

## Brett Klein

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**From:** Collins, Steven J <SJCollins@midamerican.com>  
**Sent:** Thursday, August 20, 2015 10:03 AM  
**To:** Brett Klein  
**Cc:** Kunert, Kathryn M; Heikes, Eric C  
**Subject:** Windsor Heights - MidAmerican Energy LED Street Light Conversion Information  
**Attachments:** Windsor Heights street light conversion costs.pdf; led\_streetlighting\_agreement.pdf

Hello Brett,

I'm following up on your question to Kathryn regarding the quantity of MidAm street lights in Windsor Heights. According to the city's street light bill the city has a total of approximately (447) MidAmerican street lights eligible for conversion to LED. The attached spreadsheet indicates quantity of each wattage type and savings per light.

As you are aware, MidAmerican Energy Company began the process of converting our existing streetlight system to more efficient LED street lighting equipment in July 2015. With more than 100,000 company-owned streetlights in the state of Iowa, a full conversion of high pressure sodium streetlights between 70 and 400 watts will be phased-in during the next 10 years. More information on this conversion process can be found at [www.midamericanenergy.com/cityLED](http://www.midamericanenergy.com/cityLED).

MidAmerican Energy plans to phase in new LED lights as existing HPS lights fail. This approach will increase your City's monthly streetlight savings as the existing HPS lights are converted to LED. Converting a failed HPS light to a comparable LED today will save your city money over the life of an HPS light replaced at the same time. There are immediate and significant savings for each existing HPS streetlight converted to a comparable LED today. The comparable LED streetlight rates are less than HPS streetlight rates. Some examples of potential savings are below:

- A 70W HPS converted to LED will save approximately \$90 per light during the next 9 years.
- A 100W HPS converted to LED will save approximately \$175 per light during the next 9 years.
- A 150W HPS converted to LED will save approximately \$180 per light during the next 9 years.
- A 250W HPS converted to LED would save approximately \$400 per light during the next 9 years.

LED lighting is more efficient and provides brighter, more direct lighting than our current HPS fixtures. The new LED lights will meet similar lighting standards as the HPS lights being replaced. Communities need to ensure the current and new lighting systems adhere to IES, DOT or their own city standards. Each lighting application is unique and may need to be reviewed further by the city.

The enclosed agreement allows MidAmerican to pursue the most efficient methods of changing the fixtures out and helps keep costs lower for everyone. The "Standard" conversion option, as existing lights fail, will be done at no cost to the city, but it may take up to 10 years to complete. MidAmerican understands some communities may prefer a more accelerated "Custom" conversion option for their community or in specific areas; and this can be done for a one-time charge of \$100 per light fixture. More information on this option can be found in the LED Streetlight Agreement.

Before LED street light conversion work and associated street lighting savings can begin in your community, please complete and return the attached LED Streetlight Agreement.

Please let us know if you have any further questions.

Thank you,  
Steve Collins

**Steven J. Collins**

**MIDAMERICAN ENERGY COMPANY – LIGHT EMITTING DIODE (LED)  
STREET LIGHTING INSTALLATION AGREEMENT**

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This is a Light Emitting Diode Street Lighting Installation Agreement between

**(Please Print Municipality, Government Body and/or City, State of Customer below)**

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**(Customer)** and MidAmerican Energy Company **(MEC)**. Customer and MEC may be referenced as “Parties” collectively.

This Light Emitting Diode (LED) Street Lighting Installation Agreement (Agreement) is entered into by and between MEC and Customer and effective upon signature of both Parties.

**Whereas**, MEC and the Customer agree that LED street lighting provides many benefits;

**Whereas**, MEC notified the Customer of the MEC LED street lighting standards selected are comparable to the High Pressure Sodium (HPS) lights they will replace;

**Whereas**, the Customer is aware that differences do exist in the performance between HPS street lights and LED street lights.

**Whereas**, the Customer consents and approves of MEC converting existing HPS street lighting to LED street lighting at the Customer’s locations including the installation of future street light installation locations requested by the Customer;

**Whereas**, Service hereunder is subject to the Rules and Regulations of the Company and Applicable Riders included in the (MEC) Electric Tariff.

