms. Kim Knox, Water Conservation Coordinator for the SFPUC, will be the project

manager. See resume Attachment B

A-9 Innovation

The SFPUC believes that significant water savings can be achieved in the commercial, industrial, and institutional customer sector and would like to use the grant to test the level of interest in this area. The SFPUC will build on the success that this grant allows and expand the program to be the most responsive to our customers.

A-10 Agency Authority

1. The SFPUC has the legal authority to submit this application and enter into a funding contract. A resolution of support for this application will be forthcoming.
2. The SFPUC is the department of the City and County of San Francisco (a Charter City), which is responsible for delivering water to the City and County of San Francisco and operating the regional water system known as Hetch Hetchy.
3. No election is required before entering into a funding contract with the State.
4. The funding agreement will be subject to the review of the City and County of San Francisco City Attorney's office. The City Attorney has already reviewed this application and does not foresee any potential conflicts.
5. There is no pending litigation that would impact the SFPUC's ability to complete this proposed project.

A-11 Operations and Maintenance

Not required for this proposed project.

Part B – Engineering and Hydrologic Feasibility

Not required for this proposed project.

Part C – Plan for Completion of Environmental Documentation and Permitting Requirements

This proposed project would not be subject to CEQA or NEPA.

Part D – Need for Project and Community Involvement

D-1 – Need for the Project

The efficient use of California's limited water supplies is a critical local, regional, and statewide issue. In an effort to address this issue, the SFPUC has made, and will continue to make investments in water use efficiency programs that will:

- Delay the need to examine other sources of future water supplies

- Achieve objectives detailed in the SFPUC's 2000 Urban Water Management Plan
- Comply with its obligations as a signatory to the California Urban Water Conservation Council's Memorandum of Understanding Regarding Urban Water Conservation in California (MOU).

The purpose of this Program is to significantly increase water use efficiency by offering financial incentives to purchase water and energy efficient clothes washing machines. Implementation of this program fulfills Best Management Practice Number 6, *High-Efficiency Washing Machine Programs*, as defined in the MOU. Conventional washers account for a significant amount of indoor water use. By installing 250 commercial HECW's through this Program, a total of 23 ccf of water/.05 AF per year can be saved for each washer installed.¹ Over the estimated 8-year life of a HECW, each machine could save .42 AF. In total the installation of 250 HECW's could save 105 AF acre-feet of water over the eight-year lifespan of the commercial washer.

HECW's typically use 40 percent less water per load than conventional washing machines. In addition to saving water, HECW's can save up to 60 percent of the energy used per load in conventional washers. HECW's have a much higher rotational velocity than conventional washers resulting in lower moisture content. This means that less energy is required to dry loads of clothes.

Currently, the SFPUC offers audits and other water conservation services to businesses. This new program will expand the services and incentives that the SFPUC offers the industry and allow staff to work more closely with the businesses to discuss and develop other potential water savings measures. Awarding of this grant will allow the SFPUC to enter into a new arena of water conservation and achieve significant water savings for the City and for our customers.

This proposal has the potential to positively impact the Bay-Delta systems. Through the installation HECWs, water quality in the San Francisco Bay may be improved by reducing the amount of wastewater flows. In addition, conservation efforts will slow the need to examine sources of future water supplies other than Hetch Hetchy. The SFPUC's conservation efforts are important as part of a long-term, comprehensive effort to reduce pressure on the Bay-Delta system to meet regional and statewide water needs. One of the fundamental objectives of the CALFED Bay-Delta Program is to reduce the disparity between Bay-Delta water supplies, and current and projected beneficial uses dependent on the Bay-Delta system. Water use efficiency projects are one of the cornerstone strategies that CALFED is implementing to achieve this objective. Incentives for the purchase and installation of HECWs will reduce the demand for a significant urban use of Bay-Delta water supplies.

This is a locally cost-effective program relative to savings in production and operating costs as shown in Part F. This Project is compatible with goals included in the SFPUC's 2000 Urban Water Management Plan and its ongoing efforts to achieve

¹ "Discussion Handout: Preliminary Estimates of Energy and Water Savings Potential for Residential Clothes Washers, Commercial Clothes Washers and Commercial Dish Washers," M. Cubeb for the California Urban Water Conservation Council, March 2001.

greater water use efficiency through programs for reducing long-term commercial, industrial and institutional water demands.

D-2 Outreach, Community Involvement, Support, Opposition

Public outreach efforts will be made during the course of the HECW rebate program through articles, bill messages and targeted mailings. In addition, other program components include appliance dealer training, laundromat manager training, and a plan for disseminating information.

Appliance dealers participating in the incentive program will be educated in the rebate program so they may answer questions and make recommendations to customers.

Outreach Efforts

An effective public outreach effort is essential to the project's success. Customer contact will be made through various means including the Chamber of Commerce, the Golden Gate Restaurant Association, the Board of Supervisor's public hearings and disadvantaged community members, to promote and reinforce water use efficiency by providing financial incentives to purchase HECWs. The partnership that has already been developed between the SFPUC and local environmental and community groups through the SFPUC's other successful conservation programs will ensure that a large and economically diverse customer base will be reached.

