

COUNCIL ACTION FORM

SUBJECT: ELECTRIC UTILITY RATE CHANGES

BACKGROUND:

As discussed during the FY 2017/18 budget process, the City of Ames Electric Services budget included a 4% electric rate increase to take effect with bills issued on or after July 1, 2017. The revenue resulting from this rate increase is needed to fund plant maintenance, capital improvement projects, and operating costs while maintaining an adequate fund balance for the utility. The last electric rate increase approved by the City Council was 5% on July 1, 2009.

The proposed rate change is an across-the-board increase with no change to our current rate structure for all customer classes. It is not anticipated that any additional electric rate increases will be needed for at least the next 5 years following approval of this change.

Attached are sample bills for the different customer classes demonstrating the impact this rate increase will have. It should be noted that the bills also include a proposed increase in Storm Water rates to give a complete picture of the impact to a customer's bill.

In addition to changes to the electric rates in the Municipal Code, staff is also recommending changes to Section **28.107 Street and Security Lighting Rate** and **28.108 Optional Time-of-Use (TOU) Industrial Electric Rate and Charges.**

PROPOSED CHANGES TO SECTION 28.107:

The changes to this section include:

- Removal of rates for lights which are no longer in inventory
- Increasing the rates for existing street and security lights by 4%
- Addition of LED light rates for street and security lights, which are lower than their non-LED equivalent
- Security light changes requiring an LED standard.

Section 28.107 has also been expanded to include incidental, unmetered energy usage for customer-owned lighting, signs and other constant-wattage electric loads.

PROPOSED CHANGES TO SECTION 28.108

Section 28.108 began as a pilot program for the City's Industrial customers to provide incentives to use less energy during periods of peak electric consumption. This program works well for both the participating customers and the City to reduce the likelihood of

new electric peaks from occurring. The recommended change to this section is to transition this program from a pilot option to a permanent option within the rate ordinance. In the future, staff will be developing other pilot programs with the City's largest energy users to create win-win opportunities.

Attached is a copy of the blue-lined edited ordinance section reflecting the changes, as well as a copy of the final ordinance reflecting the changes from the Legal Department.

ALTERNATIVES:

1. Approve the proposed changes to the Electric Utility Rate ordinance to increase overall rates for all classes of customers of the Electric Utility by 4% for bills issued on or after July 1, 2017, and adopt the changes to the street and security lighting section which removes discontinued lights, creates rates for incidental unmetered energy, includes lower cost LED lights, and updates the rate for other existing lights.
2. Refer the Electric Utility Rate ordinance back to staff with direction to develop an alternative rate structure. This alternative would likely delay implementation of a rate increase, and could result in a larger rate increase or cause us to drop below the Electric Utility fund balance target unless other changes are made to reduce budget expenditures.
3. Do not approve a rate increase at this time. This alternative would require extensive changes to the Electric Utility budget since a 4% revenue increase was included in the adopted budget.

MANAGER'S RECOMMENDED ACTION:

The Electric Utility will embark on major maintenance projects that will help secure the future power supply and maintain the infrastructure for our customers for the next 20 years. A rate increase is warranted because the current rate structure will not supply the revenue necessary to adequately fund future proposed projects, cover the bonds payments sold for the plant conversion, and maintain the \$10,000,000 reserve fund required by Council.

Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative #1 and approve a 4% rate increase for all customer classes effective with bills issued on or after July 1, 2017 and adopt the changes to the street and security lighting section which removes discontinued lights, includes lower cost LED lighting, and updates the cost for other existing lights.

City of Ames Utilities Rate Samples

Rate Increases

Electric:	4.0%			
Water:	0.0%	ECA of	0.0047	per Kwh
Sewer:	0.0%			
Storm Water Drainage	0.0%	\$ increase not a % increase		

Assumptions for
meter size, kW,
PF, & RW Tier

<u>MINIMUM USE RESIDENTIAL CUSTOMERS</u>					
Electric / Water Use	Electric Summer	Storm Water	Water Summer	Sewer	Total
100 kWh and 100 cf	\$19.66	\$4.70	\$13.13	\$13.45	\$50.94
Electric ECA	\$0.47				\$0.47
Totals	\$20.13	\$4.70	\$13.13	\$13.45	\$51.41
Increase Due to Rate Change	\$0.79	\$0.25	\$0.00	\$0.00	\$1.04
Totals	\$20.92	\$4.95	\$13.13	\$13.45	\$52.45
% Impact on Total Bill					2.02%

5/8x3/4"
Tier 1

<u>MEDIAN USE RESIDENTIAL CUSTOMERS</u>					
Electric / Water Use	Electric Summer	Storm Water	Water Summer	Sewer	Total
600 kWh and 600 cf	\$77.96	\$4.70	\$23.88	\$27.15	\$133.69
Electric ECA	\$2.82				\$2.82
Totals	\$80.78	\$4.70	\$23.88	\$27.15	\$136.51
Increase Due to Rate Change	\$3.12	\$0.25	\$0.00	\$0.00	\$3.37
Totals	\$83.90	\$4.95	\$23.88	\$27.15	\$139.88
% Impact on Total Bill					2.47%

5/8x3/4"
Tier 1

<u>LARGE RESIDENTIAL CUSTOMERS</u>					
Electric / Water Use	Electric Summer	Storm Water	Water Summer	Sewer	Total
1,000 kWh and 1,000 cf	\$124.60	\$4.70	\$32.48	\$38.11	\$199.89
Electric ECA	\$4.70				\$4.70
Totals	\$129.30	\$4.70	\$32.48	\$38.11	\$204.59
Increase Due to Rate Change	\$4.98	\$0.25	\$0.00	\$0.00	\$5.23
Totals	\$134.28	\$4.95	\$32.48	\$38.11	\$209.82
% Impact on Total Bill					2.56%

