

Executive Summary

For the past nine months, Ramsey County Parks & Recreation has been working with Xcel Energy's Partners in Energy team to develop this Energy Action Plan. An eight-member Energy Action Team met in a series of five facilitated workshops to review energy data, establish an energy vision, prioritize areas of focus, set energy goals for the department, and establish a framework for implementation.

Through an energy-use analysis of department facilities, the team determined that the highest energy users are by far ice arenas. **Ice arenas contribute approximately 85 percent of the department's total energy costs.** Parks & Recreation spent over \$930,000 on energy in 2015, with over \$780,000 going toward energy use in the ice arenas alone.

Impending environmental regulations will require arena owners to make capital investments to ensure regulatory compliance, and this presents a unique opportunity for the department to dramatically improve energy efficiency and reduce operating costs.

There are other upcoming opportunities for clean energy investment in the department including continued expansion and remodeling of Tamarack Nature Center, redevelopment of Lake Owasso County Park, addition of a shelter at Long Lake Regional Park, and renovations to the administrative building. There are also long term project opportunities including development of renewable energy sources in parks and on arena rooftops. The concurrent work of the Arena Task Force offers a unique opportunity to incorporate smart energy investments into long-term ice arena planning. All of these can be leveraged to educate the community about clean energy technologies and how they are being implemented in department facilities.

The department has already completed a variety of energy efficiency and conservation projects utilizing Xcel Energy's program offerings along with various other opportunities, demonstrating an ongoing commitment to leadership in energy management. Previous energy efficiency projects have already generated significant energy and cost savings for the department. Sixteen lighting efficiency upgrades alone are saving an estimated 89,649 kWh annually, or approximately \$8,000 per year.

This report provides guidance on the most impactful measures Ramsey County Parks & Recreation can take to achieve its energy goals, further its energy leadership, and reduce taxpayer burden on facility utility costs. In pursuing the strategies outlined in this Energy Action Plan, the department will build on past successes and work toward achieving its long term energy vision.

Our Vision:

The Energy Action Team developed an energy vision statement to guide decisions throughout the development and implementation of the plan.

Energy Vision

Ramsey County Parks & Recreation's programs, policies and practices will reflect a commitment to leadership in energy efficiency, conservation, education and renewable energy, to foster a vibrant community where all are valued and thrive.

Based on this vision, the Energy Action Team identified priority focus areas and set goals within each area. The team then identified key strategies for achieving these goals, with a priority on short term and impactful action steps.

Energy Goals:

Energy Efficiency and Conservation

Goals:

- Reduce the total energy use of Parks & Recreation facilities 20 percent by 2020 and 35 percent by 2025 over a 2008 baseline.

Renewable Energy

Goals:

- Utilize 100-percent renewable energy on-site at county parks facilities by 2019.
- Utilize 50-percent renewable energy at regional parks facilities on site by 2020 and 100 percent by 2025
- Showcase to the public renewable energy technologies installed at arenas, golf courses, and the administration building by 2020.

Education and Outreach

Goals:

- Increase awareness of parks' energy efficiency and renewable energy projects to 50 percent of users by 2018.
- Engage at least 50 percent of parks employees in an employee energy conservation initiative by 2019.

Key Strategies for Achieving Our Goals

Near-Term Actions

Efficiency and Conservation

- Implement remaining viable energy conservation opportunities from previous ice arena studies.
- Perform ice arena engineering studies focused on conservation opportunities to leverage during refrigerant system upgrades.
- Develop cost-payback analysis for board review.

Renewable Energy

- Implement efficiency and conservation in county and regional parks facilities, working toward net-zero status.
- Assess renewable subscription and on-site installation options for regional parks.

Education and Outreach

- Help recreational users feel good about using Ramsey County parks and supporting an entity that is energy conscious.
- Provide context for the ice arena experience, particularly as energy is concerned.
- Educate golfers and arena patrons through messaging around sustainability.
- Inspire energy-related behavior changes in youth through hands-on activities.
- Engage department staff in energy conservation behaviors.

Longer Term Actions

Efficiency and Conservation

- Assess and invest in comprehensive ice arena energy modernization while upgrading refrigerant systems.
- Roll out best practices for building energy management across Parks & Recreation facilities.
- Reduce operational energy use in administration and golf course buildings.

Renewable Energy

- Ensure all cost-effective energy conservation measures in county and regional parks are fully implemented.
- Install on-site solar to cover energy usage for all county parks.
- Install the most beneficial renewable technologies in arenas, golf courses, and the administration building.
- Design and build all new regional and county park buildings to be net-zero ready and, at a minimum, to meet or exceed SB2030 standards.

Education and Outreach

- Inform users/staff that the department is focused on providing everyone with access to parks while preserving our resources and minimizing our environmental impact.
- Make parents and players aware of the ongoing efforts to conserve energy and address regulatory changes.
- Grow the game of golf with younger golfers who value environmental stewardship.
- Teach children skills and attitudes that will foster lifelong habits in energy conservation and instill a respect for the natural world.
- Engage parks employees in at least one employee initiative for conservation behavior.

An Energy Action Plan Focused on the Parks Department

Implementation of this plan will be led by Parks & Recreation staff, with active support from the Ramsey County Parks & Recreation Commission and the Ramsey County Board of Commissioners. Partners in Energy will help the Parks & Recreation team leverage multiple Xcel Energy programs and incentives to help implement efficiency and renewable projects.

Achieving the goals laid out in this plan will establish Parks & Recreation as a leader in achieving sustainability goals and serving as an effective steward of public resources. At the same time, the community education and engagement component will ensure that broader benefits from implementing energy actions will generate a multiplier effect throughout and beyond Ramsey County.