

# Annual Sustainability Summary

July 2012 - June 2013







## Regional Leaders in Sustainability

Saint Paul RiverCentre and neighboring Roy Wilkins Auditorium have been working since 2009 to become regional leaders in sustainability. They have received many awards for their accomplishments and have inspired other businesses to pursue similar efforts. For Saint Paul RiverCentre sustainability has become part of the brand and culture. Xcel Energy Center is recognized in the NHL as one of the leading 'green' venues in the League.

“Our staff and guests have done a tremendous job of embracing our commitment to sustainability leadership. The impact of their dedication can be seen in the way we work, in the impact of our leadership regionally, and in the bottom line benefits to the facility and community.”

- Jim Ibister

General Manager, Saint Paul RiverCentre and VP Facility Administration, Minnesota Wild



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## Reducing Trash...Increasing Recycling

The waste reduction and recycling program continues to improve incrementally over time. No major new elements have been added this year, but the recycling rate has held steady - and even increased slightly.

Composting continues to increase as a percentage of the total waste stream. This was the first full year of operations staff sweeping the seating areas of the arena for compostables after each event. In addition, permanent compost bins were placed in Saint Paul RiverCentre Exhibit Halls this year, where previously compost was only collected during certain events.

The NHL nominated Xcel Energy Center and Saint Paul RiverCentre for the "Beyond Sport Award" this year, making it the first time the complex has been internationally recognized for sustainability achievements.

### Did you know...

Multiple times a year, foodservice shows are held in Saint Paul RiverCentre. At the end of each show, exhibitors separate compostable and recyclable items from trash, collecting well over 1,000 lbs of compostable material in less than 30 minutes!

### From July 2012 - June 2013:

**Recycling Rate = 56.4%**

**Compost = 236 tons**

**Cardboard = 130 tons**

**Cans, Bottles, Cups = 103 tons**

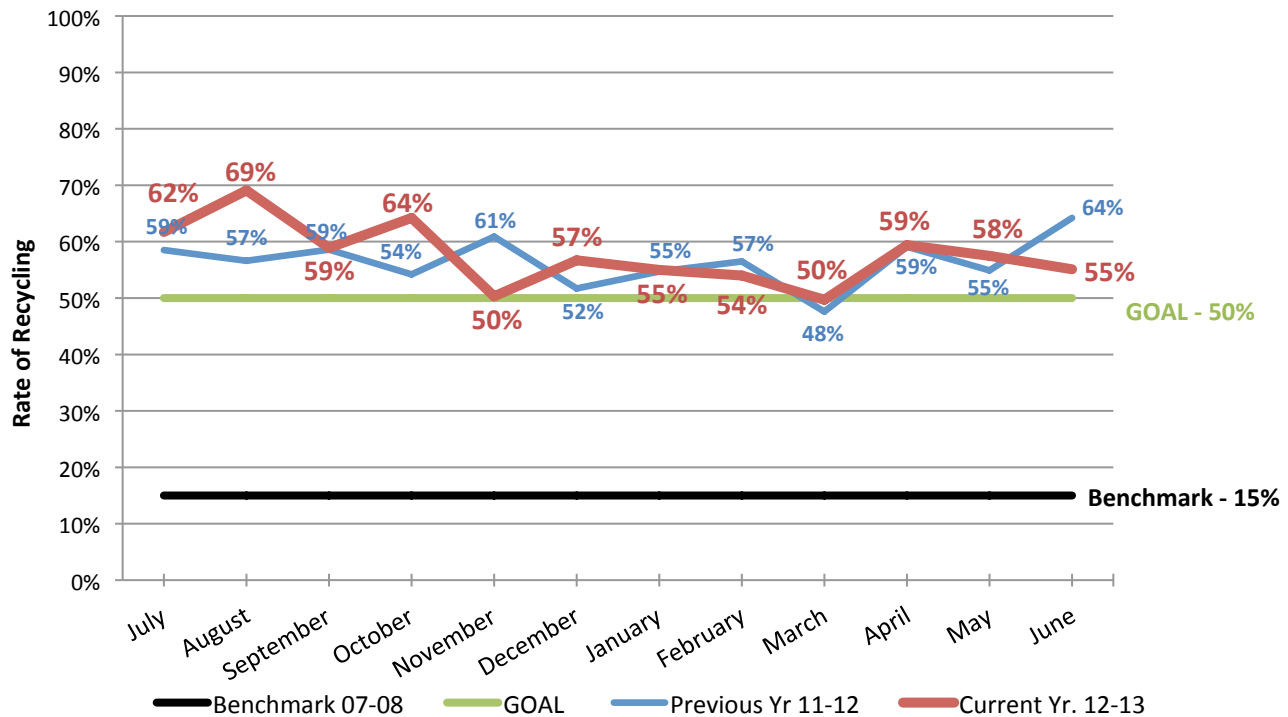
**Construction Material = 33 tons**



## By the numbers...

The following graphs show our data behind the progress that has been made over this period.

