

Attachment 2

Within System (lifetime)		
System Water Savings:	17,612	MG/\$M
System, End-Use & EE/RE Savings:	4,260,780	kWh/\$M
System, End-Use & EE/RE GHG Emission Reductions:	1,269,712	kg CO ₂ e/\$M

Grand Total (lifetime)		
Water Savings:	668,160	MG
Energy Savings:	167,070,897	kWh
GHG Emissions Reduction:	49,787,127	kg CO ₂ e

System Summary

Total Project Cost	Water Savings		Energy Savings		GHG Reduction		
	Annual	Lifetime	Annual	Lifetime	Annual	Lifetime	
	Project 1	\$ 37,938,150	69.600 MG/year	668.160 MG	125,350 kWh/year	1,203,356 kWh	37,354 kg CO ₂ e/year
Project 2	\$ -	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 3	\$ -	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 4	\$ -	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 5	\$ -	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 6	\$ -	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 7	\$ -	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 8	\$ -	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 9	\$ -	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 10	\$ -	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Total	\$ 37,938,150	69.600 MG/year	668.160 MG	125,350 kWh/year	1,203,356 kWh	37,354 kg CO₂e/year	358,600 kg CO₂e

Imported Water Summary

	Energy Savings		GHG Reduction	
	Annual	Lifetime	Annual	Lifetime
Project 1	565,082 kWh/year	5,424,791 kWh	168,395 kg CO ₂ e/year	1,616,588 kg CO ₂ e
Project 2	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 3	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 4	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 5	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 6	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 7	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 8	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 9	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 10	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Total	565,082 kWh/year	5,424,791 kWh	168,395 kg CO₂e/year	1,616,588 kg CO₂e

Hot Water Heating System Summary

	Energy Savings		GHG Reduction	
	Annual	Lifetime	Annual	Lifetime
Project 1	6,968,786 kWh/year	66,900,349 kWh	2,076,698 kg CO ₂ e/year	19,936,304 kg CO ₂ e
Project 2	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 3	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 4	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 5	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 6	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 7	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 8	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 9	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 10	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Total	6,968,786 kWh/year	66,900,349 kWh	2,076,698 kg CO₂e/year	19,936,304 kg CO₂e

Energy Efficiency and Renewable Energy (EE/RE) Summary

	Energy Savings		GHG Reduction	
	Annual	Lifetime	Annual	Lifetime
Project 1	9,744,000 kWh/year	93,542,400 kWh	2,903,712 kg CO ₂ e/year	27,875,635 kg CO ₂ e
Project 2	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 3	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 4	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 5	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 6	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 7	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 8	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 9	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 10	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Total	9,744,000 kWh/year	93,542,400 kWh	2,903,712 kg CO₂e/year	27,875,635 kg CO₂e

Total System Summary (System + Water Heating + EE/RE)

	Water Savings		Energy Savings		GHG Reduction	
	Annual	Lifetime	Annual	Lifetime	Annual	Lifetime
Project 1	69.600 MG/year	668.160 MG	16,838,136 kWh/year	161,646,106 kWh	5,017,765 kg CO ₂ e/year	48,170,539 kg CO ₂ e
Project 2	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 3	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 4	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 5	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 6	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 7	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 8	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 9	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 10	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Total	69.600 MG/year	668.160 MG	16,838,136 kWh/year	161,646,106 kWh	5,017,765 kg CO₂e/year	48,170,539 kg CO₂e

Combined Summary (System + Imports + Water Heating + EE/RE)

	Water Savings		Energy Savings		GHG Reduction	
	Annual	Lifetime	Annual	Lifetime	Annual	Lifetime
Project 1	69.600 MG/year	668.160 MG	17,403,218 kWh/year	167,070,897 kWh	5,186,159 kg CO ₂ e/year	49,787,127 kg CO ₂ e
Project 2	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 3	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 4	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 5	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 6	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 7	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 8	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 9	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Project 10	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO ₂ e/year	0 kg CO ₂ e
Total	69.600 MG/year	668.160 MG	17,403,218 kWh/year	167,070,897 kWh	5,186,159 kg CO₂e/year	49,787,127 kg CO₂e

Attachment 2
Estimate of Water Savings, Energy Savings, and GHG Emissions Reduction

Project Name: **Los Angeles Department of Water and Power - Home Energy Improvement Program (HEIP)**
Total Project Cost: **\$37,938,150**

