

EXECUTIVE SUMMARY 2014–2016 TRIENNIAL CONSERVATION IMPROVEMENT PROGRAM

This document describes Minnesota Power's proposed 2014–2016 Triennial Conservation Improvement Program (CIP). Minnesota Power respectfully requests that the Minnesota Department of Commerce (Department) approve this filing as the basis for 2014, 2015, and 2016 CIP activities.

Minnesota Power proposes a CIP budget of \$6,935,345 in 2014, \$7,145,419 in 2015, and \$7,307,641 in 2016. Anticipated annual energy savings are as follows: 46,553,951 kWh in 2014, 46,539,000 kWh in 2015, and 46,545,084 kWh in 2016 with annual demand savings of 5,994 kW, 5,994 kW, and 6,002 kW, respectively for each of the program years included in this filing. These figures exclude any funding for those customers who have received exclusions from CIP spending requirements and savings goal.

This filing is pursuant to Minnesota Statute §§§ 216B.2401, 216B.241, and 216B.2411 and in compliance with Minnesota Rules 7690.0500 through 7690.0800.

About Minnesota Power

Minnesota Power, a division of ALLETE, Inc., serves about 144,000 retail electric customers and 16 municipal systems across a 26,000-square-mile service area in central and northeastern Minnesota. In its second century of energizing communities and businesses, Minnesota Power is transforming its energy supply. As recently discussed in Minnesota Power's 2013 Integrated Resource Plan, Energy Forward is Minnesota Power's road map to a cleaner energy future while preserving reliability, protecting affordability and improving environmental performance. It's how Minnesota Power is bringing large amounts of clean renewable energy online, diversifying its energy mix, reducing reliance on coal and further reducing emissions at existing facilities—all while continuing to deliver safe and reliable service at the lowest possible cost to customers. Minnesota Power's conservation programs, referred to collectively and referred to herein as the Power of One®, remain part of core service offerings and are highlighted as part of its Energy Forward resource strategy.

Minnesota Power has a proven track record with successful conservation program delivery, meeting or exceeding the 1.5% energy-saving goal in Minnesota. As dollar savings are often cited as the primary driver for customers in terms of energy efficiency investments, it's notable that these goals have been achieved while Minnesota Power's total average retail electric rate of 5.97 cents per kilowatt-hour (kWh) was the fourth lowest in the U.S. among 169 providers surveyed. Minnesota Power's retail electric rate was the second-lowest in the West North Central region (average rate: 7.87 cents per kWh) and the lowest in Minnesota (average rate: 8.09 cents per kWh). Figure 1 illustrates historical and recent achievements through CIP.

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² Docket No. E015/RP-13-53.

³ According to statistics compiled by Edison Electric Institute, Typical Bills and Average Rates Report Summer 2012, dated July 1, 2012.

80.000.000 2.5% 70.000.000 2.0% 60,000,000 50,000,000 1.5% 40,000,000 1.0% 30,000,000 20,000,000 0.5% 10,000,000 0.0% 2004 2005 2006 2007 2008 2009 2010 2011 2012 Year Energy Partners - Low Income Triple E Plus PowerGrant - Percent of Savings

Figure 1: Minnesota Power's 2004–2012 CIP Achievements⁴

According to a recent E Source report examining demand-side management portfolios, Minnesota Power tied with two other utilities for the most cost-effective electric portfolio, calculated based on total expenditures and annual energy savings. The three top utilities achieved energy savings at a cost of \$0.09 per annual kWh saved, well under the average of \$0.21 per annual kWh.⁵

Translating the Power of One®

The Power of One[®] is Minnesota Power's purpose-based strategy to empower customers to make effective energy choices that are the right fit for them and that help them get the most for their energy dollars, all the while maintaining focus on targeted program objectives—quality installations, informed decisions, conservation first and safety.

Power of One[®] represents the importance of individual choice by customers regarding how they use the vital energy Minnesota Power provides to maintain the quality of life, operational excellence, and overall reliability they've come to expect and value for their homes, businesses, and communities. Based on the concept that one change, one choice by a customer, business, or community can be incredibly impactful, Minnesota Power's programs seek to engage, empower and educate customers regarding their energy consumption. Minnesota Power's programs embody the principles of the Pyramid of Conservation (see Figure 2).

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⁴ In 2012, Minnesota Power had three newly exempt customers. Adjusted weather-normalized average retail energy sales excluding these customers is 3,070,846,984 kWh. If this was used as the base, 2012 savings would be equivalent to 2.1% of retail energy sales.

