

**Exhibit No.:** \_\_\_\_\_  
**Issue(s):** Rate Design Overview/  
Rate Design Water Operations /  
Rate Design Sewer Operations/  
Affordability of Proposed Rates  
**Witness/Type of Exhibit:** Russo/Direct  
**Sponsoring Party:** Public Counsel  
**Case No.:** WR-2016-0064

**DIRECT TESTIMONY**

**OF**

**JAMES M. RUSSO**

Submitted on Behalf of the Office of the Public Counsel

**HILLCREST UTILITY OPERATING COMPANY, INC.**

CASE NO. WR-2016-0064

April 15, 2016

**BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSOURI**


In the Matter of the Rate Increase                    )  
Requests of the Hillcrest Utility                    )     File No. WR-2016-0064  
Operating Company, Inc                                )

**AFFIDAVIT OF JAMES M. RUSSO**

**STATE OF MISSOURI**    )  
                                  )    ss  
**COUNTY OF COLE**     )

James M. Russo, of lawful age and being first duly sworn, deposes and states:

1. My name is James M. Russo. I am a Consultant for the Office of the Public Counsel.
2. Attached hereto and made a part hereof for all purposes is my direct testimony.
3. I hereby swear and affirm that my statements contained in the attached testimony are true and correct to the best of my knowledge and belief.

  
\_\_\_\_\_  
James M. Russo  
Consultant

Subscribed and sworn to me this 15<sup>th</sup> day of April 2016.



TIFFANY HILDEBRAND  
My Commission Expires  
August 9, 2019  
Cole County  
Commission #15637121

  
\_\_\_\_\_  
Tiffany Hildebrand  
Notary Public

My Commission expires August, 2019.

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1 **DIRECT TESTIMONY**

2 **OF**

3 **JAMES M. RUSSO**

4 **HILLCREST UTILITY OPERATING COMPANY, INC.**

5 **CONSOLIDATED CASE NO. WR-2016-0064**

6 Q. Please state your name and business address.

7 A. James M. Russo, 2215 Minnow Branch Road, Stover, Missouri 65102.

8 Q. By whom are you employed and in what capacity?

9 A. I am self-employed as a consultant.

10 **BACKGROUND OF WITNESS**

11 **Q. Please describe your educational background and other**  
12 **qualifications.**

13 A. I graduated from California State University-Fresno, and received a BS in  
14 Accounting. Local elected officials in county government employed me in various  
15 capacities: I was the Assistant Treasurer-Tax Collector for San Joaquin and El Dorado  
16 Counties in California. My responsibilities included all financial dealings of the county  
17 governments and all accounting activities of the Treasurer-Tax Collector office. In  
18 addition, I was the Supervising Accountant Auditor in El Dorado County for two years.  
19 My division was responsible for internal audits of all county agencies, special districts,  
20 and external franchise/lease agreements.

21 **Q. What were the nature of your duties when employed as a member of**  
22 **the Staff by the Missouri Public Service Commission (“Staff”)?**

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1           A.     From April 1997 to December 2001, I worked in the Staff Accounting  
2 Department, where my duties consisted of directing and assisting with various audits as  
3 well as examinations of the books and records of public utilities operating within the  
4 State of Missouri under the jurisdiction of the Public Service Commission  
5 (“Commission”). From December 2001, to August 2003, I was a Regulatory Auditor IV  
6 in the Energy Tariffs/Rate Design Department where my duties consisted of analyzing  
7 applications, reviewing tariffs, and making recommendations based upon these  
8 evaluations. On August 16, 2003, I assumed the position of Rate and Tariff Examination  
9 Supervisor in the Water & Sewer Unit where my duties consisted of reviewing tariffs,  
10 preparing and analyzing cost of service and rate design, and performing accounting  
11 functions. I held this position until my retirement from the Commission Staff on  
12 December 31, 2015.

13           **Q.     Have you previously filed testimony before this Commission?**

14           A.     Yes. A list of cases in which I have filed testimony before this  
15 Commission is attached as Schedule 1 to my direct testimony.

16           **INTRODUCTION**

17           **Q.     With reference to Case Nos. WR-2016-0064 and SR-2016-0065**  
18 **consolidated to Case No. WR-2016-0064, have you made an examination and study**  
19 **of the material filed by Hillcrest Utility Operating Company, Inc. (“Hillcrest” or**  
20 **“Company”) relating to its proposed increase in water and sewer rates?**

21           A.     Yes, I have.

1           **Q. With reference to consolidated case numbered WR-2016-0064, have**  
2 **you made an examination and study of the *Partial Disposition Agreement and Request***  
3 ***for Evidentiary Hearing* filing by Staff on March 25, 2016?**

4           A. Yes I have.

5           **Q. With reference to consolidated case numbered WR-2016-0064, have**  
6 **you made an examination of the Data Requests, work papers and documents**  
7 **provided to the Office of the Public Counsel (“OPC”) by Staff and Hillcrest?**

8           A. Yes I have.

9           **Q. What is the purpose of your direct testimony?**

10          A. The purpose of my direct testimony is to provide OPC’s position relating  
11 to: water and sewer operations rate design and affordability of proposed rates for water  
12 and sewer operations. In addition, I have included for the Commission’s consideration an  
13 option of phased-in rates for Hillcrest’s water and sewer operations.

14          **RATE DESIGN OVERVIEW**

15          **Q. Did you perform a Class Cost of Service (“CCOS”) Study?**

16          A. No. A CCOS allocates each cost listed in a Company’s cost of service into  
17 different cost components such as base costs, maximum day usage and maximum hour  
18 usage. The underlying data required to make these types of allocations generally are not  
19 available for small regulated utilities as Hillcrest. As an alternative, I used a general cost  
20 of service to develop rates since the Company is too small to perform a CCOS; normally  
21 done in a larger utility rate case. The Company has a total of 242 water customers, which  
22 consists of 218 residential customers, 20 apartment customers and 4 commercial

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1 customers. The Company has a total of 240 sewer customers, which consists of 216  
2 residential customers, 20 apartment customers and 4 commercial customers.