5/8x3/4"
Tier 1

<u>SMALL COMMERCIAL (GP)</u>					
Electric / Water Use	Electric Summer	Storm Water	Water Summer	Sewer	Total
2,000 kWh and 600 cf	\$244.60	\$4.70	\$27.84	\$27.15	\$304.29
Electric ECA	\$9.40				\$9.40
Totals	\$254.00	\$4.70	\$27.84	\$27.15	\$313.69
Increase Due to Rate Change	\$9.78	\$0.25	\$0.00	\$0.00	\$10.03
Totals	\$263.78	\$4.95	\$27.84	\$27.15	\$323.72
% Impact on Total Bill	3.20%				

5/8x3/4"
Tier 1

<u>SMALL COMMERCIAL (GP)</u>					
Electric / Water Use	Electric Summer	Storm Water	Water Summer	Sewer	Total
5,000 kWh and 1,000 cf	\$589.00	\$4.70	\$39.08	\$38.11	\$670.89
Electric ECA	\$23.50				\$23.50
Totals	\$612.50	\$4.70	\$39.08	\$38.11	\$694.39
Increase Due to Rate Change	\$23.56	\$0.25	\$0.00	\$0.00	\$23.81
Totals	\$636.06	\$4.95	\$39.08	\$38.11	\$718.20
% Impact on Total Bill	3.43%				

5/8x3/4"
Tier 1

<u>SMALL COMMERCIAL (GP)</u>					
Electric / Water Use	Electric Summer	Storm Water	Water Summer	Sewer	Total
10,000 kWh and 3,000 cf	\$1,163.00	\$9.40	\$106.26	\$92.91	\$1,371.57
Electric ECA	\$47.00				\$47.00
Totals	\$1,210.00	\$9.40	\$106.26	\$92.91	\$1,418.57
Increase Due to Rate Change	\$46.52	\$0.50	\$0.00	\$0.00	\$47.02
Totals	\$1,256.52	\$9.90	\$106.26	\$92.91	\$1,465.59
% Impact on Total Bill	3.31%				

3/4"
Tier 2

<u>COMMERCIAL (LP)</u>					
Electric / Water Use	Electric Summer	Storm Water	Water Summer	Sewer	Total
20,000 kWh and 5,000 cf	\$2,097.57	\$9.40	\$162.46	\$147.71	\$2,417.14
Electric ECA	\$94.00				\$94.00
Totals	\$2,191.57	\$9.40	\$162.46	\$147.71	\$2,511.14
Increase Due to Rate Change	\$83.90	\$0.50	\$0.00	\$0.00	\$84.40
Totals	\$2,275.47	\$9.90	\$162.46	\$147.71	\$2,595.54
% Impact on Total Bill	3.36%				

3/4"
62 kW
90% PF
68.89 kVA
44.8% LF
Tier 2

<u>COMMERCIAL (LP)</u>					
Electric / Water Use	Electric Summer	Storm Water	Water Summer	Sewer	Total
60,000 kWh and 15,000 cf	\$5,981.27	\$14.10	\$465.43	\$421.71	\$6,882.51
Electric ECA	\$282.00				\$282.00
Totals	\$6,263.27	\$14.10	\$465.43	\$421.71	\$7,164.51
Increase Due to Rate Change	\$239.25	\$0.75	\$0.00	\$0.00	\$240.00
Totals	\$6,502.52	\$14.85	\$465.43	\$421.71	\$7,404.51
% Impact on Total Bill	3.35%				

1"
185 kW
90% PF
205.56 kVA
45.0% LF
Tier 3

<u>COMMERCIAL (LP)</u>					
Electric / Water Use	Electric Summer	Storm Water	Water Summer	Sewer	Total
100,000 kWh and 20,000 cf	\$9,887.73	\$42.25	\$649.86	\$558.71	\$11,138.55
Electric ECA	\$470.00				\$470.00
Totals	\$10,357.73	\$42.25	\$649.86	\$558.71	\$11,608.55
Increase Due to Rate Change	\$395.51	\$2.30	\$0.00	\$0.00	\$397.81
Totals	\$10,753.24	\$44.55	\$649.86	\$558.71	\$12,006.36
% Impact on Total Bill	3.43%				

1&1/2"
310 kW
90% PF
344.44 kVA
44.8% LF
Tier 4

CHAPTER 28

UTILITIES

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CHAPTER 28

UTILITIES

DIVISION I ELECTRICITY

Sec. 28.101. GENERAL CONDITIONS FOR ELECTRIC RATES.

The following general conditions are applicable to the following as indicated in each rate schedule:

- (1) Service shall be provided subject to Ames Municipal Electric System rules and regulations.
(Ord. No. 2975, Sec. 1, 5-19-87; Ord. No. 2977, Sec. 1, 6-9-87)
- (2) The schedule will be applied to each meter and point of delivery and in no event will meter readings be combined except when it has been determined necessary by the Ames Municipal Electric System.
(Ord. No. 3885, 07-5-06)
- (3) Where a residence and a business are combined on one premise, service for the combined use will be considered residential only if the predominant use is for residential purposes. If the use is predominantly for business purposes, the customer is required to take all service under the applicable Small Commercial or Commercial Rate.
(Ord. No. 4130, 11-27-12)
- (4) The standard approved type of electric water heater shall have a single 120 volt heating element no larger than 1500 watts or shall have multiple thermostatically controlled noninductive 240 volt heating elements of not more than 5000 watts per element with such multiple elements connected interlocking so that only one element may operate at a time.
- (5) The utility may assess an excess facilities charge when necessary to meet costs of an unusual installation.
(Ord. No. 2921, Sec. 1, 4-9-85; Ord. No. 3199, Sec. 1, 9-24-92)

Sec. 28.102. ENERGY BILLING (ENERGY UNIT RATE, ENERGY COST ADJUSTMENT, & ENERGY RATE ADJUSTMENT).

