



**Request for City Council Committee Action  
From the Department of Public Works**

**Date:** June 20, 2006  
**To:** Honorable Scott Benson, Chair Health, Energy & Environment Committee  
Honorable Sandra Colvin Roy, Chair Transportation & Public Works Committee  
**Referral to:** Honorable Paul Ostrow, Chair Ways and Means/Budget Committee

**Subject: Centralized Energy Management for the City of Minneapolis**

**Recommendation:**

- a) That Public Works, in its Property Services division, shall be designated as the responsible department for Energy Management for the City's Municipal Operations.
- b) That Energy Management will include but not be limited to the following general responsibilities: Energy Data Collection and Analysis, Energy Procurement, Energy Conservation, Renewable Energy and Alternate Fuels, Energy Budgeting and Accounting, and Utility Franchise Agreements.
- c) That a staff position of Energy Manager be created, be properly classified based on the responsibilities of the Energy Management function, be placed within Public Works Property Services and filled as soon as reasonably possible.
- d) That the Finance Department determines an appropriate funding of the Energy Management function for the year 2007 Operating Budget and determines a long-term funding model to be included in the year 2008 Operating Budget process

**Previous Directives:**

- December 19, 2005 - This staff report is in response to City Council direction (Resolution 2005R-654 Amendment aa) that the Public Works Department convene a cross-departmental team to define the scope, work and ongoing funding of the position (Energy Manager).

**Prepared by:** Greg Goeke, Facilities Manager, 673-2706

**Approved by:**

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Steven A. Kotke, P.E., Acting City Engineer/Director of Public Works

**Presenter:** Greg Goeke, Facilities Manager, Property Services

Permanent Review Committee (PRC)	Approval _____	Not applicable <u>  x  </u>
Policy Review Group (PRG)	Approval _____	Not applicable <u>  x  </u>

**Financial Impact** (Check those that apply)

- No financial impact - or - Action is within current department budget (If checked, go directly to Background/Supporting Information)
- Action requires an appropriation increase to the Capital Budget
- Action requires an appropriation increase to the Operating Budget
- Action provides increased revenue for appropriation increase
- Action requires use of contingency or reserves
- Business Plan:  Action is within the plan.  Action requires a change to plan.
- Other financial impact (Explain):
- Request provided to department's Finance Dept. contact when provided to the Committee Coordinator

**Community Impact**

Neighborhood Notification: NA  
City Goals: NA  
Comprehensive Plan: NA  
Zoning Code: NA

**Background/Supporting Information**

As part of the 2006 Operating Budget Process, Public Works – Property Services requested that a new staff position be created (Energy Manager) to provide internal expertise in the area of Energy Management. With the City's long-term commitment to the environment, rising energy costs, concerns over long-term supply and reliability, interest in developing and/or purchasing renewable energy, and a renewed emphasis on conservation, a dedicated staff resource is needed to focus solely on energy strategies for the City's municipal operations.

This staff report is in response to City Council direction to staff (Resolution 2005R-654 Amendment aa) that the Public Works department convene a cross departmental team to define the scope, work and ongoing funding of the position (Energy Manager), and that this definition of work (including assistance from consultants) may use resources from the salary savings of not hiring the position until later in the year (2006).

This staff report also addresses the organizational framework, functional responsibilities, authority and structure, and approval of a centralized Energy Management program for the operating departments of the City of Minneapolis.

**Current Structure of Energy Management**

Currently in the City of Minneapolis, energy is de-centrally managed at the departmental level. Pockets of staff expertise exist within the operating departments that are the largest energy consumers (the Traffic & Parking Services, Water, and Property Services divisions of Public Works, and the Convention Center). Staff within the divisions is generally responsible for a variety of services and assignments with energy conservations projects and initiatives being a small portion of their overall tasks and assignments.

The majority of the City of Minneapolis energy purchases are through providers that are regulated by the Minnesota Public Utilities Commission. The City has over 1500 electrical accounts, over 100 natural gas accounts and spends over \$13 million (2005) on electricity and natural gas.

Energy conservation and capital investment to support conservation have always been highly valued and considered a priority. The City has historically implemented successful conservation initiatives. The City still enjoys a 10+% reduction in energy consumption and costs from programs in the mid 1990s. Every year the City furthers its investment in conservation programs, primarily through systems and equipment upgrades.