**Now wherefore** MEC and the Customer agree as follows:

**Customer Responsibilities:**

The Customer is responsible for ensuring the street lighting systems meet any applicable lighting standards and requirements of the Illuminating Engineering Society (IES) and/or Department of Transportation (DOT) adopted by the Customer and/or the Customer’s own lighting standards.

Customer shall independently evaluate the adjustment of LED street light illumination levels to the road surface to determine the quality of a roadway lighting design.

Customer agrees to the terms and conditions and street lighting pricing out lined in MEC’s Rate SL – Street Lighting.

**MIDAMERICAN ENERGY COMPANY – LIGHT EMITTING DIODE (LED)  
STREET LIGHTING INSTALLATION AGREEMENT**

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**MidAmerican Responsibilities:**

MEC will replace existing HPS street lights with new LED lights according to the Customer's election below.

At the Customer's request, MEC will provide the performance specifications of the LED lights placed into service for the Customer to review.

MEC will provide street lighting service in accordance with its Rate SL – Street Lighting.

**Please Select an Option**

- 1) **\_\_\_\_\_ Standard Conversion** - The Customer elects to allow MEC to convert existing HPS lights by planned project areas at MEC's discretion and pace and will allow MEC to install LED lights through the normal streetlight maintenance process as the existing HPS lights fail at no cost to the Customer (estimated 10 year conversion).
  
- 2) **\_\_\_\_\_ Custom Option** - The Customer elects to convert lights on a faster pace and timeline at locations the Customer chooses for a charge of \$100/light. A MidAmerican representative will contact the person identified on this Agreement to begin working on the process to identify and change the lights.

The signee of this Agreement confirms they are the Municipality/Government Body/City (Customer) Official, Authority or Representative having legal privileges and rights to sign this agreement on behalf of the Municipality/Government Body/City (Customer).

\_\_\_\_\_ **Date** \_\_\_\_\_

**Agreement Signature of Customer** (Official, Authority or Representative)

\_\_\_\_\_ **Date** \_\_\_\_\_

**Please print name of Customer** (Official, Authority or Representative)

**Title:** \_\_\_\_\_

**Phone#:** \_\_\_\_\_

**Email:** \_\_\_\_\_

**MIDAMERICAN ENERGY COMPANY – LIGHT EMITTING DIODE (LED)  
STREET LIGHTING INSTALLATION AGREEMENT**

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**Additional Customer Lighting Project Primary Points of Contact**

(Please Print)

**Name:** \_\_\_\_\_ **Phone #:** \_\_\_\_\_

**Title:** \_\_\_\_\_ **Email:** \_\_\_\_\_

**Name:** \_\_\_\_\_ **Phone #:** \_\_\_\_\_

**Title:** \_\_\_\_\_ **Email:** \_\_\_\_\_

**Name:** \_\_\_\_\_ **Phone #:** \_\_\_\_\_

**Title:** \_\_\_\_\_ **Email:** \_\_\_\_\_

**Please keep one signed copy of this Agreement for your records and return one signed copy of this Agreement to:**

**LED Streetlighting Project  
MidAmerican Energy  
10510 Douglas Avenue  
Urbandale, IA 50322**

**SOUTH AREA - HPS Vs LED COST**

**PREPARED FROM MOST RECENT STREETLIGHT BILL CODE/QUANTITY INFORMATION FOR THE CITY OF Windsor Heights**

**SOUTH EXISTING 70W HPS MP UG RATE CONVERSION TO LED**

YEAR	ENTER Quantity SUM of HUA on Bill	MONTHLY RATE 70W HPS @ HUA Billing Code Rate	MONTHLY RATE COMPARABLE 100W LED@ LUB Billing Code Rate	MONTHLY SAVINGS PER LIGHT	YEARLY SAVINGS PER LIGHT
2015	1	\$ 20.57	\$ 22.59	\$ (2.02)	\$ (10.10)
2016	1	\$ 22.24	\$ 23.81	\$ (1.57)	\$ (18.84)
2017	1	\$ 23.27	\$ 24.53	\$ (1.26)	\$ (15.12)
2018	1	\$ 24.30	\$ 25.25	\$ (0.95)	\$ (11.40)
2019	1	\$ 25.32	\$ 25.96	\$ (0.64)	\$ (7.68)
2020	1	\$ 26.35	\$ 26.70	\$ (0.35)	\$ (4.20)
2021	1	\$ 27.38	\$ 27.41	\$ (0.03)	\$ (0.36)
2022	1	\$ 28.40	\$ 28.13	\$ 0.27	\$ 3.24
2023	1	\$ 29.43	\$ 28.85	\$ 0.58	\$ 6.96

