

This presentation premiered at WaterSmart Innovations

watersmartinnovations.com



Hot Water, Hot Savings: Recirculating Water Pump Study

Water Smart Innovations 2019

Elsinore Valley Municipal Water District



97 square miles



155,000+ population



45,000+ connections

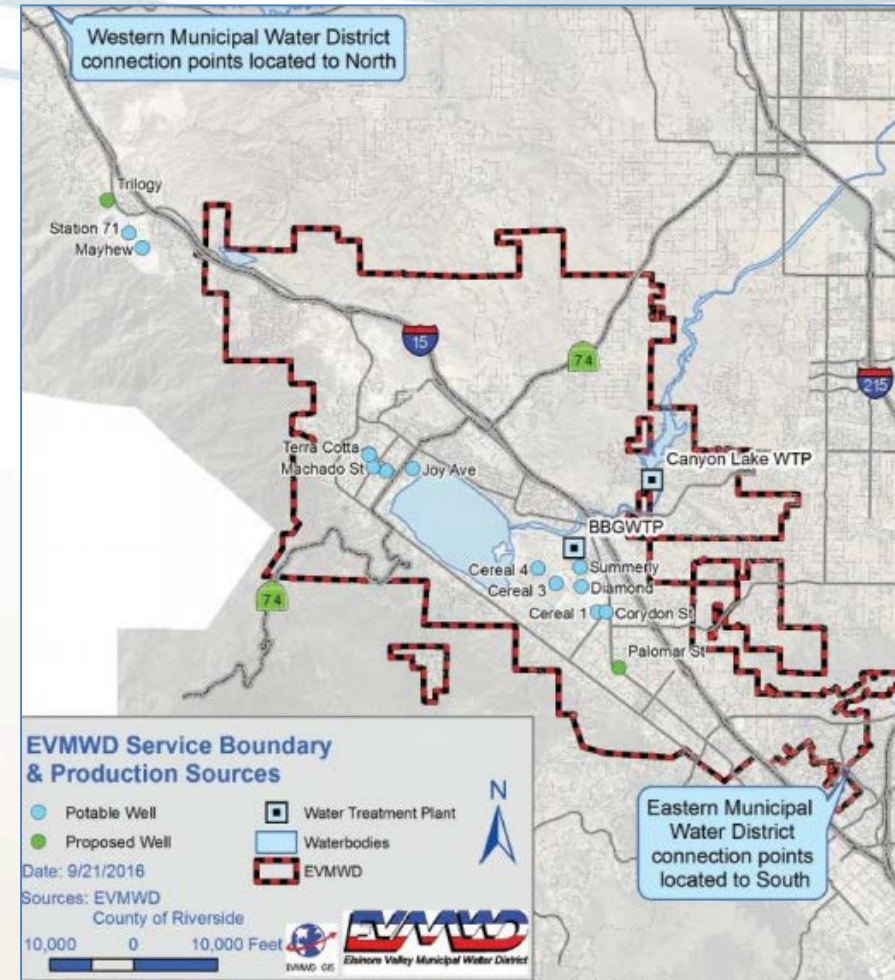
Areas served:

