

2002 CIP Primer

A Review of the New Minnesota Requirements for Municipal CIP spending

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Minnesota Municipal Utilities Association
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Background

New Requirements

On May 29, 2001, Governor Ventura signed the Minnesota Energy Security and Reliability Act into law. It is the most comprehensive energy legislation passed in the state of Minnesota in several decades.

Among the many issues addressed was **a reinforcement of the state's commitment to energy conservation programs**. Often referred to as Demand-Side Management Programs (DSM), these programs involve strategies by energy providers (electricity and natural gas utilities) to meet future energy needs through promotion of high efficiency technologies and processes. The benefits of energy conservation programs in slowing the growth of energy use have been documented both nationally and locally.

In Minnesota, energy conservation efforts are covered under the Conservation Improvement Program. The new legislation brought increased attention to promotion of energy conservation by municipal utilities. The main changes were:

- an increase in the level of electric CIP spending required of municipal utilities, to match that of other utilities in the state,
- a gradual decrease in the percentage of CIP funds that can be spent on load management and an accompanying increase in the percentage of CIP funds that must be spend on energy conservation, and
- greater reporting requirements to the state on activities by municipalities.

The Center for Energy and Environment (CEE) has developed this CIP Primer for MMUA to assist Minnesota's municipal utilities in meeting the statutory requirements for CIP. This primer is based upon Chapter 212 of Minnesota's 2001 Session Laws (mostly codified at MN Stat. 216B.241) and extensive consultation with the Department of Commerce. These guidelines will assist you in developing CIP plans that mean the new law and provide the Department of Commerce with the information they require.

Process and Timeline

The new laws require municipal electric and natural gas utilities to file their biennial CIP plans every two years, starting June 1, 2002. **The CIP filing is to include an evaluation of results for the previous two years and a plan for the next two years.** For the first filing due in 2002, the evaluation needs to only include results for 2001.

CIP plans are to be submitted to the Commissioner of the Department of Commerce. The Commissioner will review the CIP plans and may offer suggestions for improving them.

State's Authority

Ultimately, **the Commissioner does not have the authority to order changes to a municipality's CIP** as long as the plan meets statutory requirements. However, the new legislation was passed because there was some concern that CIP funds spent by

municipalities and cooperatives were not being used for energy conservation purposes. It is therefore important for municipals demonstrate that they are designing and administering cost-effective programs, and that these programs do include a significant energy conservation component.

Other Sources of Information

The Commissioner of the Department of Commerce sent a letter to all municipal utilities containing preliminary information about CIP changes at the beginning of the year. This letter outlined requirements and gave the new reporting format for projects proposed for implementation over the coming biennium. The Commissioner also sent a letter on March 25, 2002, which summarized the statutory changes, gave detailed information on how to fill out CIP Worksheets, and provided a booklet of suggestions for energy conservation improvement programs. If you do not have these materials, they are available from Lois Mack at the Department of Commerce, 651/296-8900, and on CEE's web site at www.mncee.org. Click on "Energy Services" and then on "Municipal Utilities" (in the purple band).

CIP Requirements

Reporting Requirements

Municipal utilities are required to document their individual CIP efforts to the Minnesota Department of Commerce every two years starting on June 1, 2002. The CIP filing consists of two parts.

Plan for the Current Biennium (2002-2003)

The CIP plan filed on June 1, 2002 is to describe the utility's plans for 2002 and 2003. Since the filing occurs halfway through the first year of the plan, the Department is fully aware that any suggestions cannot be addressed until the second year of the biennium. In the future, the Department is interested in changing the filing requirements to eliminate this difficulty. However, until such a statutory modification occurs, the municipal CIP plans will continue to be filed halfway through the first year.

For the filing, the CIP plan should include the following for each project:

- 1) Header information
 - a. Program/Project name
 - b. Type (new or existing)
 - c. Audience or market (residential, commercial, industrial)
- 2) Project Description: for example, qualifying criteria to receive rebates, rebate amounts, savings projections, marketing plan, etc.,
- 3) Project Support: justification or why this project should be done,
- 4) Project Modifications: For existing programs, any changes made from previous biennium and why they were made.
- 5) Estimated \$/kW and \$/kWh. Calculation of the projected project cost per kW of demand reduction and per kWh of energy saved. Note that formal benefit/cost analysis is *not* required for the filing due this year.
- 6) Detailed budget for each project, using the worksheet provided by the Department.

In addition, the CIP plan should include overview information and calculations showing that the overall CIP plan meets the new requirements.