3 **Q. What did you use to develop rates for water and sewer service as an**  
4 **alternative to a CCOS?**

5 A. I used a cost of service that was developed by Staff for the water and  
6 sewer operations of the Company.

7 **Q. What documents did you use in the development of your general Cost**  
8 **of Service for your proposed rate design for water and sewer service?**

9 A. I used Staff's accounting schedules attached to the *Company/Staff Partial*  
10 *Agreement Regarding Disposition of Small Company Water Rate Increase* as well as  
11 attached to the *Company/Staff Partial Agreement Regarding Disposition of Small*  
12 *Company Sewer Rate Increase*, which are included in the *Partial Disposition Agreement*  
13 *and Request for Evidentiary Hearing*.

14 **Q. Did you prepare rate design worksheets for the Company's water and**  
15 **sewer operations?**

16 A. Yes. The following are attached to my Direct Testimony: Schedule 2  
17 Ratemaking Income Statement, Schedule 3 Revenue Annualization at Current Rates  
18 Worksheet, Schedule 4 Development of Tariffed Rates Worksheet, Schedule 5 Revenue  
19 Annualizations at Proposed Rates Worksheet, Schedule 6 Billing Comparison Worksheet,  
20 Schedule 7 Ratemaking Income Statement, Schedule 8 Revenue Annualization at Current  
21 Rates Worksheet, Schedule 9 Development of Tariffed Rates Worksheet, Schedule 10  
22 Revenue Annualizations at Proposed Rates Worksheet, and Schedule 11 Billing

1 Comparison Worksheet are for the Company's sewer operations, and Schedule 12  
2 Summary of Phased-in Utility Rates.

3 **RATE DESIGN WATER OPERATIONS**

4 **Q. What is the current water rate design?**

5 A. The current water rate design is a monthly minimum per customer  
6 ("customer charge") and a volumetric rate per 1,000 gallons ("volumetric rate").

7 **Q. Please define customer charge.**

8 A. The customer charge is the amount charged to customers each month  
9 regardless of the amount of water used. In business terms, this is sometimes referred to as  
10 a "fixed cost."

11 **Q. What type of costs are included in the monthly minimum customer  
12 charge.**

13 A. The monthly minimum customer charge includes the costs that remain  
14 relatively constant throughout the course of the year. This would include the operating  
15 expenses and capital costs not directly associated with the production of water.

16 **Q. Please define the volumetric rate.**

17 A. The volumetric rate is the rate charged to customers based on the amount  
18 of water used by the customer at specifically-set intervals.

19 **Q. What type of costs are included in the volumetric rate?**

20 A. The volumetric rate includes the operating and capital costs related to the  
21 production of water.

22 **Q. Are you proposing any changes to the current water rate design  
23 customer classifications?**



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1           A.     Yes, I am proposing the current monthly minimum per customer  
2 classification be eliminated and replaced with a residential, apartment, and commercial  
3 customer class.

4           **Q.     Are you proposing any changes to the current rate schedule tariff**  
5 **language?**

6           A.     I am proposing the current tariff language be changed from per 1,000  
7 gallons to volumetric rate per 1,000 gallons. I am not proposing separate commodity  
8 rates for the new proposed customer classifications.

9           **Q.     How did you determine the customer charge and volumetric rate?**

10          A.     I assigned the expenses listed in Staff's accounting schedules to either the  
11 customer charge or volumetric rate. 100% of the costs were assigned directly as a  
12 customer charge or a volumetric rate or a representative portion of the costs were  
13 allocated by a percentage to either the customer charge or volumetric rate based on the  
14 particular characteristics of the cost.

15          **Q.     Please explain how you assigned costs directly to the customer charge**  
16 **and volumetric rate.**

17          A.     Certain costs can be directly associated with either the customer charge or  
18 volumetric rate. Office supplies, bank fees, billing & collections and uncollectible  
19 accounts are examples of costs that can be directly allocated to the customer charge.  
20 Electricity for pumping and water treatment expenses are example of costs that can be  
21 directly associated to the volumetric rate.

22          **Q.     Please explain how you allocated costs between the customer charge**  
23 **and volumetric rate?**

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1           A.     Different methodologies were used depending on the expense item. An  
2 explanation of the methodologies used for the allocations between the customer charge  
3 and volumetric rate are below.

4           **Q.     How was operator salary expense allocated?**

5           A.     Operators salary expense was allocated between the customer charge and  
6 volumetric charge based on a review of the contract provided in the Company's response  
7 to Staff data request #24 and OPC data request #1308.

8           **Q.     How was the system repair expense allocated?**

9           A.     Systems repair maintenance was allocated between the customer charge  
10 and volumetric charge on the basis that the water system is a new plant and costs directly  
11 associated with the production of water should be minimal.

12           **Q.     How were the administrative and general salaries, employee pension  
13 and benefits, employer FICA taxes, and state unemployment taxes expense  
14 allocated?**

15           A.     The administrative and general salaries, employee pension and benefits,  
16 employer FICA taxes, and state unemployment taxes were allocated between the  
17 customer charge and volumetric charge based on the amount of time of each employee's  
18 job responsibilities that can be attributed to customer charge or volumetric rate functions.  
19 I reviewed the job descriptions provided by the Company in response to Staff data  
20 request # 12 and OPC data request #1314 to determine this information. This calculation  
21 is shown on Schedule 6 in the box titled "Payroll".