Lake Elsinore

Canyon Lake

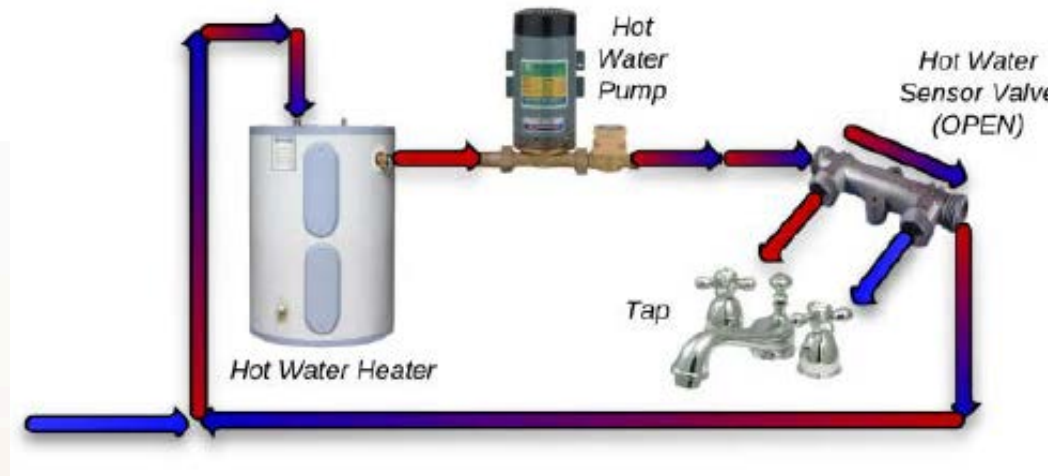
Wildomar

Parts of Corona & Murrieta



Hot Water Recirculating System

System that recirculates cool water sitting in the hot waterline back through the cold waterline and into the water heater to be reheated and reused.



Installation



At the hot
water heater



Under
kitchen sink

Phase 1

- Pilot program FY 2015-2016
- BOR grant funded
- \$175 rebate
- 362 residential installations
 - Over 800 applications received



New Rebate for Instant Hot Water

Instant hot water recirculating systems aid in conservation efforts by allowing instant hot water to be available at the tap, saving water, energy and money. Through funding of a federal grant, EVMWD is offering a limited number of instant hot water recirculating system rebates to our customers.





Using an instant hot water recirculating system, customers no longer have to send cold water down the drain while waiting for hot water. Instead, recirculating pumps rapidly pull hot water from a water heater to be reheated and reused. These systems can be controlled by the push of a button, a timer, and a motion sensor.

When the system is activated the pump begins recirculating cooled water that's been sitting in the hot waterline and sends it back to the water heater through the cold water line. When the water reaches a desired temperature a control turns off the pump. This process is similar to turning on the hot water faucet and letting the water run until it gets hot, but instead of the water going down the drain it is simply returned back to the water heater, saving energy and water.