\*ALL SAVING CALCULATED ARE ONLY AS ACCURATE AS THE LIGHT QUANTITY ENTERED AND MAY NOT REFLECT ACTUAL QUANTITIES & SAVINGS\*

9 YR SAVINGS PER LIGHT  
\$ (57.50)

**SOUTH EXISTING 70W HPS WP OH RATE CONVERSION TO LED**

YEAR	ENTER Quantity SUM of HWA, WSA & WSJ on Bill	MONTHLY RATE 70W HPS @ HWA, WSA, WSJ Billing Code Rate	MONTHLY RATE COMPARABLE 100W LED@ LWB Billing Code Rate	MONTHLY SAVINGS PER LIGHT	YEARLY SAVINGS PER LIGHT
2015	367	\$ 8.42	\$ 7.28	\$ 1.14	\$ 5.70
2016	367	\$ 8.61	\$ 7.28	\$ 1.33	\$ 15.96
2017	367	\$ 8.50	\$ 7.28	\$ 1.22	\$ 14.64
2018	367	\$ 8.40	\$ 7.28	\$ 1.12	\$ 13.44
2019	367	\$ 8.29	\$ 7.28	\$ 1.01	\$ 12.12
2020	367	\$ 8.18	\$ 7.28	\$ 0.90	\$ 10.80
2021	367	\$ 8.07	\$ 7.28	\$ 0.79	\$ 9.48
2022	367	\$ 7.97	\$ 7.28	\$ 0.69	\$ 8.28
2023	367	\$ 7.86	\$ 7.28	\$ 0.58	\$ 6.96

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9 YR SAVINGS PER LIGHT  
\$ 97.38

**SOUTH EXISTING 100W HPS WP OH RATE CONVERSION TO LED**

YEAR	ENTER Quantity SUM of HWB & WSB on Bill	MONTHLY RATE 100W HPS @ HWB, WSB Billing Code Rate	MONTHLY RATE COMPARABLE 100W LED@ LWB Billing Code Rate	MONTHLY SAVINGS PER LIGHT	YEARLY SAVINGS PER LIGHT
2015	1	\$ 9.29	\$ 7.28	\$ 2.01	\$ 10.05
2016	1	\$ 9.51	\$ 7.28	\$ 2.23	\$ 26.76
2017	1	\$ 9.41	\$ 7.28	\$ 2.13	\$ 25.56
2018	1	\$ 9.30	\$ 7.28	\$ 2.02	\$ 24.24
2019	1	\$ 9.20	\$ 7.28	\$ 1.92	\$ 23.04
2020	1	\$ 9.09	\$ 7.28	\$ 1.81	\$ 21.72
2021	1	\$ 8.99	\$ 7.28	\$ 1.71	\$ 20.52
2022	1	\$ 8.88	\$ 7.28	\$ 1.60	\$ 19.20
2023	1	\$ 8.77	\$ 7.28	\$ 1.49	\$ 17.88

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9 YR SAVINGS PER LIGHT  
\$ 188.97

