City of La Crosse, Wisconsin

City Hall
400 La Crosse Street
La Crosse, WI 54601

Meeting Agenda

Climate Action Plan Steering Committee

Monday, April 13, 2026 | **4:00 PM** | **Eagle Room**

Call to Order

Roll Call

Approval of Minutes

Agenda Items:

1 26-0207 Request for funding of portable bicycle & pedestrian counters - Jenna Dinkel

Attachments: Bicycle & Pedestrian Count Program.pdf

2 26-0335 Energy Saving Performance Contract Phase 3, Year 2 Measurement & Verification Report - Doug Carlson

Attachments: Report

3 26-0376 Youth Climate Action Fund La Crosse's Impact Presentation

Attachments: Presentation Slides

4 26-0411 Grant Services Update and Request to Pursue Energy Innovation Grant Program

Attachments: EIGP Webpage

5 26-0412 Climate Action Communication Plan Update

Attachments: Communication Plan (Jan. 2026)

Adjournment

Notice is further given that members of other governmental bodies may be present at the above scheduled meeting to gather information about a subject over which they have decision-making responsibility.

NOTICE TO PERSONS WITH A DISABILITY
Requests from persons with a disability who need assistance to participate in this meeting should call the City Clerk's office at (608) 789-7510 or send an email to ADAcityclerk@cityoflacrosse.org, with as much advance notice as possible.

City of La Crosse, Wisconsin

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Text File

File Number: 26-0207

Agenda Date: 4/13/2026 **Version:** 1 **Status:** Agenda Ready

In Control: Climate Action Plan Steering Committee **File Type:** Request

Agenda Number: 1

Bicycle & Pedestrian Count Program

Climate Action Funding Request

City of La Crosse

Opportunity

Transportation is second leading sector of green house gas emissions in City of La Crosse

Walking and Biking are zero-emission modes

What gets measured gets managed

Problem & Solution

- Lacking consistent, reliable data on non-motorized travel
- Can be challenging to secure funding without baseline data

- Count program will provide continuous, real-time data
- Help quantify emissions reductions

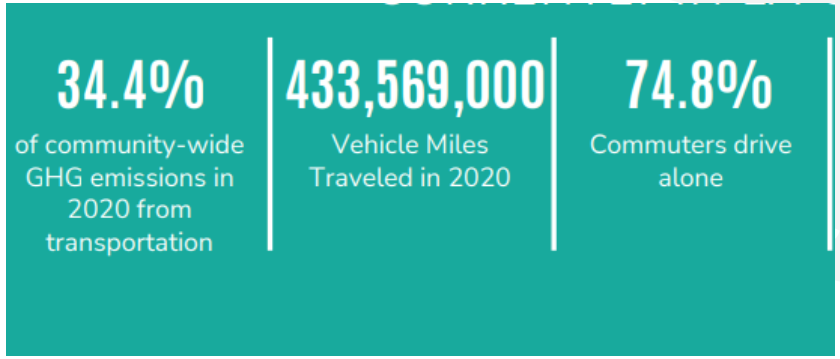
Strategy TM 5

Improve the comfort and safety of walking and biking within La Crosse.

Increasing opportunities for and safety of bike and walking routes to all uses including schools, retail nodes, services, workplaces, and recreation centers can support reduced vehicle use by replacing those trips with other types of mobility. According to the La Crosse Climate Action Survey, over 65% of respondents indicated they would walk or bike more frequently if they felt safer.[16]

Studies also show that improvements in pedestrian and bicyclist safety not only improve walking environments, but also contribute to urban renewal, local economic growth, social cohesion, improved air quality and reduction in the harmful effects of traffic noise.[17]

Go to **Section 11 Climate Actions and Implementation** for all



Strategy TM 1

Decrease commuter and community-wide VMT by 5% by 2030.