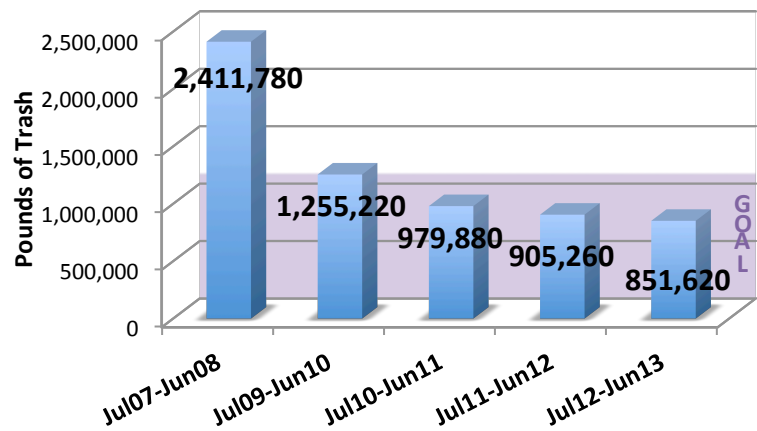
### Recycling Rate – Month by Month



This was the first year that the monthly recycling rate never dipped below 50%, even in March when the complex was at its busiest. In general, recycling rates were higher during the first half of the year and similar to last year during the second half. The annual recycling rate came out slightly higher overall than for the 2011-12 year.

### Trash Reduction - Year by Year

The total quantity of facility trash continues to drop. This year it was almost 1/3 of what was generated during the benchmark year. Some of this improvement is due to lower overall visitor traffic with the shortened 2012-2013 hockey season, but the reduction is also consistent with program improvements over the past year.





## By the numbers...(continued)

Below is a summary of the cost implications of our waste reduction and recycling programs.

**Cost Breakdown Table**

	Benchmark Jul07-Jun08	Jul10-Jun11	Jul11-Jun12	Current Jul12-Jun13
Trash Disposal & P/U	\$79,902	\$45,669	\$46,606	\$47,159
Recycle Disposal & P/U	\$3,521	\$38,604	\$49,451	\$50,328
Total Taxes	\$70,356	\$46,026	\$46,804	\$48,449
Total Extra Fees *	\$16,319	\$22,764	\$30,135	\$33,150
Total Rental/Lease	\$4,725	\$19,883	\$21,969	\$17,347
Total Penalties **	\$75	\$3,417	\$340	\$1,088
Total Trash Credits	\$0	\$339	\$0	\$3,286
Total Recycling Rebates	\$9,724	\$20,885	\$13,218	\$10,299
Net Trash Costs	\$171,552	\$111,676	\$114,617	\$113,801
Net Recycling Costs	(\$6,186)	\$43,463	\$67,468	\$70,136
Total Waste Costs	<b>\$165,366</b>	<b>\$155,139</b>	<b>\$182,085</b>	<b>\$183,937</b>

\* Includes: All fuel surcharges and delivery fees

\*\* Includes: Trip Fees (blocked compactors or dumpsters)

Total costs increased slightly this year, although not nearly as much as last year. Certain costs were contained through negotiations in the current contract. This can be seen in lower lease fees as well as in the \$3,286 of Trash Credits, which were given after an automatic price increase exceeded the terms of the new contract. Recycling rebates are at the lowest level since the program began, even with the addition this year of collecting payment for pallets. Cardboard values have been low all year, and the price of plastic wrap is so low that we did not receive payment for it at all this year.