Project Assumptions		
Step 1: Enter the baseline (pre-project) volume of water associated with the project	537	MG/year
Step 2: Enter the volume of water that will be delivered after the project is implemented.	467.4	MG/year
Step 3: Enter the volume of hot water saved from the project's electric water heating system (the summation of step 3 and step 4 must not exceed annual volume of water savings). If not applicable, enter "0".	38.7	MG/year
Step 4: Enter the volume of hot water saved from the project's natural gas water heating system (the summation of step 3 and step 4 must not exceed annual volume of water savings). If not applicable, enter "0".	0	MG/year
Step 5: Enter the useful life in years for the project	9.6	years
Step 6: Enter the percentage of water that is imported	100%	
Step 7: Enter the Energy Intensity (EI) of the System associated with the project's water savings	1801	kWh/MG
Step 8: Enter the total output emission rate specific to the power supplier or use the default value of 0.278	0.298	kg CO ₂ e/kWh
Step 9: Enter EI associated with the Supply and Conveyance segment of the imported water or enter "0" if imported water is not applicable	8119	kWh/MG
Step 10: Enter any additional annual energy savings from energy efficiency and renewable energy (EE/RE), etc.	9744000	kWh/year

*****Note: on a separate sheet provide the basis for the estimates and information sources for factors entered*****

Note: values below are determined from the above Project Assumptions

Units

Water Savings		
1) Annual volume of water savings within System	69.6	MG/year
2) Annual volume of imported water savings	69.6	MG/year
3) Annual volume of hot water heating system savings	38.7	MG/year
4) Lifetime volume of water savings within System	668.16	MG
5) Lifetime volume of imported water savings	668.16	MG
6) Lifetime volume of hot water heating system savings	371.52	MG

Energy Savings		
1) Annual energy savings within System	125,350	kWh/year
2) Annual energy savings from imported water	565,082	kWh/year
3) Annual energy savings from electric hot water heating system	6,968,786	kWh/year
4) Annual energy savings from natural gas hot water heating system (used to calculate total energy saving)	0	kWh/year
5) Total annual energy savings from electric and natural gas hot water heating systems	6,968,786	kWh/year
6) Annual energy savings from natural gas hot water heating system (used to calculate GHG emission)	0	therms/year
7) Lifetime energy savings within System	1,203,356	kWh
8) Lifetime energy savings from imported water	5,424,791	kWh
9) Lifetime energy savings from electric hot water heating system	66,900,349	kWh
10) Lifetime energy savings from natural gas hot water heating system	0	kWh
11) Total lifetime energy savings from electric and natural gas hot water heating systems	66,900,349	kWh
12) Lifetime energy savings from natural gas water heating system	0	therms
13) Additional lifetime energy savings from Energy Efficiency and Renewable Energy (EE/RE), etc.	93,542,400	kWh

GHG Emission Reductions		
1) Annual GHG emission reductions within System	37,354	kg CO ₂ e/year
2) Annual imported GHG emission reductions	168,395	kg CO ₂ e/year
3) Annual GHG emission reductions from electric hot water heating	2,076,698	kg CO ₂ e/year
4) Annual GHG emission reductions from natural gas hot water heating system	0	kg CO ₂ e/year
5) Total annual GHG reductions from electric and natural gas hot water heating system	2,076,698	kg CO ₂ e/year
6) Lifetime GHG emission reductions within System	358,600	kg CO ₂ e
7) Lifetime GHG emission reductions from imported water	1,616,588	kg CO ₂ e
8) Lifetime GHG emission reductions from electric heating system	19,936,304	kg CO ₂ e
9) Lifetime GHG emission reductions from natural gas water heating system	0	kg CO ₂ e
10) Total lifetime GHG emission reductions from electric and natural gas hot water heating systems	19,936,304	kg CO ₂ e
11) Additional annual GHG emission reductions from Energy Efficiency and Renewable Energy (EE/RE), etc.	2,903,712	kg CO ₂ e/year
12) Additional lifetime GHG emission reductions from Energy Efficiency and Renewable Energy (EE/RE), etc.	27,875,635	kg CO ₂ e

Project Summary		
Total annual water savings	69.6	MG/year
Total lifetime water savings	668.16	MG
Total annual energy savings	17,403,218	kWh/year
Total lifetime energy savings	167,070,897	kWh
Total annual GHG emission reductions	5,186,159	kg CO ₂ e/year
Total lifetime GHG emission reductions	49,787,127	kg CO ₂ e

WATER AND ENERGY SAVINGS AND GHG CALCULATIONS

Step 1

As detailed in the Work Plan, HEIP is expected to serve about 200 homes per month during the period between July 2015 and December 2017 (30 months). This translates into about 6,000 homes that will receive water and energy efficiency upgrades as detailed in Attachment 3.

