

**SERVICES AGREEMENT  
CONSERVATION IMPROVEMENT PROGRAM OPT-IN SERVICES**

Date: \_\_\_\_\_

Contract No. \_\_\_\_\_

For purposes of this Agreement, the Minnesota Municipal Utilities Association shall hereinafter be referred to as MMUA and \_\_\_\_\_ shall hereinafter be referred to as UTILITY.

**PART I – SCOPE OF SERVICES**

**1. MMUA COMMERCIAL AND INDUSTRIAL LIGHTING REBATE OPT-IN PROGRAM**

This program provides incentives to UTILITY’s customers who install high efficiency indoor lighting or high efficiency traffic signals. The target markets include existing and new commercial, industrial and governmental facilities. MMUA will operate the program on behalf of UTILITY, reducing the level of effort required by UTILITY to offer a lighting rebate program to its customers. UTILITY will pay to MMUA a fee to cover the costs of customer rebates, administration, program delivery, marketing, tracking, and evaluation.

MMUA will provide/deliver for the duration of this Agreement:

- a. **QUALIFYING CRITERIA AND INCENTIVE AMOUNTS:** The qualifying criteria for equipment and the incentive amounts (rebates) will be as defined in MMUA’s filing with the Minnesota Department of Commerce (see Appendix A for the sample copy). Qualifying criteria and rebate amounts may be adjusted over the duration of this Agreement based on feedback from trade allies, success in marketing the program, and other considerations.
  
- b. **MARKETING PLAN:** The program will be marketed to C&I customers of UTILITY through bill inserts and direct C&I mailings. MMUA will develop and print the marketing materials, which will be mailed to customers by UTILITY. UTILITY will also promote the program through customer visits to key accounts, if it has the resources to do so. Other marketing channels may be used if appropriate.

The program will also be marketed to electrical and lighting contractors and electrical engineers in and around UTILITY’S service territory through mailings of marketing materials and rebate application forms. UTILITY will identify the key trade allies serving its service territory, and MMUA will prepare and print marketing materials to be mailed to them by UTILITY. Follow-up phone calls or personal visits to encourage trade allies to promote the program to their customers will be conducted by UTILITY.

c. **TRACKING AND EVALUATION:** All rebate applications will be submitted by UTILITY's customers to MMUA for payment. MMUA will determine if original invoices including the necessary detail are provided, will issue rebate checks, and will track participation, costs, and kW and kWh saved by UTILITY. MMUA will bill UTILITY for rebates and related program costs. MMUA will report on program status to UTILITY monthly.

Energy and demand savings will be calculated from information provided on the rebate applications by MMUA. MMUA will provide guidance to UTILITY to enable it to conduct pre- and post-retrofit site visits for a sample of participants. The site visits will be used to verify fixture counts, existing systems, new systems installed, and reasonableness of annual operating hours.

## 2. ENERGY STAR PRODUCTS REBATE OPT-IN PROGRAM

This program provides incentives to UTILITY's customers who install Energy Star products, including appliances, HVAC equipment and compact fluorescent lighting. MMUA will operate the program on behalf of UTILITY, reducing the level of effort required by UTILITY to offer an Energy Star Products rebate program to its customers. UTILITY will pay to MMUA a fee to cover the costs of customer rebates, administration, program delivery, marketing, tracking, and evaluation.

MMUA will provide/deliver for the duration of this Agreement:

a. **QUALIFYING CRITERIA AND INCENTIVE AMOUNTS:** The qualifying criteria for equipment and the incentive amounts (rebates) will be as defined in MMUA's filing with the Minnesota Department of Commerce (see Appendix B for the sample copy). Qualifying criteria and rebate amounts may be adjusted over the duration of this Agreement based on feedback from trade allies, success in marketing the program, and other considerations.

b. **MARKETING PLAN:** The program will be marketed to all residential customers and appropriate commercial customers through bill inserts and direct mailings of marketing materials. MMUA will develop and print the marketing materials, which will be mailed to customers by UTILITY. Other marketing channels may be used if appropriate.

The program will be marketed to appliance dealers and retailers in and around UTILITY's service territory through mailings of marketing materials and rebate application forms. UTILITY will identify the key trade allies serving its service territory, and MMUA will prepare and print marketing materials to be mailed to them by UTILITY. Follow-up phone calls or personal visits to encourage trade allies to promote the program to their customers will be conducted by UTILITY.

c. **LOW-INCOME AND RENTER PARTICIPATION:** Low-income households are eligible for these rebates and renters may benefit if they live in multi-unit housing where

the owner installs high-efficiency equipment. To track rental household participation, the rebate application will ask if the equipment is to be used in a rental property.

d. **TRACKING AND EVALUATION:** All rebate applications will be submitted by UTILITY’s customers to MMUA for payment. MMUA will determine if original invoices including the necessary detail are provided, will issue rebate checks or vouchers, and will track participation, costs, and kW and kWh savings by UTILITY. MMUA will report on program status to UTILITY monthly.

**PART II– DURATION / AMENDMENT / RENEWAL**

1. **DURATION:** This Agreement shall remain in force from November 1, 2002 until January 31, 2004 (the “expiration date”). Program marketing and delivery shall continue through December 31, 2003 or until the utility’s rebate budget is exhausted, whichever comes sooner. Final program results will be reported to the UTILITY in January 2004.
2. **AMENDMENT:** This Agreement may be amended or modified upon the mutual agreement of both parties but only if in writing. Such amendment or addendum shall be signed, dated and appended to this Agreement.
3. **RENEWAL:** This Agreement shall renew automatically for the next twelve-month period following the expiration date unless terminated by written notice given by either MMUA or UTILITY not less than sixty (60) days prior to the expiration date, December 31, 2003.
4. **CONDITION PRECEDENT:** This Agreement shall not become effective until a number of utilities sufficient to support the establishment of an MMUA Opt-In CIP Program have agreed to participate. If this condition has not been met within sixty (60) days of the date of this Agreement, this Agreement will expire and the parties will make a good faith attempt to renegotiate the Agreement.

**PART III – OBLIGATIONS**

1. **COMPENSATION:**
  - a. **MINIMUM ANNUAL BUDGET:** UTILITY’s Minimum Annual Budget for work under this contract shall not be less than the sum of the following estimated C&I Lighting and Energy Star Program costs. This worksheet is similar to the ones used by UTILITY for their CIP filing to the Department of Commerce.