22           **Q.     How was the transportation expense allocated?**

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1           A.     I reviewed the travel expense work paper provided by Staff. The  
2 transportation expense was entirely related to Mr. Cox. In addition, a further review of  
3 the travel expense work paper did not indicate any activity by Mr. Cox that did not mirror  
4 the activities listed on his timesheet. Based on this information and the fact there was  
5 not enough detail provided to distinguish between travel expenses and salary expenses, I  
6 used the same 10% I used in allocating Mr. Cox's salary to the volumetric rate.

7           **Q.     How was the regulatory commission expense allocated?**

8           A.     This expense was allocated equally between the customer charge and  
9 volumetric rate.

10          **Q.     How did you allocate the state and federal income taxes expense,**  
11 **interest expense, and return on rate between the customer charge and volumetric**  
12 **charge?**

13          A.     I determined the net rate base attributed to the plant accounts in the  
14 following categories: source of supply, pumping plant, and water treatment plant. The  
15 net rate base for these accounts was multiplied by Staff's proposed weighted rate of  
16 return including income tax. The result of this calculation was allocated to the above  
17 accounts based on the same ratio these accounts have in Staff's water accounting  
18 schedules.

19          **Q.     How was depreciation expense allocated?**

20          A.     The actual depreciation expense related to source of supply, pumping  
21 plant, and water treatment plant accounts were allocated to the volumetric rate.

22          **Q.     How did you calculate the proposed total customer charge?**

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1           A.     There were two steps to the calculation of the customer charge. In the first  
2 step, I developed a customer equivalent factor for each customer class with the residential  
3 customer class being a factor of 1. I developed a customer equivalent factor of .8 for the  
4 apartment customer classification. This is the current equivalent factor used in the  
5 Company's existing sewer rates and there is no valid reason to modify it in this case. I  
6 developed a customer equivalent factor of 1.5 for the commercial class customers. The  
7 customers in the commercial class represent 1.65% of the total water customers but these  
8 commercial customers consume 8.41% of the water used by all of the water customers.

9           The second step in the calculation of the customer charge was dividing the total  
10 cost of service allocated to the customer charge by the total customer equivalents  
11 determined in the first step. This number was then multiplied by the factor for each  
12 customer class to determine the customer charge for that customer classification. The  
13 results of these calculations can be found on Schedule 4.

14           **Q.     How did you calculate the proposed volumetric rate?**

15           A.     This was calculated by dividing the total cost of service allocated to the  
16 volumetric rate by the total amount of annualized gallons of water listed on Accounting  
17 Schedule 8-2 included in Staff's work papers filed in this case. The results of this  
18 calculation can be found on Schedule 4.

19           **Q.     What are the results of your proposed rate design for the water**  
20 **operations of Hillcrest?**

21           A.     The results of my proposed rate design for the water operations of  
22 Hillcrest are in the box below:

Monthly Customer Charge:

Residential Class     \$36.97

Apartment Class     \$29.57

Commercial Class     \$55.45

Commodity Charge all Customer Classifications:

\$5.91 per thousand gallons

1

2

**Q.     How much water does a typical Hillcrest residential water customer consume in a month?**

3

4

A.     The amount of water consumed by a typical Hillcrest residential water customer can be determined by using the information provided in Staff's accounting schedule 8.2 filed in this case. It is the number of gallons sold on an annual basis divided by 12 with this number divided by the number of residential water customers. The result is 3,830 gallons of water per month.

5

6

7

8

9

**Q.     What are the results of your proposed rate design on the typical Hillcrest residential water customer using 3,830 gallons of water per month?**

10

11

A.     The results of my proposed rate design on the typical Hillcrest residential water customer using 3,800 gallons of water per month is in the box below:

12

Proposed Bill of Typical Residential Water Customer

Monthly Customer Charge     \$36.97

Volumetric Rate     \$22.62

Total Proposed Monthly Bill     \$59.59

13

1 **RATE DESIGN SEWER OPERATIONS**

2 **Q. What is the current sewer rate design?**

3 A. The current sewer rate design is a flat monthly charge for residential single  
4 families and a slightly-lower flat monthly charge for apartments regardless of the amount  
5 of water consumed.

6 **Q. Are you proposing any changes to the current sewer rate design?**

7 A. Yes, I am proposing a commercial class of customers be added to the  
8 existing residential and apartment classes. I am also proposing the current “Residential  
9 Single Family” classification be relabeled to “Residential” class in the Company’s sewer  
10 tariff.

11 **Q. How did you calculate the proposed sewer customer charge?**

12 A. I used the same methodology t I used in calculating the proposed water  
13 customer charge. The results of this calculation can be found on Schedule 10.

14 **Q. What are the results of your proposed rate design for the sewer  
15 operations of Hillcrest?**

16 A. The results of my proposed rate design for the sewer operations of  
17 Hillcrest are in the box below:

Monthly Customer Charge Comparison Current Rates to Proposed Rates:		
	Current Rates	Proposed Rates
Residential Class	\$14.63	\$73.07
Apartment Class	\$11.70	\$58.46
Commercial Class	\$14.63	\$109.61

1 **AFFORDABILITY OF PROPOSED RATES**

2 **Q. Did you review the transcript of the March 9, 2016 Local Public**  
3 **Hearing (“LPH”) held for this case in Cape Girardeau?**

4 A. Yes I have.

5 **Q. What are the results of your review?**

6 A. Sixteen different customers testified at the LPH. The common themes  
7 were: improvements needed to be done to the system, a rate increase may be warranted,  
8 the size of the increase is extremely high, customers cannot afford the proposed rates, and  
9 customers will not be able to sell their homes because of the high water and sewer rates.

10 **Q. Let’s talk about how this rate increase might affect these consumers.**  
11 **What is the median household income for the Cape Girardeau area?**

12 A. The Federal Reserve Bank of St. Louis, Economic Research lists the  
13 median household income for Cape Girardeau County in 2014 as \$47,705<sup>1</sup>.