Part E – Water Use Efficiency Improvements and other Benefits

E-1 – Water Use Efficiency Improvements

The benefits of the Program are consistent with water conservation goals included in the SFPUC's 2000 Urban Water Management Plan. The Program is consistent with CALFED's objectives as expressed in its Framework for Action (June 9, 2000) and the Record of Decision that followed. The Program will increase the amount of water saved through conservation by assuring that the SFPUC's commercial, industrial, and institutional customers are offered financial incentives to retrofit their water inefficient clothes washers with HECWs.

Through the installation of 250 HECWs, a total of 13 acre-feet of water per year will be saved and 105 AF over the estimated 8-year life of the machines. This Program will support DWR's and CALFED's water conservation objectives in the following manner:

- Delay the need to examine other sources of future water supplies.
- Through the installation HECWs in San Francisco's restaurants, water quality in the San Francisco Bay may be improved by reducing the amount of wastewater flows.
- Promote public acceptance of HECW's

- Enhance the aquatic habitats and ecological functions in the Bay-Delta by water conservation efforts in San Francisco.
- Reduce the disparity between Bay-Delta water supplies, and current and projected beneficial uses dependent on the Bay-Delta system.
- Water Savings and their value are based on the table below:

Benefit/Unit	# of Units	Total Benefit			Present Value Of Total Benefit Alt. Supply (2)
		Acre-Feet	Alt. Supply (1)		
Acre-Feet/HECW	HECW	Acre-Feet	Alt. Supply (1)		
	.42	250	105	\$ 2,750	\$28

1. Based on alternative supply development cost of \$2,750 acre-foot for 8 years, as documented in the “Water Supply Master Plan” prepared by the San Francisco Public Utilities Commission and the Bay Area Water User’s Association in February 2000.
2. Based on a discount rate of 6% and a 10-year savings, beginning in year one.

E-2 Other Project Benefits

There are many project benefits that cannot be effectively quantified at this point in time. These are:

- The new program will give us access to commercial, industrial, and institutional businesses that we have not previously contacted. We will use the opportunity to offer water audits and educate businesses about other water conservation methods.
- Improved local watershed ecosystem by decreasing diversions from local creeks and reservoirs thereby benefiting in-stream uses.
- Sustained economic health of Bay Area business communities in San Francisco. Water supply reliability is a key element in the continued growth and vitality in California. Water conservation is a primary component of the SFPUC’s 2000 Urban Water Management Plan.
- Water conservation through the retrofit of water inefficient clothes washers with HECWs at laundry facilities, hotels, hospitals, jails and other appropriate local government agencies in San Francisco is an innovative new conservation arena for the SFPUC.
- Customer awareness and attitudes towards water conservation are heightened.
- Relief for the SFPUC agency infrastructure. The SFPUC can avoid upsizing infrastructure to meet future peak demands through conservation. Water use efficiency decreases the amount of wastewater produced.

Part F – Economic Justification: Benefits to Costs

F-1 Net Water Savings

Through the installation of 250 HECWs, a total of 12.5 acre-feet of water per year will be saved and 105 acre-feet of water over the estimated 8-year life of the machines.

F-2 Project Budget and Budget Justification

Table 1: Capital Costs

	Capital Cost Category (a)	Cost (b)	Contingency Percent (c)	Contingency \$ (d)	Subtotal (e)
				(bxc)	(b+d)
(a)	Land Purchase/Easement	\$0			\$0
(b)	Planning/Design/Engineering	\$0			\$0
(c)	Materials/Installation	\$0			\$0
(d)	Structures	\$0			\$0
(e)	Equipment Purchases/Rentals	\$0			\$0
(f)	Environmental Mitigation/Enhancement	\$0			\$0
(g)	Construction/Administration/Overhead	\$0			\$0
(h)	Project Legal/License Fees	\$0			\$0
(i)	Other	\$0			\$0
(j)	Total (1) (a + ... + i)	\$0			\$0
(k)	Capital Recovery Factor: use Table 6	\$0			\$0
(l)	Annual Capital Costs (j x k)	\$0			\$0

(1) Costs must match Project Budget prepared in Section F-2.

Table 2: Annual Operations and Maintenance Costs

Administration (a)	Operations (b)	Maintenance (c)	Other (d)	Total (e)
\$9,348	\$19,100		\$75,000	103,448

Table 3: Total Annual Costs

Annual Capital Costs (1) (a)	Annual O&M Costs (2) (b)	Total Annual Costs (c) (a+b)

	\$103,448	\$103,448
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(1) From Table 1 line (l)

(2) From Table 2 Total, column (e)

Budget Justification:

Direct labor – [NOTE: These costs are borne by the applicant]. Day to day administration of the rebate program, including marketing and printing, application processing, record keeping, liaison function, and installation verification inspections.

Other Direct Costs – HECW rebates provide up to \$300 towards the purchase of qualifying washers. This proposal would use the entire requested grant amount of \$75,000 to cover the cost of the commercial washer rebates (\$75,000/\$300 per rebate=250 rebates).