**Comparative Data Table**

	Benchmark Jul07-Jun08	Jul10-Jun11	Jul11-Jun12	Current Jul12-Jun13
Tons of Recycling	218	554	564	550
RECYCLING Cost Per Ton ->	<b>(\$28)</b>	<b>\$78</b>	<b>\$120</b>	<b>\$128</b>
Tons of Trash	1,206	490	453	426
TRASH Cost Per Ton ->	<b>\$142</b>	<b>\$228</b>	<b>\$253</b>	<b>\$267</b>
Total Waste Generated (tons)	<b>1,424</b>	<b>1,044</b>	<b>1,017</b>	<b>976</b>
Recycling Rate (annually)	<b>15.3%</b>	<b>53.1%</b>	<b>55.6%</b>	<b>56.4%</b>

This table shows the unit pricing for both trash and recycling over the past several years. Trash prices have nearly doubled. Even though recycling costs have gone up significantly, the program is still saving money by diverting waste to recycling. If the current recycling rate was still 15%, waste costs would be an estimated \$55,000/yr more than what the complex currently pays.





## Reducing Carbon...Increasing Efficiency

Both Saint Paul RiverCentre and Xcel Energy Center continue to implement process improvements and energy retrofits that make the complex and its operations as efficient as possible.

A highlight of this program has been the great partnership with Xcel Energy, not only for its Windsource program, but also because of the extensive rebates available for energy upgrades. By the end of 2013, this complex will have received over \$175,000 in rebates since 2010.

Energy efficiency and carbon reduction are two key elements as this complex moves toward its next two goals: LEED (Leadership in Energy and Environmental Design) and Green Globes certification, which will provide third-party validation for the substantial efforts of the facility.

## Did you know...

The Xcel Energy Center, Saint Paul RiverCentre and Roy Wilkins Auditorium complex is among the top ten purchasers of wind power in the state of Minnesota through Windsource from Xcel Energy.

