Ramsey County Board Workshop

Energy Workshop

Energy Governance Team

March 19, 2019

Start time: 1:30 p.m.

220 Courthouse, Large Conference Room

Agenda

1. Introduction   Johanna Berg, Deputy County Manager EGCI

2. Presentation   Zack Hansen, Public Health

3. Discussion and next steps

Energy Workshop

Board Discussion, March 19, 2019

Workshop Goals

- Report progress on the *Strategic Energy Plan*
- Update on 2019 energy work plan and Energy Governance Team direction

Energy in Ramsey County
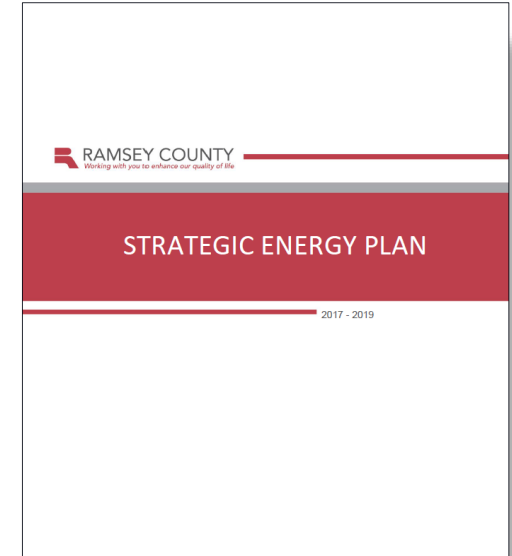
The County's *Interests* in Energy:

- Energy Consumer
- Energy Producer
- Service Provider
- Economic Prosperity
- Environment
- System Reliability and Resilience

The County's *work* on energy falls into three areas:

- **Internal – planning, producing, using**
- Public Policy – state, regional, local
- Community – residents, businesses, local governments

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"Ramsey County's programs, policies, and practices reflect a commitment to energy and environmental stewardship as a cornerstone of healthy and vibrant communities, in alignment with the county's vision, mission and goals."

- Prepared by inter-department team
- Two years, to align with the budget process
- Areas for Action
    - Leadership
    - Buildings and operating systems
    - Financial systems
    - Information systems

RAMSEY COUNTY
Working with you to enhance our quality of life

STRATEGIC ENERGY PLAN

2017 - 2019

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Progress on the Strategic Plan

- ✓ Energy Governance Team (EGT) was created
  - ✓ Good engagement by departments
  - ✓ Centralized and prepared energy policies in several areas
  - ✓ Developed EGT Charter
  - ✓ Prepared 2019 work plan
- ✓ Completed a centralized fleet guidance document and work plan through 2021
- ✓ Added energy component to CIP process
- ✓ Prepared an initial life-cycle financial analysis tool

Progress on the Strategic Plan

✓ PM's Energy and Tech team optimized energy use in buildings

✓ Continued engagement with SolSmart®

✓ Substantial benchmarking review of Parks solar PV projects that established a process for review of future projects

✓ Implemented Parks solar projects

✓ Completed analysis of solar energy generation potential for all buildings

Challenges - Startups are not always smooth; developing cross-functional work takes time

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Energy Use Reduction Since 2008

	Goal	Results*	Goal Achieved
2015	15%	20%	✔
2018	15 – 25%	20%	✔
2020	25%		
2025	30%		
2050	80%		

Greenhouse Gas Emissions Reduction Since 2008

	Goal	Results*	Goal Achieved
2015	NA	22%	N/A
2018	>/= 30%	24.5%	✔
2020	>/= 30%		
2025	30%		
2050	80%		

* Facilities as reported through Energy Manager; Fleet data gathering under development