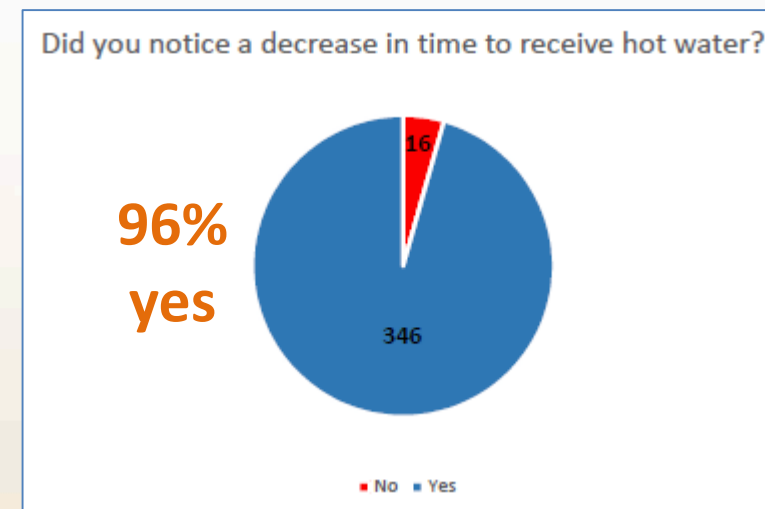
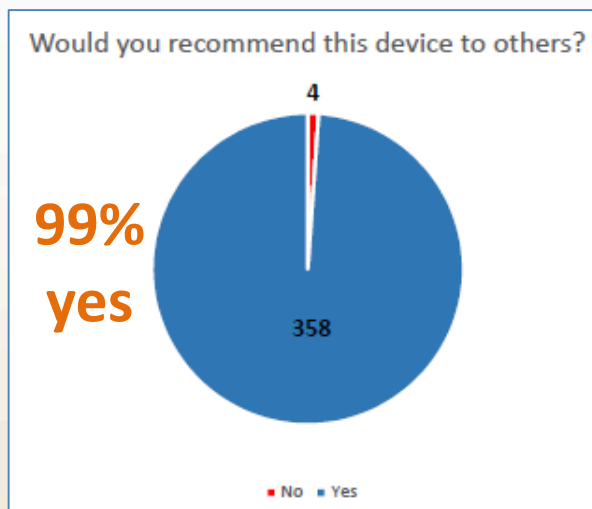
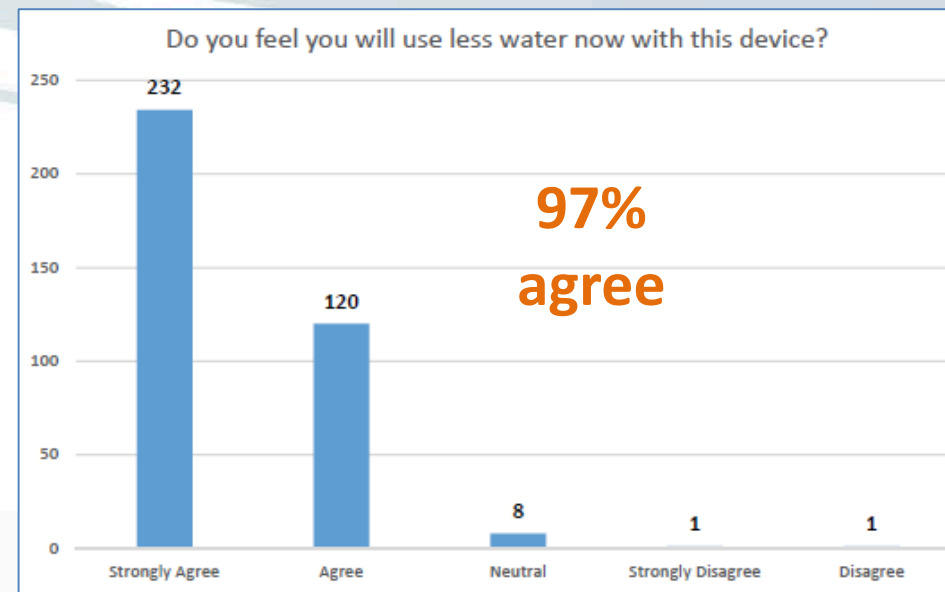
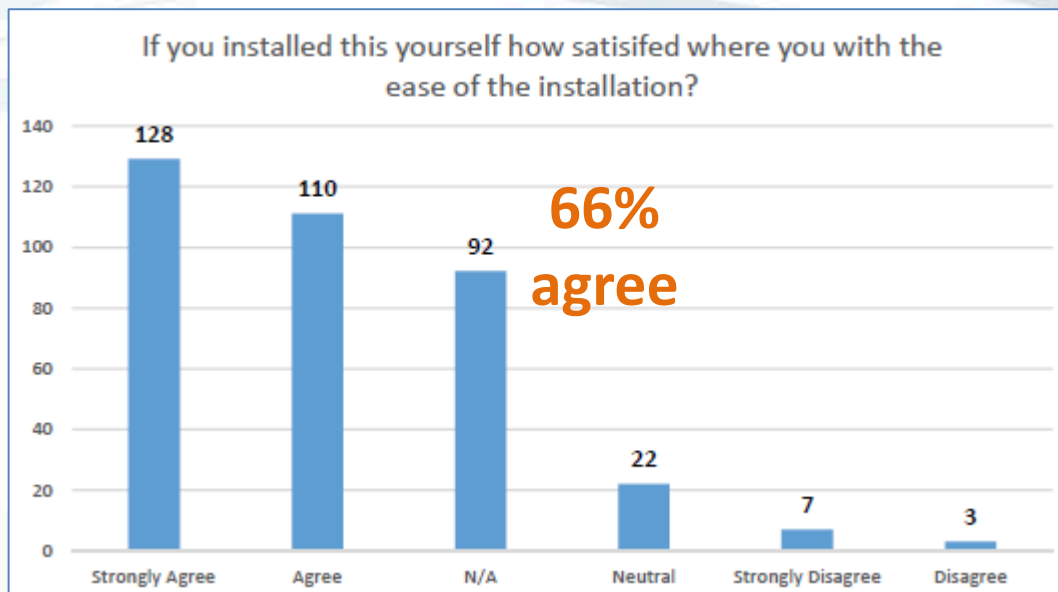
Rebates available for up to \$175. For application, listing of qualifications and rules for participation in the program, please visit www.evmwd.com/hotwater or call (951) 674-3146.