**C&I Lighting Program**

1)	UTILITY’s total number of commercial and industrial (C&I) customers	_____	C&I customers
2)	Estimated number of lighting opt-in program participants (at least 1½% of C&I customers)	_____	participants
3)	Estimated budget		
	<ul style="list-style-type: none"> <li>• If UTILITY has fewer than 300 C&amp;I customers:            ⇒ budget = participants * 3 kW/participant *</li> </ul>	\$_____	total C&I lighting budget

<p style="text-align: center;">(\$200/kW) / 0.7</p> <ul style="list-style-type: none"> <li>• If UTILITY has 300 to 700 C&amp;I customers  ⇒ budget = participants * 4 kW/participant * (\$200/kW) / 0.7</li> <li>• If UTILITY has over 700 C&amp;I customers  ⇒ budget = participants * 5 kW/participant * (\$200/kW) / 0.7</li> </ul>		
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**Energy Star Program**

4) UTILITY's total number of residential customers	_____	Residential customers
5) Estimated number of Energy Star appliance/HVAC program participants (at least 1% of residential customers)	_____	E* Appliance /HVAC Participants
6) Estimated number of Energy Star lighting participants (at least 3% of residential customers)	_____	E* Lighting Participants

7) Estimated budget		
a. Budget for Energy Star appliances <ul style="list-style-type: none"> <li>i. Budget = Energy Star Appliance Participants * \$120 / 0.5</li> </ul>	\$ _____	E* Appliance /HVAC budget
b. Budget for lighting <ul style="list-style-type: none"> <li>i. Budget = Energy Star Lighting participants * \$3 / 0.5</li> </ul>	\$ _____	E* Lighting budget
c. Total Energy Star Budget <ul style="list-style-type: none"> <li>i. Total Budget = Appliance Budget + Lighting Budget</li> </ul>	\$ _____	Total E*Budget

**Total Budget**

8) C&I Lighting budget plus Total Energy Star budget	\$ _____	Minimum Annual Budget
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- b. CAP: UTILITY may establish a Cap on its annual costs under this contract, provided that the Cap shall not be less than the Minimum Annual Budget. If UTILITY establishes a Cap, MMUA shall cease issuing rebates to UTILITY's customers when the Cap has been reached.
- c. STARTUP FEE: On the effective date of this contract, and at each renewal, UTILITY shall pay MMUA a Startup Fee equal to two months' anticipated project costs. The startup fee shall be determined by multiplying the Minimum Annual Budget by 2/12 or 0.167. The startup fee is non-refundable.
- d. ONGOING FEES: MMUA shall invoice UTILITY at the end of the first through tenth months of each year for costs incurred during each month. Costs shall be calculated as follows:
  - i. C&I Lighting Program: total rebates issued to UTILITY's customers in the month divided by 0.7.
  - ii. Energy Star Program: total rebates issued to UTILITY's customers in the month divided by 0.5.

In the final two months of each year, MMUA shall invoice UTILITY at the same rate as in (1.d) but only for costs over and above the amount of the Startup Fee. If costs in the

final two months of the year are less than or equal to the Startup Fee, no amount shall be invoiced for those two months.

- e. PAYMENT SCHEDULE: UTILITY shall pay each properly submitted invoice within thirty (30) days after submission of the invoice by MMUA.

For any term of less than twelve full calendar months, the Minimum Budget shall be a portion of the Minimum Annual Budget, pro-rated based on the number of calendar months or partial calendar months in which the services were provided as a percentage of twelve (12).

## 2. UTILITY OBLIGATIONS:

- Promptly mail to UTILITY customers the marketing materials provided by MMUA.
- Promote the C&I lighting program through customer visits to key accounts, if UTILITY has the resources to do so.
- Identify key trade allies serving UTILITY's customers.
- Promptly mail to trade allies the marketing materials and rebate application forms provided by MMUA.
- Assist in promoting the programs to trade allies.
- Conduct site visits to verify C&I lighting installations.
- Provide to MMUA in a timely manner any information MMUA indicates is needed to perform the services hereunder. MMUA may rely on the accuracy of information provided by UTILITY and its representatives.
- In personal communications with its customers, represent the program in a positive light and promote the value of the program and of participation in it.
- Provide such additional support as may reasonably be requested by MMUA from time to time.

## 3. MMUA OBLIGATIONS:

- Contract with, assign and supervise Opt-In CIP Program Coordinator to deliver the programs as described herein.
  - Develop marketing plan
  - Develop and print marketing materials.
  - Contact UTILITY trade allies to encourage them to promote the programs.
  - Review and process rebate applications and issue rebate checks and vouchers.
  - Track participation, costs, and kW and kWh saved
  - Report results to UTILITY in a form suitable for use in preparation of state reports related to CIP compliance.

## **PART IV – STANDARD TERMS AND CONDITIONS**

1. INDEPENDENT CONTRACTOR: In the performance of services hereunder, MMUA is an independent contractor and shall not be considered an employee, agent or representative of UTILITY for any purpose. The services performed by MMUA under this Agreement are solely for the benefit of UTILITY. Nothing contained in this Agreement shall create any duties, liabilities, or obligations on the part of MMUA toward any person other than UTILITY.

2. **STANDARD OF CARE:** UTILITY acknowledges that MMUA undertakes to provide the services described herein to UTILITY as a member of MMUA and, similarly to other members of MMUA, consistent with its nonprofit purpose and that in so doing, MMUA affords to UTILITY a convenience, cost savings and efficiency otherwise not available to UTILITY from other service providers. UTILITY acknowledges that MMUA will exercise its best efforts to perform the described services in accordance with current rules and practices but acknowledges that the ultimate responsibility for an interpretation of law lies with UTILITY and its City Attorney and the application of such law and of the appropriate methods and practices also lies with UTILITY in the exercise of its best judgment with reasonable and due regard for the safety of its employees and other third persons. MMUA assumes no responsibility under this Agreement other than to render the services called for in good faith. It shall not be responsible for any action of UTILITY, its agents, or employees.
3. **SCOPE AND SCHEDULE CHANGES:** The fees agreed to in Part III constitute MMUA's estimate of the effort and charges required to perform the services described in Part I. Services not expressly set forth in this Agreement are excluded from the obligations of MMUA. If MMUA is delayed in performing its services hereunder by any act of war, force majeure or other circumstance beyond its control, then the schedule of performance shall be extended for the number of days as the occurrence delays performance and the cost estimates under the Agreement shall be equitably adjusted, if necessary, to compensate MMUA for any additional costs due to the delay.
4. **FINANCING CHARGES FOR LATE PAYMENTS:** If UTILITY fails to pay undisputed invoiced amounts within thirty (30) days after delivery of invoice, additional charges shall become due and payable at a rate of 1½ percent per month (or the maximum percentage allowed by law, whichever is lower) on the unpaid amounts. All payments shall first be credited against any accrued interest. If UTILITY fails to pay invoiced amounts within sixty (60) days after delivery of invoice, MMUA at its sole discretion, may suspend work hereunder without incurring any liability or waiving any right established hereunder or by law.
5. **WORK PRODUCT:** All program materials, logos, slogans, art work, calculations, software, service marks, trademarks and other materials supplied to UTILITY by MMUA or its contractor and all copyright interests in each of the preceding ("MMUA Intellectual Property") are the property of MMUA. UTILITY is granted a non-exclusive license to use the MMUA Intellectual Property in operating UTILITY's opt-in programs under this agreement but only in the text and format provided or approved in advance by MMUA and not for any other purpose. Except with the prior, written consent of MMUA, UTILITY may not use or duplicate the MMUA Intellectual Property in any other location, format or medium or permit any other person to do so.

The terms of this Agreement are hereby accepted by the parties.

			Minnesota Municipal Utilities Association
By		By	
Title		Title	Executive Director
Date		Date	
PO #			

# Appendix A

**Program/Project Name:** MMUA Commercial & Industrial Lighting Rebate Opt-In Program

**Type:** New

**Audience:** Commercial & Industrial Customers

## *A. Project Description*

The MMUA Commercial and Industrial Lighting Rebate Opt-In Program provides incentives to municipal utility customers who install high efficiency indoor lighting or high efficiency traffic signals. The target markets include existing and new commercial, industrial and governmental facilities. MMUA will operate the program on behalf of participating member utilities, reducing the level of effort required by individual utilities to offer a lighting rebate program to their customers. Customer rebates and other costs for MMUA to operate the program (administration, program delivery, marketing, tracking and evaluation) will be paid to MMUA by the participating utilities.