LADWP's 5-year, residential water use average is at 86 gallons per capita per day (2010-2014). In addition, recent population data indicate that the average household contains 2.85 people. Based on this data, the calculation for average water use per residential household is:

$$2.85 \text{ people/household} \times 86 \text{ gallon/person-day} = \mathbf{245 \text{ gallons/household-day}}$$

Given that 6,000 households are expected to be served by HEIP, the baseline water amount is:

$$245 \text{ gallons/household-day} \times 6,000 \text{ households} = \mathbf{1,470,600 \text{ gallons/day}}$$

Or

$$1,470,600 \text{ gallons/day} \times 365 \text{ days/year} = \mathbf{537 \text{ million gallons/year (MGY) (baseline)}}$$

Step 2

Based on previous data, HEIP is expected to provide about 11,585 gallons/year of water savings per household served by the program. This is based on a sample of about 2,100 homes that were similarly audited and upgraded with water and energy efficiency devices over the last two years. A summary of the measures performed and water savings calculated for the sample data are provided in the following table.

$$11,585 \text{ gallons/year} \times 6,000 \text{ households} = \mathbf{69.5 \text{ MGY water savings}}$$

$$537 \text{ MGY} - 69.5 \text{ MGY} = \mathbf{467.5 \text{ MGY delivered after program}}$$

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Water Efficiency Measure	Quantity Performed	Savings per Measure (gal/year)	Total Savings (gal/year)
HEIP135 - Residential High Efficiency Showerheads	131	5,366	702,946
HEIP136 - Residential Aerators (1.5 GPM avg.)	3,321	912	3,028,752
HEIP137 - Residential Handheld Showerheads	2,380	5,366	12,771,080
HEIP138 - Residential Toilet Replacement 3.5 gpf Greater or Equal change to 0.8 gpf	22	18,963	417,186
HEIP139 - Residential Toilet Replacement 1.6 gpf or 1.28 gpf change to 0.8 gpf	1,177	6,353	7,477,481
TOTAL Water Savings			24,397,445
Number of Homes Served			2106
AVERAGE Water Savings per Home Served			11,585

Note: gpf = gallons per flush

Step 3 & 4

Previous data for about 2,100 homes that were similarly audited and upgraded with water and energy efficiency devices indicate that HEIP is expected to replace an average of 1.2 showerheads per household. Each showerhead replacement is assumed to save about 5,366 gallons/year. Hot water is assumed to make up 50 percent of this savings.

$$1.2 \text{ showerheads/household} \times 5,366 \text{ gallons/year-showerhead} \times 6,000 \text{ households} =$$

$$= \mathbf{38.6 \text{ million gallons/year}}$$

No data is available regarding the percent of electric versus gas water heaters in households expected to be served by the program. To provide a conservative estimate of energy savings, it was assumed that all the hot water savings were related to electric water heaters.

Step 5

Previous data for about 2,100 homes that were similarly audited and upgraded with water and energy efficiency devices were used to determine the weighted average for the useful life of the water saving devices that are installed as part of the program. The useful life for each type of product installed and the percent of total water savings attributed to each device is provided in the table below.

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Device	Useful Life	% of Water Savings Attributed to Device
High Efficiency Toilet	20 years	32.4%
Faucet Aerator	3 years	12.4%
High Efficiency Showerheads	5 years	55.2%

Based on these numbers, the weighted average of the useful life of the expected devices is about **9.6 years**.

Step 6

Water purchased from the Metropolitan Water District of Southern California (MWD) serves as the City's supplemental water supply. In fiscal year 2013-2014, this purchased water comprised about 75 percent of the City's supply, or 441,871 acre feet of the total supply of 586,587 acre feet. Supply from our Los Angeles Aqueduct, local groundwater, and recycled water made up the remaining 25 percent. Every drop of water saved through conservation programs such as HEIP is water that does not have to be purchased from MWD. As a result, 100% of the conserved water is considered imported.