The net monthly billing based on rates will be increased or decreased according to the Energy Unit Rate and Energy Cost Adjustment, calculated as of the prior month. For purposes of this section, the following definitions apply:

“Energy Unit Rate” means the portion of the retail electric rates that produces revenue to offset fuel and electrical energy related expenses. The Energy Unit Rate for all retail rate schedules shall be \$0.0495 per kilowatt-hour (kWh).

“Energy Cost Adjustment (ECA)” means the amount the customer’s billed energy charges are adjusted to compensate for variations in the cost of energy to the Ames Municipal Electric System. The ECA shall be adjusted monthly for variations in the utility’s net cost of energy associated with electrical energy purchases/sales, transmission expenses/revenues, and adjustments; fuel purchases/sales, delivery expenses, and adjustments; and fuel waste disposal expenses/revenues and adjustments. The ECA shall be determined by multiplying the customer’s billed energy consumption (kWh) times the Energy Rate Adjustment (\$/kWh).

“Energy Rate Adjustment” means the Energy Unit Rate (\$/kWh) subtracted from the quotient of the Utility’s net cost of energy (\$), as defined in the ECA, invoiced for the prior twelve-month period divided by the total retail energy (kWh) sales for the corresponding twelve-month period.

(Ord. No. 2921, Sec. 2, 4-9-85; Ord. No. 2975, Sec. 1, 5-19-87; Ord. No. 2977, Sec. 1, 6-9-87; Ord. No. 3199, Sec. 1, 9-24-92; Ord. No. 4130, 11-27-12; Ord. No. 4262, 6-14-16).

Sec. 28.103. RESIDENTIAL ELECTRIC RATES.

(1) **Availability:** Electrical energy and service shall be available at the "Residential Rate" for all single-phase domestic uses in separately metered, dwelling units that are intended for occupancy by a single family as defined by the Ames Zoning Ordinance, as distinguished from group domiciles such as rooming houses, fraternity or sorority houses, supervised group homes, and residential care facilities of various kinds.

(2) **Rate per billing period.** For each monthly billing period a residential rate customer:

- (a) shall be charged eight dollars (~~\$8.008.32~~) as a customer service charge, and
- (b) in addition, shall be charged for energy consumption during the billing period as follows:
 - (i) for bills mailed on or between July 1 and October 31 (summer period):
\$0.~~466-1213~~ per kWh, or
 - (ii) for bills mailed on or between November 1 and June 30 (winter period):
\$0.~~0966-1005~~ per kWh
- (c) All charges above shall also be subject to the current applicable energy cost

adjustment per Sec. 28.102. (*Ord. No. 4130, 11-27-12*)

and

(3) **Minimum bill:** The minimum charge per billing period shall be eight dollars (~~\$8.008.32~~). (*Ord. No. 3885, 07-25-06; Ord. No. 3955, 05-27-08; Ord. No. 3987, 05-12-09; Ord. 4130, 11-27-12*)

(4) **Conditions:** The Residential Rate shall be subject to the general conditions set forth in Section 28.101(1), (2), (3), (4) and (5).

(5) **Load Management Credit:** Any dwelling unit that qualifies under the Residential Rate and is equipped with a properly installed central air conditioner shall be eligible to participate in the Residential Load Management Program. Customers who agree to allow the utility to install and maintain a Load Management Switch on their central air conditioner will receive the following credits to their electric bills:

(a) \$5 credit for each installed Load Management Switch for bills mailed on or between July 1 and October 31.

(b) The total annual credit for each customer shall not exceed \$20 for each central air conditioner on which a Load Management Switch is installed.

(*Ord. No. 3277, Sec. 1, 5-24-94*)(*Ord. No. 822, Sections 2, 3; Code 1956, Sections 26-2, 26-3; Ord. No. 1038, Sec. 1, 9-4-62; Ord. No. 2172, Sec. 2, 2-7-67; Ord. No. 2271, Sec. 1, 2, 10-22-68; Ord. No. 2505, Sec. 1, 2, 4-22-75; Ord. No. 2586, Sec. 2, 2-22-77; Ord. No. 2657, Sec. 2, 6-6-78; Ord. No. 2723, Sec. 2, 7-24-79; Ord. No. 2895, Sec. 1, 5-22-84; Ord. No. 2921, Sec. 3, 4-9-85; Ord. No. 3199, Sec. 1, 9-24-92*)

Sec. 28.104. SMALL COMMERCIAL RATE.

(1) **Availability:** Electrical energy and service shall be available at the "Small Commercial Rate" to all customers except those that qualify for another rate schedule, for all single-phase or three-phase, single-metered usage, where the metered demand does not exceed 55kVA.

(*Ord. No. 4130, 11-27-12*)

(2) **Rate per billing period:** For each monthly billing period a Small Commercial Rate customer:

- (a) shall be charged fifteen dollars (~~\$15.0015.60~~) as the customer service charge; and,
- (b) in addition, shall be charged for energy consumption during the billing period as follows:
 - (i) for bills mailed on or between July 1 and October 31(summer period):
\$0.~~448-1194~~ per kWh
 - (ii) for bills mailed on or between November 1 and June 30 (winter period):
\$0.~~0948-0986~~ per kWh
- (c) All charges above shall also be subject to the current applicable energy cost

Adjustment per Sec. 28.102.