In partnership with **RECLAMATION**
Managing Water in the West



EVMWD
Elsinore Valley Municipal Water District

Customer Response



Previous Studies

- Watts Brand – Estimated 11,000+ gallons each year
- BestHotWaterRecirculators.com – 5,000 to 10,000 gallons each year

Without a hot water recirculation system:

Time to 95° F (shower): ~2-3 minutes

Time to 120° F (washing dishes): ~3-4 minutes

With a hot water recirculation system:

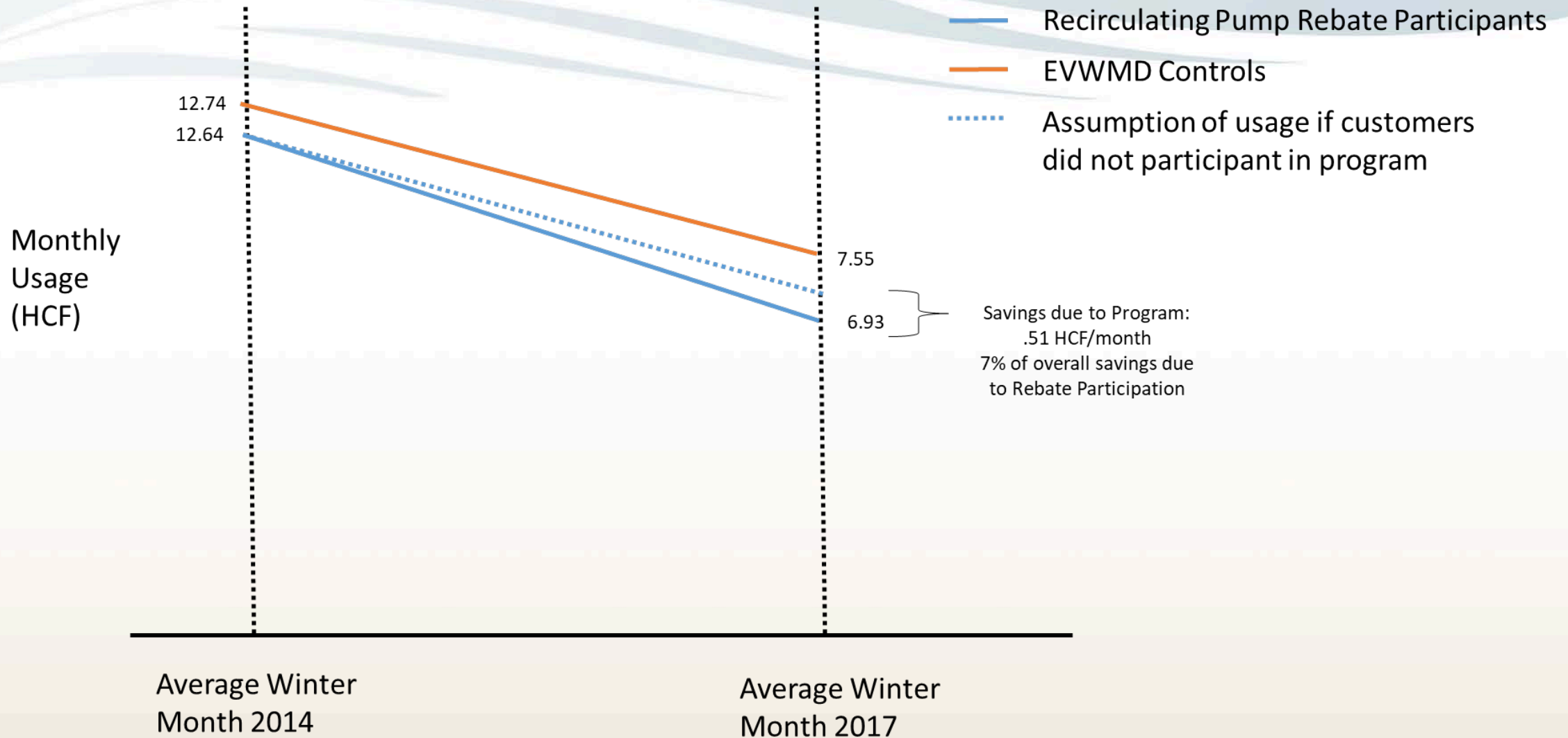
Time to 95° F (shower): 2 seconds

Time to 120° F (washing dishes): 4 seconds

Methods for Data Analysis

- 291 Customers
- 42 Neighbor Controls
- Average Winter Usage (January, February, March)
- 2014 compared to 2017 – Both years had Stage 2 of water drought stages and surcharges
- Difference in Difference Design

Difference in Difference Results



Water Savings

- .51 hcf/month after control effect
- Average reduction 7% per customer
- 4,500 gallons per customer saved
- 5AF of water saved in 1 year

At A Glance



358

Participants



15-16

2015-2016

Time Period



6

Cities



Million

1.6M

Total Program Related Gallons Saved in 1 Year



4,500

Gallons Saved per Customer for the Year



1

Amount of Above Ground Swimming Pools (15ft round x 4ft) that the Water Saved per Customer that Could Fill Up



7%

Average Reduction in Usage per Customer

Next Steps...

- Phase 2: FY 18/19, fund 200 rebates
 - 117 applications approved in 5 months (30% in 1st month)
 - \$20,391.48 in rebates
 - 1.6 AFY savings
- FY 19/20, expand program to 400 rebates
 - Potential savings 5.52 AF

Customer Feedback

- "Thank you. Love this thing!" Carl G. 2/20/19
- "It has changed our life. You can't imagine how long it took to get warm water in our bathroom. And the water is soooooo cold. Thank you for informing us about this amazing product. We are really grateful." Irene P. 2/20/19
- "Thank you so much Haley! I must say that it makes me smile to get hot water so quickly now. Wish I had done this change years ago but didn't know about such a device, or they are still relatively new in the industry. So happy not to be wasting water now while waiting for heat." James G. 2/27/19