⁵ 2011 DSM Achievements and Expenditures, published December 14, 2012; www.esource.com

The Pyramid of CONSERVATION

residential version

*A Foundation in Energy Efficiency**

Replacement

Renewable Options

Replacement

Windows

Furnaces with ECMs
Heat Pumps A/C
Drain Water Heat Recovery
Smart Pak Solar Thermal
Attics Walls
Foundations Crawl Spaces
Refrigerators Dishwashers Clothes Washers
Appliance Roundup Dehumidifiers

Sealing Bypasses in Attics, Walls & Foundations
Caulking and Weatherstripping Windows & Doors

CFLs Fixtures LEDs

Lighting

Temperature Settings/Programmable Thermostats
Hot Water Settings/Programmable Thermostats
Routine Maintenance

Power of One Portal
Tips and Tools On-Site Analysis New Construction Design

Www.mnpower.com/powerofonehome

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Where do I begin?

The choice to be more energy efficient may be clear, but the starting point can be more difficult to determine. The Pyramid of Conservation is designed to help you prioritize steps and develop an action plan that's right for you. By establishing a foundation in energy efficient may be clear, but the starting point can be more difficult to determine. The Pyramid of Conservation a better understanding about now you use energy, you can more effectively work your way up the pyramid.

Figure 2: Minnesota Power's Pyramid of Conservation

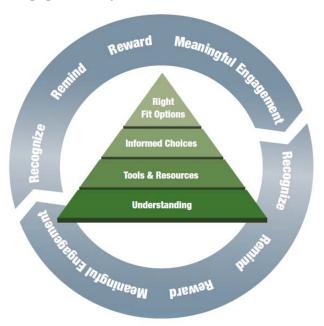
Originally developed as a residential educational tool, the pyramid has served as a source of inspiration for other aspects of Minnesota Power's conservation programs. In fact, it is used to translate the Power of One[®] conservation program strategy. Figure 3 is an interpretive adaption of the pyramid into a broader guiding framework for program design and delivery.

Figure 3: Minnesota Power's Conceptual Pyramid



This framework entails Meaningful Engagement through Understanding, Tools & Resources, Informed Choices, and ultimately Right Fit Options. To help customers save energy, they must first have a better *Understanding* about how they use energy. Minnesota Power shares that responsibility in that it must also understand how customers use energy, what technologies or processes impact usage, and how best to deliver programs and services. Minnesota Power provides a variety of Tools & Resources to further customer understanding, help them familiarize themselves with energy-efficient options, and encourage them to develop a plan for saving energy. Tools & Resources are also provided to retailers, trade allies, program delivery experts, customer service professionals, and contractors to help them see the value in energy efficiency as part of their service offerings. This leads to *Informed Choices*. Customers can leverage program resources to learn more about the technologies, processes, investments, and implementation alternatives that are consistent with their objectives. By collaborating with stakeholders and trade allies, Minnesota Power helps to ensure that these informed choices are reinforced at each step in the process and that customers are confident in their choices, asking thoughtful questions along the way and defining their expectations to further that confidence. This ultimately helps customers identify Right Fit Options that are in alignment with their expectations, preferences, operational needs, and decisionmaking processes. This includes a solid understanding about how equipment works, how it should work, and the impact of operational practices on energy usage. This approach acknowledges that customer investment decisions are complex, decision drivers are unique to their circumstances, and they are rarely a "one and done" opportunity. The Power of One[®] is flexible and reflective of the reality that a "one size fits all" approach is not the best approach to help customers succeed or for delivering on energy-saving objectives. It embraces the notion that energy efficiency is a journey that requires an ongoing Customer Engagement Cycle of recognition, reminders, and rewards for effective energy choices (See Figure 4).

Figure 4: Customer Engagement Cycle



As described in this filing, Minnesota Power's programs continue to evolve over time, drawing from best practices in the industry and transforming based on the insights gained through practical program experience, customer participation, and collaboration.

Minnesota Power's 2014–2016 Triennial Conservation Improvement Program is organized based on these eight major components:

- Home
- Business
- Community
- Evaluation & Planning
- Research & Development
- Renewable Energy
- Program Budget
- Compliance

Each component has been and remains fundamental to Minnesota Power's overall program design and objectives—delivering energy savings through value-added programs. Minnesota Power's programs are designed to continue to meet the conservation needs of all applicable segments of its customer community and help them establish and achieve their energy-saving goals. For the 2014–2016 filing period, Minnesota Power further builds upon successful program design. Where appropriate, programs have been expanded in scope as a part of an ongoing commitment to deliver quality, cost-effective savings.