### From July 2012 - June 2013:

#### **On-Site Renewable Energy Generated:**

**1,055 MWh**

**(Equals the energy needs of 93 American homes)**

#### **Total Facility Efficiency Rating**

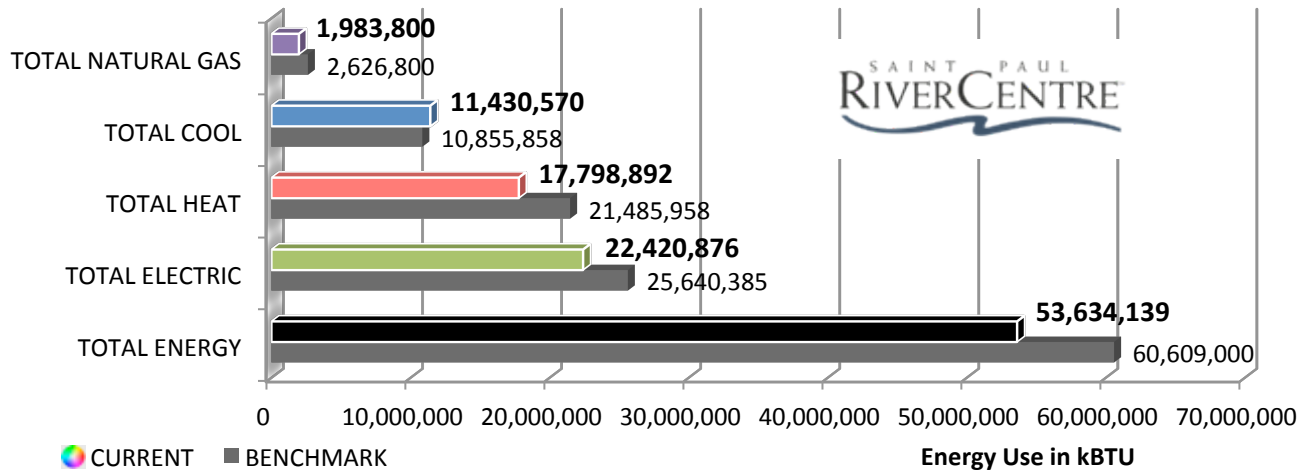
**20% (More Efficient than Average)**



## By the Numbers...

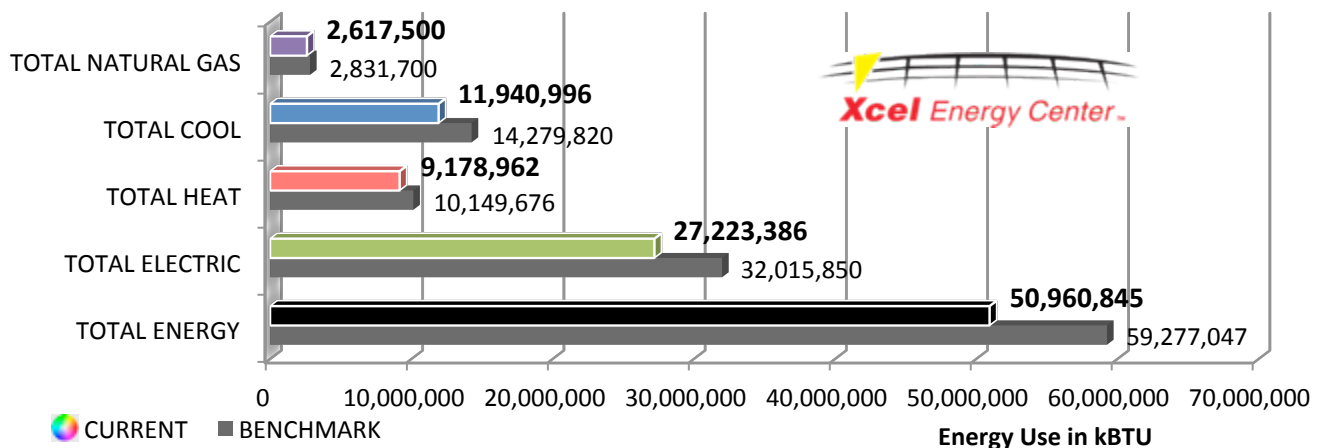
Energy usage has gone down since the benchmark period in both buildings across almost every energy type.

### Energy Use by Type (Jul07-Jun 08 -> Jul12-Jun13)



Saint Paul RiverCentre's overall energy use is down more than 11% from the benchmark period, most notably through a reduction in heating usage. The only energy type that has increased in usage is cooling, likely because visitor totals were somewhat higher during the warmer months this year than during the benchmark period.

### Energy Use by Type (Jul07-Jun 08 -> Jul12-Jun13)




The exceptional reduction in usage at the arena is partly related to a delayed start of the NHL season. However, the reduced usage continued into the first quarter of 2013, even as hockey ramped up. Specifically, electric use that quarter was almost 20% less than during the same months of the benchmark period. There have been many low cost, general efficiency steps implemented this year.



## By the Numbers...

The following shows energy cost trends for Saint Paul RiverCentre over four years, starting with the 2007-08 benchmark period.

<b>Saint Paul RiverCentre - Cost Table</b>	<b>Benchmark 2007-2008</b>	<b>2010-2011</b>	<b>2011-2012</b>	<b>Current 2012-2013</b>
<b>ELECTRIC COSTS</b>	<b>\$599,005</b>	<b>\$615,394</b>	<b>\$593,731</b>	<b>\$613,454</b>
Usage Costs	\$356,080	\$320,387	\$307,700	\$341,910
Demand Charges	\$141,862	\$148,669	\$139,443	\$147,191
Taxes/Fees	\$101,063	\$146,339	\$146,589	\$124,354
<b>NATURAL GAS COSTS</b>	<b>\$29,076</b>	<b>\$18,836</b>	<b>\$12,106</b>	<b>\$14,424</b>
Usage Costs	\$24,753	\$15,125	\$9,386	\$11,354
Taxes/Fees	\$4,323	\$3,711	\$2,719	\$3,071
<b>HEATING COSTS</b>	<b>\$409,621</b>	<b>\$398,807</b>	<b>\$331,101</b>	<b>\$345,451</b>
Usage Costs	\$165,554	\$137,619	\$90,134	\$126,721
Demand Charges	\$188,283	\$203,334	\$194,872	\$170,637
Taxes/Fees	\$55,784	\$57,854	\$46,094	\$48,092
<b>TOTAL COOLING COSTS</b>	<b>\$699,577</b>	<b>\$739,975</b>	<b>\$784,326</b>	<b>\$756,870</b>
Usage Costs	\$70,412	\$58,805	\$75,047	\$83,845
Demand Charges	\$560,976	\$606,894	\$633,332	\$600,285
Taxes/Fees	\$68,189	\$74,277	\$75,947	\$72,740
<b>TOTAL COSTS</b>	<b>\$1,737,279</b>	<b>\$1,773,012</b>	<b>\$1,721,264</b>	<b>\$1,730,199</b>
<b>TOTAL ENERGY USAGE</b> (in kBTU)	60,609,000	51,476,925	46,802,777	53,634,139
Cost/kBTU	\$0.0287			\$0.0323
	Current Cost/Unit @ Benchmark Use			\$1,955,203
	Current 12-Month Cost Avoidance			<b>\$225,004</b>

-> Total energy use at Saint Paul RiverCentre is down from benchmark but higher than the two previous years. As a result, costs are still slightly less than during the benchmark period, specifically due to lower heating and gas costs. Heating demand and usage costs in particular are now down significantly over benchmark levels.