14 **Q. What is the current total water and sewer rates on a typical**  
15 **residential customer?**

16 A. Using the information from the Billing Comparison Worksheets (Schedule  
17 6 for water and Schedule 11 for sewer), the typical residential customer pays monthly  
18 \$10.63 for water and \$14.63 for sewer. For a typical Hillcrest residential water and sewer  
19 customer, this is a combined monthly bill of \$25.26 and an annual total bill of \$303.12.

20 **Q. What is the total of your proposed water and sewer rates on the**  
21 **typical residential customer?**

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<sup>1</sup> This information may be found at the website:  
[research.stlouisfed.org/fred2/series/MHIMO29031A052NCEN](http://research.stlouisfed.org/fred2/series/MHIMO29031A052NCEN).

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1           A.     Using the information from the Billing Comparison Worksheets (Schedule  
2 6 for water and Schedule 11 for sewer), the typical residential customer will pay monthly  
3 \$59.99 for water and \$73.07 for sewer. For a typical Hillcrest residential water and sewer  
4 customer, this is a combined monthly bill of \$133.06 and an annual total bill of  
5 \$1,596.72.

6           **Q.     What is the percent increase of your proposed water and sewer rates**  
7 **on the typical residential customer?**

8           A.     A typical residential customer would see their water bill increase by  
9 approximately 460% and their sewer bill increase by 400%.

10          **Q.     What percentage is the typical residential water and sewer customers**  
11 **proposed bill of the median household income for the county of Cape Girardeau?**

12          A.     The percentage would be 3.36% using an average median household  
13 income of \$47,500.

14          **Q.     Have you compared the existing water and sewer rates of Hillcrest to**  
15 **other regulated water and sewer utilities in Missouri?**

16          A.     Yes. The existing water rates for Hillcrest are near the lowest of any  
17 regulated water utility in Missouri. The existing sewer rates are in the lower half of any  
18 regulated sewer utility in Missouri.

19          **Q.     Have you compared the proposed water and sewer rates of Hillcrest**  
20 **to other regulated water and sewer utilities in Missouri?**

21          A.     Yes. The proposed water and sewer rates would be among the highest, if  
22 not the highest, for a regulated water and sewer utility in Missouri and would result in  
23 rate shock for many of Hillcrest's customers.



1           **Q.     What is rate shock?**

2           A.     Rate shock is when a current rate is raised dramatically. It is my opinion  
3 any proposed rate over 100% greater than the existing rate qualifies as rate shock.

4           **Q.     Are there any ways to mitigate the high proposed rates and rate shock**  
5 **to the consumer?**

6           A.     Yes, the phasing-in of rates is an established mechanism that helps  
7 mitigate any rate shock attributed to high rates.

8           **Q.     What are phased-in utility rates?**

9           A.     Phased-in utility rates spread a Commission ordered increase in utility  
10 rates over a period of time.

11          **Q.     Are there benefits to phased-in utility rates?**

12          A.     Yes. One of the biggest benefits to the customer in a phased-in utility rate  
13 is the mitigation of rate shock. A benefit to the Company is they are allowed the  
14 opportunity to recover their full cost of service at the end of the rate phase-in period and  
15 the Company is allowed to recover carrying costs on the portion of the rate increase that  
16 is delayed from taking effect on day one of any approved rate increase.

17          **Q.     Is OPC recommending the utility rates be phased-in?**

18          A.     Yes.

19          **Q.     Please explain OPC's alternative proposal for the phase-in of utility**  
20 **rates?**

21          A.     OPC's proposes to take the costs associated with investment in new plant  
22 as the expenses to be set-aside and used in any phase-in of utility rates. This would

1 include the accounts of depreciation expense, interest expense, return on rate base, and  
2 state and federal income taxes.

3 **Q. Why did OPC choose these accounts?**

4 A. First, these accounts are the primary driver for the increase in the  
5 Company's water and sewer utility rates. Second, these are the accounts that the costs  
6 related to the investment in new plant appear in the Company's cost of service. Third,  
7 the costs related to these accounts that would be recovered in rates are not necessary for  
8 the day-to-day operations of the utility.

9 **Q. What is OPC's recommendation for phased-in water and sewer utility**  
10 **rates?**

11 A. OPC is recommending rates be phased-in over a two year period. Initial  
12 rates would go up by approximately 50% of the overall recommended increase. 50% of  
13 the remaining balance, plus carrying costs on the total outstanding balance, would be  
14 implemented after year one. The remaining balance, plus carrying costs on the balance  
15 remaining after the first phase-in of rates, would be implemented after year two.

16 **Q. How does OPC propose to determine carrying costs?**

17 A. OPC proposes carrying costs are the expenses not included in the initial  
18 setting of water and sewer utility rates multiplied by the total weighted rate of return  
19 including income taxes approved in this case. OPC has used Staff's recommend 10.68%  
20 in its calculations.

21 **Q. How does OPC propose to treat the carrying costs related to these**  
22 **accounts?**

23 A. OPC proposes the carrying costs be amortized over five years.

1           **Q.     What are the proposed rates of OPC's option to phase-in Hillcrests**  
2 **water and utility rates?**

3           A.     The proposed rates of OPC's option to phase-in Hillcrests water and sewer  
4 utility rates may be found in Schedule 12 attached to this testimony.

