

Seasons

The Greening of Maplewood

Summer 2017

Energize Maplewood!

By Shann Finwall,
Environmental Planner

The solutions to climate change can be broken down into simple details. Produce fewer greenhouse gas emissions by using less energy, using it more efficiently, and increasing renewable energy sources. Simply put, once we understand our choices, it's easy to do the right thing.

Cities have a very important role to play in energy planning. Minnesota's Next Generation Energy Act sets statewide goals for cutting greenhouse gas emissions, but it's clear the state can't meet those goals without targeted actions at the local level to drive innovation in energy.

Maplewood will include strategies in the 2040 Comprehensive Plan that create a more resilient community in the face of climate change. Resiliency planning will consider how the City can adapt to extreme weather patterns caused by climate change, and how we can reduce greenhouse gas emissions through reduced energy use and the promotion of renewable energies.

Over the past two years Maplewood has been

implementing programs that do just that. The *Energize Maplewood!* Energy Action Plan, adopted by the City Council in April 2015, includes energy goals and implementation strategies that educate and empower the community to participate in energy actions. The energy action plan was the first step in the City's participation in Xcel Energy's Partners in Energy program. The City and a group of local stakeholders worked with Xcel Energy to identify and prioritize the community's energy goals. Since that time Xcel Energy has provided tools and resources to help the City implement the plan.

Energize Maplewood! focused on two areas of energy outreach: Direct energy programs and coaching for local businesses, and City-wide education and outreach campaigns to motivate local residents to reduce their energy impacts. Overall, the goals were to help businesses save 400,000 kWh of electricity; and motivate residents to participate in an additional 500 energy efficiency or renewable energy actions, leading to an annual savings of 220,000 kWh of electricity, 33,250 therms of natural gas, and increase renewable energy subscriptions by an additional 267,000 kWh.

Results of the *Energize Maplewood!*

programs are in – reflecting that Maplewood exceeded the original energy goals! Highlights of the City's overall energy conservation programs in 2015 and 2016 include:

- 1) 2,310 households participated in residential conservation programs. Rebate programs for cooling, heating, and water heating were higher than previous years. In 2016 there were 466 Windsource® participants in the City.
- 2) 277 businesses participated in commercial and industrial conservation programs. Rebate programs for lighting efficiency, business Savers Switch, small business lighting, and energy audits were higher than previous years.
- 3) The electricity and natural gas saved as a result of all of the conservation programs taken by Maplewood residents and businesses in 2015 and 2016 totals 6,053,120 kWh of electricity and 221,696 therms of natural gas.

No one country, one state, one city, or one person can stop action on climate change. But collectively we can all make a difference. Full results of the *Energize Maplewood!* energy programs can be found at www.maplewoodmn.gov/pie.



Energize Maplewood! Energy Programs



Energize Maplewood! Residential Energy Challenge



Benchmark Your Business



Energize Your Congregation! Energy Challenge



Building Tune Up Program

Energize Your Congregation! The Salvation Army - Energy Saving Champions

By Shann Finwall, Environmental Planner



NEC and Maplewood Staff Attend Energy Events at Salvation Army

Congregations have a unique opportunity to engage a wide cross section of residents, as well as implement energy saving opportunities within their own facilities. Parishioners at ten local congregations did just that as they joined together last fall as good stewards of the earth to reduce their energy use.

The congregations participated in the three-month *Energize Your Congregation!* Energy Challenge. The challenge was easy – take simple energy actions at home that will save energy and money! Energy actions included scheduling a Home Energy Squad® visit or energy audit, signing up for Xcel Energy's Windsource®, recycling a second refrigerator, or referring a business for an Energy Smart visit. Additional points

were given to congregations that scheduled fun and educational visits by the Neighborhood Energy Connection (NEC).

Maplewood partnered with NEC on the *Energize Your Congregation!* Energy Challenge. NEC is a nonprofit organization that provides energy conservation information, services, and programs to residents across Minnesota. Terry Chaney, Home Energy Squad Outreach Specialist with NEC, said he was "impressed with the willingness of the congregations to open their doors and listen, learn, and participate in the energy actions."

The challenge resulted in a total of 53 Home Energy Squad® visits, one home energy audit, two subscriptions to Xcel Energy's Windsource®, and four congregation energy audits. Congratulations to the Salvation Army for winning the Challenge and taking a total of 34 energy actions throughout the Challenge. After hearing of their success, Major James Curl of the Salvation Army exclaimed that "participating in the Challenge and taking simple energy actions helped us with our mission of using creative solutions to positively transform lives."