-> Even with a 12% reduction in electric usage since the benchmark, costs are still slightly higher than during that period due to price increases. This illustrates the challenge of saving money on energy bills through conservation; in many cases, the best-case scenario is to try to *avoid* costs that would have been higher without the program.

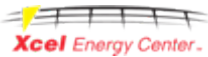
-> Multiple energy-saving retrofits have either been installed this year or just at the end of last year. Two high-speed doors in the Saint Paul RiverCentre Exhibit Halls now help keep conditioned air from escaping to the loading dock. The loading dock itself was upgraded with 248 fluorescent fixtures, replacing the higher-wattage metal halide lights and making the area both brighter and more efficient. Finally, the Saint Paul RiverCentre Rotunda and part of the Kellogg Lobby were upgraded to LED downlights that use less than 1/4 as much energy as the previous fixtures.





## By the Numbers...

The following shows energy cost trends for Xcel Energy Center over four years, starting with the 2007-08 benchmark period.

<b>Xcel Energy Center - Cost Table</b>	<b>Benchmark 2007-2008</b>	<b>2010-2011</b>	<b>2011-2012</b>	<b>Current 2012-2013</b>
<b>ELECTRIC COSTS</b>	<b>\$739,761</b>	<b>\$767,864</b>	<b>\$802,496</b>	<b>\$746,012</b>
Usage Costs	\$437,208	\$402,601	\$419,139	\$416,751
Demand Charges	\$176,316	\$187,021	\$190,798	\$179,827
Taxes/Fees	\$126,236	\$178,243	\$192,559	\$149,434
<b>NATURAL GAS COSTS</b>	<b>\$30,700</b>	<b>\$21,843</b>	<b>\$16,621</b>	<b>\$19,241</b>
Usage Costs	\$26,918	\$17,504	\$13,025	\$15,250
Taxes/Fees	\$3,782	\$4,339	\$3,597	\$3,991
<b>HEATING COSTS</b>	<b>\$207,711</b>	<b>\$200,946</b>	<b>\$181,388</b>	<b>\$194,809</b>
Usage Costs	\$77,939	\$69,769	\$54,636	\$65,178
Demand Charges	\$100,646	\$101,997	\$100,412	\$101,342
Taxes/Fees	\$29,126	\$29,180	\$26,340	\$28,289
<b>TOTAL COOLING COSTS</b>	<b>\$647,624</b>	<b>\$696,415</b>	<b>\$730,856</b>	<b>\$696,446</b>
Usage Costs	\$92,633	\$98,211	\$120,007	\$87,151
Demand Charges	\$492,156	\$526,982	\$536,105	\$538,070
Taxes/Fees	\$62,836	\$71,221	\$74,744	\$71,224
<b>TOTAL COSTS</b>	<b>\$1,625,796</b>	<b>\$1,687,068</b>	<b>\$1,731,360</b>	<b>\$1,656,508</b>
<b>TOTAL ENERGY USAGE (in kBTU)</b>	<b>59,277,047</b>	<b>54,529,413</b>	<b>56,153,072</b>	<b>50,960,845</b>
<b>Cost/kBTU</b>	<b>\$0.0274</b>			<b>\$0.0325</b>
	<b>Current Cost/Unit @ Benchmark Use</b>			<b>\$1,926,830</b>
	<b>Current 12-Month Cost Avoidance</b>			<b>\$270,322</b>

-> Energy usage is down over 14% from last year, in part due to the shortened NHL season. This is also visible in the \$75,000 energy cost reduction compared to last year.

-> The arena used substantially more heating this year versus last year. This was largely due to a colder overall winter, as much of that increase occurred from January through March.

-> Two notable efficiency projects were completed at the end of this year. Over 60 arena work lights were upgraded to more efficient technology, reducing their energy use by about 25%. In addition, two high-speed doors were recently installed on the loading dock that will help keep conditioned arena air inside the building. The energy impact of those projects should be evident in future reports.



## Reducing Usage...Increasing Conservation

Water conservation has become an increased priority this past year, with additional focus on tracking and potential reduction opportunities.

Flow restrictors have recently been installed on Saint Paul RiverCentre and Roy Wilkins Auditorium faucets, which cut their water usage in half without compromising usability for the guest. The complex has also recently begun to monitor irrigation water usage, to identify times and areas where conservation opportunities exist outdoors.