5           **Q.     Does this conclude your direct testimony?**

6           A.     Yes it does.

RATE CASE PROCEEDING PARTICIPATION

**JAMES M. RUSSO**

<u>COMPANY</u>	<u>CASE NO.</u>
Union Electric Company	GR-97-393
Gascony Water Company	WA-97-510
St. Joseph Light and Power Company	EC-98-573
St. Joseph Light and Power Company	HR-99-245
St. Joseph Light and Power Company	GR-99-246
St. Joseph Light and Power Company	ER-99-247
UtiliCorp United Inc./St. Joseph Light and Power Company	EM-2000-292
UtiliCorp United Inc./Empire District Electric Company	EM-2000-369
Osage Water Company	WR-2000-557
Osage Water Company	SR-2000-556
Missouri Gas Energy	GR-2001-292
Southern Missouri Gas Company, L.P.	GR-2001-0388
Environmental Utilities	WA-2002-65
Laclede Gas Company	GR-2002-356
Laclede Gas Company	GA-2002-429
Missouri Gas Energy	GT-2003-0033
Aquila Networks L & P	GT-2003-0038
Southern Missouri Gas Company, L.P.	GT-2003-0031
Atmos Energy Corporation	GT-2003-0037
Fidelity Natural Gas, Inc.	GT-2003-0036
Laclede Gas Company	GT-2003-0032
Union Electric Company	GT-2003-0034
Union Electric Company	GR-2003-0517
Missouri Gas Energy	GT-2004-0049
Aquila Inc.	GR-2004-0072
Missouri Gas Energy	GC-2004-0216
Missouri Gas Energy	GC-2004-0305
Algonquin Water Resources of Missouri, LLC	WR-2006-0425

Missouri-American Water Company	WR-2007-0216
Missouri-American Water Company	SR-2007-0217
Timber Creek Sewer Company	SR-2008-0080
Missouri-American Water Company	WR-2008-0311
Missouri-American Water Company	SR-2008-0312
Lake Region Water & Sewer Company	SR-2010-0110
Lake Region Water & Sewer Company	WR-2010-0111
Missouri-American Water Company	WR-2010-0311
Missouri-American Water Company	WR-2011-0337
Emerald Pointe Utility Company	SR-2013-0016
Lake Region Water & Sewer Company	WR-2013-0461
Central Rivers Wastewater Utility, Inc.	SR-2014-0247

# HILLCREST UTILITY OPERATING COMPANY, INC.

## Water Operations

### Rate Making Income Statement

Operating Revenues at Current Rates				
1	Tariffed Rate Revenues *	\$ 32,378	\$ 10,396	\$ 21,981
2	Other Operating Revenues *	\$ 15		\$ 15
3	<b>Total Operating Revenues</b>	<b>\$ 32,393</b>	<b>\$ 10,396</b>	<b>\$ 21,996</b>
4	* See "Revenues - Current Rates" for Details			
Cost of Service				
Item	Amount		Base Charge	Commodity
1	Operators Salary-Maintenance	\$ 18,479	<b>0.75</b> \$ 13,859	\$ 4,620
2	Operator-Backup	\$ -		\$ -
3	Electricity-Pumping	\$ 6,129		\$ 6,129
4		\$ -		\$ -
5	Utility Water Usage	\$ -		\$ -
6	Water Treatment Expense-Chemicals	\$ 1,797		\$ 1,797
7	Bank Fees	\$ 2,331	\$ 2,331	\$ -
8	Outside Services Employed	\$ 1,017		\$ 1,017
9	System Repairs Maintenance	\$ 1,037	<b>0.80</b> \$ 830	\$ 207
10	Billing & Collections	\$ 6,253	\$ 6,253	\$ -
11	Office Supplies	\$ 495	\$ 495	\$ -
12	Postage	\$ 168	\$ 168	\$ -
13	Administration & General - Salaries	\$ 24,153	\$ 22,711	\$ 1,442
14	Office Utilities	\$ -		\$ -
15	Telephone & Internet Expense	\$ 361	\$ 361	\$ -
16	Transportation Expense	\$ 1,598	<b>0.90</b> \$ 1,438	\$ 160
17	Fuel Expense-Vehicles	\$ -		\$ -
18	Medical Expense			
19	Property & Liability Insurance	\$ 11,827	<b>1.00</b> \$ 11,827	\$ -
20	Rent Expense-Building	\$ 6,121	\$ 6,121	\$ -
21	Rate Case Expense	\$ -		\$ -
22	MO DNR Fees	\$ 200	\$ 200	\$ -
23	Employee Pensions & Benefits	\$ 6,971	\$ 6,555	\$ 416
24	Regulatory Commission Expense	\$ 735	<b>0.50</b> \$ 368	\$ 368
25	Uncollectable Accounts	\$ 467	\$ 467	\$ -
26	<b>Sub-Total Operating Expenses</b>	<b>\$ 90,139</b>	<b>\$ 73,984</b>	<b>\$ 16,155</b>
27	Property Taxes	\$ 16	\$ 16	\$ -
28	MO Franchise Taxes	\$ -		\$ -
29	Employer FICA Taxes	\$ 2,104	\$ 1,997	\$ 107
30	Federal Unemployment Taxes	\$ -		\$ -
31	State Unemployment Taxes	\$ 600	\$ 564	\$ 36
32	State & Federal Income Taxes	\$ 4,315	\$ 1,411	\$ 2,904
33	<b>Sub-Total Taxes</b>	<b>\$ 7,035</b>	<b>\$ 3,988</b>	<b>\$ 3,047</b>
34	Depreciation Expense	\$ 26,675	\$ 11,105	\$ 15,570
35	Interest Expense	\$ 35,844	\$ 11,723	\$ 24,121
36	Amortization of Utility Plant	\$ -		\$ -
37	<b>Sub-Total Depreciation/Interest/Amortization</b>	<b>\$ 62,519</b>	<b>\$ 22,828</b>	<b>\$ 39,691</b>
38	<b>Return on Rate Base</b>	<b>\$ 17,330</b>	<b>\$ 5,668</b>	<b>\$ 11,662</b>
39	<b>Total Cost of Service</b>	<b>\$ 177,023</b>	<b>\$ 106,468</b>	<b>\$ 70,555</b>
40	<b>Overall Revenue Increase Needed</b>	<b>\$ 144,630</b>	<b>\$ 96,071</b>	<b>\$ 48,559</b>