**SOUTH EXISTING 150W HPS WP OH CONVERSION TO LED**

YEAR	ENTER Quantity SUM of ALL WSC & HWC on Bill	MONTHLY RATE 150W HPS @ WSC & HWC Billing Code Rate	MONTHLY RATE COMPARABLE 150W LED@ LWC Billing Code Rate	MONTHLY SAVINGS PER LIGHT	YEARLY SAVINGS PER LIGHT
2015	73	\$ 10.90	\$ 8.81	\$ 2.09	\$ 10.45
2016	73	\$ 11.15	\$ 8.81	\$ 2.34	\$ 28.08
2017	73	\$ 11.02	\$ 8.81	\$ 2.21	\$ 26.52
2018	73	\$ 10.88	\$ 8.81	\$ 2.07	\$ 24.84
2019	73	\$ 10.75	\$ 8.81	\$ 1.94	\$ 23.28
2020	73	\$ 10.62	\$ 8.81	\$ 1.81	\$ 21.72
2021	73	\$ 10.49	\$ 8.81	\$ 1.68	\$ 20.16
2022	73	\$ 10.36	\$ 8.81	\$ 1.55	\$ 18.60
2023	73	\$ 10.22	\$ 8.81	\$ 1.41	\$ 16.92

\*ALL SAVING CALCULATED ARE ONLY AS ACCURATE AS THE LIGHT QUANTITY ENTERED AND MAY NOT REFLECT ACTUAL QUANTITIES & SAVINGS\*

9 YR SAVINGS PER LIGHT  
\$ 190.57

**SOUTH EXISTING 150W HPS MP UG CONVERSION TO LED**

YEAR	ENTER Quantity SUM of HUC on Bill	MONTHLY RATE 150W HPS @ HUC Billing Code Rate	MONTHLY RATE COMPARABLE 150W LED@ LUC Billing Code Rate	MONTHLY SAVINGS PER LIGHT	YEARLY SAVINGS PER LIGHT
2015	1	\$ 26.85	\$ 24.12	\$ 2.73	\$ 13.65
2016	1	\$ 28.25	\$ 25.34	\$ 2.91	\$ 34.92
2017	1	\$ 28.76	\$ 26.06	\$ 2.70	\$ 32.40
2018	1	\$ 29.26	\$ 26.78	\$ 2.48	\$ 29.76
2019	1	\$ 29.77	\$ 27.49	\$ 2.28	\$ 27.36
2020	1	\$ 30.28	\$ 28.23	\$ 2.05	\$ 24.60
2021	1	\$ 30.78	\$ 28.94	\$ 1.84	\$ 22.08
2022	1	\$ 31.29	\$ 29.66	\$ 1.63	\$ 19.56
2023	1	\$ 31.79	\$ 30.38	\$ 1.41	\$ 16.92

\*ALL SAVING CALCULATED ARE ONLY AS ACCURATE AS THE LIGHT QUANTITY ENTERED AND MAY NOT REFLECT ACTUAL QUANTITIES & SAVINGS\*

9 YR SAVINGS PER LIGHT  
\$ 221.25

**SOUTH EXISTING 250W HPS WP OH CONVERSION TO LED**

YEAR	ENTER Quantity SUM of ALL WSD & HWF on Bill	MONTHLY RATE 250W HPS @ WSD & HWF Billing Code Rate	MONTHLY RATE COMPARABLE 250W LED@ LWF Billing Code Rate	MONTHLY SAVINGS PER LIGHT	YEARLY SAVINGS PER LIGHT
2015	4	\$ 15.66	\$ 10.02	\$ 5.64	\$ 28.20
2016	4	\$ 15.78	\$ 10.02	\$ 5.76	\$ 69.12
2017	4	\$ 15.34	\$ 10.02	\$ 5.32	\$ 63.84
2018	4	\$ 14.89	\$ 10.02	\$ 4.87	\$ 58.44
2019	4	\$ 14.44	\$ 10.02	\$ 4.42	\$ 53.04
2020	4	\$ 13.99	\$ 10.02	\$ 3.97	\$ 47.64
2021	4	\$ 13.55	\$ 10.02	\$ 3.53	\$ 42.36
2022	4	\$ 13.10	\$ 10.02	\$ 3.08	\$ 36.96
2023	4	\$ 12.65	\$ 10.02	\$ 2.63	\$ 31.56

\*ALL SAVING CALCULATED ARE ONLY AS ACCURATE AS THE LIGHT QUANTITY ENTERED AND MAY NOT REFLECT ACTUAL QUANTITIES & SAVINGS\*

9 YR SAVINGS PER LIGHT  
\$ 431.16