- "Must say that I was unaware of the existence of the Hot Water Recirculating System and it has proved to be helpful in placing hot water needs quicker and saving water. Too early in our usage to say by how much savings. Installation was quite simple. A suggestion much appreciated." Dennis M. 3/21/19

What We Learned

1. Simplify application
2. Marketing material
3. Implementation schedule

EVMWD Elsinore Valley
Elsinore Valley Municipal Water District Municipal Water District

Hot Water Recirculating System Rebate Program Rebate Request

Applicant Information		
Applicant Name:		
Daytime Phone Number:	Email:	
Property Address:	City:	State:
Water Service Account Number (include copy of recent bill):		

Hot Water Recirculating System Information	
Brand/Model:	
Purchase Date:	Installation Date:

Disclaimer	
<p>This application is for a rebate only. The Hot Water Recirculating System Rebate Program ("Program") first-come, first-served basis until such funds are no longer available. The Program may be modified without notice. Eligibility requirements apply.</p> <p>Elsinore Valley Municipal Water District (EVMWD) makes no representation or warranty, whether express or implied, of merchantability or fitness for any particular purpose, relating to contracted services or products, including any hazardous substances that may be contained in any product. Installation of the system does not guarantee reduced water use and EVMWD makes no representation as to the safety of the selected services or products.</p> <p>By participating in the Program, applicant waives and releases EVMWD and its contractors and agents from any and all causes of action arising out of or relating to the installation or use of devices in connection with this program, including but not limited to, recommend, endorse, qualify, guarantee or make any representations or warranties regarding the financial stability or performance of any vendor listed on its website. Any and all claims the applicant has against a contractor or manufacturer of a contracted service or device purchased by the applicant shall be the responsibility of the contractor or manufacturer/distributor.</p>	