# HILLCREST UTILITY OPERATING COMPANY, INC.

## Water Operations

### Revenue Annualizations at Current Rates

#### Annualized Customer Counts and Customer Charge Revenues

##### Retail Metered Customers

Customer Class	Residential	Total Meters	Rate *	Annual Revenue
Residential	242	242	\$ 3.58	\$ 10,396
Apartment	0	0	\$ -	\$ -
Commercial	0	0	\$ -	\$ -
<b>Total</b>	<b>242</b>	<b>242</b>		<b>\$ 10,396</b>

\*monthly service charge

#### Annualized Commodity Sales - Volumes and Revenues

sales shown in Mgallons

Customer Class	Gallons	Total Sales	Rate	Annual Revenue
Residential	10,941.1	10,941.1	\$ 1.840	\$ 20,132
Apartment	-	-	\$ 1.840	\$ -
Commercial	1,005.3	1,005.3	\$ 1.840	\$ 1,850
<b>Total</b>	<b>11,946.4</b>	<b>11,946.4</b>		<b>\$ 21,981</b>

**Net Annualized Commodity Revenues** **\$ 21,981**

#### Other Operating Revenues

Bulk Water Sales	\$ -
Sales to Other Public Authorities	\$ -
Late Charge Fees	\$ -
Turn-Off/Turn-On/Penalty Charges	\$ -
Miscellaneous Revenues - Primacy Fee	\$ 15
Rents from Water Property - Tower Rental	\$ -
Discounts Earned	\$ -
<b>Total Other Revenues</b>	<b>\$ 15</b>

#### Total Operating Revenues

Service Charges - Retail Customers	\$ 10,396
Commodity Revenues - Retail Customers	\$ 21,981
<b>Sub-Total Tariffed Rate Revenues</b>	<b>\$ 32,378</b>
<b>Other Operating Revenues</b>	<b>\$ -</b>
<b>Total Operating Revenues</b>	<b>\$ 32,378</b>

# HILLCREST UTILITY OPERATING COMPANY, INC.

## Water Operations

### Development of Tariffed Rates

The current rate structure consists of a monthly service and a commodity charge for water service, and a monthly service charge for sewer service. OPC is proposing a new customer class be created for commercial customers and has reallocated costs between the customer charge and commodity charge.

<b>Revenues Generated by Current Tariffed Rates</b>	<b>\$ 32,378</b>
<b>Agreed-Upon Overall Revenue Increase</b>	<b>\$ 144,630</b>
<b>Percentage Increase Needed</b>	<b>446.696%</b>

#### Metered Customer Rates

Customer Class	Current Service Charge	Proposed Service Charge	Current Usage Rate	Proposed Usage Rate
Residential	\$ 3.58	\$ 36.97	\$ 1.840	\$ 5.91
Apartment	\$ 3.58	\$ 29.57	\$ -	\$ 5.91
Commercial	\$ 3.58	\$ 55.45	\$ -	\$ 5.91

Customer charge:

customer equivalents

	Number	factor	equivalent customers	
residential	218	1	218	\$ 36.97
commercial	4	1.5	6	\$ 55.45
apartment	20	0.8	16	\$ 29.57
	242		240	
		\$ 106,468	\$ 36.97	

Commodity:

COS	Gallons	Cost per 1,000
\$ 70,555	11,946.4	\$ 5.91



# HILLCREST UTILITY OPERATING COMPANY, INC.

## Water Operations

### Revenue Annualizations at Proposed Rates

#### Annualized Customer Counts and Customer Charge Revenues

##### Retail Metered Customers

Customer Class	Meters	Total Meters	Rate *	Annual Revenue
Residential	218	218	\$ 36.97	\$ 96,708
Apartment	20	20	\$ 29.57	\$ 7,098
Commercial	4	4	\$ 55.45	\$ 2,662
<b>Total</b>	<b>242</b>	<b>242</b>		<b>\$ 106,468</b>

monthly service charge

#### Annualized Commodity Sales - Volumes and Revenues

Customer Class	Gallons	Total Sales	Rate	Annual Revenue
Residential	10,256.8	10,256.8	\$ 5.91	\$ 60,577
Apartment	684.3	684.3	\$ 5.91	\$ 4,042
Commercial	1,005.3	1,005.3	\$ 5.91	\$ 5,937
<b>Total</b>	<b>11,946.4</b>	<b>11,946.4</b>		<b>\$ 70,555</b>

volumes adjusted as needed per net revenue annualization at current rates

#### Other Operating Revenues

Bulk Water Sales	\$ -
Sales to Other Public Authorities	
Late Charge Fees	
Turn-Off/Turn-On/Penalty Charges	
Miscellaneous Revenues - Primacy Fee	\$ 15
Rents from Water Property - Tower Rental	
Discounts Earned	
<b>Total Other Revenues</b>	<b>\$ 15</b>

#### Total Operating Revenues

Service Charges - Retail Customers	\$ 106,468
Commodity Revenues - Retail Customers	\$ 70,555
<b>Sub-Total Tariffed Rate Revenues</b>	<b>\$ 177,023</b>
<b>Other Operating Revenues</b>	<b>\$ 15</b>
<b>Total Revenues at Proposed Rates</b>	<b>\$ 177,038</b>

#### Revenue Check - Proposed Rates vs. Current Rates

Total Revenues at Proposed Rates	\$ 177,038
Total Revenues at Current Rates	\$ 32,378
Increase In Revenues at Proposed Rates	\$ 144,660
Agreed-Upon Increase in Operating Revenues	\$ 144,630