Finally, the facilities are currently working with the City of Saint Paul to explore how they can collect interval data on each building's water use. Such data would allow management and operations to see how water is used over the course of a day, a week or even a specific event, and provide insight into new opportunities for conservation.

### Did you know...

A single faucet, left on continuously at a normal flow rate of two gallons per minute, will waste over **1,000,000 gallons** of water over the course of a year.

### **From July 2012 - June 2013:**

**Water Reduced Since Benchmark (07-08)**

**46% or 10,385,980 gallons**

**Total Cost of Water**

**\$103,871 (Down 28%)**

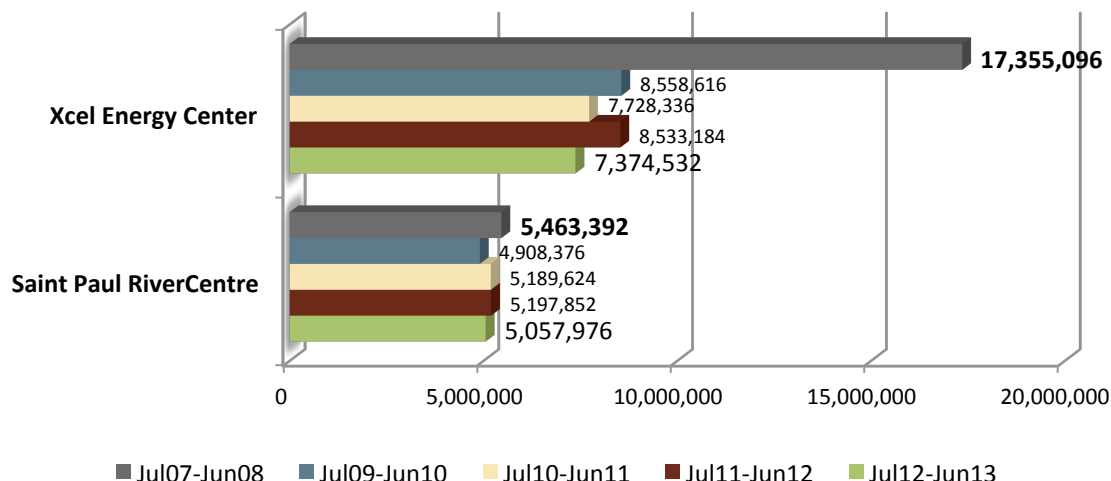
**Average Gallons per Visitor = 7.5**



## By the Numbers...

The following graphs show our data behind the progress that has been made over this period.

### Facility Water Use - Year by Year



Water usage at Xcel Energy Center remains down over 50% from the benchmark period, within this year having the lowest usage since tracking began. Saint Paul RiverCentre usage is also down, both from last year and since the benchmark. Flow restrictors were installed on all faucets in Saint Paul RiverCentre and Roy Wilkins Auditorium at the end of this year, so future reports should show continued usage reductions in that area.

### Facility Water Costs - Year by Year

	Benchmark Jul07-Jun08	Jul09-Jun10	Jul10-Jun11	Jul11-Jun12	Current Jul12-Jun13
<b>Saint Paul RiverCentre</b>					
Water Cost	\$13,489	\$14,243	\$15,769	\$16,676	\$16,322
Sewer Cost	\$20,427	\$21,295	\$22,965	\$23,912	\$24,092
Taxes & Fees	\$112	\$1,191	\$1,090	\$1,417	\$2,217
<b>Totals:</b>	<b>\$34,027</b>	<b>\$36,729</b>	<b>\$39,824</b>	<b>\$42,005</b>	<b>\$42,631</b>
<b>Xcel Energy Center</b>					
Water Cost	\$42,699	\$24,750	\$23,369	\$27,306	\$22,027
Sewer Cost	\$64,784	\$37,212	\$34,193	\$39,316	\$33,527
Taxes & Fees	\$3,077	\$1,897	\$1,795	\$3,152	\$5,686
<b>Totals:</b>	<b>\$110,559</b>	<b>\$63,860</b>	<b>\$59,357</b>	<b>\$69,774</b>	<b>\$61,240</b>

Saint Paul RiverCentre costs have gone up each year since the benchmark period, even though usage remains down. The largest increase has been in sewer costs, although all areas have gotten more expensive. At Xcel Energy Center, costs are down 12% from last year and are currently almost 45% less than the benchmark.