



Saint Paul Energy Efficient Building Projects

August 2013



In 2009, the City of Saint Paul received a \$2,767,000 Energy Efficiency and Conservation Block Grant by the U.S. Department of Energy. The grant has allowed the city to retrofit city streetlights to utilized light emitting diode technology, invest in electric vehicle charging stations, provide homeowners loans to conduct energy audits and make energy efficiency improvements, and much more.

The city continues to be leader in sustainability practices and much work has been done to improve the energy efficiency of municipally-owned facilities. Many Saint Paul parking ramps have also completed energy efficiency upgrades. This document showcases these projects.

To date, the projected energy savings to the city is roughly \$402,000 annually.

To learn more about the city's sustainability projects, visit: www.stpaul.gov/sustainability.

If you have any questions related to energy efficiency, please contact Jim Giebel at jim.giebel@ci.stpaul.mn.us or call 651-266-6138.

Saint Paul Energy Efficient Building Projects



Baker Recreation Center



- **Square Footage:** 8,965
- **Completed:** February 2012
- **Conservation Work Performed:**
Installation of new energy management system
- **Gross Costs:** \$37,640
- **Federal Stimulus Money Leveraged:**
\$12,348
- **Utility Rebates:** \$2,359
- **Net Cost:** \$22,933
- **Projected Yearly Energy Savings:** \$4,360
- **Projected Payback Period:** 5.3 years

Saint Paul Energy Efficient Building Projects



Battle Creek Recreation Center



- **Square Footage:** 22,140
- **Completed:** November 2010
- **Conservation Work Performed:**
Installation of new energy management system
- **Gross Costs:** \$10,140
- **Federal Stimulus Money Leveraged:**
\$3,549
- **Utility Rebates:** \$2,075
- **Net Cost:** \$4,516
- **Projected Yearly Energy Savings:** \$4,360
- **Projected Payback Period:** .8 years

Saint Paul Energy Efficient Building Projects



Central Library



- **Square Footage:** 87,812
- **Completed:** October 2010
- **Conservation Work Performed:**
Installation of new energy management system
- **Gross Costs:** \$16,690
- **Federal Stimulus Money Leveraged:**
\$5,943
- **Utility Rebates:** \$4,111
- **Net Cost:** \$6,936
- **Projected Yearly Energy Savings:** \$9,443
- **Projected Payback Period:** 0.7 years



Saint Paul Energy Efficient Building Projects



City Hall Annex



- **Square Footage:** 90,600
- **Completed:** June 2012
- **Conservation Work Performed:**
Installation of new energy air handler system
- **Gross Costs:** \$858,000
- **Federal Stimulus Money Leveraged:**
\$129,265
- **Utility Rebates:** \$18,584
- **Net Cost:** \$402,830
- **Projected Yearly Energy Savings:** \$11,271
- **Projected Payback Period:** TBD

Saint Paul Energy Efficient Building Projects



Como Lakeside Pavilion



- **Square Footage:** 23,572
- **Completed:** May 2009
- **Conservation Work Performed:** Installation of energy management system
- **Gross Costs:** \$42,616
- **Federal Stimulus Money Leveraged:**
- **Utility Rebates:** \$3,040
- **Net Cost:** \$39,576
- **Projected Yearly Energy Savings:** \$19,172
- **Projected Payback Period:** 2.1 years



Saint Paul Energy Efficient Building Projects



Dayton's Bluff Recreation Center



- **Square Footage:** 24,090
- **Completed:** November 2010
- **Conservation Work Performed:**
Installation of new energy management system
- **Gross Costs:** \$9,660
- **Federal Stimulus Money Leveraged:**
\$3,381
- **Utility Rebates:** \$1,500
- **Net Cost:** \$4,479
- **Projected Yearly Energy Savings:** \$5,004
- **Projected Payback Period:** 1 year



Saint Paul Energy Efficient Building Projects



East Team District Police Center



- **Square Footage:** 31,684
- **Completed:** October 2010
- **Conservation Work Performed:**
Installation of new energy management system
- **Gross Costs:** \$23,229
- **Federal Stimulus Money Leveraged:**
\$8,130
- **Utility Rebates:** \$2,274
- **Net Cost:** \$12,825
- **Projected Yearly Energy Savings:** \$3,819
- **Projected Payback Period:** 3.4 years

Saint Paul Energy Efficient Building Projects



Griffin Building



- **Square Footage:** 120,000
- **Completed:** July 2012
- **Conservation Work Performed:** Upgrade energy management system and recommissioning
- **Gross Costs:** \$30,138
- **Federal Stimulus Money Leveraged:** \$10,548
- **Utility Rebates:** \$4,112
- **Net Cost:** \$15,478
- **Projected Yearly Energy Savings:** \$3,808
- **Projected Payback Period:** 4.1 years



