

2017 Minneapolis Green Business Energy Efficiency & Renewable Energy Cost Share Program Report

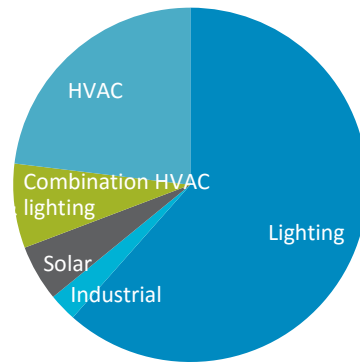
To support business economic vitality and enhance environmental health of the city, the Minneapolis Green Business Energy Efficiency Cost Share Program awards funds to qualifying businesses for energy efficiency and renewable energy improvements.

2017 Energy Saving Projects *Count* of cost shares awarded

38

out of 47 applications

Project Types



Financial Impact

6:1

Total project cost to City
cost share funding

\$

\$385,000

Total annual business
utility bill savings

Energy and Emission Savings



1614 metric tons of
greenhouse gas emissions



Energy use equivalent to 258
average Minneapolis homes



Carbon sequestered in one
year by 276 acres of trees

Saving Green While Being Green

The Minneapolis Green Business Energy Efficiency Cost Share program is showing a clear business interest in improving the energy efficiency of buildings. In 2017, the Environmental Health Department program offered a 'cost share' or a funding match of 20% up to \$20,000 for projects that reduce energy consumption in buildings. As knowledge and money are frequent barriers to energy efficiency in businesses, the cost share incentive is proving to overcome those hurdles to help bring focus to projects that save money, improve building operation, and reduce pollution.

"The cost share was integral to us doing our project. It encouraged us to make the decision and was the impetus for us to say: let's just finally get this done."

*Ruhel Islam
Ghandi Mahal Restaurant*

From 47 applications, 38 projects were awarded funding and completed, a nearly twofold increase over 2016. Projects included a variety of energy saving strategies and technologies, though lighting was a dominant focus. 71% of projects had at a lighting component while 63% of projects were solely lighting conversions. Kristen Funk, director of the One-Stop Efficiency Shop, a program utilized by many of the businesses explains, "Lighting is still the easiest project to do with the quickest payback. People are enamored with LEDs. Even those who upgraded their lighting a few years ago to T-8 lamps are seeing 50% energy savings when they convert to LEDs." A number of businesses also found installing 'smart' equipment such as occupancy sensors, moisture and temperature controls, and demand control ventilation to be good investments with short paybacks. The remainder made larger investments in boiler upgrades, solar photovoltaics, air compressor optimization, and rooftop HVAC equipment replacements.

In total, \$256,000 in cost share funding awarded through the program leveraged nearly \$1.3 million in non-City money. As a result of this investment, the 39 businesses will save an estimated \$385,000 annually on energy bills. Interviews with business owners reveal that the cost share program had a significant impact on their decision to go forward with a project. While one owner shared that he would not have completed his project without the program, others stated that the cost share accelerated the timeline for implementing projects. A few also said that the program allowed them to complete larger projects than otherwise possible.

Through these projects, physical building assets are seeing improvements. Owners report better building conditions for occupants with more enjoyable lighting levels and space comfort. Furthermore, the efficiency gains are already causing higher ENERGY STAR scores at one building. Being able to show marked results was reported as being important to some businesses as they seek to highlight their fiscal responsibility and environmental stewardship.

In addition to dollar savings, energy reductions of nearly 3.4 million kWh of electricity and over 66,000 therm of natural gas will result in air pollution reduction as well. A decrease of not only 1376 lbs. of sulfur dioxide and 2064 lbs. of nitrogen oxide is expected, but also a greenhouse gas emissions drop of 1,614 metric tons. The carbon emissions cut is equal to the carbon sequestered by a forest the size of the Loring Park neighborhood.

"The fact that the health department is showing leadership and foresight on clean energy is amazing. Prevention for public health is a good thing. It reduces pollutants in air and water."

*Bob DeBoer
A Chance to Grow*

Tasked with reducing pollution, the Environmental Health Department's cost share program is proving to do that and more. The Green Business Energy Efficiency Cost Share is helping to accelerate energy efficiency projects. At the same time, projects are reducing business' utility bills and making buildings around the city better places to occupy. It is clear that Minneapolis businesses value energy efficiency and the cost share program is helping them realize that value.

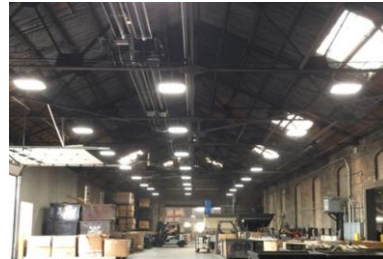
Profiled Projects

Prospect Foundry



Prospect Foundry located in Northeast has ambitious goals to save energy and reduce the company's environmental impact on the neighborhood. In 2016, Prospect Foundry received cost share funding to upgrade all of the facilities lights to occupancy sensing LEDs. Prospect Foundry participated in the cost share program again in 2017 to repair leaks in their compressed air system. Combined, the two projects save the Foundry \$180,000 annually on electric bills and prevented 15,000 tons of carbon dioxide from entering the atmosphere. Reacting to the projects, President and CEO Darrin Carlson, said, "The Green Business Cost Share Program was easy to apply to and improved the ROI for our retrofit projects. Not only are we saving money, but my employees are satisfied by the higher-quality LED lights."