Community-wide vehicle miles traveled (VMT) in La Crosse was 433 million miles in 2020.[7] It is estimated that 11.6% of VMT within city boundaries is interstate traffic and workers commuting from out-of-city, however, it should be noted that La Crosse benefits from this traffic as well. La Crosse has also seen a steady trend in commuter modes with 74.8% commuters driving alone. Decreasing commuters driving alone by 5% would decrease up to 6 million auto miles while decreasing VMT across all uses will eliminate nearly 22 million auto miles. Achieving this goal is estimated to reduce

Climate Connection

- Counters allow us to:
  - Estimate vehicle miles reduced
  - Track trends over time
  - Measure impact of infrastructure investments

Proposed Program

- Deploy portable counters for targeted studies of current and future infrastructure

Priority Locations

- 2nd Street
- King St Greenway
- Gillette St
- Riverside Park
- 17th St Greenway
- Bud Hendrickson
- Pammel Creek trail
- Marsh Trails
- Bluff Trails
- ??

Case Studies

- Making active modes of transportation safer
  - Vancouver used a decade of bike count data and crash data to pinpoint high-risk intersections and prioritized protected bike lanes resulting in fewer collisions and a rise in cycling
- Creating and measuring climate goals
  - Stockholm had goal to become climate-neutral by 2030 and used cycling data to see how and what policies and infrastructure change behavior.