Step 7

The City's 2010 Urban Water Management Plan (UWMP) provides energy intensity (EI) information for LADWP's water system, including for the distribution of water to customers. Exhibit 12J on page 265 of the UWMP provides an EI of 196 kilowatt-hour (kWh)/acre foot (AF) of water for distribution.

The City's UWMP is available on the LADWP website at www.ladwp.com/water.

The EI for wastewater treatment is estimated to be 391 kWh/AF of supply. This value is based on wastewater flow data provided by the Department of Public Works, Bureau of Sanitation (LABOS), and LADWP electricity meter data for the associated period. This factor has been used for reports provided by LADWP to the California Energy Commission on conservation savings. This value incorporates the assumption that about 70 percent of the water supply is used outdoors and is not collected as wastewater.

Given that 1 AF equals 0.3259 million gallons (MG):

$$(196 \text{ kWh/AF} + 391 \text{ kWh/AF}) \times 1 \text{ AF}/0.3259 \text{ (MG)} = \mathbf{1,801 \text{ kWh/MG}}$$

The EI for water supply treatment will be addressed in the values calculated in Step 9, as described below.

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Step 8

The carbon emission factor for electricity supplied by LADWP is 0.387 kilogram of carbon dioxide (kg CO₂) per kWh. This factor should be applied to the energy used for water treatment and distribution provided by LADWP and to energy for wastewater treatment provided by LABOS. This factor is an average calculated as the projected weight of carbon dioxide generated divided by the projected energy produced. The input data to this calculation are provided in the 2013 DWP Power System Integrated Resources Plan (IRP), page 135, Figure 4-6.

A link to the 2013 IRP is available through the LADWP website at www.ladwp.com/power. A link to “Integrated Resource Planning” is provided on the left side of the webpage.

The default value of 0.278 suggested by the application guidelines should be used for the supply and delivery of water purchased from MWD, and treatment provided by MWD.

Because only one carbon emission factor is allowed as input to the application spreadsheet, we calculated a weighted value of 0.298 as shown in the following table. For simplicity, the EI for treatment of the imported water supply was used to weight the State/default carbon emission factor, even though some imported water is treated at LADWP’s Los Angeles Aqueduct Filtration Plant in Sylmar using LADWP power. This assumption should result in an overall lower value and slightly underestimate the GHG savings of the proposed project.

Energy Uses for Water	Source	Carbon Emission Factor (kg CO ₂ /kWh)	EI (kWh/MG)	EI - % of Total	Weighted Carbon Emission Factor
Distribution and Wastewater Treatment	LADWP	0.387	1,801	18.2%	0.070
Supply, Conveyance, and Treatment	State/Default	0.278	8,119	81.8%	0.228
TOTALS			9,920		0.298

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Step 9

The City's 2010 UWMP also provides EI information for the supply and conveyance of the three sources of water purchased from MWD: State Water Project (SWP) West Branch, SWP East Branch, and Colorado River Aqueduct. A weighted average EI for MWD water supplies, including treatment, was developed using the water supply volume data provided for 2003 through 2009 provided in Exhibit 12J on page 265. The result is a weighted average EI of 2,646 kWh/AF or 8,119 kWh/MG.

MWD Supply Source	EI - Supply & Conveyance (kWh/AF)	EI - Treatment (kWh/AF)	Total EI (kWh/AF)	7-Year TOTAL Volume (AF)	Percent of Total	Weighted EI (kWh/AF)	Weighted EI (kWh/MG)
State Water Project (SWP) - West Branch	2,580	34	2,614	1,928,649	73.2%	1,913	5,871
SWP - East Branch	3,236	27	3,263	403,014	15.3%	499	1,531
Colorado River Aqueduct (CRA)	2,000	27	2,027	303,626	11.5%	234	717
TOTAL MWD Supply				2,635,289		2,646	8,119

Note: Note: Water from the West Branch of the SWP is treated by LADWP at the Los Angeles Aqueduct Filtration Plant in Sylmar. Water from the East Branch of the SWP and the CRA is treated by MWD. Treatment energy intensity is discussed on page 263 of LADWP's 2010 UWMP.

Step 10

Based on previous data, HEIP is expected to provide about 1,624 kWh/year of energy savings per household served by HEIP. This estimate is based on a sample of about 2,100 homes that were similarly audited and upgraded with water and energy efficiency devices over the last two years. A summary of the measures performed and energy savings calculated for the sample data are provided in the following table. Savings estimates for each measure factor in information such as the climate zone and the cooling system for the home.