K&K Metal Recycling



K&K Metal Recycling already has some impressive sustainability credentials. Aside from recycling nonferrous metals, they clean stormwater with a bioretention pond and generate clean electricity from a rooftop solar array. Seeing that the company continually looks for ways to reduce environmental impact, CFO Linda Hull was excited to take a step forward on energy efficiency with an LED lighting conversion in the office and retail purchasing area. The cost share combined with utility rebates helped cut their payback period nearly in half to a feasible 3 years. Of the completed project, Linda says, "All the employees are happy about the lights and comment on how much brighter they are." Looking to save more energy, K&K Metal Recycling's next step will be to upgrade outdoor lighting to LEDs as well.

Blaisdell YMCA



While upgrading other equipment at the facility, the Blaisdell YMCA sought a Green Business Cost Share to reduce the cost of replacing CFL and T-8 fluorescent lamps with LEDs throughout the building. As a large fitness facility with significant lighting needs, the new LED lights will save the YMCA an estimated \$7,000 annually, which they plan to put towards Y programs as well as addressing maintenance issues. In other benefits, they are excited to offer better lighting for customers and look forward to spending less time on lamp maintenance. Following the success of this project, the Blaisdell YMCA's future plans include examining the facility's air handling and pool pump systems for energy-saving opportunities.

CW Lofts Association



Judy Winiacki of CW Lofts Association began thinking about energy use after the building's maintenance company recommended re-piping the boiler system to save money. After conducting an energy audit and participating in the cost share program, Judy was able to justify the cost of recommissioning her ten-boiler system to a primary and secondary system, which allows boilers to turn off independently when not needed. The newly tuned boiler system responds to outdoor temperatures, saving energy by powering off when temperatures reach comfortable thresholds. Judy said that the cost share application was so easy and financially rewarding that she hopes to reapply in the near future to upgrade their parking ramp's snow melting system.

Ghandi Mahal

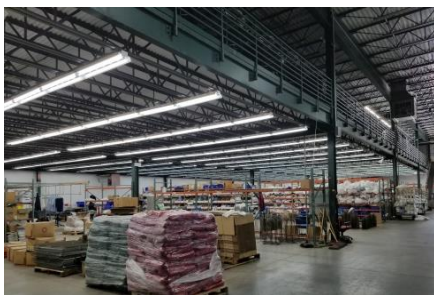


Restaurant kitchens require lots of energy and are often uncomfortable for staff. That was a problem for sustainability-minded Ruhel Islam, owner of the Bangladeshi-Indian restaurant, Ghandi Mahal. Luckily, there was a solution: a new demand control ventilation system. However, cost was an issue. Via collaboration with the Lake Street Council, the MN Chamber of Commerce, and the cost share program, Ruhel was able to install the equipment years before he otherwise would have been able to afford to do so. While the old system would ventilate kitchen air all day, the newly installed system now automatically detects heat and ventilates only when appropriate. With the reduction in run time, the system already makes the kitchen more comfortable for staff and is expected to save \$1,900 in energy costs annually. Of the program, Ruhel says, "We feel good with the support of the City, and I encourage all small business owners to take advantage of the program. Investing in energy efficiency is something good for our climate and for future generations." Going forward, Ruhel will be installing a solar photovoltaic system to generate electricity for the restaurant.

A Chance to Grow



A Chance to Grow, a local non-profit specializing in helping those with vision, auditory, brain, and other difficulties, is clearly focused on good health. And part of that focus is pollution prevention by promoting good environmental stewardship. After three years of attempting a rooftop solar PV project, the necessary resources and partnerships converged. The City's cost share put in the final funding in place allowing ATCG to install a 39 kW solar PV system on their building's rooftop in the summer of 2017. Bob Deboer, co-founder of ACTG, said of the project, "It was fun! It blew my mind that this program was through the health department. I am amazed at the health department's leadership and foresight to encourage projects like this. In what other cities is this type of support available?" In the first three months of the system's operation, ACTG has saved over \$1000 in electricity costs and avoided more than 16,000 lbs. of CO2 from being emitted, which is the equivalent to the carbon stored by 400 trees. Of the cost share Bob says, "The cost share is a win-win. By helping us do this project, we're saving on costs and helping the environment."



AmeriPride Services

Thanks to the Green Business Cost Share Program, Mike Lavoie from AmeriPride Services was able to retrofit his whole building with LED lights and motion sensors. The LEDs use less energy when on while motion sensors reduce the length of time they are on by 50-66%. These changes are noticeable in the building's benchmarking results as the ENERGY STAR score increased by three points. Having just recently earned ENERGY STAR Certification with a near minimum score of 76, Mike said it was important to do this project to maintain certification. Overall, Mike said that the investment in energy efficiency was worth it, stating, "The savings promised were delivered."

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