Table 4: Water Supply Benefits

Net water savings (acre-feet/year) _____ 12.5

4a. Avoided Costs of Current Supply Sources

Sources of Supply <i>(a)</i>	Cost of Water (\$/AF) <i>(b)</i>	Annual Displaced Supply (AF) <i>(c)</i>	Annual Avoided Costs (\$) <i>(d)</i> <i>(b x c)</i>
Hetch Hetchy	\$647	12.5	\$8,088
Total			

4b. Alternative Costs of Future Supply Sources

Future Supply Sources <i>(a)</i>	Total Capital Costs (\$) <i>(b)</i>	Capital Recovery Factor (1) <i>(c)</i>	Annual Capital Costs (\$) <i>(d)</i> <i>(b x c)</i>	Annual O&M Costs (\$) <i>(e)</i>	Total Annual Avoided Costs (\$) <i>(f)</i> <i>(d + e)</i>
Hetch Hetchy	\$0	\$0	\$0	\$2,750	\$34,375
Total					

(1) 6% discount rate; Use Table 6- Capital Recovery Factor

4c. Water Supplier Revenue (Vendibility)

Parties Purchasing Project Supplies (a)	Amount of Water to be Sold (b)	Selling Price (\$/AF) (c)	Expected Frequency of Sales (%) <small>(1)</small> (d)	Expected Selling Price (\$/AF) (e) (c x d)	"Option" Fee (\$/AF) <small>(2)</small> (f)	Total Selling Price (\$/AF) (g) (e + f)	Annual Expected Water Sale Revenue (\$) <small>(h)</small> (b x g)
Hetch Hetchy	105	\$647	100%	\$647	\$0	\$647	\$67,935
Total							

- (1)** During the analysis period, what percentage of years are water sales expected to occur? For example, if water will only be sold half of the years, enter 50% (0.5).
- (2)** "Option" fees are paid by a contracting agency to a selling agency to maintain the right of the contracting agency to buy water whenever needed. Although the water may not be purchased every year, the fee is usually paid every year.

4d: Total Water Supply Benefits

(a) Annual Avoided Cost of Current Supply Sources (\$) from 4a, column (d)	\$8,088
(b) Annual Avoided Cost of Alternative Future Supply Sources (\$) from 4b, column (f)	\$34,375
(c) Annual Expected Water Sale Revenue (\$) from 4c, column (h)	\$67,935
(d) Total Net Annual Water Supply Benefits (\$) (a + b + c)	\$110,398

Table 5: Benefit/Cost Ratio

Project Benefits (\$) (1)	\$110,398
Project Costs (\$) (2)	\$103,448
Benefit/Cost Ratio	\$1.07/\$1.00

- (1) From Tables 4d, row (d): Total Annual Water Supply Benefits
(2) From Table 3, column (c): Total Annual Costs

Table 6: Capital Recovery Factor

(Use to obtain factor for Table 1, Line k or Table 4b, Column (c))

Life of Project (in years)	Capital Recovery Factor
7	0.1791
8	0.1610
9	0.1470
10	0.1359
11	0.1268
12	0.1193
13	0.1130
14	0.1076
15	0.1030
16	0.0990
17	0.0954
18	0.0924
19	0.0896
20	0.0872
21	0.0850
22	0.0830
23	0.0813
24	0.0797
25	0.0782
26	0.0769
27	0.0757
28	0.0746
29	0.0736
30	0.0726
31	0.0718
32	0.0710
33	0.0703
34	0.0696
35	0.0690
36	0.0684
37	0.0679
38	0.0674
39	0.0669
40	0.0665
41	0.0661
42	0.0657
43	0.0653
44	0.0650
45	0.0647
46	0.0644
47	0.0641
48	0.0639
49	0.0637
50	0.0634

Attachment A

**HECW Commercial and Industrial Rebate Program in San Francisco
Schedule**

Tasks	Year 1				Year 2							
	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter				
Design, market and promote materials for rebate program	X				X							
	\$				\$							
Provide Liaison to qualified facilities	X	X	X	X	X	X	X	X				
	\$	\$	\$	\$	\$	\$	\$	\$				
Design and print rebate forms	X				X							
	\$				\$							
Process and Distribute rebate materials	X	X	X	X	X	X	X	X				
	\$	\$	\$	\$	\$	\$	\$	\$				
Develop a customer database of customers receiving rebates	X											
	\$				\$							
Generate internal progress reports and implement corrective measures as necessary		X	X	X	X	X	X	X				
	\$	\$	\$	\$	\$	\$	\$	\$				

Customer Satisfaction Surveys				X	X	X	X	X				
	\$	\$	\$	\$	\$	\$	\$	\$				
Produce Quarterly Progress Reports for DWR	X	X	X	X	X	X	X	X				
	\$	\$	\$	\$	\$	\$	\$	\$				
Produce Final Program Report				X			X	X				
				\$				\$				
Quarterly Costs	\$0	\$10,778	\$14,778	\$14,778	\$14,778	\$14,778	\$28,780	\$103,448				
Total Program Cost								\$103,448				