City of Saint Paul
Interdepartmental Memorandum

To: Mayor Christopher Coleman
Members of the City Council

From: District Energy Rate Review Team

Todd Hurley, Director, Office of Financial Services
Michael Solomon, OFS Treasury
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Holly Huston, City Council
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Date: February 8, 2017

Subject: Staff Report for Proposed District Energy St. Paul, Inc. Rates, Effective for FY 2017

This memorandum provides an analysis of District Energy's proposed cooling and heating rate changes for fiscal year 2017, in accordance with the procedural requirements specified in District Energy's franchise agreements.

I. District Cooling Rates:

District Cooling proposes the following changes to Schedule A:

Demand Rate:
Increase from $26.69 to $27.41 per ton per month, an increase of 2.7%

Energy Rate:
Increase from $0.092 to $0.098 per ton-hour, an increase of 6.5%

Transition Rate:
Rate set at the overall cost of $0.372 per ton-hour at 1200 utilization hours

All other service charges will remain at the 2016 levels as indicated in the attached District Cooling Schedule A.

Comparison of Cooling Rates: 2013 - 2017

	Actual FY 2013	Actual FY 2014	Actual FY 2015	Forecast FY 2016	Budget FY 2017
Rates					
Demand ($/ton/mo)	$26.69	$26.69	$26.69	$26.69	$27.41
Energy ($/ton hr)	$0.091	$0.095	$0.095	$0.092	$0.098
Overall cost at 1200 hrs ($/ton hr)	$0.358	$0.362	$0.362	$0.359	$0.372
Increase as %					
Demand ($/ton/mo)	0.0%	0.0%	0.0%	0.0%	2.7%
Energy ($/ton hr)	3.4%	4.4%	0.0%	-3.2%	6.5%
Overall cost at 1200 hrs	0.8%	1.1%	0.0%	-0.8%	3.6%

The proposed District Cooling *average overall cost* (at 1200 utilization hours) shows an increase of 3.6% from forecasted 2016 to budgeted 2017.

The proposed *demand rate* increase is 2.7%. The demand rate covers operations and maintenance, general and administrative, research and development, debt and capital expenses. Total demand related costs are expected to increase by $470,456 (net of capital expenditures).

The *energy rate* is projected to increase by approximately 6.5% over 2016 levels. The energy rate is a pass through to the customer. The rate is based on the projected cost of electricity, which is the major fuel source for cooling. The 2017 budgeted rate is $0.098 - compared to the forecasted 2016 energy rate of $0.092.

The average overall cost increase (at 1200 utilization hours) of 3.6% is due largely to two factors. On the *demand rate* side, an increase in debt service costs and plant maintenance costs are contributing to the increase. On the *energy rate* side, increases in the cost of electricity is contributing to the rate increase.

District Cooling Comparison to Similar Utility Provider

	Cooling Cost* **($ / Ton-Hour 1200 Hrs)**
Energy Park Utility 2017 Cost	$0.297
District Cooling 2017 Cost	$0.372

***Excluding City fees and sales tax.

II. District Heating Rates:

District Heating proposes the following changes to Schedule A:

Single rate & Transition Rate:
Increase from $0.0584 to $0.0621 per kilowatt hour (6.3%)

Two-part rate:
Demand rate increase from $5.27 to $5.37 per kilowatt per month (1.9%)
Energy rate increase from $21.20 to $24.15 per megawatt hour (13.9%)

All other service charges will remain at the 2016 levels as indicated in the attached District Heating Schedule A.