Signature (required)		
By signing below, the applicant agrees to comply with the program terms and conditions, as well as any codes, including covenants, conditions and restrictions, as applicable. The applicant has read, understood and conditions of the program as outlined and certifies that the information on the application is correct.		
Applicant Signature:	Print Name:	Date:

Submit completed Rebate Request with a photo of your installed system, a copy of your original water bill to:

EVMWD — Hot Water Recirculating System Rebate
31315 Chaney Street
Lake Elsinore, CA 92530

We must receive a photo of the installed system, a copy of your original receipt, and a copy of your current water bill or your rebate cannot be processed.

Now Offering Rebate for Instant Hot Water

EVMWD announces the return of the Hot Water Recirculating System Rebate!

Why wait for hot water? Get it in an instant!

Save water and money with instant hot water available at the tap.



Using a hot water recirculating system, you don't have to wait a long time to get hot water while sending cold water down the drain. Instead, the system pushes cold water back to the water heater to be reheated and used. These systems can be controlled by the push of a button, a timer, or a motion sensor.

When the system is activated, the pump begins recirculating cold water that's been sitting in the hot waterline and sends it back to the water heater through the cold waterline. When the water reaches a desired temperature, a control turns the pump off. This process is similar to turning on the hot water faucet and letting the water run until it gets hot, but instead of the water going down the drain, it is simply returned back to the water heater, saving energy and water.



Rebates are available for up to \$175 per property. For additional program information, application, and terms and conditions, please visit www.evmwd.com/rebates or call (951) 674-3146.



Story

App #48



App #121



App #122



App #48

0011355-03753

Invoice

Date	Invoice #
2/22/2019	31

Bill To

[Redacted]

PAID
02/23/2019

P.O. No.	Terms	Project
VERBAL	COD	

Quantity	Description	Rate	Amount
1	RHEEM PERFORMANCE PLATINUM 50 GAL 12 YEAR 36000 BTU LP TANK WATER HEATER	897.77	897.77
1	VENTILATION KIT	45.68	45.68
1	WATTS 500899 CIRCULATION PUMP, WITH TIMER	556.88	556.88
1	MATERIALS TO COMPLETE INSTALLATION	180.00	180.00
1	LABOR TO COMPLETE INSTALLATION	950.00	950.00
	JOB COMPLETE PAID IN FULL		
Total			\$2,630.33

App #121

Invoice

Date	Invoice #
5/11/2019	47

Bill To

[Redacted]

PAID

P.O. No.	Terms	Project
SKYLINKWH	COD	

Quantity	Description	Rate	Amount
1	RHEEM PLATINUM 50 GAL PERFORMANCE 36000 BTU LP WATERHEATER	897.77	897.77
1	VENTILATION KIT	45.68	45.68
1	WATTS 500899 CIRCULATION PUMP WITH TIMER	556.88	556.88
1	MISC. MATERIALS TO COMPLETE	180.00	180.00
1	LABOR TO COMPLETE INSTALLATION	950.00	950.00
	PAID IN FULL		-2,630.33
Total			\$0.00

App #122



From: [Redacted]
Subject: [Redacted]
Date: [Redacted]
To: [Redacted]

IM GONNA HAVE TO START CHARGING YOU FOR THESE.. THEY ARE A LOT OF WORK.. HA HA

Invoice

Date	Invoice #
5/22/2019	47

Bill To

[Redacted]

PAID

P.O. No.	Terms	Project
SKYLINKWH	COD	

Quantity	Description	Rate	Amount
1	RHEEM PLATINUM 50 GAL PERFORMANCE 36000 BTU LP WATERHEATER	897.77	897.77
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Total			\$0.00

Contact Us

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QUESTIONS?



THANK YOU