### Qualifying Criteria, Savings Estimates, Incentive Amounts

Eligible energy-efficient lighting technologies include indoor applications of:

- T8 fluorescent lamps and electronic ballasts
- T5 fluorescent lamps and electronic ballasts
- Compact fluorescent lamps
- Industrial fixtures with multiple compact fluorescent lamps
- High intensity discharge fixtures, including bi-level auto-switching
- LED exit signs and retrofit kits
- Occupancy sensors
- Reflectors in combination with conversion to higher efficiency lighting

LED traffic signals for vehicles and pedestrians are also included.

Table 1 shows the Wattages of various existing or standard lighting systems. Tables 2 and 3 show the Wattages of the new, high efficiency lighting systems that will be eligible for rebates. Demand and energy savings will be calculated on a site-specific basis based on information gathered on the rebate application form. Demand savings will be determined by taking the difference between the existing or standard system Wattage and the new system Wattage for a given installation, and multiplying this difference by the percentage of lamps that are typically on at the time of the customer's peak demand. Energy savings will be determined by taking the product of the demand savings and the annual operating hours for each system.

**Table 1**

**RETROFIT- REPLACED "OLD" LIGHTING EQUIPMENT or  
NEW CONSTRUCTION - "STANDARD"\* LIGHTING EQUIPMENT**

<b>Equip- ment Type</b>	<b>Replaced "OLD" or "STANDARD" Lighting System</b>	<b>Lamp Watt</b>	<b>Number of Lamps</b>	<b>System Wattage</b>
<b>2-FOOT LUMI- NAIRE</b>	F20T12/1 MAGNETIC BALLAST	20	1	28
	F20T12/1 MAGNETIC BALLAST	20	2	46
	F20T12/2 MAGNETIC BALLASTS	20	3	68
	F20T12/2 MAGNETIC BALLASTS	20	4	91
<b>3-FOOT LUMI- NAIRE</b>	F30T12/1 MAGNETIC BALLAST	30	1	43
	F30T12/1 MAGNETIC BALLAST	30	2	70
	F30T12/2 MAGNETIC BALLASTS	30	3	113
	F30T12/2 MAGNETIC BALLASTS	30	4	138
	F30T12/1 MAGNETIC BALLAST	25	1	40
	F30T12/1 MAGNETIC BALLAST	25	2	63
	F30T12/2 MAGNETIC BALLASTS	25	3	103
	F30T12/2 MAGNETIC BALLASTS	25	4	125
<b>4-FOOT LUMI- NAIRE</b>	F40T12/1 MAGNETIC BALLAST	40	1	46
	F40T12/1 MAGNETIC BALLAST	40	2	81
	F40T12/2 MAGNETIC BALLASTS	40	3	123
	F40T12/2 MAGNETIC BALLASTS	40	4	161
	F40T12/1 MAGNETIC BALLAST	34	1	42
	F40T12/1 MAGNETIC BALLAST	34	2	69
	F40T12/2 MAGNETIC BALLASTS	34	3	108
	F40T12/2 MAGNETIC BALLASTS	34	4	135
	F48T12/SLIMLINE/1 MAGNETIC BALLAST	40	1	55
	F48T12/SLIMLINE/1 MAGNETIC BALLAST	40	2	93
	F48T12/HO/1 MAGNETIC BALLAST	60	1	76
	F48T12/HO/1 MAGNETIC BALLAST	60	2	130
	F48T12/HO/2 MAGNETIC BALLASTS	60	3,4	260
	F48T12/VHO/1 MAGNETIC BALLAST	120	1	134
	F48T12/VHO/1 MAGNETIC BALLAST	120	2	240
	F48T12/VHO/2 MAGNETIC BALLASTS	120	3	450
<b>5-FOOT LUMI- NAIRE</b>	F60T12/1 MAGNETIC BALLAST	50	1	100
	F60T12/1 MAGNETIC BALLAST	50	2	135
	F60T12/HO/1 MAGNETIC BALLAST	75	1	100
	F60T12/HO/1 MAGNETIC BALLAST	75	2	170
	F60T12/HO/2 MAGNETIC BALLASTS	75	3,4	330
	F60T12/VHO/1 MAGNETIC BALLAST	140	1	157
	F60T12/VHO/1 MAGNETIC BALLAST	140	2	310

Equipment Type	Replaced "OLD" or "STANDARD" Lighting System	Lamp Watt	Number of Lamps	System Wattage
<b>6-FOOT LUMINAIRE</b>	F72T12/1 MAGNETIC BALLAST	60	1	100
	F72T12/1 MAGNETIC BALLAST	60	2	135
	F72T12/HO/1 MAGNETIC BALLAST	85	1	135
	F72T12/HO/1 MAGNETIC BALLAST	85	2	195
	F72T12/HO/2 MAGNETIC BALLASTS	85	3,4	330
	F72T12/VHO/1 MAGNETIC BALLAST	170	1	180
	F72T12/VHO/1 MAGNETIC BALLAST	170	2	300
	F72T12/VHO/2 MAGNETIC BALLASTS	170	3	450
<b>8-FOOT LUMINAIRE</b>	F96T12/1 MAGNETIC BALLAST	75	1	100
	F96T12/1 MAGNETIC BALLAST	75	2	180
	F96T12/1 MAGNETIC BALLAST	60	1	83
	F96T12/1 MAGNETIC BALLAST	60	2	123
	F96T12/HO/1 MAGNETIC BALLAST	110	1	139
	F96T12/HO/1 MAGNETIC BALLAST	110	2	257
	F96T12/HO/2 MAGNETIC BALLASTS	110	3	330
	F96T12/HO/1 MAGNETIC BALLAST	95	1	125
	F96T12/HO/1 MAGNETIC BALLAST	95	2	227
	F96T12/VHO/1 MAGNETIC BALLAST	215	1	230
	F96T12/VHO/1 MAGNETIC BALLAST	215	2	375
	F96T12/VHO/2 MAGNETIC BALLASTS	215	3	570
	F96T12/VHO/1 MAGNETIC BALLAST	185	1	200
	F96T12/VHO/1 MAGNETIC BALLAST	185	2	325
<b>IN-CANDESCENT &amp; MERCURY VAPOR</b>	40 WATT INCANDESCENT	40	1	40
	60 WATT INCANDESCENT	60	1	60
	75 WATT INCANDESCENT	75	1	75
	100 WATT INCANDESCENT	100	1	100
	150 WATT INCANDESCENT	150	1	150
	200 WATT INCANDESCENT	200	1	200
	300 WATT INCANDESCENT	300	1	300
	500 WATT INCANDESCENT	500	1	500
	750 WATT INCANDESCENT	750	1	750
	1000 WATT INCANDESCENT	1000	1	1000
	1500 WATT INCANDESCENT	1500	1	1500
	50 WATT MERCURY VAPOR	50	1	118
	100 WATT MERCURY VAPOR	100	1	120
	175 WATT MERCURY VAPOR	175	1	205
	250 WATT MERCURY VAPOR	250	1	285
	400 WATT MERCURY VAPOR	400	2	880

Equipment Type	Replaced "OLD" or "STANDARD" Lighting System	Lamp Watt	Number of Lamps	System Wattage
VAPOR	400 WATT MERCURY VAPOR	400	1	454
	500 WATT MERCURY VAPOR	500	1	570
	700 WATT MERCURY VAPOR	700	1	775
	1000 WATT MERCURY VAPOR	1000	1	1075
EXIT SIGNS	EXIT W/ 15 WATT INCANDESCENTS	15	2	30
	EXIT W/ 20 WATT INCANDESCENTS	20	2	40
TRAFFIC SIGNALS	12 INCH BALL, ANY COLOR	150	1	150
	8 INCH BALL, ANY COLOR	67	1	67
	ARROW, ANY COLOR	150	1	150
	PEDESTRIAN HAND, MAN	69	1	69

The rebate amount for each system type in retrofit and new construction installations is also shown in Tables 2 and 3. Rebates are lower for new construction and are not available for T8 lamps or tandem wiring, for several reasons. First, the market penetration T8 lamps with electronic ballasts, is sufficiently high in new construction that rebates are not warranted. Second, the Minnesota Energy Code establishes lighting power allowances (Mn. Rules 7676.1300) for new construction that typically cannot be met without use of T8 lighting.