- **Home**—This section focuses on the residential programs, specifically the Power of One® Home and Energy Partners Programs.
 - Power of One[®] Home is a comprehensive, portfolio-based residential sector program designed to help customers make informed choices about how they use energy in their homes.
 - Through the Energy Partners Program, Minnesota Power provides income-eligible customers with energy-efficient products and services to help them use energy more effectively. Program delivery is done primarily through eight local community agencies.
- **Business**—The Power of One[®] Business Program serves as the primary forum for reaching and serving business, industrial, agricultural and public sector customers. It provides a common platform which enables Minnesota Power to encourage a broad base of customers to make effective energy choices while providing the flexibility required for addressing the unique circumstances of various business types. Also included in this section is Electric Utility Infrastructure.
- Community—This section focuses on the Customer Engagement and Energy Analysis Programs, both of which are integral to the successful delivery of energy savings through the other programs featured in the Home and Business sections.

- Evaluation & Planning—Effective program design requires thoughtful evaluation and planning. This section highlights these processes, anticipated annual energy savings, results of benefit/cost analysis performed (i.e., societal, participant, ratepayer impact, and utility), and includes project information sheets.
- Research & Development—Research & Development is critical in identifying and testing new products, markets, and energy-saving strategies. This section discusses Minnesota Power's ongoing commitment to seek out innovative technologies and approaches that could contribute to the sustainability of its conservation program and the delivery of energy savings.
- Renewable Energy—The Customer Renewable Energy Program reinforces Minnesota Power's continued efforts to identify and deliver small scale renewable options such as photovoltaic and solar thermal. This section describes how the renewable energy program provides access to information about these technologies and incentives that impact decisions to invest in small scale renewable energy applications in Minnesota Power's service territory, all the while retaining the focus on "conservation first."
- **Program Budget**—This section provides an overview of Minnesota Power's CIP budget.
- **Compliance**—This section summarizes compliance requirements, lists the spending requirements and savings goal for the triennial filing period, describes how CIP has supported integrated resource plan (IRP) goals, and provides an overview of rate making and cost recovery methods applicable to CIP.

Minnesota Power exercises a mindful, balanced approach in terms of traditional program design versus less established, emerging opportunities, using a combination of "direct savings" and "indirect savings" programs that complement each other and provide for a comprehensive customer experience. Power of One® Home, Power of One® Business, and Energy Partners remain the foundational programs that consistently deliver energy savings within the Power of One® portfolio—typically through more established methods like rebates, incentives, and/or direct installations. While rebates certainly remain part of the equation for success in influencing customer choices, the value of Power of One[®] program services and resources is not solely derived from direct rebate programs. Rather, it involves a Five "I" Marketing Approach that includes incentives for products and processes, *information* about energy-saving technologies, resources and strategies, innovation in technology and delivery methods, integration across programs and trade ally networks, and *impact* that is measurable and meaningful. Through a diverse range of services such as education, training, research, performance studies, energy analysis and overall energy awareness, Minnesota Power provides customers with tools and resources they need to make informed choices. These services are delivered through Minnesota Power's cross-market programs—Customer Engagement, Evaluation & Planning, Research & Development, Energy Analysis, and Customer Renewable Energy. These programs support direct savings programs and serve as a pipeline for projects that ultimately deliver on program objectives (See Figure 5).

Figure 5: Program Integration



A Changing Landscape

The Next Generation Energy Act of 2007 was transformational in terms of how conservation program success would ultimately be measured, shifting focus from a spending goal to a 1.5% energy-savings goal. 2010 officially marked the first year of this transformation. Minnesota Power has embraced this opportunity to refine its conservation program and expand upon a viable, cost-effective platform that has delivered energy savings at or above this goal. Sustaining historical savings levels will be challenging and require ongoing program development and increased efforts to raise program awareness and participation. The source of savings in terms of customers and technologies will inevitably change as programs continue to mature and technologies evolve. As utilities strive to meet the aggressive goals set forth in statute, adaptive strategies will need to be deployed. Insights regarding customer preferences and energy consumption choices will be an integral part of future program design and delivery. Further, codes and standards as well as regulatory certainty are important components that will influence the ongoing success and commitment to conservation. More broadly, the landscape for energy continues to change at an increasingly rapid pace, as recently experienced in Minnesota's 2013 legislative session through the omnibus energy bill. Minnesota Power will be working closely with the Minnesota Public Utilities Commission and the Department of Commerce in the months ahead regarding the interpretation and implementation of resulting new laws. In the meantime, Minnesota Power is moving forward with its balanced approach to meet the need for energy today and tomorrow in ways that are sensible and sustainable. Power of One[®] is an important part of that process.