- 1) Spending requirements (1.5% of gross operating revenues (GOR))
- 2) Conservation spending requirements (10% of total CIP in 2002 and 20% in 2003)
- 3) Programs to serve all market sectors (Residential and Commercial & Industrial)
- 4) Effort to serve low-income households and/or renters.

Evaluation of Previous Biennium (2001)

The evaluation or review section of the first filing, due June 1, 2002, is governed by the previous statutory requirements. Therefore, municipal utilities are only asked to provide

information for 2001, not 2000 and 2001, and the type and detail of information required is only that which you have normally provided in the past. In particular, you do not have to provide a detailed budget worksheet, showing cost components, etc., for each project conducted in 2001.

The evaluation should include:

- 1) Description of each project.
- 2) Actual amounts spent on each project
- 3) Actual energy savings (or the reason the project is important)
- 4) Cost-effectiveness of the program. Initially, this is the cost per saved kW of demand reduction and cost per kWh of energy saved (ie, dollars expended / demand savings and dollars expended / energy savings).

Upon receipt of the CIP plan **the Commissioner of the Department of Commerce will review and may make recommendations** to improve the CIP plan or offer suggestions for other avenues of approach.

Spending Limits and Requirements by Type of Project

For municipal electric utilities, the CIP spending requirements increased from 1.0% of gross operating revenues (GOR) to 1.5%. This was to bring the municipal electric utilities to the same spending level as the investor-owned utilities (IOUs). The CIP spending requirement for municipal natural gas utilities remains at 0.5% of GOR, the same as the requirement for investor-owned natural gas utilities.

Previously, municipal utilities were allowed to spend their CIP monies on any project that they wanted. With a growing concern that CIP money was not being used to reduce energy consumption, several spending limits were placed on future CIP plans. The most important change was a limit on the percentage of funds that can be used on load management.

Load Management

In the past, municipal utilities were allowed to spend all of their CIP funds on load management, loosely defined as “activities that increase the efficiency of the electric system”. In this case, load management activities did not have to result in a net reduction of energy use.

The 2001 legislation puts a declining cap on the amount that can be spent on load management. Starting in 2002, **municipal electric utilities must limit the amount of their CIP funds that is spent on load management activities that do not result in a net reduction of energy use.** The limit for load management spending is:

Year	Load Management Limit	Conservation Minimum
2002	90%	10%
2003	80%	20%
2004	65%	35%
2005 and thereafter	50%	50%

For 2002 this means that municipal electric **utilities must show that 10% of the money spent for their CIP plan resulted in actual reductions in energy consumption** for utility customers. By 2005, half of the money in the program must be used towards reducing energy consumption. It is expected that most utilities are either already meeting this requirement or can easily meet it over the next few years.

This requirement remains less stringent than that placed on investor-owned utilities. All of an IOU's CIP plan must directly or indirectly address efforts to reduce energy consumption by its customers. Essentially, their load management limit, as defined for municipal utilities, is 0%.

Other Spending Limits / Requirements

Some additional spending limits and requirements are placed upon the CIP plans.

- 1) The plan **may not allocate more the 10%** of the total amount required to be spent on energy conservation programs **on research and development** efforts.
- 2) ***To the extent that cost-effective projects are available in their service territory, municipal utilities shall spend 5%*** of their CIP budget **on projects to build generating facilities that use renewable resources** or on projects to install distributed generation facilities of 10 MW or less that are fueled by natural gas, renewables, or a similar clean fuel. This requirement expires on May 30th, 2006. The Department is still deciding how to interpret this requirement. It is likely that renewable projects will be approved and encouraged even if they are not within the municipality's service territory and may not be cost-effective at today's project costs. For municipalities, the cost of renewable projects is counted under load management.
- 3) **Up to 3%** of the funds **may be used for program pre-evaluation, testing, and monitoring and program evaluation.**

Miscellaneous Issues

In providing CIP projects for customers, municipal utilities should be aware of several other issues.

Large Customer Opt-Out

Customers with a facility that imposes a peak electrical demand 20 MWs or more may apply for a CIP exemption with the Department of Commerce. If approved, the customer is exempted from any CIP charges and cannot participate in any CIP programs. To opt-out, a large customer must petition the Commissioner by October 1 of any year, to be reviewed for possible exemption beginning no earlier than January 1 of the following year. The 20 MW load must occur at one facility on one meter. If a customer is granted exemption based on this criterion, the exemption covers both its electric and gas use.