Saint Paul Energy Efficient Building Projects



Hamline Operations Building



- **Square Footage:** 22,140
- **Completed:** December 2010
- **Conservation Work Performed:**
Installation of new energy management system
- **Gross Costs:** \$7,620
- **Federal Stimulus Money Leveraged:**
\$2,667
- **Utility Rebates:** \$1,202
- **Net Cost:** \$3,869
- **Projected Yearly Energy Savings:** \$1,891
- **Projected Payback Period:** 2.0 years



Saint Paul Energy Efficient Building Projects



Hazel Park Recreation Center



- **Square Footage:** 15,679
- **Completed:** December 2010
- **Conservation Work Performed:** Installation of new energy management system
- **Gross Costs:** \$9,420
- **Federal Stimulus Money Leveraged:** \$3,297
- **Utility Rebates:** \$952
- **Net Cost:** \$5,171
- **Projected Yearly Energy Savings:** \$3,213
- **Projected Payback Period:** 1.6 years



Saint Paul Energy Efficient Building Projects



Highland Library



- **Square Footage:** 17,390
- **Completed:** January 2012
- **Conservation Work Performed:**
Installation of new energy management system
- **Gross Costs:** \$34,450
- **Federal Stimulus Money Leveraged:**
\$10,560
- **Utility Rebates:** \$4,276
- **Net Cost:** \$19,614
- **Projected Yearly Energy Savings:** \$5,232
- **Projected Payback Period:** 3.7 years



Saint Paul Energy Efficient Building Projects



Highland Maintenance Building

- **Square Footage:** 1,528
- **Completed:** November 2010
- **Conservation Work Performed:**
Installation of new energy management system
- **Gross Costs:** \$8,040
- **Federal Stimulus Money Leveraged:**
\$2,814
- **Utility Rebates:** \$375
- **Net Cost:** \$4,852
- **Projected Yearly Energy Savings:** \$1,843
- **Projected Payback Period:** 2.6 years

Saint Paul Energy Efficient Building Projects



Hillcrest Recreation Center



- **Square Footage:** 21,025
- **Completed:** October 2010
- **Conservation Work Performed:**
Installation of new energy management system
- **Gross Costs:** \$89,860
- **Federal Stimulus Money Leveraged:**
\$31,451
- **Utility Rebates:** \$3,581
- **Net Cost:** \$54,828
- **Projected Yearly Energy Savings:** \$13,214
- **Projected Payback Period:** 4.1 years



Saint Paul Energy Efficient Building Projects



Jimmy Lee Community Center



- **Square Footage:** 27,042
- **Completed:** September 2012
- **Conservation Work Performed:** Installation of new energy management system
- **Gross Costs:** \$60,270
- **Federal Stimulus Money Leveraged:** \$21,094
- **Utility Rebates:** \$3,850
- **Net Cost:** \$39,176
- **Projected Yearly Energy Savings:** \$9,040
- **Projected Payback Period:** 4.3 years



Saint Paul Energy Efficient Building Projects



Jimmy Lee Community Center



- **Square Footage:** 27,042
- **Completed:** September 2012
- **Conservation Work Performed:** Installation of new HVAC system
- **Gross Costs:** \$108,305
- **Federal Stimulus Money Leveraged:** \$30,000
- **Utility Rebates:** \$4,625
- **Net Cost:** \$73,680
- **Projected Yearly Energy Savings:** TBD
- **Projected Payback Period:** TBD



Saint Paul Energy Efficient Building Projects



Langford Recreation Center



- **Square Footage:** 7,868
- **Completed:** June 2009
- **Conservation Work Performed:** Installation of energy management system
- **Gross Costs:** \$19,970
- **Federal Stimulus Money Leveraged:**
- **Utility Rebates:** 1,458
- **Net Cost:** \$18,512
- **Projected Yearly Energy Savings:** \$5,013
- **Projected Payback Period:** 3.5 years

Saint Paul Energy Efficient Building Projects



Linwood Recreation Center



- **Square Footage:** 20,900
- **Completed:** April 2009
- **Conservation Work Performed:**
Installation of energy management system
- **Gross Costs:** \$68,618
- **Federal Stimulus Money Leveraged:**
- **Utility Rebates:** \$4,901
- **Net Cost:** \$63,717
- **Projected Yearly Energy Savings:** \$6,975
- **Projected Payback Period:** 9.1 years