2019 Energy Work Plan

- Governance
  - Develop county-wide performance measures
  - Further development of energy policies
  - Prepare a 2020 – 2021 Strategic Energy Plan
- Optimize energy use
  - Technology systems – space and technology planning
  - Building performance, use, standards, personnel training
- Improve data collection for employee mileage and travel
- Advance energy initiatives through TARP and ASD&F
- Complete a renewable energy and solar energy plan
- Communication plan for employee awareness & engagement

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Energy Excellence Framework

- A high-level comprehensive view of internal energy work for Ramsey County

- Key energy issues are addressed in six functional areas

Functional Areas

- Facilities & Systems

- Information systems

- Finance

- Procurement

- Fleet & Transportation

- Leadership & Governance

Key Energy Issues

- Efficiency & conservation

- Energy system design

- Renewables

  - Solar and Wind

  - Geo-thermal

  - Other

- Employee engagement

- Performance measures

Ramsey County's Energy Excellence Framework

	Efficiency & Conservation	Energy System Design	Renewable Energy			Employee Engagement	Performance and Related Measures
			Solar and Wind	Geo - thermal	Other		
Facilities & Systems	**Use best practices for daily management and operation of facilities to reduce energy use; install and replace equipment to optimize energy efficiency and capital investments when needed.**	Use leading edge energy standards for construction and remodeling. Incorporate energy and resiliency standards for county funded projects (e.g. housing, commercial redevelopment) Integrate energy storage for reducing demand charges and resiliency.	Support Xcel Energy renewable energy portfolio and integrate county-owned and/or leased solar gardens and on-site PV.

Establish investment and financial criteria. | Explore opportunities as technology evolves. | Use biomass heating and cooling from District Energy and explore biogas options. Explore recovery of waste heat from county facilities, renewable natural gas and review "net zero" opportunities across county operations. | Facility staff training and technical assistance. Broad employee communication and education on new building-related policies and practices. | Continuous measurement and evaluation of building energy use with data collection and analysis.

Develop budget-related performance measures and set specific renewable energy goals. |
| **Information Systems** | Use technology to drive improved energy performance and measurement. | **Deploy technology to support remote work and reduced employee travel. Equipment reuse and refurbishing.** | Explore energy sources and use associated with off-site computer services. | | | Broad employee communication and education on new policies and practices. | Open data portal metric(s) and budget-related performance measures. HR policies and supervisor training for telework, remote meetings and reduced employee travel. |
| **Finance** | Establish funding mechanisms that support energy and carbon reduction goals. | **Promote flexibility in funding mechanisms for better system design. Recognize value of energy use demand management.** | Establish investment and financial criteria. | | | Communicate and educate on new policies and practices. | |

	Efficiency & Conservation	Energy System Design	Renewable Energy			People	Performance and related measures
			Solar and Wind	**Geo-thermal**	**Other**		
Procurement	**Use best practices to reduce the energy and carbon impacts of purchases.**	Integrate more sustainable purchasing practices including full cost accounting and best value strategies.	Establish investment and financial criteria.			Communicate and educate on new policies and practices.	Create Open Data portal and Purchasing metrics.
Fleet/Employee Transportation	Leverage centralized fleet assets and organizational structure to reduce fuel costs and greenhouse gas and other air pollutants.	**Use full cost accounting for capital purchases. Ensure fleet assets are aligned with county energy goals. Proactively plan for electric vehicles and charging stations for county vehicles.**	Explore opportunities for charging and parking stations. Pilot innovative employee transportation options, such as Hour Car®.			Communicate and educate on new policies and practices. Clear and consistent employee training.	Use on-board telematics and other data collection and analysis tools for tracking and reducing fuel use, greenhouse gas emissions, employee mileage, parking and travel. Establish Open Data portal metrics.
Leadership and Governance	Cross-county team to prioritize energy programs and policies aligned with the board vision, mission and goals.	**Ensure integration of energy work into all facets of county operations and planning.**	Establish a technical training path for worker participation in renewable energy technologies.			Communicate with the board. Ensure staff orientation on energy programs and policies.	Identify and report on one performance metric.

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