(*Ord. No. 4130, 11-27-12*)

(3) **Minimum bill:** The minimum charge per billing period shall be fifteen dollars (~~\$15.0015.60~~).

(*Ord. No. 4130, 11-27-12*)

- (4) **Conditions:** The Small Commercial Rate shall be subject to:
- (a) the general conditions of section 28.101 (1), (2), (3) and (5); and,
 - (b) the following specific conditions:

- (i) Unless three-phase service is determined by the Ames Municipal Electric System to be economically available, motors up to and including 5 hp shall be single-phase. Motors above 5 hp shall be three-phase. Three-phase service will normally be 120/208 volt, 4 wire. Where conditions warrant (outside the business district area), 4-wire 120/240 volt or 277/480 volt service may be furnished if mutually agreeable to the Ames Municipal Electric System and the customer.

- (ii) Fluctuating loads. Loads requiring excess transformer capacity because of large momentary current requirements, or to provide close voltage regulation, shall be subject to an additional charge of \$0.327 per rated kVA of capacity above normal capacity requirement for the diversified demand. The kVA subject to an additional charge will be adjusted no more than once a year. No charge shall apply if the customer furnishes the transformers.

(Ord. No. 3885, 07-25-06; Ord. 3987, 05-12-09)

- (iii) Should the electrical energy furnished under this schedule for any reason be metered on the primary side of the service transformers, the energy metered shall be reduced by 1 ½ per cent before calculating the energy charge.

(Ord. No. 4130, 11-27-12)

(5) **Load Management Credit:** Any facility that qualified and is equipped with a properly installed central air conditioner shall be eligible to participate in the Load Management Program. Customers who agree to allow the Ames Municipal Electric System to install and maintain a Load Management Switch on their central air conditioner will receive the following credits to their electric bills:

- (a) Five dollars (\$5.00) credit for each installed Load Management Switch for bills mailed on or between July 1 and October 31.

- (b) The total annual credit for each customer shall not exceed twenty dollars (\$20.00) for each central air conditioner on which a Load Management Switch has been installed.

(Ord. No. 822, Sections 4, 5; Code 1956, Sections 26-4, 26-5; Ord. No. 1038, Sec. 1, 9-4-62; Ord. No. 2172, Sec. 2, 2-7-67; Ord. No. 2271, Sec. 1, 2, 10-22-68; Ord. No. 2505, Sec. 1, 2, 4-22-75; Ord. No. 2586, Sec. 2, 2-22-77; Ord. No. 2657, Sec. 2, 6-6-78; Ord. No. 2723, Sec. 1, 2, 7-24-79; Ord. No. 2921, Sec. 4, 4-9-85; Ord. No. 3199, Sec. 1, 9-24-92; Ord. No. 3885, 07-25-06)

Sec. 28.105. COMMERCIAL RATE.

(1) **Availability.** The “Commercial Rate” shall be optional for any non-residential customer whose consumption in any billing period exceeds 10,000 kWh. The Commercial Rate shall be mandatory for any non-residential customer whose metered demand at any time exceeds 55 kVA. If at any time, a non-residential customer's metered demand exceeds 55 kVA, all consumption for the billing period in which that occurs, and for the next succeeding eleven billing periods, shall be charged at the Commercial Rate. Any customer for whom the Commercial Rate became mandatory, who subsequently has a metered demand of less than 55 kVA for 12 consecutive months, will again become an optional commercial rate customer with a choice between Small Commercial Rate and Commercial Rates. Any customer for whom the Commercial Rate is optional shall not switch rates more than once in a period of 12 months. Any customer on the Commercial Rate who has a metered demand of less than 55 kVA, and a consumption of less than 10,000 kWh, for twelve consecutive months, shall be changed to the Small Commercial Rate.

(Ord. No. 4130, 11-27-12)

(2) **Rate per Billing Period.** For each monthly billing period, a Commercial Rate customer:

- (a) shall be charged one hundred fifty dollars (~~\$150.00~~156.00) as a customer service charge,

and

- (b) in addition, shall be charged for demand and energy consumption during the billing period as follows:

(i) for bills mailed on or between July 1 and October 31 (summer period) a customer shall be charged a demand of:

~~\$10.30~~10.71 per kVA and an energy charge of:
~~\$0.0619~~0.0644 per kWh

(ii) for bills mailed on or between November 1 and June 30 (winter period) a customer shall be charged a demand charge of:

~~\$7.798~~8.01 per kVA and an energy charge of:
~~\$0.0619~~0.0644 per kWh

(Ord. No. 3987, 05-12-09; Ord. 4130, 11-27-12)

(c) All charges above shall also be subject to the current applicable energy cost adjustment per Sec. 28.102.

(Ord. No. 4130, 11-27-12)

(3) **Billing Demand:** The "Billing Demand" shall be the greater of:

- (a) The peak 15-minute demand measured during the present monthly billing period; or
- (b) Seventy-five percent (75%) of the peak demand measured during the most recent four months of the summer period; or
- (c) Sixty percent (60%) of the peak demand measured during the last eleven billing periods.
- (d) Provided, however, that the demand used for billing shall in no case be less than 15 kVA after discounts.

(Ord. No. 4130, 11-27-12)

(4) **Minimum bill:** The minimum bill shall be the customer service charge plus the current demand charge.