Saint Paul Energy Efficient Building Projects



Martin Luther King Recreation Center



- **Square Footage:** 45,882
- **Completed:** September 2012
- **Conservation Work Performed:** Installation of energy management system
- **Gross Costs:** \$84,980
- **Federal Stimulus Money Leveraged:** \$29,743
- **Utility Rebates:** \$4,254
- **Net Cost:** \$50,983
- **Projected Yearly Energy Savings:** \$11,890
- **Projected Payback Period:** 4.2 years



Saint Paul Energy Efficient Building Projects



Martin Luther King Recreation Center/ Hallie Q. Brown Community Center



- **Square Footage:** 45,882
- **Completed:** September 2012
- **Conservation Work Performed:** Installation of new handler and related equipment
- **Gross Costs:** \$235,800
- **Federal Stimulus Money Leveraged:** \$60,000
- **Utility Rebates:** \$9,776
- **Net Cost:** \$165,225
- **Projected Yearly Energy Savings:** TBD
- **Projected Payback Period:** TBD

Saint Paul Energy Efficient Building Projects



North Dale Recreation Center



- **Square Footage:** 28,032
- **Completed:** November 2010
- **Conservation Work Performed:**
Installation of new energy management system
- **Gross Costs:** \$9,980
- **Federal Stimulus Money Leveraged:**
\$3,493
- **Utility Rebates:** \$1,618
- **Net Cost:** \$4,869
- **Projected Yearly Energy Savings:** \$5,675
- **Projected Payback Period:** 0.9 years



Saint Paul Energy Efficient Building Projects



Phalen Lake Golf Clubhouse



- **Square Footage:** 16,983
- **Completed:** March 2009
- **Conservation Work Performed:** Installation of energy management system
- **Gross Costs:** \$54,890
- **Federal Stimulus Money Leveraged:**
- **Utility Rebates:** \$9,560
- **Net Cost:** \$45,330
- **Projected Yearly Energy Savings:** \$13,078
- **Projected Payback Period:** 3.5 years

Saint Paul Energy Efficient Building Projects



Phalen Lake Recreation Center



- **Square Footage:** 4,268
- **Completed:** November 2010
- **Conservation Work Performed:**
Installation of new energy management system
- **Gross Costs:** \$7,880
- **Federal Stimulus Money Leveraged:**
\$2,758
- **Utility Rebates:** \$1,003
- **Net Cost:** \$4,119
- **Projected Yearly Energy Savings:** \$3,357
- **Projected Payback Period:** 1.2 years



Saint Paul Energy Efficient Building Projects



Public Works Garage



- **Square Footage:** 90,799
- **Completed:** April 2012
- **Conservation Work Performed:** Replace air handler
- **Gross Costs:** \$228,490
- **Federal Stimulus Money Leveraged:** \$63,490
- **Utility Rebates:** \$3,500
- **Net Cost:** \$161,500
- **Projected Yearly Energy Savings:** \$11,429
- **Projected Payback Period:** 14.1 years



Saint Paul Energy Efficient Building Projects



Public Works Garage



- **Square Footage:** 90,799
- **Completed:** April 2012
- **Conservation Work Performed:** Installation of new energy management system
- **Gross Costs:** \$100,300
- **Federal Stimulus Money Leveraged:** \$35,116
- **Utility Rebates:** \$15,279
- **Net Cost:** \$49,935
- **Projected Yearly Energy Savings:** \$21,776
- **Projected Payback Period:** 2.3 years



Saint Paul Energy Efficient Building Projects



Public Works North Garage



- **Square Footage:** 16,100
- **Completed:** May 2009
- **Conservation Work Performed:** Remove high pressure sodium lights and install new energy efficient lighting
- **Gross Costs:** \$9,987
- **Federal Stimulus Money Leveraged:**
- **Utility Rebates:** \$1,587
- **Net Cost:** \$8,400
- **Projected Yearly Energy Savings:** \$1,050
- **Projected Payback Period:** 8 years



Saint Paul Energy Efficient Building Projects



Rice Street Library



- **Square Footage:** 11,658
- **Completed:** January 2009
- **Conservation Work Performed:** Installation of energy management system
- **Gross Costs:** \$17,648
- **Federal Stimulus Money Leveraged:**
- **Utility Rebates:** \$1,348
- **Net Cost:** \$16,300
- **Projected Yearly Energy Savings:** \$4,862
- **Projected Payback Period:** 3.4 years



Saint Paul Energy Efficient Building Projects



Street Maintenance Facility



- Square Footage: 29,069
- Completed: May 2009
- Conservation Work Performed: Installation of energy management system
- Gross Costs: \$51,244
- Federal Stimulus Money Leveraged:
- Utility Rebates: \$3,044
- Net Cost: \$48,200
- Projected Yearly Energy Savings: \$14,122
- Projected Payback Period: 3.4 years