# HILLCREST UTILITY OPERATING COMPANY, INC.

Water Operations

## Residential Customer Bill Comparison

Rates for 5/8" Meter			
Current Base Customer Charge	Proposed Base Customer Charge	Current Usage Rate	Proposed Usage Rate
<u>\$3.58</u>	<u>\$36.97</u>	<u>\$1.84</u>	<u>\$5.91</u>

current service charge is monthly charge

usage rate is per 1,000 gallons used

### MONTHLY BILL COMPARISON

3,830 gallons/month usage

#### Current Rates

Customer Charge	\$ 3.58
Usage Charge	\$ 7.05
Total Bill	\$ 10.63

#### Proposed Rates

Customer Charge	\$ 36.97
Usage Charge	\$ 22.62
Total Bill	\$ 59.59

#### INCREASES

##### Customer Charge

\$ Increase	\$33.39
% Increase	932.62%

##### Usage Charge

\$ Increase	\$15.57
% Increase	220.98%

##### Total Bill

\$ Increase	\$48.96
% Increase	460.71%

# HILLCREST UTILITY OPERATING COMPANY, INC.

## Sewer Operations

### Rate Making Income Statement

Operating Revenues at Current Rates		
1	Tariffed Rate Revenues *	\$ 41,431
2	Other Operating Revenues *	\$ -
3	<b>Total Operating Revenues</b>	<b>\$ 41,431</b>
4	* See "Revenues - Current Rates" for Details	
Cost of Service		
Item	Amount	
1	Operators Salary	\$ -
2	Operator-Backup	\$ -
3	Electricity-Pumping	\$ 4,971
4	Electricity-Shop	\$ -
5	Utility Water Usage	\$ -
6	Sewer Treatment -Chemicals	\$ 4,179
7	Sewer Treatment -Testing/Laboratory Fees	\$ 23,088
8	Sludge Removal	\$ -
9	Maintenance Expense-Parts/Equipment	\$ 10,484
10	Maintenance Expense-Outside Labor	\$ 1,203
11	Bank Fees	\$ 2,331
12	Administration & General - Salaries	\$ 24,153
13	Telephone & Internet Expense	\$ 361
14	Transportation Expense	\$ 1,598
15	Property & Liability Insurance	\$ 11,827
16	Rent Expense	\$ 6,121
17	Outside Services	\$ 1,017
18	Office Supplies	\$ 495
19	Postage Expense	\$ 58
20	Bookkeeping	\$ 6,229
21	Employee Pensions & Benefits	\$ 6,971
22	Regulatory Commission Expense	\$ 3,745
	Uncollectable Accounts	\$ 467
23	Miscellaneous General Expenses	\$ -
24	<b>Sub-Total Operating Expenses</b>	<b>\$ 109,298</b>
25	Property Taxes	\$ 16
26	MO Franchise Taxes	\$ -
27	Employer FICA Taxes	\$ 2,104
28	Federal Unemployment Taxes	\$ -
29	State Unemployment Taxes	\$ 600
30	State & Federal Income Taxes	\$ 4,895
31	<b>Sub-Total Taxes</b>	<b>\$ 7,615</b>
32	Depreciation Expense	\$ 31,467
33	Interest Expense	\$ 40,657
34	Amortization of Utility Plant	\$ -
35	<b>Sub-Total Depreciation/Interest/Amortization</b>	<b>\$ 72,124</b>
36	<b>Return on Rate Base</b>	<b>\$ 19,657</b>
37	<b>Total Cost of Service</b>	<b>\$ 208,694</b>
38	<b>Overall Revenue Increase Needed</b>	<b>\$ 167,263</b>

**HILLCREST UTILITY OPERATING COMPANY, INC.**

**Sewer Operations  
Revenue Annualizations at Current Rates**

**Annualized Customer Counts and Customer Charge Revenues**

**Retail Customers**

<b>Customer Class</b>	<b>Residential</b>	<b>Business</b>	<b>Total Meters</b>	<b>Rate *</b>	<b>Annual Revenue</b>
Residential	216	4	220	\$ 14.63	\$ 38,623
Apartments	20	0	20	\$ 11.70	\$ 2,808
<b>Total</b>	<b>236</b>	<b>4</b>	<b>240</b>		<b>\$ 41,431</b>

\*monthly service charge

**Other Operating Revenues**

Sales to Other Public Authorities	\$ -
Late Charge Fees	\$ -
Turn-Off/Turn-On/Penalty Charges	\$ -
Miscellaneous Revenues - Service Lines	\$ -
Rents from Water Property - Tower Rental	\$ -
Discounts Earned	\$ -
<b>Total Other Revenues</b>	<b>\$ -</b>

**Total Operating Revenues**

Service Charges - Retail Customers	\$ 41,431
Other Operating Revenues	\$ -
<b>Total Operating Revenues</b>	<b>\$ 41,431</b>

# HILLCREST UTILITY OPERATING COMPANY, INC.

## Sewer Operations Development of Tariffed Rates

OPC is recommending a new commercial customer class and the rates be recalculated due to this new customer class.

<b>Revenues Generated by Current Tariffed Rates</b>	<b>\$ 41,431</b>
<b>Agreed-Upon Overall Revenue Increase</b>	<b>\$ 167,263</b>
<b>Percentage Increase Needed</b>	<b>403.712%</b>

### Retail Customer Rates

<b>Customer Class</b>	<b>Current Service Charge</b>	<b>Proposed Service Charge</b>			
Residential	\$ 14.63	\$ 73.07			
Apartments	\$ 11.70	\$ 58.46			
Commercial	\$ 14.63	\$ 109.61			
Residential	216	1	216	\$	73.07
Apartments	20	0.8	16	\$	58.46
Commercial	4	1.5	6	\$	109.61
			238		
		\$ 208,694	\$	73.07	