(5) **RESERVED**

(6) **Service facilities:** The Ames Municipal Electric System shall furnish as a standard installation facilities adequate to supply service at a single point of delivery to a normal load equal to the maximum 15-minute demand of the customer. Each standard installation shall include, where necessary, facilities for one standard transformation and the demand and energy consumption of the entire premises.

(7) **Excess facilities charge:** In the event service facilities in addition to, or different from, a standard installation are requested by the customer, or are required to serve the customer's load, the Ames Municipal Electric System shall furnish, install, and maintain such facilities subject to the following considerations:

- (a) The type, extent, and location of such service facilities shall be determined by agreement between the Ames Municipal Electric System and the customer.
- (b) Such service facilities shall be the property of the Ames Municipal Electric System.
- (c) The customer shall pay a monthly rental charge on those facilities in excess of the facilities included in a standard installation.
- (d) If the optional or nonstandard facilities are used for other customers also, the rental payable by the customer shall be that portion of the total rental which is reasonably assignable to the customer.

(8) **Primary service:** Customers who take service at primary voltage shall be granted discounts to demand and energy as follows:

- (a) 1-1/2% of the billing demand and measured energy where metering is on the high voltage side of utility-owned transformers.
- (b) 5% of the billing demand and 1-1/2% of the measured energy where metering is on the high voltage side of customer-owned transformers.
- (c) A minimum billing demand after discount shall be 15 kVA.

(Ord. No. 4130, 11-27-12)

(d) Voltages below 8,000/13,800 Y nominal are considered secondary voltage.

(9) **Conditions:** The Commercial Rate shall be subject to

- (a) the general condition in section 28.101 (1), (2), (3) and (5); and,
- (b) the following specific conditions:

(i) The customer's total usage on a single premise shall determine whether the customer qualifies for service under this rate structure. In no event will the customer be billed on both the Small Commercial Rate and Commercial Rates. A premise is defined as the main building of a commercial or industrial establishment, and shall include the outlying or adjacent buildings used by the same provided the use of service in the outlying buildings is supplemental and similar to the service used in the main building.

(Ord. No. 4130, 11-27-12)

(ii) Fluctuating loads. If use of energy is intermittent or subject to violent fluctuation, the Ames Municipal Electric System may add to the 15-minute measured demand an amount equal to 65% of the rated capacity in kVA of the apparatus which causes such fluctuations.

(Ord. No. 4130, 11-27-12)

(10) **Load Management Credit:** Any facility that qualified and is equipped with a properly installed central air conditioner shall be eligible to participate in the Load Management Program. Customers who agree to allow the Ames Municipal Electric System to install and maintain a Load Management Switch on their central air conditioner will receive the following credits to their electric bills:

(a) Five dollars (\$5.00) credit for each installed Load Management Switch for bills mailed on or between July 1 and October 31.

(b) The total annual credit for each customer shall not exceed twenty dollars (\$20.00) for each central air conditioner on which a Load Management Switch has been installed.

(Ord. No. 822, Sections 4, 5; Code 1956, Sections 26-4, 26-5; Ord. No. 1038, Sec. 1, 9-4-62; Ord. No. 2172, Sec. 2, 2-7-67; Ord. No. 2271, Sec. 1, 2, 10-22-68; Ord. No. 2505, Sec. 1, 2, 4-22-75; Ord. No. 2586, Sec. 2, 2-22-77; Ord. No. 2657, Sec. 2, 6-6-78; Ord. No. 2723, Sec. 1, 2, 7-24-79; Ord. No. 2921, Sec. 4, 4-9-85; Ord. No. 3199, Sec. 1, 9-24-92)(Ord. No. 3885, 07-5-06)

Sec. 28.106. INDUSTRIAL RATE.

(1) **Availability:** The Industrial Rate shall be mandatory for any non-residential customer whose metered demand at any time exceeds 2,500 kVA. If at any time, a non-residential customer's metered demand exceeds 2,500 kVA, all consumption for the billing period in which that occurs, and for the next succeeding eleven billing periods, shall be charged at the Industrial Rate.

(Ord. No. 4130, 11-27-12)

(2) **Rate Per Billing Period.** For each monthly billing period, an Industrial Rate customer

(a) shall be charged one hundred fifty dollars (~~\$150.00~~156.00) as a customer service charge, and

(b) in addition, shall be charged for demand and energy consumption during the billing period as follows:

(i) for bills mailed on or between July 1 and October 31 (summer period) a customer shall be charged a demand charge of ~~\$10.00~~10.40 per kVA of billing demand, and an energy charge of: ~~\$0.0619~~0644 per kWh

(ii) for bills mailed on or between November 1 and June 30 (winter period) a customer shall be charged a demand charge of:

~~\$7.597~~.80 per kVA of billing demand, and an energy charge of: ~~\$0.0619~~0644 per kWh

(Ord. No. 3955, 05-27-08; Ord 3987, 05-12-09; Ord. No. 4130, 11-27-12)

(c) All charges above also shall be subject to the current applicable energy cost adjustment per Sec. 28.102.

(3) **Billing Demand.** The 'Billing Demand' shall be the greater of:

(a) The peak fifteen (15) minute demand measured during the current monthly billing period, or

(b) Seventy-five percent (75%) of the peak demand measured during the most recent four months of the summer period; or

(c) Sixty percent (60%) of the peak demand measured during the last eleven billing periods.

(d) Provided, however, that the demand used for billing shall in no case be less than 2,500 kVA after discounts.

(Ord. No. 4130, 11-27-12)

(4) **Minimum Bill.** The minimum monthly bill shall be the customer service charge plus the current demand charge plus the energy charge and energy cost adjustment for 600,000kWh.