Saint Paul Energy Efficient Building Projects



Sun Ray Library



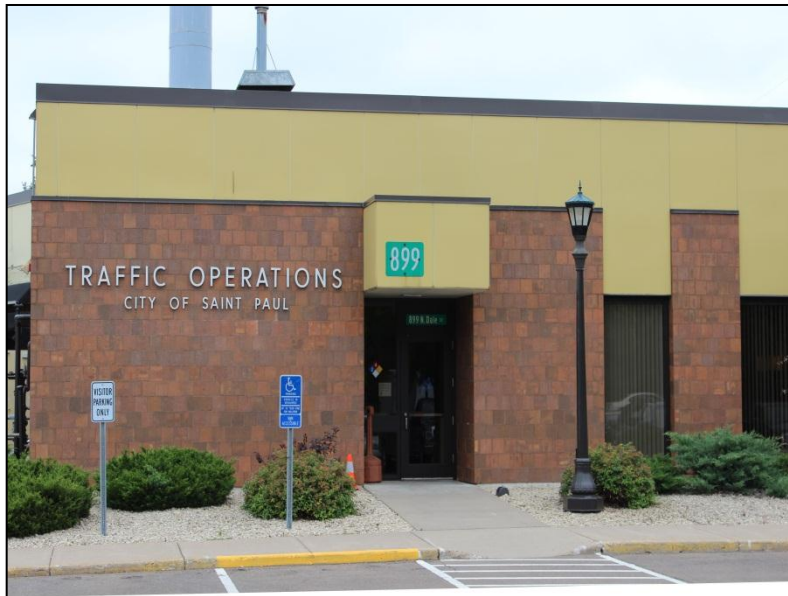
- **Square Footage:** 17,150
- **Completed:** February 2012
- **Conservation Work Performed:**
Installation of new energy management system
- **Gross Costs:** \$25,870
- **Federal Stimulus Money Leveraged:**
\$7,728
- **Utility Rebates:** \$3,788
- **Net Cost:** \$18,142
- **Projected Yearly Energy Savings:** \$4,517
- **Projected Payback Period:** 4.0 years



Saint Paul Energy Efficient Building Projects



Traffic Operations Facility



- **Square Footage:** 58,270
- **Completed:** January 2012
- **Conservation Work Performed:** Installation of new energy management system
- **Gross Costs:** \$128,600
- **Federal Stimulus Money Leveraged:** \$33,810
- **Utility Rebates:** \$6,301
- **Net Cost:** \$88,489
- **Projected Yearly Energy Savings:** \$11,429
- **Projected Payback Period:** 7.7 years



Saint Paul Energy Efficient Building Projects



West Minnehaha Recreation Center



- **Square Footage:** 10,906
- **Completed:** January 2012
- **Conservation Work Performed:**
Installation of new energy management system
- **Gross Costs:** \$10,280
- **Federal Stimulus Money Leveraged:**
\$3,162
- **Utility Rebates:** \$1,243
- **Net Cost:** \$5,875
- **Projected Yearly Energy Savings:** \$1,655
- **Projected Payback Period:** 3.5 years

Saint Paul Energy Efficient Parking Ramps



7A Parking Ramp



- **Square Footage:** 271,803
- **Completed:**
- **Conservation Work Performed:** Replaced 360 high pressure sodium lights with 28 watt fluorescent lighting
- **Gross Costs:** \$43,777
- **Federal Stimulus Money Leveraged:** \$15,322
- **Utility Rebates:** \$24,320
- **Net Cost:** \$4,135
- **Projected Yearly Energy Savings:** \$24,744
- **Projected Payback Period:** 0.2 years



