



**City of Saint Paul**  
Interdepartmental Memorandum

To: Mayor Christopher Coleman  
Members of the City Council  
Todd Hurley, Director of Financial Services

From: Margaret Egan  
John McCarthy  
Elliot Skurich  
District Energy Rate Review Team

Date: March 29, 2011

Subject: Staff Report for Proposed District Energy St. Paul, Inc. Rates,  
Effective for FY 2011

This memorandum provides an analysis of District Energy’s proposed cooling and heating rate changes for fiscal year 2011, 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 \$25.66 to \$26.30 per ton per month, an increase of 2.5%

**Cooling Rate:**

Increase from \$0.084 to \$0.085 per ton-hour

All other service charges will remain at the 2010 levels as indicated in the attached District Cooling Schedule A.

**Comparison of Cooling Rates: 2007 - 2011**

|                          | <b>Actual<br/>FY 2007</b> | <b>Actual<br/>FY 2008</b> | <b>Actual<br/>FY 2009</b> | <b>Forecast<br/>FY 2010</b> | <b>Budget<br/>FY 2011</b> |
|--------------------------|---------------------------|---------------------------|---------------------------|-----------------------------|---------------------------|
| <b>Rates</b>             |                           |                           |                           |                             |                           |
| Demand (\$/ton/mo)       | \$23.28                   | \$24.79                   | \$25.66                   | \$25.66                     | \$26.30                   |
| Energy (\$/ton hr)       | \$0.076                   | \$0.078                   | \$0.084                   | \$0.084                     | \$0.085                   |
| Overall cost at 1200 hrs | \$0.309                   | \$0.326                   | \$0.341                   | \$0.341                     | \$0.348                   |
| <b>Increase as %</b>     |                           |                           |                           |                             |                           |
| Demand (\$/ton/mo)       | 0.0%                      | 6.5%                      | 3.5%                      | 0.0%                        | 2.5%                      |
| Energy (\$/ton hr)       | 5.6%                      | 2.9%                      | 7.7%                      | -0.2%                       | 1.2%                      |
| Overall cost at 1200 hrs | 1.3%                      | 5.6%                      | 4.5%                      | 0.0%                        | 2.2%                      |

The proposed District Cooling *average overall cost* (at 1200 utilization hours) shows an increase of 2.2% from forecasted 2010 to budgeted 2011.

The proposed *demand rate* increase is 2.5%. The demand rate covers operations and maintenance; general and administrative; research and development; debt and capital expenses. Total demand related cost are expected to increase by \$431,394 (net of capital expenditures).

The *energy rate* is projected to increase by approximately 1.2% over 2010 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. If actual costs are less than budgeted, customers receive a refund. The forecasted 2010 energy rate is \$0.084 - compared to the 2010 budgeted rate of \$0.085.

The overall rate increase of 2.2% is largely due to an increase in the *demand rate* brought about by capital improvement costs associated with the light rail transit project. Approximately 50% of District Cooling's FY-2011 capital projects are associated with the light rail project.

**District Cooling Comparison to Other Similar Utilities**

|                              | <u>Cooling Cost*</u><br><u>(\$ / Ton-Hour)</u> |
|------------------------------|--|
| NRG (Minneapolis) 2010 Rates | \$0.44   |
| District Cooling 2011 Rates  | \$0.35   |

\*Excluding City fees and sales tax.

**II. District Heating Rates:**

District Heating proposes the following changes to Schedule A:

**Single rate:**

Increase from \$0.06145 to \$0.06308 per kilowatt hour (2.7%)

**Two-part rate:**

Demand rate increase from \$4.90 to \$5.17 per kilowatt per month (5.5%)

Energy rate decrease from \$26.86 to \$26.59 per megawatt hour (-1.0%)

All other service charges will remain at the 2010 levels as indicated in the attached District Heating Schedule A.

**Comparison of Heating Rates: 2007 - 2011**

|                       | Actual<br>FY 2007 | Actual<br>FY 2008 | Actual<br>FY 2009 | Forecast<br>FY 2010 | Budget<br>FY 2011 |
|-----------------------|-------------------|-------------------|-------------------|---------------------|-------------------|
| <b>Rates</b>          |                   |                   |                   |                     |                   |
| Demand (\$/kW/mo)     | \$4.35            | \$4.57            | \$4.71            | \$4.90              | \$5.17            |
| Energy rate           | \$14.15           | \$25.15           | \$30.51           | \$26.86             | \$26.59           |
| Fuel adjustment rate  | \$10.88           | \$1.13            | (\$1.35)          | \$0.00              | \$0.00            |
| Total Energy (\$/MWh) | \$25.03           | \$26.28           | \$29.16           | \$26.86             | \$26.59           |
| Single Rate (\$/KWH)  | \$0.05574         | \$0.05854         | \$0.06264         | \$0.06145           | \$0.06145         |
| <b>Increase as %</b>  |                   |                   |                   |                     |                   |
| Demand (\$/kW /mo)    | 0.0 %             | 5.1 %             | 3.1 %             | 4.0 %               | 5.5 %             |
| Energy (\$/MWh)       | 7.2 %             | 5.0 %             | 11.0 %            | -7.9 %              | -1.0 %            |
| Single Rate (\$/KWH)  | 3.1 %             | 5.0 %             | 6.7 %             | -1.5 %              | 2.7 %             |

The proposed District Heating *overall single rate* is projected to increase 2.7 % from between forecasted 2010 and budgeted 2011. This comes after a -1.5% decrease in 2010.

The proposed *demand rate* represents a 5.5% increase over forecasted 2010. This follows last year's increase of 3.1%. The demand rate covers operations and maintenance, general and administrative, research and development, debt and capital expenses.

The budgeted *energy rate* represents a 1.0% decrease from 2010's forecasted rate. The budgeted 2011 energy rate is \$26.59, compared to the 2010 forecasted rate of \$26.86. This decrease, which is also contributing to the decrease in the overall single rate, is largely driven by a decrease in the cost of fuels used to operate the District Heating system. The energy rate is a pass through to the customer. The rate is based on projected cost of fuels utilized. If actual costs are less than budgeted, customers receive a refund.

For FY-2011 the overall rate increase of 2.7% was largely due to two factors: 1.) an increase in the *demand rate* due to costs associated with the light rail transit project, and 2.) a 2.7% decrease in customer demand mainly due to energy conservation by customers. The *demand rate* increase was partially offset by a 1.0% decrease in the *energy rate* due to forecasted reductions in energy costs.

**District Heating Comparison to Other Similar Utilities**

|                              | <u>Heating Cost*</u><br><u>(\$ / MMBtu)</u> |
|------------------------------|---|
| NRG (Minneapolis) 2010 Rates | \$23.84                                     |
| District Heating 2011 Rates  | \$18.48                                     |

\*Excluding City fees and sales tax.

### **III. Customer Survey**

In May of 2010, District Energy conducted a customer survey. At the end of FY-2010, there were 189 buildings on the District Heating system and 99 buildings on the District Cooling system. District Energy received 66 survey responses from 20 different buildings. 87.5% of survey respondents rated District Energy's overall customer service as excellent. 78% of heating customers responded that they "definitely would" recommend District Heating's services to others; and 74% of cooling customers reported that they "definitely would" recommend the service.

District Energy plans to conduct another customer survey in May of 2011.