**HILLCREST UTILITY OPERATING COMPANY, INC.**

**Sewer Operations**

**Revenue Annualizations at Proposed Rates**

**Annualized Customer Counts and Customer Charge Revenues**

**Retail Customers**

<b>Customer Class</b>	<b>Residential</b>	<b>Business</b>	<b>Total Meters</b>	<b>Rate *</b>	<b>Annual Revenue</b>
Residential	216		216	\$ 73.07	\$ 189,403
Apartments	20	0	20	\$ 58.46	\$ 14,030
Commercial	4		4	\$ 109.61	\$ 5,261
<b>Total</b>	<b>236</b>	<b>0</b>	<b>236</b>		<b>\$ 208,694</b>

monthly service charge

**Other Operating Revenues**

Sales to Other Public Authorities	
Late Charge Fees	
Turn-Off/Turn-On/Penalty Charges	
Miscellaneous Revenues - Service Lines	
Rents from Water Property - Tower Rental	
Discounts Earned	
<b>Total Other Revenues</b>	<b>\$ -</b>

**Total Operating Revenues**

Service Charges - Retail Customers	\$ 208,694
Other Operating Revenues	\$ -
<b>Total Revenues at Proposed Rates</b>	<b>\$ 208,694</b>

**Revenue Check - Proposed Rates vs. Current Rates**

Total Revenues at Proposed Rates	\$ 208,694
Total Revenues at Current Rates	\$ 41,431
Increase In Revenues at Proposed Rates	\$ 167,263
Agreed-Upon Increase in Operating Revenues	\$ 167,263

**HILLCREST UTILITY OPERATING COMPANY, INC.**  
**Sewer Operations**  
**Residential Customer Bill Comparison**

**Rates for Residential Customer**

<b>Current Base Customer Charge</b>	<b>Proposed Base Customer Charge</b>
<b>\$14.63</b>	<b>\$73.07</b>

current service charge is monthly charge

**MONTHLY BILL COMPARISON**

**Current Rates**

Customer Charge	\$ 14.63
Usage Charge	\$ -
<b>Total Bill</b>	<b>\$ 14.63</b>

**Proposed Rates**

Customer Charge	\$ 73.07
Usage Charge	\$ -
<b>Total Bill</b>	<b>\$ 73.07</b>

**INCREASES**

**Customer Charge**

\$ Increase	<b>\$58.44</b>
% Increase	<b>399.47%</b>

**Usage Charge**

\$ Increase	<b>\$0.00</b>
% Increase	<b>N/A</b>

**Total Bill**

\$ Increase	<b>\$58.44</b>
% Increase	<b>399.47%</b>

**HILLCREST UTILITY OPERATING COMPANY, INC.**  
**OPC SUMMARY OF PHASED-IN WATER & SEWER RATES**

**Water Operations**

<b>No Phase-in</b>						
	<b>Curren Service Charge</b>	<b>Proposed Service Charge</b>	<b>Percent Increase</b>	<b>Current Usage Rate</b>	<b>Proposed Usage Rate</b>	<b>Percent Increase</b>
Residential	\$3.58	\$36.97	932.68%	\$1.84	\$5.91	221.20%
Apartment	\$3.58	\$29.57	725.98%	\$1.84	\$5.91	221.20%
Commercial	\$3.58	\$55.45	1448.88%	\$1.84	\$5.91	221.20%
<b>Phase-in</b>						
	<b>Curren Service Charge</b>	<b>Proposed Service Charge</b>	<b>Percent Increase</b>	<b>Current Usage Rate</b>	<b>Proposed Usage Rate</b>	<b>Percent Increase</b>
Residential	\$3.58	\$28.84	705.59%	\$1.84	\$1.84	0.00%
Apartment	\$3.58	\$23.07	544.41%	\$1.84	\$1.84	0.00%
Commercial	\$3.58	\$43.25	1108.10%	\$1.84	\$1.84	0.00%
<b>Phase-in after Year 1</b>						
	<b>Curren Service Charge</b>	<b>Proposed Service Charge</b>	<b>Percent Increase</b>	<b>Current Usage Rate</b>	<b>Proposed Usage Rate</b>	<b>Percent Increase</b>
Residential	\$28.84	\$33.30	15.46%	\$1.84	\$3.91	112.50%
Apartment	\$23.07	\$26.64	15.47%	\$1.84	\$3.91	112.50%
Commercial	\$43.25	\$49.94	15.47%	\$1.84	\$3.91	112.50%
<b>Phase-in after Year 2</b>						
	<b>Curren Service Charge</b>	<b>Proposed Service Charge</b>	<b>Percent Increase</b>	<b>Current Usage Rate</b>	<b>Proposed Usage Rate</b>	<b>Percent Increase</b>
Residential	\$33.30	37.21	11.74%	\$3.91	\$6.04	54.48%
Apartment	\$26.64	29.77	11.75%	\$3.91	\$6.04	54.48%
Commercial	\$49.94	55.82	11.77%	\$3.91	\$6.04	54.48%



**Sewer Operations**

<b>No Phase-in</b>			
	<b>Curren Service Charge</b>	<b>Proposed Service Charge</b>	<b>Percent Increase</b>
Residential	\$14.63	\$73.07	399.45%
Apartment	\$11.70	\$58.46	399.66%
Commercial	\$14.63	\$109.61	649.21%
<b>Phase-in</b>			
	<b>Curren Service Charge</b>	<b>Proposed Service Charge</b>	<b>Percent Increase</b>
Residential	\$14.63	\$49.09	235.54%
Apartment	\$11.70	\$39.27	235.64%
Commercial	\$14.63	\$73.63	403.28%
<b>Phase-in after Year 1</b>			
	<b>Curren Service Charge</b>	<b>Proposed Service Charge</b>	<b>Percent Increase</b>
Residential	\$49.09	\$61.63	25.54%
Apartment	\$39.27	\$49.31	25.57%
Commercial	\$73.63	\$92.45	25.56%
<b>Phase-in after Year 2</b>			
	<b>Curren Service Charge</b>	<b>Proposed Service Charge</b>	<b>Percent Increase</b>
Residential	\$61.63	73.92	19.94%
Apartment	\$49.31	59.13	19.91%
Commercial	\$92.45	110.87	19.92%