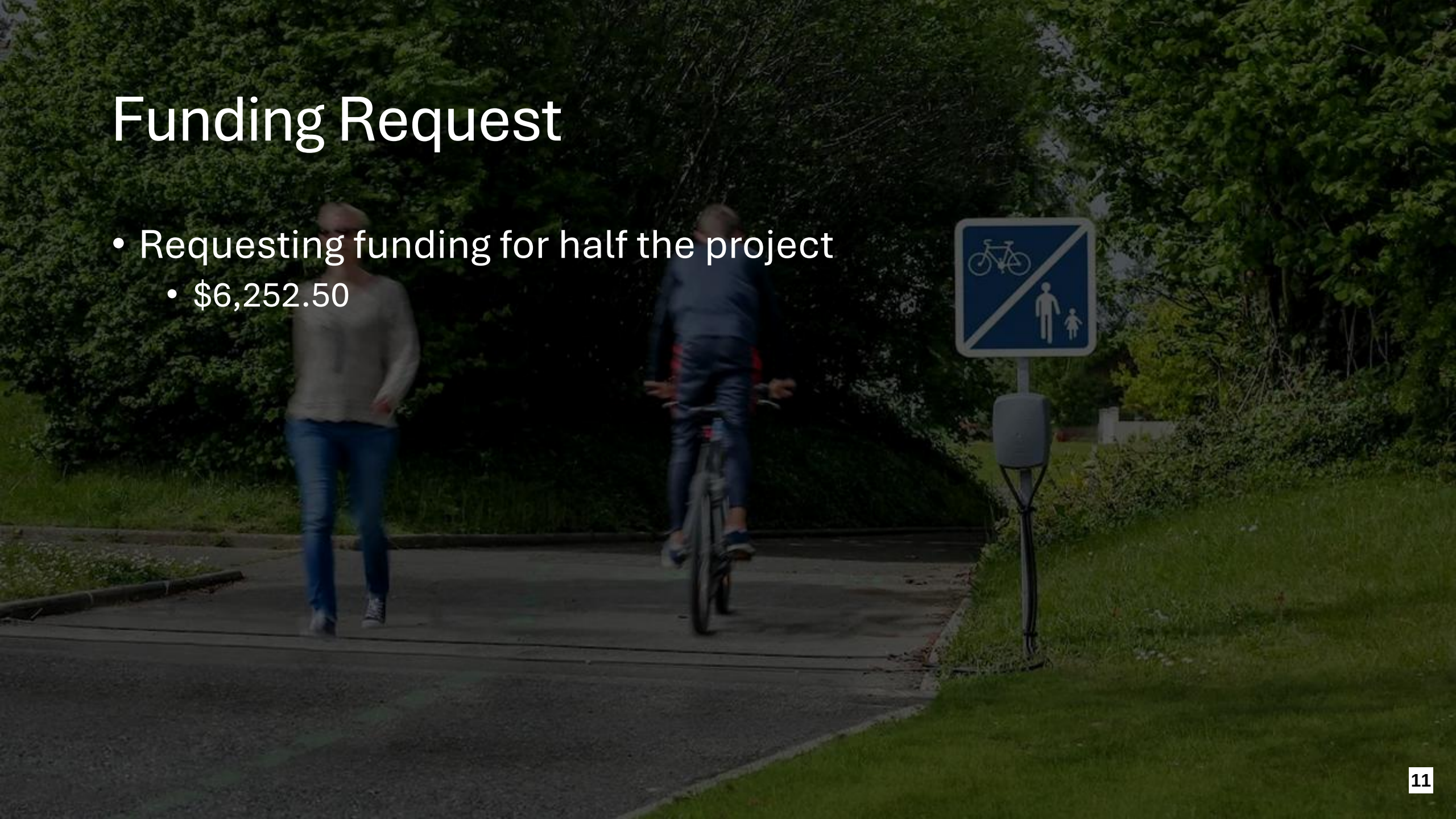
Cost Overview

Purchase and Operation of four counters for 5 years is $12,505

One Mobile Multi Counter	Three Pyro Nano Counters	5 years of Eco-Visio Software	Replacement Tubes for Mobile Multi Counter

Funding Request

- Requesting funding for half the project
  - $6,252.50



Deployment Strategy

April 21st - Bluffland Coalition

May County Board

Funding secured, product ordered and deploy by July

Keep counters at locations for 2-4 weeks at a time

Questions?