Low-Income Households and Renters

Under statute, the Commissioner is ordered to review each CIP plan to determine whether **a portion of the money spent on residential conservation improvement programs is devoted to programs that directly address the needs of renters and low-income households.** A benchmark the Department typically uses is that 10 – 15% of the residential portion of the conservation plan should be allocated towards this sector.

Spending by Customer Class

CIP funds are collected from customers of all rate classes. Equity suggests, therefore, that the benefits of CIP should be distributed among customers of all rate classes. As a general guideline, the Department looks to see that **CIP expenditures by rate class are roughly in proportion to revenues by rate class.**

Direct vs. Indirect Impact Projects

The Department prefers to see the **largest possible percentage of CIP funds spent on measures that directly reduce energy use**, such as rebate programs. They realize that education programs, such as newsletters and energy audits, have a place in a CIP program, but experience has shown that such programs, by themselves, do little to reduce energy use.

Aggregation

Utilities are allowed to aggregate their CIP plans together to ease their administrative burden and provide conservation programs that could not otherwise occur. For example, Austin, Owatonna, and Rochester have teamed up to submit one CIP plan for their combined service territory.

Spending on Municipal Facilities and Equipment

Municipal utilities may spend CIP funds on measures to upgrade municipal facilities and equipment, for example, more efficient street lighting or traffic signals, or conservation measures implemented on city buildings. However, you may only spend CIP funds on these measures IF you include the value of electricity provided to the municipality for these uses in your gross operating revenues for purposes of calculating required CIP spending. If you exclude municipal electricity use from your GOR (which is allowed by the Department), you may not use CIP funds on projects that make city energy use more efficient.

Revenues from Services Provided to Customers

If a utility operates demand-side programs that receive some revenues from customers (e.g., for consulting fees, audit fees, green pricing premiums), the costs that are reimbursed by customer revenues do not count toward the CIP spending requirement. Other costs do count, though. For example, if a large customer paid for an engineering study (or paid part of the cost), the costs they paid would not count toward the CIP spending requirement, but if they went on to implement conservation or load management or renewable measures that received incentives from the utility through CIP, the incentive costs would count toward the CIP spending requirement.

Energy and Conservation Account

Any utility may deposit CIP funds into the Energy and Conservation Account administered by the Department of Commerce if it does not wish to design and administer CIP projects on its own. To date, no utility has exercised this option.

CIP Project Options

Load Management

For the 2002 – 2003 CIP plan, as a general rule **programs that were done in the past under CIP can be included under the load management portion of the plan.** For example, many supply side upgrades such as low loss transformers will be accepted. Activities that do not involve the delivery or use of electricity such as writing off uncollected debt, office remodeling, etc... will not count as a CIP expenditure. Distributed generation efforts and / or renewable efforts can count as a load management activity.

Keep in mind that although various programs such as those described above will count as load management under CIP, the Department will continue to recommend that utilities focus their CIP efforts more and more on conservation-oriented programs for their customers.

Conservation

The primary concern is therefore what programs can be counted towards the conservation spending requirements. **The basic requirement is that the program target energy (not just demand) reductions on the customer side of the meter.** Most municipal utilities are already doing this, and therefore the new requirements for 2002 will not require a drastic overhaul of their current CIP plans. The state's goal is to ensure that money allocated for energy conservation programs is targeting energy conservation efforts and is not being used by utilities to spend money on their basic business needs.

CIP plans should be broken out into the main market sectors that are served by the utility: residential, commercial and industrial (C&I), and government/utility. Conservation programs should be developed that allows all customers to participate in some sort of program.

Examples of various programs for each sector are listed below. The information on whether the Department is likely to review these favorably or not came from Department staff. **Important Note: in this context favorable programs are those that the Department agrees counts towards the 10% conservation requirement for 2002.**

Residential

- 1) Conservation programs likely to receive favorable review
 - a. Energy Star appliance rebates
 - b. Compact fluorescent lamp rebates
 - c. Electric water heater energy saving packet (faucet aerators, low flow showerheads, pipe insulation, reduced water heater temperature)
 - d. Ground source heat pump rebates