(5) **RESERVED**

(6) **Service Facilities.** The Ames Municipal Electric System shall furnish as a standard installation facilities adequate to supply service at a single point of delivery to a normal load equal to the maximum 15-minute demand of the customer. Each standard installation shall include, where necessary, facilities for one standard transformation and the demand and energy consumption of the entire premises.

(7) **Excess Facility Charge.** In the event service facilities in addition to, or different from, a standard installation are requested by the customer, or are required to serve the customer's load, the Ames Municipal Electric System shall furnish, install, and maintain such facilities subject to the following considerations:

(a) The type, extent, and location of such service facilities shall be determined by agreement between the Ames Municipal Electric System and the customer.

(b) Such service facilities shall be the property of the Ames Municipal Electric System.

(c) The customer shall pay a monthly rental charge on those facilities in excess of the facilities included in a standard installation.

(d) If the optional or nonstandard facilities are used for other customers also, the rental payable by the customer shall be that portion of the total rental which is reasonably assignable to the customer.

(8) **Primary service:** Customers who take service at primary voltage shall be granted discounts to demand and energy as follows:

(a) 1-1/2% of the billing demand and measured energy where metering is on the high voltage side of utility-owned transformers.

(b) 5% of the billing demand and 1-1/2% of the measured energy where metering is on the high voltage side of customer-owned transformers.

(c) A minimum billing demand after discount shall be 2,500kVA

(Ord. No. 4130, 11-27-12)

(d) Voltages below 8,000/13,800 Y nominal are considered secondary voltage.

(9) **Conditions.** The Industrial Rate shall be subject to the following specific conditions.

(a) the general condition in section 28.101 (1), (2) and (5) and

(b) the following specific conditions:

(i) The customer's total usage on a single premise shall determine whether the customer qualifies for service under this rate structure. In no event will the customer be billed on more than one rate. A premise is defined as the main building of a commercial or industrial establishment, and shall include the outlying or adjacent buildings used by the same provided the use of service in the outlying buildings is supplemental and similar to the service used in the main building.

(ii) Fluctuating loads. If use of energy is intermittent or subject to violent fluctuation, the Ames Municipal Electric System may add to the 15-minute measured demand an amount equal to 65% of the rated capacity in kVA of the apparatus which causes such fluctuations.

(Ord. No. 2827, 6-15-82; Ord. No. 2832, 9-21-82; Ord. No. 2921, Sec. 1, 4-9-85; Ord. No. 3199, Sec. 1, 9-24-92; Ord. No. 4130, 11-27-12)

Sec. 28.107. STREET AND SECURITY LIGHTING RATE & INCIDENTAL UNMETERED ENERGY.

(1) **Availability.** Lighting energy and service shall be available for street lighting and ~~for security lighting where it is impossible or impractical~~ other incidental constant-wattage loads where it is not practicable to meter the electrical energy through the customer's normal metering location.

(2) **Rate per Billing Period.** For each monthly billing period the lighting customer:

- (a) shall be charged for service per lamp:
 - (i) for bills mailed on or after **July 1, 2013** 2017:

	Monthly Lamp Charge	Monthly Consumption (kWh per Lamp)
1000 Watt - Mercury Vapor	35.95	383
700 Watt - Mercury Vapor	25.85	268
400 Watt - Mercury Vapor	<u>15.75</u> 16.38	153
400 Watt - Mercury Vapor-Ornamental	<u>18.40</u> 18.82	153
250 Watt - Mercury Vapor	<u>10.90</u> 11.34	96
250 Watt - Mercury Vapor-Ornamental	<u>14.80</u> 15.39	96
175 Watt - Mercury Vapor	<u>8.60</u> 8.94	67
175 Watt - Mercury Vapor-Ornamental	<u>10.90</u> 11.34	67
400 Watt - High Pressure Sodium	<u>16.65</u> 17.32	153
400 Watt - High Pressure Sodium-Ornamental	<u>18.40</u> 18.82	153
360 Watt - High Pressure Sodium	15.55	138
360 Watt - High Pressure Sodium-Ornamental	17.05	138
250 Watt - High Pressure Sodium	<u>11.65</u> 12.12	96
250 Watt - High Pressure Sodium-Ornamental	<u>15.25</u> 15.86	96
200 Watt - High Pressure Sodium	<u>10.75</u> 11.18	77
200 Watt - High Pressure Sodium-Ornamental	<u>14.65</u> 15.24	77
150 Watt - High Pressure Sodium	<u>9.10</u> 9.46	60
150 Watt - High Pressure Sodium-Ornamental	<u>11.45</u> 11.91	60
100 Watt - High Pressure Sodium	<u>7.05</u> 7.33	38
100 Watt - High Pressure Sodium-Ornamental	<u>9.15</u> 9.52	38
70 Watt - High Pressure Sodium	<u>5.95</u> 6.19	27
70 Watt - High Pressure Sodium-Ornamental	<u>8.15</u> 8.48	27
<u>400 - LED</u>	<u>13.81</u>	<u>69</u>
<u>400 - LED - Ornamental</u>	<u>18.81</u>	<u>69</u>
<u>250 - LED</u>	<u>10.77</u>	<u>36</u>
<u>250 - LED - Ornamental</u>	<u>15.77</u>	<u>36</u>
<u>150 - LED</u>	<u>8.39</u>	<u>24</u>
<u>150 - LED - Ornamental</u>	<u>11.89</u>	<u>24</u>
<u>70 - LED</u>	<u>5.45</u>	<u>13</u>
<u>70 - LED - Ornamental</u>	<u>8.45</u>	<u>13</u>

Ornamental fixtures are units on poles other than standard round-wood poles.