Table 2

**RETROFIT- REPLACED "OLD" LIGHTING EQUIPMENT or  
NEW CONSTRUCTION - "STANDARD"\* LIGHTING EQUIPMENT**

Equipment Type	Installed (NEW) Lighthing System (Lighting System available for rebates)	Lamp Watts	Number of Lamps	System Wattage	Rebate Per Fixture <i>RETRO FIT</i>	Rebate Per Fixture <i>NEW CONSTR</i>	Representative Installed Cost, Retrofit*
2-FOOT LUMINAIRE	F17T8/1 ELECTRONIC BALLAST	17	1	18	\$9.00	N/A	\$38
	F17T8/1 ELECTRONIC BALLAST	17	2	32	\$9.00	N/A	\$41
	F17T8/2 ELECTRONIC BALLASTS	17	3	48	\$15.00	N/A	\$47
	F17T8/2 ELECTRONIC BALLASTS	17	4	57	\$15.00	N/A	\$50
	F17T8/1 ELECTRONIC BALLAST/REFLECTORS	17	1	18	\$13.63	N/A	\$47
	F17T8/1 ELECTRONIC BALLAST/REFLECTORS	17	2	32	\$13.63	N/A	\$51
3-FOOT LUMINAIRE	F25T8/1 ELECTRONIC BALLAST	25	1	24	\$9.00	N/A	\$38
	F25T8/1 ELECTRONIC BALLAST	25	2	46	\$9.00	N/A	\$41
	F25T8/2 ELECTRONIC BALLASTS	25	3	66	\$15.00	N/A	\$47
	F25T8/2 ELECTRONIC BALLASTS	25	4	82	\$15.00	N/A	\$50
	F25T8/1 ELECTRONIC BALLAST/REFLECTORS	25	1	24	\$15.94	N/A	\$47
	F25T8/1 ELECTRONIC BALLAST/REFLECTORS	25	2	46	\$15.94	N/A	\$51

Equipment Type	Installed (NEW) Lighting System (Lighting System available for rebates)	Lamp Watts	Number of Lamps	System Wattage	Rebate Per Fixture <i>RETRO FIT</i>	Rebate Per Fixture <i>NEW CONSTR</i>	Representative Installed Cost, Retrofit*
<b>4-FOOT LUMINAIRE</b>	F32T8/1 ELECTRONIC BALLAST	32	1	29	\$9.00	N/A	\$37
	F32T8/1 ELECTRONIC BALLAST	32	2	58	\$9.00	N/A	\$40
	F32T8/1 ELECTRONIC BALLAST	32	3	85	\$15.00	N/A	\$45
	F32T8/1 ELECTRONIC BALLAST	32	4	107	\$15.00	N/A	\$47
	F32T8/1 ELECTRONIC BALLAST/REFLECTORS	32	1	29	\$18.25	N/A	\$46
	F32T8/1 ELECTRONIC BALLAST/REFLECTORS	32	2	58	\$18.25	N/A	\$49
	F32T8/1 ELECTRONIC BALLAST/RLO	32	1	26	\$9.00	N/A	\$37
	F32T8/1 ELECTRONIC BALLAST/RLO	32	2	51	\$9.00	N/A	\$40
	F32T8/1 ELECTRONIC BALLAST/RLO	32	3	74	\$15.00	N/A	\$45
	F32T8/1 ELECTRONIC BALLAST/RLO	32	4	94	\$15.00	N/A	\$47
	F32T8/1 ELECTRONIC BALLAST/RLO/REFLECTORS	32	1	26	\$18.25	N/A	\$46
	F32T8/1 ELECTRONIC BALLAST/RLO/REFLECTORS	32	2	51	\$18.25	N/A	\$49
	F36T8/1 ELECTRONIC BALLAST	36	2	74	\$9.00	N/A	\$46
	F36T8/1 ELECTRONIC BALLAST/REFLECTORS	36	1	37	\$9.00	N/A	\$55
	F48T8/HO 1 ELECTRONIC BALLAST	48	1	40	\$9.00	N/A	\$46
	F48T8/HO 1 ELECTRONIC BALLAST	48	2	81	\$9.00	N/A	\$46
F48T8/HO 1 ELECTRONIC BALLAST	48	3	118	\$15.00	N/A	\$48	
F48T8/HO 1 ELECTRONIC BALLAST	48	4	149	\$15.00	N/A	\$50	
<b>5-FOOT LUMINAIRE</b>	F40T8/1 ELECTRONIC BALLAST	40	1	46	\$9.00	N/A	\$39
	F40T8/1 ELECTRONIC BALLAST	40	2	71	\$9.00	N/A	\$45
	F40T8/1 ELECTRONIC BALLAST	40	3	105	\$18.00	N/A	\$52
	F40T8/1 ELECTRONIC BALLAST/REFLECTOR	40	1	46	\$9.00	N/A	\$49
<b>6-FOOT LUM.</b>	F72T8/HO 1 ELECTRONIC BALLAST	65	1	80	\$9.00	N/A	\$64
	F72T8/HO 1 ELECTRONIC BALLAST	65	2	147	\$9.00	N/A	\$76
<b>8-FOOT LUMINAIRE</b>	F96T8/1 ELECTRONIC BALLAST	59	1	60	\$9.00	N/A	\$54
	F96T8/1 ELECTRONIC BALLAST	59	2	108	\$9.00	N/A	\$60
	F96T8/1 ELECTRONIC BALLAST (From F96T12/HO/VHO)	59	2	108	\$9.00	N/A	\$62
	F96T8/1 ELECT. BAL. (From F96T12/HO/VHO)/REFLECTORS	59	2	108	\$27.50	N/A	\$78
	F96T8/1 ELECTRONIC BALLAST/REFLECTORS	59	1	60	\$9.00	N/A	\$70
	F96T8/1 ELECTRONIC BALLAST/RLO	59	1	49	\$9.00	N/A	\$54
	F96T8/1 ELECTRONIC BALLAST/RLO	59	2	99	\$9.00	N/A	\$60
	F96T8/1 ELECTRONIC BALLAST/RLO/REFLECTORS	59	1	49	\$9.00	N/A	\$70
F96T8/HO/1 ELECTRONIC BALLAST	86	2	160	\$9.00	N/A	\$62	
<b>HID LUMINAIRE**</b>	32 WATT METAL HALIDE/35 WATT HPS	32/35	1	41	\$17.00	\$7.50	\$186/\$206
	50 WATT METAL HALIDE/50 WATT HPS	50	1	67	\$17.00	\$7.50	\$191/\$206
	70 WATT METAL HALIDE/70 WATT HPS	70	1	92	\$17.00	\$7.50	\$216/\$210
	100 WATT METAL HALIDE/100 WATT HPS	100	1	129	\$17.00	\$7.50	\$216/\$216
	150 WATT PULSE START METAL HALIDE/150 WATT HPS	150	1	175/187	\$45/\$17	\$7.50	\$238/\$214
	175 WATT PULSE START METAL HALIDE	175	1	208	\$45.00	\$15.00	\$240