Are You Ready To Take The Next Step In Energy Savings?

Complete the *Energize Maplewood!* survey at www.maplewoodmn.gov/energy-survey. Answer six simple questions pertaining to items you've read in this newsletter. One survey participant will be chosen to win a FREE Infrared Energy Audit and Home Energy Squad® visit (valued at \$170).

Energize Maplewood! Residential Energy Challenge – The Fix's Family Home is the "Biggest Energy Loser"

By Shann Finwall, Environmental Planner



Tom and Grace Fix Host an Energy Party to Motivate their Team

Twelve teams with a total of 97 households participated in the *Energize Maplewood!* Residential Energy Challenge from January through June 2016. The teams competed for the title of the "biggest energy losers" by participating in energy efficiency and renewable energy programs. By the end of the Challenge 23 energy program actions were completed such as Home Energy Squad® visits; energy audits; heating, cooling, and insulation rebates; and signing up for Windsource®. There were also 60 social media posts sharing energy tips throughout the challenge.

To help motivate their team, Tom and Grace Fix held an energy party. With teammates and neighbors socializing and enjoying refreshments, the Neighborhood Energy Connection (NEC) performed a Home Energy Squad® visit and an infrared energy audit on their new home. Tom reports that the energy audit found that their roof insulation was not installed to the correct energy efficiency rating. After sharing the audit results with their contractor, the contractor admitted the error and added

the missing insulation. With the added insulation and energy efficiency improvements made during the Home Energy Squad® visit, the Fix's have seen a 29% average monthly reduction in their electric use over an eight-month period, saving \$52.41 per month.

Reflecting on the Challenge, Cindy Ojczyk, program coordinator for the *Energize Maplewood!* Residential Energy Challenge, states "it was so nice to see how a group of committed people with the same goal of saving energy could come together to make a positive change." For tips on how you can save energy and money in your home, visit www.maplewoodmn.gov/energytips.

Benchmark Your Business – Strauss Skates Energy Star Certification

By Shann Finwall, Environmental Planner

You can save 7% on your business's energy bill by tracking energy data for three years!¹ Tracking energy is easy with the Environmental Protection Agency's (EPA) Portfolio Manager®, a free online tool to measure and track energy and water consumption, as well as greenhouse gas emissions. By measuring and analyzing energy data you can prioritize energy investments; verify and track savings; document performance on energy service contracts; communicate energy performance to tenants, owners, and potential buyers or renters; and receive national recognition through Energy Star certification.

Buildings receive an Energy Star score of 1-100 that compares the building's energy performance to similar buildings nationwide. Buildings with a score a 75 or higher are eligible for Energy Star certification. Energy Star certified buildings meet strict energy performance standards set by the EPA. They use less energy, are less expensive to operate, and cause fewer greenhouse gas emissions than their peers.

Last fall Maplewood's Building Tune Up Program assisted nine businesses with energy tracking. The program was offered in partnership with the Minnesota Chamber of Commerce and the Energy Smart program, and offered free energy assessments, assistance with Portfolio Manager® energy tracking, and incentives to reduce the cost of Energy Star certification. Four of the businesses qualified for Energy Star certification, with the remaining now tracking their energy use and implementing energy efficiency upgrades to improve energy performance and increase their Energy Star score.

Strauss Skates has received Energy Star certification with a score of 99! "As energy efficient as the building is," states Richard Charbonneau, owner of Strauss Skates, "we still had room for improvement and have added LED lighting throughout the interior of the store this spring." Karen Maslowski, Energy Efficiency Specialist with Energy Smart, states that other Maplewood businesses can receive assistance in finding ways to save energy through the Energy Smart program. For more information visit www.mnenergysmart.com.

¹Environmental Protection Agency Energy Star Data (www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/use-portfolio-manager)



Strauss Skates, 1750 Cope Avenue
From Left to Right: Liz Charbonneau, Richard Charbonneau, Don Eynck, Steve "Moose" Youngmans, Shaun Hastings, and Jenelle Hastings



Strauss Skates Earns an Energy Star Score of 99 out of 100!

Building Tune Up Program – Costumes Plus Lighting Upgrades

By Emma Struss, Center for Energy and Environment

Over the past two years the City of Maplewood's Building Tune Up Program has offered free energy assessments and upgrade assistance to local buildings.² Luis Berocay, the owner of Costumes Plus, was one of ten local business owners and facility managers to participate in the program.