(Ord. No. 2975, Sec. 1, 5-19-87; Ord. No. 2977, Sec. 1, 6-9-77; Ord. No. 3885, 07-25-06; Ord. No. 3955, 05-27-08; Ord. No. 3987, 05-12-09; Ord. 4149, 6-25-13)

(b) and all lamps shall be charged any applicable energy cost adjustment, per Sec. 28.102, based on the stated average monthly kWh consumption per lamp.

(Ord. No. 4130, 11-27-12; Ord. 4149, 6-25-13)

(3) **Conditions.** The street and security lighting rate will be subject to 28.101(1) and (5) and the following specific conditions:

- (a) new service agreements shall be 3 years minimum
- (b) new installation for "security lights" will only be made ~~with 175, 400, or 1000 watt~~

~~mercury vapor or with 70, 100, 150, 200, or 250 watt sodium fixtures on existing poles with a maximum of a 150 foot span of wire using standard LED fixtures with a Standard Light Service (see below)~~

(c) For all street and security lights, a Standard Light Service consists of a standard LED fixture mounted to an existing round-wood pole with a maximum of a 150 foot span of overhead service wire connected to an existing service or transformer. Standard LED fixtures are grey cobra-head style in the following sizes: 70-LED, 150-LED, 250-LED and 400-LED. Additional costs above what is included in a Standard Light Service are the customer's responsibility.

(d) ~~Flood lights, where available from utility stock, shall have an additional monthly charge of \$0.65 per lamp, are no longer provided for new installations. Continued service to an existing floodlight will be provided at an additional monthly charge of \$1.50 per fixture added to the respective rate for non-flood-light fixtures. Existing non-LED floodlights requiring maintenance will be replaced with a 250-LED flood light fixture.~~

(Ord. No. 3885, 07-25-06; Ord. No. 3955, 05-27-08; Ord. No. 3987, 05-12-09; Ord. 4149, 6-25-13)

(e) No new 360 watt sodium fixtures will be installed.
(Ord. No. 2921, Sec. 6, 4-9-85; Ord. No. 3199, Sec. 1, 9-24-92; Ord. 4149, 6-25-13)

(f) Contract for energy only charges will be billed at a rate of \$0.110 per kilowatt hour plus the applicable energy cost adjustment.
(Ord. No. 3955, 05-27-08; Ord. No. 3987, 05-12-09; Ord. 4149, 6-25-13)

(4) INCIDENTAL UNMETERED ENERGY FOR CUSTOMER-OWNED LIGHTING, SIGNS AND OTHER CONSTANT-WATTAGE LOADS

(a) Where a customer owns lighting, signs, or similar constant-wattage single-phase loads no greater than 2 kVA (2000 volt-amperes) per point of connection and where it is not practicable to meter the energy through the customer's normal metering location, service may be provided under a contract for incidental unmetered energy. To qualify, the customer must provide verification that their electric loads have a constant-wattage or calculable monthly kWh. The basis for monthly kWh to be billed shall be included in the service contract. Calculated monthly energy will be billed at a rate of \$0.115 per kilowatt-hour plus the applicable energy cost adjustment. Once placed in service, changes to loads served by an unmetered service may only be made following review and approval by the Electric Services Department and with an approved amendment to the service contract. A Standard Unmetered Service includes 150' of overhead service wire from an existing transformer or service connection point; additional costs above what is included in a Standard Unmetered Service are the customer's responsibility.

Sec. 28.108. OPTIONAL TIME-OF-USE (TOU) INDUSTRIAL ELECTRIC RATE AND CHARGES.

(1) **Availability:** The Industrial Time-of-Use (TOU) Electric Rate shall be voluntary for any non-residential customer whose metered demand at any time exceeds 2,500 kVA. Service under this rate schedule is billed on a Time-of-Use (TOU) basis as provided under these rules established by Electric Services. The Optional Time-of-Use Industrial Electric Rate is an alternative to, and at the customer's discretion replaces, Section 28.107 (1) Availability. Customers opting for inclusion on the Optional Time-of-Use (TOU) Industrial Electric Rate are required to remain on the rate for a period no less than twelve consecutive calendar months.

(Ord. No. 4130, 11-27-12)

(2) **Intent:** Electric Services is a summer peaking electric utility, and as such, the cost to deliver electricity is generally most expensive and detrimental to generation and distribution systems during hours of greatest demand. The utility, and the community of Ames, benefit when large electric users are encouraged to reduce their demand during these times. A Time-of-Use (TOU) Rate is a pricing strategy whereby Electric Services may vary the price of electricity depending on the time-of-day it is delivered to the customer. Prices encourage the customer to use electricity during times of low demand and discourage use during the peak times of the day. Time-of-Use (TOU) pricing allows Electric Services to better control costs and mitigate any negative system impacts related to times of peak demand.

(3) **Definitions:**

(a) **Time-of-Use (TOU):** A specifically identifiable period of time during a twenty-four hour day used for establishing a pricing strategy aimed at reducing the overall demand for electricity.

(b) **Peak:** The greatest fifteen (15) minute demand for electricity measured during the current billing period.

(c) **Billing Demand:** Highest metered kilovolt-amp (kVA) electric use, in a billing period

measured between the hours of 3pm and 7 pm Monday through Thursday, over the billing period. If, however, a higher kVA electric use is set during a required Interruption (see Section 28.108 (5)), this will result in a **Billing Demand** set outside of the Monday – Thursday window.

(d) **Holidays:** Federally observed Holidays.

(e) **On-Peak Energy:** Electricity, measured in kilowatt hours, used Monday through Friday between the hours of 8:00 am and 8:00 pm.