Equipment Type	Installed (NEW) Lighting System (Lighting System available for rebates)	Lamp Watts	Number of Lamps	System Wattage	Rebate Per Fixture <i>RETRO FIT</i>	Rebate Per Fixture <i>NEW CONSTR</i>	Representative Installed Cost, Retrofit*
<b>HID LUMINAIRE**</b>	200 WATT PULSE START METAL HALIDE/HPS 200	200	1	218/240	\$45/\$28	\$15.00	\$240/\$219
	250 WATT PULSE START METAL HALIDE/250 WATT HPS	250	1	288/295	\$45/\$28	\$15.00	240/\$219
	310 WATT HPS	310	1	365	\$45.00	\$15.00	\$244
	320 WATT PULSE START METAL HALIDE	320	1	365	\$65.00	\$15.00	\$235
	350 WATT PULSE START METAL HALIDE	395	1	385	\$65.00	\$15.00	\$237
	400 WATT PULSE START METAL HALIDE/400 WATT HPS	400	1	425/460	\$65/\$45	\$15.00	\$250/\$226
	400 WATT PULSE START METAL HALIDE	400	2	810/880	\$65.00	\$15.00	\$250
	600 WATT HPS	600	1	665	\$45.00	\$15.00	\$311
	750 WATT PULSE START METAL HALIDE/750 WATT HPS	750	1	840/835	NA/\$45	\$15.00	\$226/\$340
<b>IND CFL FIXTURE</b>	INDUSTRIAL MULTI-CFL FIXTURE	42	8	310	\$25.00	\$15.00	\$475
	INDUSTRIAL MULTI-CFL FIXTURE	55	3	165	\$25.00	\$15.00	\$350
<b>COM-PACT FLOUR-ESCENT SYSTEM</b>	3 WATT/1 PIECE	3	1	3	\$4.00	\$1.50	\$8
	5 WATT/1 PIECE	5	1	5	\$4.00	\$1.75	\$8
	7 WATT/1 PIECE	7	1	7	\$4.00	\$2.00	\$9
	9 WATT/1 PIECE	9	1	9	\$4.00	\$2.25	\$15
	11 WATT/1 PIECE & REFLECTOR	11	1	11	\$4.00	\$2.50	\$21
	15 WATT/1 PIECE & REFLECTOR	15	1	15	\$4.00	\$2.75	\$21
	20 WATT/1 PIECE & REFLECTOR	20	1	20	\$9.00	\$2.75	\$21
	23 WATT/1 PIECE	23	1	23	\$9.00	\$3.00	\$17
	25-26 WATT/1 PIECE	25/26	1	25	\$9.00	\$3.25	\$25
	28 WATT/1 PIECE	28	1	28	\$9.00	\$3.50	\$25
	45 WATT/1 PIECE	45	1	45	\$12.00	\$5.00	\$16
	55 WATT/1 PIECE	55	1	55	\$12.00	\$5.75	\$41
<b>COM-PACT FLOUR-ESCENT SYSTEM</b>	22 WATT CIRCULAR	22	1	22	\$9.00	\$2.75	\$17
	27-32 WATT CIRCULAR	27-32	1	30	\$9.00	\$3.00	\$39
	40 WATT CIRCULAR	40	1	40	\$12.00	\$3.25	\$41
	5 WATT/2 PIECE	5	1	9	\$4.00	\$2.00	\$14
	7 WATT/2 PIECE	7	1	11	\$4.00	\$2.25	\$14
	9-10 WATT/2 PIECE	9/10	1	14	\$4.00	\$2.50	\$15
	13 WATT/2 PIECE	13	1	17	\$4.00	\$2.63	\$17
	15-16 WATT/2 PIECE	15/16	1	20	\$9.00	\$2.75	\$17
	18 WATT/2 PIECE	18	1	25	\$9.00	\$2.88	\$17
	22-24 WATT/2 PIECE	22/24	1	29	\$9.00	\$3.00	\$18
	26-28 WATT/2 PIECE	26-28	1	33	\$12.00	\$3.25	\$19
	36-40 WATT/2 PIECE	36-40	1	49	\$12.00	\$3.50	\$21
	5 WATT HARDWIRED	5	1	7	\$4.00	\$2.75	\$42
	7 WATT HARDWIRED	7	1	9	\$4.00	\$3.25	\$42
	9 WATT HARDWIRED	9	1	11	\$4.00	\$3.50	\$42
11-13 WATT HARDWIRED	11-13	1	15	\$4.00	\$3.75	\$47	

Equipment Type	Installed (NEW) Lighting System (Lighting System available for rebates)	Lamp Watts	Number of Lamps	System Wattage	Rebate Per Fixture <i>RETRO FIT</i>	Rebate Per Fixture <i>NEW CONSTR</i>	Representative Installed Cost, Retrofit*
COM-PACT FLOUR-ESCENT SYSTEM	16 WATT HARDWIRED	16	1	22	\$9.00	\$4.00	\$49
	22 WATT HARDWIRED	22	1	24	\$9.00	\$4.25	\$51
	28 WATT HARDWIRED	28	1	31	\$9.00	\$4.50	\$54
	5 WATT HARDWIRED	5	2	14	\$4.00	\$3.63	\$48
	7 WATT HARDWIRED	7	2	18	\$4.00	\$3.88	\$48
	9 WATT HARDWIRED	9	2	22	\$9.00	\$4.13	\$48
	13 WATT HARDWIRED	13	2	30	\$9.00	\$4.38	\$60
	16 WATT HARDWIRED	16	2	36	\$12.00	\$4.63	\$63
	22 WATT HARDWIRED	22	2	48	\$12.00	\$4.75	\$66
	28 WATT HARDWIRED	28	2	60	\$12.00	\$5.00	\$66
	42 WATT HARDWIRED	42	2	90	\$15.00	\$7.50	\$89
T5 FLOUR-ESCENT SYSTEM	T5 18 WATT	18	1	20	\$10.00	\$2.00	\$62
	T5 18 WATT	18	2	34	\$10.00	\$2.00	\$72
	T5 18 WATT	18	3	50	\$16.00	\$2.50	\$94
	T5 39 WATT	39	1	38	\$10.00	\$2.00	\$72
	T5 39 WATT	39	2	66	\$10.00	\$2.00	\$82
	T5 39 WATT	39	3	104	\$16.00	\$2.50	\$99
	T5 40 WATT	40	1	35	\$10.00	\$2.00	\$72
	T5 40 WATT	40	2	68	\$10.00	\$2.00	\$82
	T5 40 WATT	40	3	98	\$16.00	\$2.50	\$112
	T5 40 WATT	40	4	136	\$16.00	\$2.50	\$109
	T5 50/55 WATT	50/55	1	53	\$10.00	\$2.00	\$77
	T5 50/55 WATT	50/55	2	95	\$10.00	\$2.00	\$87
	T5 50/55 WATT	50/55	3	165	\$16.00	\$2.50	\$112
	T5 50/55 WATT	50/55	4	192	\$16.00	\$2.50	\$124
EXITS	EXIT LIGHT WITH LED STRIP	2	2	4	\$6.00	NA	\$40
OCCUP SENSORS	OCCUPANCY SENSORS - WALL MOUNT	n/a	n/a	80	\$12.00	\$2.50	\$85
	OCCUPANCY SENSORS - CEILING MOUNT	n/a	n/a	210	\$36.00	\$3.25	\$265
TRAFFIC SIGNALS	12 INCH RED BALL		1	17	\$25.00	\$12.50	\$127
	12 INCH GREEN BALL		1	15	\$65.00	\$32.50	\$373
	12 INCH YELLOW BALL		1	24	\$25.00	\$12.50	\$143
	8 INCH RED BALL		1	13	\$15.00	\$7.50	\$84
	8 INCH GREEN BALL		1	12	\$40.00	\$20.00	\$209
	8 INCH YELLOW BALL		1	10	\$15.00	\$7.50	\$94
	12 INCH RED ARROW		1	12	\$25.00	\$12.50	\$97
	12 INCH GREEN ARROW		1	11	\$65.00	\$32.50	\$186
	12 INCH YELLOW ARROW		1	10	\$25.00	\$12.50	\$97
	12 INCH HAND		1	16	\$40.00	\$20.00	\$89
	12 INCH MAN		1	12	\$40.00	\$20.00	\$267