- e. Low-income electric energy upgrades (compact fluorescent lamps, efficient appliances, etc.)
 - f. Load control of air conditioners and water heaters (*only* the cost of devices, marketing, etc. counts as conservation)
 - NOTE: The rate discounts offered for these programs can be counted under the load management portion of CIP.
 - g. Load management rates marketing and administrative costs
 - h. Appropriate research & development
 - i. Audits or other education activities
 - NOTE: Indirect impacts such as these will count towards the conservation requirement. However, if the majority of the conservation offerings are indirect impact programs the Department will suggest the utility pursue more direct impact programs.
- 2) Conservation programs likely to receive unfavorable review
- a. Tree replacement programs
 - NOTE: Individual utilities may be able to convince the Department that this program reduces participant's energy costs. However, to do so a utility may have to provide more detail than just describing a replacement program and may have to defend its energy savings assumptions. For example, the utility may have to show that it is planting a tree large enough and close enough to provide shade for the house and that the tree is not at an already shaded side of the building (ie. the north side). If included as a conservation program, this offering will likely be subject to tougher scrutiny than other conservation programs. The Department is concerned that this program is being used to replace trees that do not provide any shade tree benefits.
 - b. Uncollected accounts
 - NOTE: Uncollected low-income accounts will not count towards CIP and therefore cannot be used to meet the low-income / renter requirement. The Department has been advised to take this position by their legal staff.
 - c. Budget billing for low income and renters
 - d. Electric CIP funds spent on low income gas/oil measures or expenditures that are large relative to the electric savings achieved (e.g., general costs to help build a house)
 - e. Incentives using various utility rate structures (peak discount rates, off-peak rates, etc...)

Commercial and Industrial (C&I)

- 1) Conservation programs likely to receive favorable review
 - a. High efficiency lighting rebates
 - b. Motor and adjustable speed drive rebates
 - c. High efficiency cooling equipment rebates
 - d. Ground source heat pump rebates

- e. High efficiency refrigeration equipment rebates
 - f. Rebates for building recommissioning studies and implementation
 - g. Rebates for compressed air system studies and implementation
 - h. Design assistance for new C&I construction
 - i. Computer power management programs
 - j. Load control of air conditioners and water heaters; (*only* the cost of devices, marketing, etc. counts as conservation)
 - k. Load management rates (*only* the marketing and administrative costs)
 - l. Appropriate research & development
 - m. Commercial energy audits
- 2) Conservation programs likely to receive unfavorable review
- a. Standby generators at customer facilities (ie. fuel switching)
 - b. Load shifting activities
 - c. Other items, same as for residential

Government / Utility

- 1) Conservation programs likely to receive favorable review
- a. Upgrading street lights to more efficient equipment
 - b. Upgrading traffic signals to more efficient equipment
 - c. Other programs, same as C&I
- 2) Conservation programs likely to receive unfavorable review
- a. New streetlights where none existed
 - b. Replacement of streetlights with standard efficiency
 - c. Addition of standby generators

CIP Project Reporting

The Minnesota Department of Commerce has issued several statements detailing its expectations from municipal utilities.

Project Filing

Each project included in a CIP plan should have its own individual detailed description. An example of this format is on the following pages. Although not required, we have added additional sub-headings and recommend that members also include these in their filings. If you address these issues, questions from the Department should be minimized, alleviating most of the concerns that they may raise. Hopefully inclusion of these finer points will also help members think of ways to best develop and promote their own programs.

In addition, each program is to have a completed spreadsheet template like the one proposed by the Department. The spreadsheet provides detailed information on separate cost components for the project, allocation among market sectors, low-income / renter information, the type of program, targeted end-uses, and summarizes the average savings and costs for the program. It is important for utilities to track this information as best as they can.

It is therefore suggested that the utility address each section and complete the attached spreadsheet template for each program. Not every section will be relevant for every project so you may skip those sections that are not applicable.

Example

Program/Project Name: Name of Program

Type: New or Existing

Audience: Residential or Commercial & Industrial Customers or both

Project Description

Description of the Project

Qualifying Criteria, Savings Estimates, Incentive Amounts

Description of the criteria used in determining program eligibility, estimates of electricity savings of kW and kWh per unit and total, amount of incentives if any.

Marketing Plan

Description of how the utility plans on marketing the program to customers (such as bill inserts, print ads, television and radio ads, etc...)

Coordination with Trade Allies

Description of how the utility plans on working with other organizations to promote and design effective programs (ex. appliance retailers, HVAC and plumbing contractors, etc...).

Implementation Services

Any additional services the utility plans on offering to encourage the adoption of energy efficiency technologies and programs. (ex. direct installation).

Low-Income and Renter Participation

Description of how low-income and rental households can benefit from the program and expected participation, if applicable.

Tracking and Evaluation

Description of how the utility will track the money distributed and evaluate the program to ensure that energy savings are achieved.