1,624 kWh/year x 6,000 households = 9,744,000 kWh/year energy savings

Energy Efficiency Measure	Quantity Requested	kWH Saved per Year per Measure	Total kWH Saved per Year
LADWP HEIP122 Residential Caulking and Weatherstripping (per 1,000 SQF evaporatively cooled) Climate Zone (CZ) 6	12	2.9	35
LADWP HEIP123 Residential Caulking and Weatherstripping (per 1,000 SQF evaporatively cooled) CZ8	187	2.6	486

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Energy Efficiency Measure	Quantity Requested	kWH Saved per Year per Measure	Total kWH Saved per Year
LADWP HEIP124 Residential Caulking and Weatherstripping (per 1,000 SQF evaporatively cooled) CZ9	158	5.1	806
LADWP HEIP127 Residential Caulking and Weatherstripping (per 1,000 SQF air-conditioned) CZ6	14	10.6	148
LADWP HEIP128 Residential Caulking and Weatherstripping (per 1,000 SQF air-conditioned) CZ8	132	8.8	1,162
LADWP HEIP129 Residential Caulking and Weatherstripping (per 1,000 SQF air-conditioned) CZ9	802	1.4	1,123
LADWP HEIP132 Residential Blower-Door Air Leakage Test	946	92	87,032
LADWP HEIP145 Residential Floor Patch	13	198	2,574
LADWP HEIP146 Residential Wall Patch	110	198	21,780
LADWP HEIP147 Residential Door Repair	757	198	149,886
LADWP HEIP148 Residential Door Replacement	16	198	3,168
LADWP HEIP149 Residential Ceiling Patch	47	198	9,306
LADWP HEIP150 Residential Cover Plate Gaskets	207	198	40,986
LADWP HEIP151 Residential Switch/Outlet Plate	60	198	11,880
LADWP HEIP157 Residential Kitchen Exhaust Damper Repair/Replacement	18	198	3,564
LADWP HEIP158 Residential Bathroom Exhaust Damper Repair /Replace	4	198	792
LADWP HEIP159 Residential Register Repair/Replace	4	198	792
LADWP HEIP107 Residential Duct Sealing CZ6	6	75	450
LADWP HEIP108 Residential Duct Sealing CZ8	7	116	812
LADWP HEIP109 Residential Duct Sealing CZ9	22	162	3,564
LADWP HEIP133 Residential Air Duct Replacement	47	148	6,956
LADWP HEIP154 Residential Thermostat Installation/Replacement	7	198	1,386
LADWP HEIP155 Residential Cooling Source Repair	6	159	954
LADWP HEIP156 Residential Filter Replacement	629	159	100,011
LADWP HEIP112 Residential Attic/Kneewall Insulation (per 1,000 sq.ft. of insulation) R-0 to R-30 CZ6	7	169	1,183
LADWP HEIP113 Residential Attic/Kneewall Insulation (per 1,000 SQF insulation) Vintage to R-30 CZ6	6	39	234
LADWP HEIP114 Residential Attic/Kneewall Insulation (per 1,000 sq.ft. of insulation) R-0 to R-30 CZ8	48	327	15,696
LADWP HEIP115 Residential Attic/Kneewall Insulation (per 1,000 SQF insulation) Vintage to R-30 CZ8	49	88	4,312
LADWP HEIP116 Residential Attic/Kneewall Insulation (per 1,000 sq.ft. of insulation) R-0 to R-30 CZ9	83	542	44,986
LADWP HEIP117 Residential Attic/Kneewall Insulation (per 1,000 SQF insulation) Vintage to R-	134	169	22,646

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Energy Efficiency Measure	Quantity Requested	kWH Saved per Year per Measure	Total kWH Saved per Year
30			
LADWP HEIP103 Residential Screw-In CFL 20 Watt Standard Direct Install/100w Replacement	12157	116.8	1,419,938
LADWP HEIP104 Residential Screw-In CFL 20 Watt Standard Direct Install/75w Replacement	11234	80.3	902,090
LADWP HEIP105 Residential Screw-In CFL 20 Watt Standard Direct Install/60w Replacement	9578	58.4	559,355
TOTAL Energy Savings			3,420,093
Number of Homes Served			2,106
Average Energy Savings Per Home Served			1,624