Equipment Type	Installed (NEW) Lighting System (Lighting System available for rebates)	Lamp Watts	Number of Lamps	System Wattage	Rebate Per Fixture	Rebate Per Fixture	Representative Installed Cost, Retrofit*
					<i>RETRO FIT</i>	<i>NEW CONSTR</i>	
	9 INCH HAND		1	5	\$25.00	\$12.50	\$67

\*Installed costs for T8s are based on retrofit of lamps and ballasts only (no new fixtures), 700 Series lamps and direct 1-to-1 replacements (e.g., no 8-foot to 4-foot conversions).

All metal halide and high pressure sodium installed costs are for low bay fixtures.

Installed costs for one-piece CFLs are based on spiral bulbs.

Installed cost for T5's are for new fixtures. A retrofit of existing fixtures with T5 technology would be very unlikely.

Installed costs for exit signs based on LED retrofit in existing sign.

Installed costs for occupancy sensors based on infrared type.

\*\* For HID retrofits with 2-level auto-switching, add the following:

For metal halide and HPS, add \$13 for 50W or less, \$17 for 151W to 250W, and \$20 for 251W to 1,000W.

For pulse start metal halide, add \$15 for 250W or less, \$20 for 251W to 1,000W.

For HIDs in new construction with 2-level auto-switching, add the following:

For metal halide and HPS, add \$4 for 50W or less, \$5.50 for 151W to 250W, and \$7.00 for 251W to 1,000W.

For pulse start metal halide, add \$5 for 250W or less, \$7 for 251W to 1,000W.

Table 3. Fluorescent Technologies: Tandem Wiring Applications

Equipment	Installed (NEW) Lighting System (Lighting System available for rebates)	Total Fixtures	Total Lamps	Total Watts	Watts per Fixture	Rebate Per Tandemed Fixture Set	Rebate Per Fixture	representative installed cost lamps, ballasts, tandem wiring, retrofit
						<i>RETRO FIT</i>	<i>NEW CONSTR</i>	
2-Foot	2 Tandem Wired F17T8 - 1 lamp fixtures 1 Electronic Ballast	2	2	32	16	\$9.00	N/A	\$62
	2 Tandem Wired F17T8 - 1 lamp fixtures w/ Reflectors 1 Electronic Ballast	2	2	32	16	\$9.00	N/A	\$80
4-Foot	2 Tandem Wired F32T8 - 1 lamp fixtures 1 Electronic Ballast	2	2	58	29	\$9.00	N/A	\$60
	3 Tandem Wired F32T8 - 1 lamp fixtures 1 Electronic Ballast	3	3	85	28.33	\$15.00	N/A	\$65
	4 Tandem Wired F32T8 - 1 lamp fixtures 1 Electronic Ballast	4	4	107	26.75	\$15.00	N/A	\$67
	2 Tandem Wired F32T8 - 1 lamp fixtures w/ Reflectors 1 Electronic Ballast	2	2	58	29	\$9.00	N/A	\$79
	3 Tandem Wired F32T8 - 1 lamp fixtures w/ Reflectors 1 Electronic Ballast	3	3	85	28.33	\$15.00	N/A	\$92
	4 Tandem Wired F32T8 - 1 lamp fixtures w/ Reflectors 1 Electronic Ballast	4	4	107	26.75	\$15.00	N/A	\$104
	2 Tandem Wired F32T8 - 1 lamp fixtures/RLO 1 Electronic Ballast	2	2	51	25.5	\$9.00	N/A	\$60
	3 Tandem Wired F32T8 - 1 lamp fixtures/RLO 1 Electronic Ballast	3	3	74	24.67	\$15.00	N/A	\$65
	4 Tandem Wired F32T8 - 1 lamp fixtures/RLO 1 Electronic Ballast	4	4	94	23.5	\$15.00	N/A	\$67
	2 Tandem Wired F32T8 - 1 lamp fixtures/RLO w/ Reflectors 1 Electronic Ballast	2	2	51	25.5	\$9.00	N/A	\$79
	3 Tandem Wired F32T8 - 1 lamp fixtures/RLO w/ Reflectors 1 Electronic Ballast	3	3	74	24.67	\$15.00	N/A	\$92
	4 Tandem Wired F32T8 - 1 lamp fixtures/RLO w/ Reflectors 1 Electronic Ballast	4	4	94	23.5	\$15.00	N/A	\$104
	2 Tandem Wired F32T8 - 2 lamp fixtures 1 Electronic Ballast	2	4	107	53.5	\$15.00	N/A	\$67
	2 Tandem Wired F32T8 - 2 lamp fixtures w/ Reflectors 1 Electronic Ballast	2	4	107	53.5	\$15.00	N/A	\$86
	2 Tandem Wired F32T8 - 2 lamp fixtures/RLO 1 Electronic Ballast	2	4	94	47	\$15.00	N/A	\$67
	2 Tandem Wired F32T8 - 2 lamp fixtures/RLO w/ Reflectors 1 Electronic Ballast	2	4	94	47	\$15.00	N/A	\$86

Equipment	Installed (NEW) Lighting System (Lighting System available for rebates)	Total Fixtures	Total Lamps	Total Watts	Watts per Fixture	Rebate Per Tandem Set <i>RETROFIT</i>	Rebate Per Fixture <i>NEW CONSTR</i>	representative installed cost lamps, ballasts, tandem wiring, retrofit
8-Foot	2 Tandem Wired F59T8 - 1 lamp fixtures 1 Electronic Ballast	2	2	108	54	\$9.00	N/A	\$80
	2 Tandem Wired F59T8 - 1 lamp fixtures w/ Reflectors 1 Electronic Ballast	2	2	108	54	\$9.00	N/A	\$111
	2 Tandem Wired F59T8 - 1 lamp fixtures/RLO 1 Electronic Ballast	2	2	99	49.5	\$9.00	N/A	\$80
	2 Tandem Wired F59T8 - 1 lamp fixtures/RLO w/ Reflectors 1 Electronic Ballast	2	2	99	49.5	\$9.00	N/A	\$111
	2 Tandem Wired F96T8 HO - 1 lamp fixtures 1 Electronic Ballast	2	2	160	80	\$9.00	N/A	\$83

Tandem wiring adder assumes fixtures abut or are very close to each other

Table 4 shows the rebate amounts per kW of demand reduction for some of the most common high efficiency lighting systems. They range from \$89 to \$391/kW for retrofit applications and \$0 to \$61/kW for new construction applications. Rebate amounts may be adjusted over the biennium based on feedback from trade allies, success in marketing the program, and other considerations.