Additional Information

Any additional information the utility wishes to provide. Also directs reader to the Department's excel spreadsheet for each individual program.

Typical response is:

See Product Information Sheet at the end of this portfolio.

Project Support

Description of why the program is important.

Project modifications

Description of any modifications made an existing program.

Estimated \$/kW, \$/kWh, and \$/MCF

	<u>2002</u>	<u>2003</u>
Cost per kWh – Meter	\$	
Cost per kWh – Generator	\$	
Cost per kW	\$	

Conservation Improvement Program Report			
Utility:			
Program Name:			
Program Type:			
	2001 Actual	2002 Budget	2003 Budget
Program Type			
Indirect (No kWh Savings) check below	X	X	X
Audit/Info	X	X	X
Education	X	X	X
R&D	X	X	X
Renewable	X	X	X
Other	X	X	X
Direct (kWh Savings)	X	X	X
Cost Components (Dollars)			
Program Delivery	\$	\$	\$
Utility Administration	\$	\$	\$
Advertising & Promotion	\$	\$	\$
Evaluation Labor & Expenses	\$	\$	\$
Participant Incentives	\$	\$	\$
Other	\$	\$	\$
Total Budget	\$	\$	\$
Program Participants			
Total Number of Participants	#	#	#
% of Spending by Customer Segment			
Residential	%	%	%
Commercial	%	%	%
Industrial	%	%	%
C&I Combined	%	%	%
Other	%	%	%
Low-Income Participation			
Participants (%)	%	%	%
Participants (#)	#	#	#
Budget (\$)	\$	\$	\$
Renter Participation			
Renter Participation (%)	%	%	%
Participants (#)	#	#	#
Budget (\$)	\$	\$	\$
Type of Incentive			
Loan	X	X	X
Rebate	X	X	X
Direct Installation	X	X	X
Grant	X	X	X
End-Use Target			
Lighting	X	X	X
Process	X	X	X
Motor	X	X	X
Refrigeration	X	X	X
Space Cooling	X	X	X
Space Heating	X	X	X
Water Heating	X	X	X
Weatherization	X	X	X
General/Other	X	X	X
Energy Savings			
kWh Savings per Participant	#	#	#
Total Program kWh Savings	#	#	#
Cost per kWh Saved	#	#	#
kW Savings per participant	#	#	#
Total Program kW Savings	#	#	#
Cost per kW Saved	#	#	#

Spreadsheet Explanations

Most of the items in the excel spreadsheet template are self-explanatory however below is a brief description of selected items that may be particularly confusing.

Program Type

Indirect

CIP eligible programs with no associated demand (kW) or energy (kWh) savings. These programs include audits and energy related information, education programs, research and development activities, load management, etc...

Direct

A CIP eligible programs with associated demand (kW) and/or energy (kWh) savings.

Cost Components

Project Delivery

The cost of delivering a CIP project which includes the external and internal labor for delivering projects with associated costs such as materials, mileage, and postage. Equipment costs, equipment repair, and telephone line charges are also considered to be project delivery costs. This may be internal costs of utility representatives charged with delivering a CIP program or it may be the amount charged by a third party to deliver a CIP program to a customer.

Utility Administration

The labor and other minor costs related to administering the CIP program. Typically, time spent keeping track of dollars spent, energy saved, and program reporting.

Advertising and Promotion

Advertising and promotion expenditures associated with the program (such as brochures and rebate forms). It also includes labor to develop these materials.

Evaluation and Labor

The cost of evaluating the program to check the amount of energy savings achieved and present information in an evaluation report. Includes the costs of internal market evaluation staff, research consultants, and evaluation experts.

Participant Incentive

Amount of rebate given to the customer to encourage them to take specific action.

Other

Any funds not allocated to the above categories. Description of what these funds are must be included in the project filing.

Overall

The new CIP requirements are not meant to be overly burdensome to Minnesota's municipal utilities, but it is intended to ensure that at least a portion of the money allocated for energy conservation programs result in reductions in energy consumption. Individual utilities still have the ultimate decision as to what programs it wants to fund, but the Department will make recommendations as to which programs it feels fulfill the conservation requirements under Minnesota statute.

Minnesota municipal utilities are a varied collection of utilities with unique needs and characteristics. The Department understands this and is interested in working with municipals in a collaborative way to address those issues. **Any utility that makes a good faith effort to use CIP money on cost-effective energy conservation efforts will receive a very helpful and cooperative response from the Department.**

MMUA is committed to assisting all members in meeting these new CIP requirements. Please contact us if you have any questions.