Comparison of Heating Rates: 2013 – 2017

	Actual FY 2013	Actual FY 2014	Actual FY 2015	Forecast FY 2016	Budget FY 2017
Rates					
Demand ($/kW/mo)	$5.27	$5.27	$5.27	$5.27	$5.37
Energy rate	$25.59	$25.59	$25.59	$25.59	$24.15
Fuel adjustment rate	($1.17)	$1.24	$0.64	($4.39)	$0.00
Total Energy ($/MWh)	$24.42	$26.83	$26.23	$21.20	$24.15
Single Rate ($/KWH)	$0.0616	$0.0640	$0.0634	$0.0584	$0.0621
	Actual FY 2013	**Actual FY 2014**	**Actual FY 2015**	**Forecast FY 2016**	**Budget FY 2017**
Increase as %					
Demand ($/kW /mo)	0.0%	0.0%	0.0%	0.0%	1.9%
Energy ($/MWh)	-2.1%	9.9%	-2.2%	-19.2%	13.9%
Single Rate ($/KWH)	-0.8%	3.9%	-0.9%	-7.9%	6.3%

The proposed District Heating *overall single rate* is projected to increase 6.3% between forecasted 2016 and budgeted 2017. This comes after a 7.9% decrease in 2016.

The proposed *demand rate* represents a 1.9% increase over forecasted 2016. The rate has remained flat since 2012. The demand rate covers operations and maintenance, general and administrative, research and development, debt and capital expenses.

The budgeted *energy rate* represents a 13.9% increase from 2016's forecasted rate. This comes after a 19.2% decrease in 2016. The budgeted 2017 energy rate is $24.15, compared to the 2016 forecasted rate of $21.20. This increase is largely driven by an increase the cost of fuels used to operate the District Heating system including the cost of natural gas. The energy rate is a pass through to the customer. The rate is based on projected cost of fuels utilized.

For FY-2017 the overall rate increase of 6.3% was largely due to two factors: 1.) an increase in the *demand rate* due to costs associated with an increase in debt service costs and plant maintenance costs, 2.) budgeted increase in energy costs.

District Heating Comparison to Other Similar Utilities

	Heating Cost* **($ / MMBtu 1700 Hrs)**
Energy Park Utility 2017 Cost	$21.89
District Heating 2017	$18.18

***Excluding City fees and sales tax.

III. Customer Survey

In spring 2016, District Energy conducted a customer satisfaction survey. Of the survey responses received, 94% rated District Energy's overall customer service as excellent, and 84% rated the system reliability as excellent.

IV. Staff Recommendation

District Cooling:

From an internal perspective, looking at the City's own district cooling expense trend for the past five years (see table below), District Energy's requested rate increase does not seem unreasonable. The City's own trends in cooling costs are likely similar to District Energy's other customers. Given that customer survey results reflect that most customers are satisfied with the service, and given that the average rate increase request at 3.6% is relatively small, staff recommends approval of the rate increase request.

City District Cooling Expenditures by Department:

Department	Description	2011	2012	2013	2014	2015
Police	Building Maint.	100,898.22	103,464.29	83,283.31	93,489.07	92,135.37
Fire	Station Maint.		30,229.72	26,680.31	26,846.95	27,847.81
Real Estate	Real Estate CHA	71,260.83	71,396.41	79,954.43	73,257.51	72,190.04
Library	Maint. Service	66,730.87	78,212.82	74,746.66	54,928.69	47,770.77
Total		238,889.92	283,303.24	264,664.71	248,522.22	239,943.99
% Change		-3.1%	18.6%	-6.6%	-6.1%	-3.5%

District Heating:

From an internal perspective, looking at the City's own district heating expense trend for the past five years (see table below), District Energy's requested rate increase does not seem unreasonable. The City's own trends in cooling costs are likely similar to District Energy's other customers. Given that customer survey results reflect that most customers are satisfied with the service, and given that the average rate increase request at 6.3% is similar to past increases, staff recommends approval of the rate increase request.

City District Heating Expenditures by Department:

Department	Description	2011	2012	2013	2014	2015
Police	Building Maint.	136,265.83	135,534.60	153,961.04	154,371.54	131,725.31
Fire	Station Maint.	59,613.48	38,688.62	40,018.17	35,336.50	30,837.65
Real Estate	Real Estate CHA	91,396.17	90,830.16	92,314.52	81,776.58	67,431.12
Library	Maint. Service	59,359.88	50,036.88	48,778.48	47,343.66	36,714.71
Total		346,635.36	315,090.26	335,072.21	318,828.28	266,708.79
% Change		6.0%	-9.1%	6.3%	-4.8%	-16.3%