**Table 4. Incentive Amounts per kW of Demand Reduction for Common Lighting Systems**

Existing/Standard	W	New (High Efficiency)	W	W saved	Retrofit rebate	\$/kW	New Constr Rebate	\$/kW
F40/T12 4 ft 4 lamp 2 ballasts	161	F32/T8 4 ft 4 lamp 1 ballast	107	54	\$ 15.00	\$278	NA	NA
F40/T12 4 ft 2 lamp 1 ballast	81	F32/T8 4 ft 2 lamp 1 ballast	58	23	\$ 9.00	\$391	NA	NA
F96/T12 8 ft 2 lamp 1 ballast	180	F96/T8 8 ft 2 lamp 1 ballast	108	72	\$ 9.00	\$125	NA	NA
60 W incandescent	60	CFL 15W 1 piece w/reflector	15	45	\$ 4.00	\$89	\$ 2.75	\$ 61
100 W incandescent	100	CFL 28W 1 piece	28	72	\$ 9.00	\$125	\$ 3.50	\$ 49

see Tables 1, 2 and 3 for complete lists of lighting Wattages

### Marketing Plan

The program will be marketed to C&I customers of participating utilities through bill inserts and direct C&I mailings. MMUA will develop and print the marketing materials, which will be mailed to customers by the participating utilities. Participating utilities will also promote the program through customer visits to key accounts, if they have the resources to do so. Other marketing channels may be used if appropriate.

The program will be marketed to electrical and lighting contractors and engineers in and around participating utilities' service territories through mailings of marketing materials and rebate application forms. Participating utilities will identify the key trade allies in their service territories, and MMUA will prepare and print marketing materials to be mailed to them by the utilities. Follow-up phone calls to encourage trade allies to promote the program to their customers will be conducted by participating utilities.

### Coordination with Trade Allies

See Marketing Plan.

### Implementation Services

No additional implementation services are provided with this program.

### Low Income/Renter Participation

Not applicable.

### Tracking and Evaluation

All rebate applications will be submitted to MMUA for payment. MMUA will assure that original invoices including the necessary detail are provided, will issue rebate checks, and will track participation, costs, and kW and kWh saved by utility. MMUA will bill participating utilities for rebates and related program costs. MMUA will report results by utility to the utilities.

Energy and demand savings will be calculated from information provided on the rebate applications. MMUA will provide guidance to the participating utilities to enable them to conduct pre- and post-retrofit site visits for a sample of participants, in those cases where the participating utilities have the resources to do so. The site visits will be used to verify fixture counts, existing systems, new systems installed, and reasonableness of annual operating hours.

### ***B. Project Support***

Lighting accounts for 35 to 50% of electricity use in the commercial sector and 8% to 15% of electricity use in the industrial sector. It also accounts for a significant fraction of C&I peak demand. Lighting is a key energy efficiency opportunity in the C&I sector because it is one of the few end uses where, with the help of utility rebates, upgrades of existing functional equipment can often meet customers' payback criteria. By contrast, items such as cooling or refrigeration equipment typically can only be upgraded cost-effectively when replacement is required for other reasons.

Lighting rebate programs have been very successful in encouraging the installation of high efficiency lighting in Minnesota.

### ***C. Project Modifications***

This is a new program for some of the participating utilities. The others previously had lighting rebate programs, as described in their reports on their 2001 CIP programs. These utilities will continue their current programs until the MMUA Opt-In program is phased in, which is expected

to be November 2002. The participating utilities and their projected program budgets, participants, kW and kWh saved are shown below:

At this time, MMUA has preliminary commitments from XX member utilities representing XXXX C&I customers to participate in this program. This would correspond roughly to a budget of \$XXXXXX, of which 70% would be for rebates. Estimated savings would be XXX kW at the generator and XXXXXX kWh-lifetime at the customer. We will resubmit the filing with the worksheet and list of participating utilities finalized once we have final information.

<b>Participating Utility</b>	<b>New Pgm, Existing Pgm</b>	<b>Total Program Budget</b>	<b>Projected Participants</b>	<b>Projected kW saved at generator</b>	<b>Projected kWh saved at generator</b>

**D. Estimated \$/kW and \$/kWh**

	<u><b>2002</b></u>	<u><b>2003</b></u>
<u><b>Cost per kWh lifetime (Meter _____)</b></u>		
Cost per kWh lifetime (Generator)		
Cost per kW (Generator)		

Conservation Improvement Program Report			
Cooperative: the utility Program Name: C&I Lighting Rebates New; Continuing w/Modification; Continuing			
	2001 Actual	2002 Budget	2003 Budget
<b>Program Type</b>			
<b>Indirect (No kWh Savings) check below</b>			
Audit/Info			
Education			
R&D			
Renewable			
Other			
<b>Direct (kWh Savings)</b>		X	X
<b>Cost Components (Dollars)</b>			
Program Delivery		\$	\$
Utility Administration		\$	\$
Advertising & Promotion		\$	\$
Evaluation Labor & Expenses		\$	\$
Participant Incentives		\$	\$
Other			
<b>Total Budget</b>		<b>\$</b>	<b>\$</b>
<b>Program Participants</b>			
Total Number of Participants		#	#
<b>% of Spending by Customer Segment</b>			
Residential			
Commercial			
Industrial			
C&I Combined		100%	100%
Other			
<b>Low-Income Participation</b>			
Participants (%)		NA	NA
Participants (#)		NA	NA
Budget (\$)		NA	NA
<b>Renter Participation</b>			
Renter Participation (%)		NA	NA
Participants (#)		NA	NA
Budget (\$)		NA	NA
<b>Type of Incentive</b>			
Loan			
Rebate		X	X
Direct Installation			
Grant			
<b>End-Use Target</b>			
Lighting		X	X
Process			
Motor			
Refrigeration			
Space Cooling			
Space Heating			
Water Heating			
Weatherization			
General/Other			
<b>Energy Savings</b>			
First Year kWh Savings per Participant (Meter)		#	#
Total Program First Year kWh Savings (Meter)		#	#
Cost per First Year kWh Saved (Meter)		\$	\$
kW Savings per participant (Generator)		#	#
Total Program kW Savings (Generator)		#	#
Cost per kW Saved (Generator)		\$	\$

# Appendix B

**Program/Project Name:** MMUA Energy Star Products Rebate Program

**Type:** New

**Audience:** Residential and Commercial Customers

## *Project Description*

The MMUA Energy Star Products Rebate Program provides incentives to municipal utility customers who install Energy Star products. The target market is primarily residential customers, however some small commercial customers may participate. MMUA will operate the program on behalf of participating member utilities, reducing the level of effort required by individual utilities to offer a residential Energy Star rebate program to their customers. This will reduce the administrative burden of developing and administering identical, but separate, programs statewide. The program will also promote a consistent, standard message across all participating utilities.