(f) **Off-Peak Base Energy:** Electricity, measured in kilowatt hours, used Monday through Friday between the hours of 8:00 pm and 8:00 am, and all day Saturday, Sunday and **Holidays**, up to the established monthly **Billing Demand**.

(g) **Off-Peak Time-of-Use Energy:** Electricity, measured in kilowatt hours, used Monday through Friday between the hours of 8:00 pm and 8:00 am, and all day Saturday, Sunday and **Holidays**, in excess of the established monthly **Billing Demand**

(h) **Summer period:** Bills mailed on or between July 1 and October 31.

(i) **Winter period:** Bills mailed on or between November 1 and June 30.

(j) **Energy Cost Adjustment (ECA):** The Energy Cost Adjustment (ECA) is a billing component that allows the utility to reflect fluctuations in the cost of fuel for the power plant without frequently

changing the standard energy charges. The ECA is simply the difference between actual fuel costs for the past twelve months and the base fuel cost added to every metered kilowatt-hour (kWh).

(4) **Rate Per Billing Period:** For each monthly billing period, an Industrial customer participating in the Optional Time-of-Use (TOU) Electric Rate shall be charged:

- (a) the Service Charge of two hundred fifty dollars (\$250.00);
- (b) the Demand Charge and the Energy Charge for the energy consumption during the billing

period as follows:

- (i) for bills mailed on or between July 1 and October 31 (summer period):
 - 1) the **Billing Demand** times the billing rate of ~~\$10.00~~ 10.40 per kVA, and
 - 2) the **On Peak, Energy** times the billing rate of ~~\$0.0619-0644~~ per kWh,
 - 3) the **Off Peak, Base Energy** times the billing rate of ~~\$0.0619-0644~~ per kWh,
 - 4) the **Off Peak, Time-of-Use Energy** times the billing rate of \$0.04 per kWh,
- (ii) for On-Peak bills mailed on or between November 1 and June 30 (winter period):
 - 1) the **Billing Demand** times the billing rate of ~~\$7.50~~ 7.80 per kVA, and
 - 2) the **On Peak, Energy** times the billing rate of ~~\$0.0619-0644~~ per kWh,
 - 3) the **Off Peak, Base Energy** times the billing rate of ~~\$0.0619-0644~~ per kWh,
 - 4) the **Off Peak, Time-of-Use Energy** times the billing rate of \$0.04 per kWh,

(Ord. No. 3955, 05-27-08; Ord 3987, 05-12-09; Ord. No. 4130, 11-27-12)

(c) the applicable Energy Cost Adjustment (ECA) per Sec. 28.102, and
(Ord. No. 4130, 11-27-12)

(d) any applicable bill impacts of Section 28.107 (3) Billing Demand, (4) Minimum Bill, (6) Service Facilities, (7) Excess Facilities, (8) Primary Service, and (9) Conditions.

(5) **Interruptible Option:** For each summer monthly billing period, an Industrial customer participating in the Optional Time-of-Use (TOU) Electric Rate may, at Electric Services' discretion,

(a) on at least a 6 hour notice, be required to reduce demand to that equal to, the previous **Billing Demand** two months prior at any time Monday at 8:00 am thorough Saturday before 8:00 pm,

(i) the actual demand during the interruption period will be used as the **Billing Demand** for the month if it is higher than the highest metered kilovolt-amp (kVA) electric use, in a billing month measured between the hours of 3pm and 7 pm Monday through Thursday, over the billing period.

(b) the duration of the interruption will be up to 4 hours in length

(c) maximum number of occurrences per month (3)

(6) **Noncompliance Penalty:** If at any time during participation in the Optional Time-of-Use (TOU) Electric Rate the customer's On-Peak demand exceeds One hundred thirty (130) percent of their ninety (90) day rolling average peak, the customer will be charged a penalty of \$5 per kVA on the current billing period's billing demand.

~~(7) This ordinance shall remain in effect until September 1, 2016, on which date it is repealed in its entirety.~~

(Ord. No. 4213, 4-28-15)

Sec. 28.109. Renewable Energy Buyback Rates.

Renewable electrical energy produced by an Ames Electric Utility customer and delivered to the City's electric system (in accordance with the conditions of service specified in Section 2.7 of Appendix H of the Ames Municipal Code) shall receive a credit to their utility account as follows:

(1) **Residential service.** A residential rate customer's account shall be credited:

(a) 40% of ~~\$0.1166-1213~~, plus \$0.025 = ~~\$0.0716-0735~~ per kWh of delivered energy for bills mailed on or between July 1 and October 31 (summer period)

(b) 40% of ~~\$0.0966-1005~~ per kWh, plus \$0.025 = ~~\$0.0525-0652~~ per kWh of delivered energy for bills mailed on or between November 1 and June 30 (winter period)

(2) **Small Commercial service.** A small commercial service customer's account shall be credited:

(a) 40% of \$~~0.11481194~~, plus \$0.020 = \$~~0.06590678~~ per kWh of delivered energy for bills mailed on or between July 1 and October 31 (summer period)

(b) 40% of \$~~0.09480986~~ plus \$0.020 = \$~~0.05790594~~ per kWh of delivered energy for bills mailed on or between November 1 and June 30 (winter period)

(3) **Commercial service.** A commercial service customer's account shall be credited at 50% of \$~~0.06190644~~, plus \$0.015 = \$~~0.04600472~~ per kWh of delivered energy

(4) **Industrial service.** An industrial service customer's account shall be credited at 63% of \$~~0.06190644~~, plus \$0.010 = \$~~0.04900506~~ per kWh of delivered energy.

(Ord. No. 4287, 1-10-17)