Saint Paul Energy Efficient Parking Ramps



Block 19 Parking Ramp



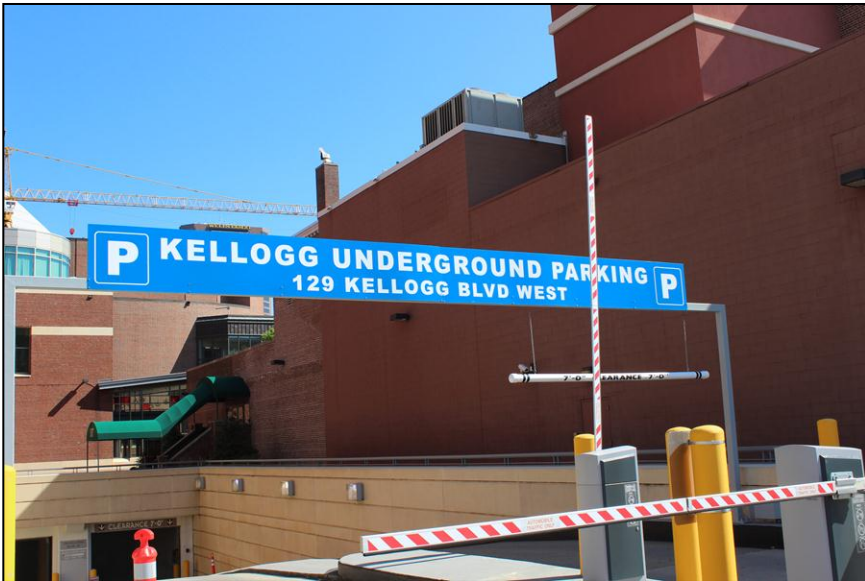
- **Square Footage:** 388,635
- **Completed:** 2010
- **Conservation Work Performed:** Replaced 262 high pressure sodium lights with 28 watt fluorescent lighting
- **Gross Costs:** \$44,133
- **Federal Stimulus Money Leveraged:** \$15,477
- **Utility Rebates:** \$14,573
- **Net Cost:** \$14,113
- **Projected Yearly Energy Savings:** \$18,492
- **Projected Payback Period:** 0.7 years



Saint Paul Energy Efficient Parking Ramps



Kellogg Parking Ramp



- **Square Footage:** 131,070
- **Completed:** 2010
- **Conservation Work Performed:** Replaced 280 high pressure sodium lights with 28 watt fluorescent lighting
- **Gross Costs:** \$59,912
- **Federal Stimulus Money Leveraged:** N/A
- **Utility Rebates:** \$8,064
- **Net Cost:** \$51,484
- **Projected Yearly Energy Savings:** \$11,814
- **Projected Payback Period:** 4.4 years



Saint Paul Energy Efficient Parking Ramps



Lawson Parking Ramp



- **Square Footage:** 370,000
- **Completed:** 2010
- **Conservation Work Performed:** Replaced 218 high pressure sodium lights with 28 watt fluorescent lighting
- **Gross Costs:** \$39,994
- **Federal Stimulus Money Leveraged:** \$13,998
- **Utility Rebates:** \$7,567
- **Net Cost:** \$18,429
- **Projected Yearly Energy Savings:** \$7,889
- **Projected Payback Period:** 2.3 years



Saint Paul Energy Efficient Parking Ramps



Lowertown Parking Ramp



- **Square Footage:** 319,979
- **Completed:** 2010
- **Conservation Work Performed:** Replaced 354 high pressure sodium lights with 28 watt fluorescent lighting
- **Gross Costs:** \$53,735
- **Federal Stimulus Money Leveraged:** \$18,807
- **Utility Rebates:** \$14,133
- **Net Cost:** \$20,795
- **Projected Yearly Energy Savings:** \$14,351
- **Projected Payback Period:** 1.5 years



Saint Paul Energy Efficient Parking Ramps



RiverCentre Parking Ramp



- **Square Footage:** 379,300
- **Completed:** March 2010
- **Conservation Work Performed:** Replaced 847 high pressure sodium lights with 28 watt fluorescent lighting
- **Gross Costs:** \$126,007
- **Federal Stimulus Money Leveraged:** \$44,102
- **Utility Rebates:** \$73,031
- **Net Cost:** \$8,874
- **Projected Yearly Energy Savings:** \$50,000
- **Projected Payback Period:** 0.2 years



Saint Paul Energy Efficient Parking Ramps



Robert Street Parking Ramp



- **Square Footage:** 322,229
- **Completed:** 2010
- **Conservation Work Performed:** Replaced 985 high pressure sodium lights with 28 watt fluorescent lighting
- **Gross Costs:** \$94,989
- **Federal Stimulus Money Leveraged:** \$33,246
- **Utility Rebates:** \$22,088
- **Net Cost:** \$39,655
- **Projected Yearly Energy Savings:** \$28,070
- **Projected Payback Period:** 1.4 years



Saint Paul Energy Efficient Parking Ramps



Smith Parking Ramp



- **Square Footage:** 290,850
- **Completed:** 2010
- **Conservation Work Performed:** Replaced 246 high pressure sodium lights with 28 watt fluorescent lighting
- **Gross Costs:** \$53,105
- **Federal Stimulus Money Leveraged:** \$18,886
- **Utility Rebates:** \$19,525
- **Net Cost:** \$14,694
- **Projected Yearly Energy Savings:** \$26,392
- **Projected Payback Period:** 0.5 years