The ENERGY STAR label designates appliances, lighting, electronics, motors, and other energy-using devices with efficiencies that exceed energy codes or standards by a specific amount. Manufacturers and retailers can identify products to help consumers make easy choices about the efficiency of their purchases. A major benefit of the Energy Star label is that it is a nationally marketed label that provides an easy way for customers to identify energy-efficient products with assurance from the federal government that the products are indeed more efficient than standard ones. Customers do not necessarily need to have a detailed understanding of what makes one product more efficient than another.

The goal of this program is to heighten awareness and increase the market saturation of Energy Star products sold within the utility's service territory. Where appropriate, the utility may offer increased incentives for levels of efficiency above the Energy Star threshold.

The customer rebates and costs to operate the program will be paid to MMUA by the participating utilities.

## Qualifying Criteria, Savings Estimates, Incentive Amounts

Table 1 shows the qualifying criteria, typical energy and demand savings estimates, typical incremental costs, rebate levels, and estimated participation for electric Energy Star products. Energy and demand savings were calculated using industry data. Important resources for information were the Department's March 25<sup>th</sup> letter, the Energy Star website, a Wisconsin Energy Conservation Corp. publication (April 2002) entitled Residential Default Energy Savings for Wisconsin Focus on Energy, and other utility filings such as Xcel Energy's. Most of the kWh savings numbers are based upon the Energy Star savings estimate included in the Department's March 23, 2002 letter to all municipals and cooperatives.

**Table 1: Electric Energy Star Products**

Measure	Base Efficiency	Efficiency Level	Lifetime	kW Savings (meter)	kWh Savings (meter)	Coincidence Factor	Rebate	Est. Part.
VSDs on Energy Star Furnaces	Single or Two-Speed Drives	VSD / ECM on Energy Star furnace	15	0.19	570	73%	\$50	1%
Refrigerators	Standard Models	Energy Star Rating	13	0.02	56	45%	\$50	1%
Room Air-Conditioners	9.7 EER	10.7 EER	13	0.13	43	75%	\$25	1%
Central Air-Conditioners	SEER = 10.0	SEER >= 13.0	15	1.06	346	75%	\$200	1%
		SEER >= 14.0	15	1.32	429	75%	\$300	1%
Dishwashers	EF = 0.46	EF > 0.58	13	0.14	90*	45%	\$50	1%
Clothes Washers	MEF = 0.817	MEF > 1.26	14	0.55	550	45%	\$150	1%
Ground Source Heat Pumps (Closed Loop)	<i>TBD</i>	EER = 14.1 COP = 3.3	15	<i>TBD</i>	<i>TBD</i>	<i>TBD</i>	<i>TBD</i>	<i>TBD</i>
Air Source Heat Pumps (Single Packaged System)	SEER = 10 HPSF = 6.8	SEER >= 12.0 HPSF >= 7.6	15	<i>TBD</i>	<i>TBD</i>	<i>TBD</i>	<i>TBD</i>	<i>TBD</i>
Compact Fluorescent Lights	Incandescent	Energy Star	7	0.05	80	3%	\$5	3% (1% of population with each participant buying 3 bulbs)

\* The Department's materials list kWh savings at 145 kWh per year. However using WECC's market research data the weighted average kWh savings for electric water heating and natural gas water heating is 90 kWh per year.

- TBD = "To Be Determined". *The utility should input values it feels comfortable with.*

### Marketing Plan

The program will be marketed to the residential through bill inserts and direct mailings of marketing materials. MMUA will develop and print the marketing materials, which will be mailed to customers by the participating utilities. Other marketing channels may be used if appropriate.

The program will be marketed to appliance dealers and retailers in and around participating utility's service territories through mailings of marketing materials and rebate application forms. Participating utilities will identify the key trade allies in their service territories, and MMUA will prepare and print marketing materials to be mailed to them by the utilities. Follow-up phone calls or personal visits to encourage trade allies to promote the program to their customers will be conducted by the participating utility.

### Coordination with Trade Allies

See Marketing Plan

### Implementation Services

No additional implementation services are provided with this program.

### Low-Income and Renter Participation

Low-income households are eligible for these rebates and renters may benefit if they live in multi-unit housing where the owner installs high-efficiency equipment. Initially, it is not expected that a large number of low-income households will apply for the rebates due to the large up-front costs associated with buying new, high-efficiency equipment. To track rental household participation, the rebate application will ask if the equipment is to be used in a rental property.

### Tracking and Evaluation

All rebate applications will be submitted to MMUA for payment. MMUA will assure that original invoices, including the necessary detail, are provided, will issue rebate checks or vouchers, and will track participation, costs, and kW and kWh savings by utility. MMUA will report results by utility to each individual participating utility.

## ***B. Project Support***

The Energy Star initiative is a national effort to raise awareness of higher efficiency equipment. It is a joint venture by the United States Environmental Protection Administration (EPA) and the United States Department of Energy (DOE). The goal of Energy Star is to inform and encourage people to purchase high-efficiency equipment. By increasing awareness, Energy Star hopes to transform the market by focusing on energy use as an important factor to consider when purchasing new appliances. The Energy Star initiative targets products that constitute the large majority of energy use in the residential sector.

## ***C. Project modifications***

This is a new program offered by MMUA on behalf of interested members. Participating utilities will continue their current programs until this MMUA opt-in program is phased in. MMUA expects to start implementing the MMUA Energy Star program in November 2002. The participating utilities and their projected program budgets, participants, kW and kWh saved are shown below:



Conservation Improvement Program Report			
Utility: MMUA Program Name: MMUA Energy Star New Program			
	2001 Actual	2002 Budget	2003 Budget
<b>Program Type</b>			
<b>Indirect (No kWh Savings) check below</b>			
Audit/Info			
Education			
R&D			
Renewable			
Other			
<b>Direct (kWh Savings)</b>		X	X
<b>Cost Components (Dollars)</b>			
Program Delivery		\$	\$
Utility Administration		\$	\$
Advertising & Promotion		\$	\$
Evaluation Labor & Expenses		\$	\$
Participant Incentives		\$	\$
Other			
<b>Total Budget</b>		\$	\$
<b>Program Participants</b>			
Total Number of Participants		#	#
<b>% of Spending by Customer Segment</b>			
Residential		100%	100%
Commercial			
Industrial			
C&I Combined			
Other			
<b>Low-Income Participation</b>			
Participants (%)			
Participants (#)			
Budget (\$)			
<b>Renter Participation</b>			
Renter Participation (%)			
Participants (#)			
Budget (\$)			
<b>Type of Incentive</b>			
Loan			
Rebate		X	X
Direct Installation			
Grant			
<b>End-Use Target</b>			
Lighting		X	X
Process			
Motor			
Refrigeration		X	X
Space Cooling		X	X
Space Heating			
Water Heating			
Weatherization			
General/Other		X	X
<b>Energy Savings</b>			
First Year kWh Savings per Participant (Meter)	0	0	0
Total Program First Year kWh Savings (Meter)	0	0	0
Cost per First Year kWh Saved (Meter)	0	0	0
kW Savings per participant (Generator)	0	0	0
Total Program kW Savings (Generator)	0	0	0
Cost per kW Saved (Generator)	0	0	0