Mr. Berocay's first step as a program participant was to complete an energy audit through Xcel Energy's Turn Key Services. The audit uncovered a large savings potential in lighting and recommended Berocay's store undergo a more thorough lighting assessment. This information motivated Mr. Berocay to contact the One-Stop Efficiency Shop, a program that provides free lighting audits to small and medium-sized businesses. The lighting audit gave Mr. Berocay detailed recommendations, estimated project costs, rebate information, and projected savings to help him make an informed business decision. After reviewing the results of his audits, Mr. Berocay decided to hire a local contractor to complete the recommended upgrades.

A total of 107 light-emitting diodes (LED) have replaced compact fluorescents (CFL) in Mr. Berocay's Costumes Plus sign, parking lot, and interior overhead lighting. As a business owner 22 years, Berocay knows a smart investment when he sees one. The new LEDs are saving him money on his electricity bill and require less maintenance than the CFLs. With an anticipated pay back of 2.9 years, Mr. Berocay says the lighting investment was "definitely worth it" and encourages other businesses to consider energy efficiency upgrades as well. As a participant of the Building Tune Up Program, Mr. Berocay received a free energy audit, a grant toward the energy efficiency upgrades, and assistance with energy benchmarking. In turn, Mr. Berocay will share his energy use data with the City for the next three years to help demonstrate the benefits of energy investments.



Costumes Plus, 2839 White Bear Avenue



Luis Berocay, Owner of Costumes Plus, Posing with his Costumed Friends

²The Building Tune Up Program was made possible by grant funding from the Minnesota Pollution Control Agency (MPCA) and Great Plains Institute.

Green Energy Options are Sprouting

By Ann Hutchinson, Lead Naturalist

Renewable energy is a clean, sustainable energy source we can choose to power our homes and businesses. The City of Maplewood is making the transition to renewable energy to make a positive impact in our community. We've installed an on-site solar system on the City Hall campus and at the Nature Center, and recently subscribed to a community solar garden. Overall, 27 percent of electricity used in City facilities is offset by solar power. As part of our 2040 Comprehensive Plan, our goal is to add additional renewable energy sources to reduce emissions.

You can contribute to our community environmental goal by participating in clean energy. Here are easy ways to participate:

Wind energy. On-site wind generation may not be cost effective in Maplewood right now, but tapping into the power of wind can be as simple as signing up for Xcel Energy's Windsource® program. As an Xcel Energy customer, you can sign up for one 100 kWh block of wind energy or opt to get 100% of your electricity from wind energy for as little as \$6.80 per month in addition to your regular utility bill.

Solar energy. You can participate in solar powered energy in two ways:

- On-Site Solar—If your site has a good southern exposure between the hours of 9 a.m. and 3 p.m., consider installing a solar energy system. The Metro Clean Energy Resource Team offers information to help you determine if a solar system will work for you, as well as other useful resources if you decide solar is right for your home or business.
- Community Solar Gardens—If installing solar equipment isn't right for you, a community solar garden is an option. It is a centrally located solar system that provides electricity to participating subscribers. Each subscriber's utility bill is credited with a payment for the electricity created by their share of the solar garden. Community solar gardens are a good option for people who live in apartments, have a shaded roof, or don't have room for on-site solar.

For more information, visit Xcel Energy's Solar*Rewards Community® website at www.xcelenergy.com/renewables or the Metro Clean Energy Resource Teams' website at www.cleanenergyresourceteams.org.



Tap Into the Power of the Wind By Signing Up for Xcel Energy's Windsource® Program



On-Site Solar System at Maplewood City Hall Campus

TREE HOUSE

Joe Ballandby, Naturalist

_____ %
I N W D

Where Does Our Energy Come From?

Hi, I'm TOLBY! Can you unscramble the names of the sources of energy used to generate power in your house? Extra credit if you guess the right percent of each!

YOUR HOUSE

_____ %
L O R S A

_____ %
A C O L

_____ %
L N C U R A E

_____ %
R U A T A L N S G A

ENERGY CHALLENGE
www.energychallenge.org

TOLBY stands for Turn Off the Lights Behind You! © Center for Energy and Environment

Answers: Top Going Clockwise: Wind 17%; Coal 17%; Natural Gas 45%; Nuclear 25%; Solar 3%. Source: Energy Information Agency for the State of MN.