The majority of the operating departments budget and pay their own utility bills (electric, natural gas, central heating and cooling). The few exceptions are leased spaces and multi-tenant buildings such as City Hall, the Public Service Center, the City of Lakes Building, and the Community Services Building. Motor fuels are centrally purchased by Public Works Equipment Services and costs are distributed back to the operating departments. Efforts in previous years have grouped and consolidated invoices for staff efficiencies.

The independent boards (Park, Library, Schools, and Municipal Building Commission) all manage their own energy programs.

### **What are the Gaps?**

Currently, there is no single department or dedicated staff position with the overall responsibility for energy management across the enterprise. Elected officials, the utility providers, and the public are often unaware of or underserved by who they talk to, or work with, on energy related issues. It is difficult to research, develop, and implement comprehensive energy related programs and long-term strategies. The City's approved Sustainability Indicators have several measures that relate to energy and emissions reduction. Acceptable progress will require accountability and expertise.

Reporting for energy consumption and costs is difficult and does not provide for proper analysis by staff. Comprehensive reports cannot be provided with the level of detail needed to complete trending analysis and other diagnostic measures that are part of managing costs and conservation.

### **Issues and Options for the City to Centrally Manage Energy**

#### Cross-Departmental Work Team

A cross-departmental work team of Property Services, Environmental Management, Finance, and Human Resources was formed to address the City Council direction to staff as well as identify organizational restructuring needed to support the concept of centralized Energy Management for the City of Minneapolis.

The team received input from the Health, Energy and the Environment Policy Group, the Citizens Environmental Advisory Committee, and key department heads. Additionally, key stakeholders were contacted as to the proposed concept. A variety of needs and skill sets was identified. It is the work team's recommendation that the initial focus will be the City's own internal needs for municipal operations and that the responsibilities, reporting, and initial staff position skill set requirements should align appropriately.

#### Comparable Cities Study

Having received input, the work team concluded that commissioning a comparable cities study would help identify common and best practices in energy management. The work team, utilizing the services of a consultant, contacted 20 comparable cities across the nation and received input from 14 cities. The cities surveyed were Akron, OH; Austin TX; Baltimore, MD; Chicago, IL; Cleveland, OH; Dallas, TX; Denver, CO; Des Moines, IA; Fort Worth, TX; Madison, WI; Milwaukee, WI; Milwaukee County, WI; Portland, OR; and Phoenix, AZ. Officials in Buffalo, NY; Duluth, MN; Seattle, WA; and St. Paul, MN were also contacted but declined to participate.

Cities are making a real commitment to energy management and most consider energy management a high priority for municipal government. Half the cities surveyed have a formal energy policy and four more are moving towards one. Public participation is important with over half the cities inviting public comment.

Most cities have primarily focused their efforts on natural gas and electricity. As the cost of motor fuels has escalated, more cities are establishing programs for motor fuels and including these efforts in their energy management programs.

Renewable energy initiatives are being considered or underway in the survey group. The same can be said for emissions reduction.

The study consisted of over 70 questions mainly focusing on internal energy management practices. Based on the primary trends garnered from the analysis of municipalities participating in the survey, the following common and best practices were found:

Centralization:

The trend in municipal energy management is towards centralization.

The majority of the cities had combined all energy management responsibilities for internal or municipal needs into a centralized program with dedicated staff. Half have a centralized energy manager. Centralized management tends to be funded through general funding (Property Taxes). Also, several cities with decentralized programs are considering moving towards centralization or continue to try to improve their coordination of efforts.

General Responsibilities and or Initiatives:

- 1) Include major energy sources such as electricity, natural gas, district energy (steam and chilled water)
- 2) Manage internal conservation, internal education programs
- 3) Manage or provide assistance for on capital projects (energy related)
- 4) Provide for internal policies and procedures including internal education and training
- 5) Procurement, budgeting, and accounting for energy purchases
- 6) Data analysis (software application) of energy consumption
- 7) Aggregate and futures purchasing
- 8) Work with others/contribute to community education programs
- 9) Renewable energy initiatives
- 10) Emissions reduction efforts

**Work Team Recommendation**

The study identified common and best practices as well as trends that would support the creation of a full service, centralized Energy Management program with dedicated staff and enterprise authority to meet the needs of municipal government and its operating departments. This is also the recommendation of the work team.

From the information provided in the study and applying the current status in the City of Minneapolis, the work team also makes recommendation in these areas:

Overall Responsibilities

The work team recommends that the Energy Management function be responsible for all energy consumed by the City's operating departments (electricity, natural gas, district steam, district chilled water, fuel oils and propane, motor fuels) and provide the following services:

- Energy Conservation
- Renewable Energy and Alternate Fuels
- Franchise Agreements (with Finance and City Attorney)
- Energy Benchmarking and Data Analysis
- Procurement, Budgeting and Accounting (with Finance)

- Emissions Reduction
- Internal Policies and Procedures (to include Education and Training)

The work team further recommends that responsible department and staff also participate in or consult with others on (to the extent resources are available) community awareness and education programs and ordinance changes or updates that are related to energy. Additionally, the responsible department and staff may be required to represent the City in various professional organizations or regional partnerships associated with energy, renewable energy, and emissions reduction.

#### Departmental Alignment

Energy Management could effectively be aligned with several areas within Public Works (large energy consumers) such as Traffic & Parking Services, Water or Property Services or report directly to City Engineer. Additionally, Energy Management could be effectively aligned with Environmental Management or report directly to the City Coordinator. Ultimately, the decision should be tied to enterprise needs and the overall responsibilities of the Energy Management function. Enterprise recognition and authority are essential for the success of this program.

The work team recommends that the Energy Management function be initially established in Public Works Property Services. The work team also recommends that the reporting responsibility be revisited if there is a significant change in the responsibilities, scope of responsibilities or staffing requirements in the future.

#### Operational Changes

The City needs to realign its current decentralized energy procurement, budgeting and accounting practices to support a centralized function. The work team recommends that these changes be initiated by the Finance Department and are ready for inclusion into the 2007 Operating Budget Process

#### Long-Term Financing

Concurrently, a long-term financing plan needs to be developed. The program can be funded through a variety of means such as general funding, internal rate modeling, or even capturing savings from conservation initiatives. Further analysis is needed and therefore the work team recommends that the program be funded for one more year (2007) utilizing general funding. A long term financing method should be determined by Finance and included in the year 2007 Operating Budget.

#### Initial Staffing

The process of job classification and compensation for an Energy Manager position should begin immediately with the position filled as soon as possible. The position should align as closely as possible to the overall responsibilities of the department.

#### First Year Goals

- Centralize procurement, budgeting and accounting for all energy purchases
- Implement energy tracking software application
- Further develop existing energy conservation programs
- Develop baseline energy benchmarks
- Further investigate aggregate purchases
- Consult on capital program (energy related)
- Further develop and/or implement renewable energy initiatives
- Further develop and/or implement emissions reduction initiatives
- Review existing franchise agreements
- Develop and implement initial energy conservation policies and procedures

**How will all this work?**

Energy Management, within Public Works Property Services, will operate as an internal service function and will develop and make progress on a yearly work plan similar to many other functions throughout the City. The Energy Manager will Chair the internal Green Buildings Team, Green Energy Team, and Green Operations team that make progress on a variety of energy and environmental issues. The green teams report progress on a regular basis to the City's Environmental Coordinating Team. The Energy Manager will also represent Public Works at the Citizens Environmental Advisory Committee meetings (upon request). The Energy Manager is anticipated to also represent the City in various capacities that related to energy policy and partnerships.

The departmental work plan will be part of and included in the Public Works work plan for the year and be included in the Public Works Departmental business plan. Additionally, all work associated with the City's Sustainability Indicators will be reported on a regular basis through Environmental Coordinating Team and the Health, Energy and Environmental Committee.

New internal policies and procedures will be submitted to the Health, Energy and Environment Committee and referred to the Transportation and Public Works Committee for Council review and approval.

**What will be the Key Benefits of a Full Service Program?**

Energy Management will be part of the long-term strategic decision making process for the City. A comprehensive program will provide for all of the City's needs in organized manner.

Having a responsible department with dedicated staff (expertise) will provide for improved communication and decision-making by the elected officials and operating departments. Real and measurable progress towards the City's Sustainability Targets will be more easily managed.

By reducing the consumption of energy the City will continue to avoid current and future costs. With the potential for price escalation, this will become even more of a priority in the future.

Development of internal policies and procedures with associated internal education and will provide for measurable progress in reducing energy consumption, emissions reduction, and the development and use of renewable energy and alternate fuels.

Attachment 1: Energy Manager Position Responsibilities, Duties, Skill Requirements, Year 1 Goals, and Implementation Timeline

Attachment 2: *Municipal Energy Management Strategies*, May 2006, Report by Sebesta Blomberg to City of Minneapolis

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Cc: Sue Hartman, Finance Department