City of La Crosse, Wisconsin

City Hall
400 La Crosse Street
La Crosse, WI 54601

Text File

File Number: 26-0335

Agenda Date: 4/13/2026 **Version:** 1 **Status:** Agenda Ready

In Control: Climate Action Plan Steering Committee **File Type:** Report

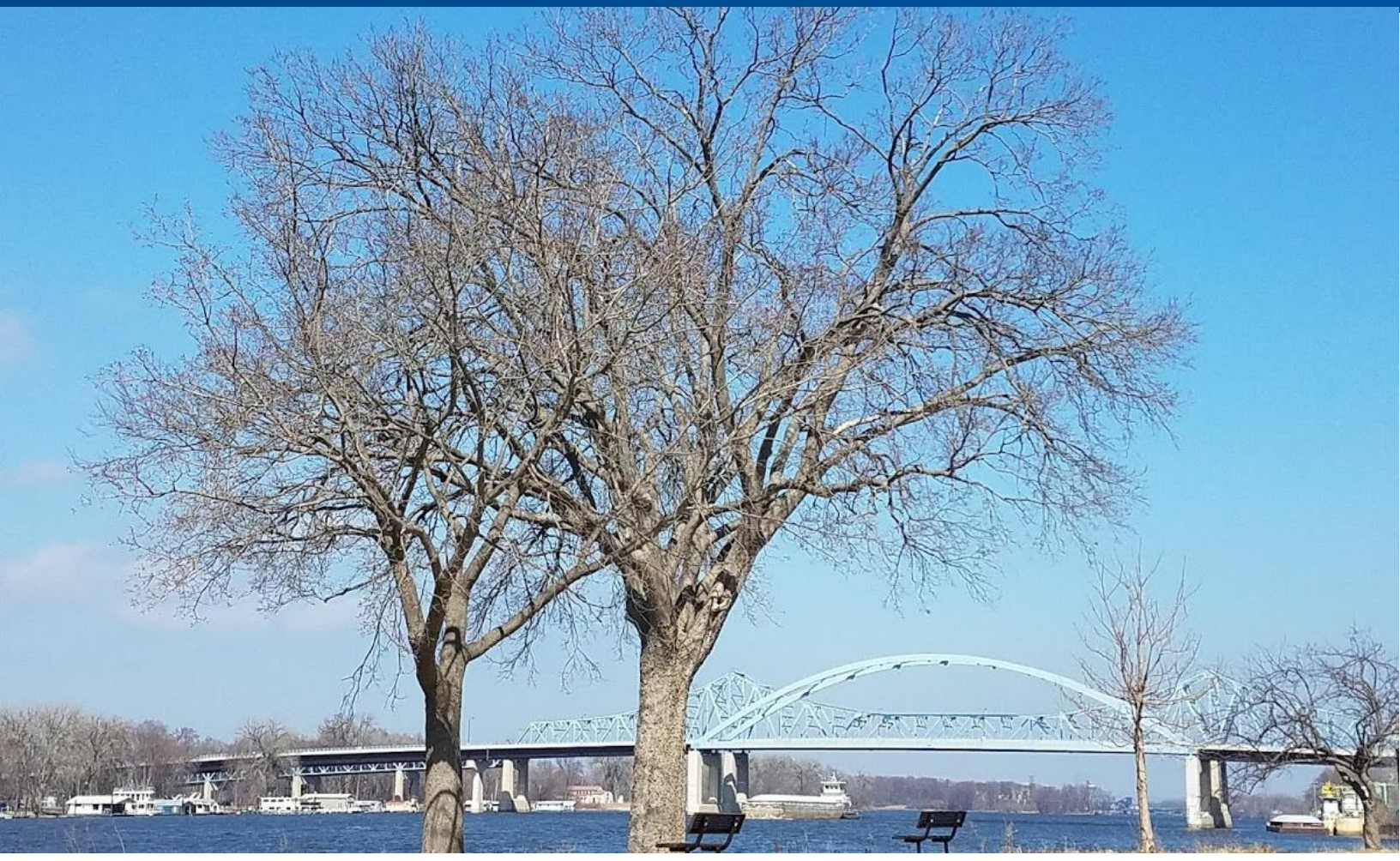
Agenda Number: 2

City of La Crosse

Facility Improvements Through Performance Contract

Phase 3: Measurement & Verification Report

Year Two



Submitted by:
Jeff Van Ess
Douglas Carlson

December 2025

Presented to:
Lewis Kuhlman

The power behind **your mission**

Johnson Controls

March 23, 2026

Lewis Kuhlman, AICP
Environmental Planner
400 La Crosse St.
La Crosse, WI 56401

Dear Mr. Kuhlman:

On April 22, 2019, the City of La Crosse partnered with Johnson Controls to complete an initial Performance Contract designed to reduce the City's energy consumption and associated operational cost. Based upon the success of the initial Performance Contract, a second scope of work was implemented later that same year. As a result of the success of the first two phases, on May 14, 2021, the City of La Crosse and Johnson Controls embarked on a third phase to reduce energy consumption and provide solar photovoltaic (PV) energy to additional facilities throughout La Crosse. This report has been prepared to detail the economic benefits realized by the City of La Crosse during Year Two (February 1, 2024 through January 31, 2025) of the three-year Guarantee Term associated with the Phase 3 energy conservation and facility improvement measures.

Please know that Johnson Controls values our relationship with the City of La Crosse, and we look forward to working in partnership with the City's personnel to continue to provide programs, services, and support to enhance a comfortable, safe, and sustainable City.

Sincerely,

Jeff Van Ess
Senior Account Executive
Sustainable Infrastructure
262-505-0842
jeff.vaness@jci.com

Douglas Carlson
Senior Customer Experience Specialist
Sustainable Infrastructure
630-804-6399
douglas.r.carlson@jci.com

Acceptance

Following review and acceptance of this report, please return a signed copy of this letter to:

Johnson Controls
Attn: Douglas Carlson
douglas.r.carlson@jci.com

The Year Two report for the Performance Contract is accepted by the undersigned.

Signature: DocuSigned by: 6603D9B2E5504DF _____ Date: 3/27/2026

Title: Environmental Planner

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Executive Summary

The City of La Crosse's leadership team wished to deploy innovation to reduce the City's environmental footprint. In doing so, they would remain on track to reach their 2050 environmental goals, including achieving carbon neutrality and transitioning to 100% renewable energy. To reach these targets, enrich the community for generations to come and remain fiscally responsible to constituents, the City of La Crosse partnered with Johnson Controls. Together, we have embarked on a multi-phase sustainability and modernization initiative under a performance contract.

Via our partnership, the City of La Crosse and Johnson Controls created a comprehensive infrastructure improvement program through a twenty-year Performance Contract, dated May 14, 2021. The program optimizes systems and equipment, improves building environments, saves energy, and has provided benefits totaling $398,860, with a performance guarantee based on both measured and non-measured savings.

The primary goals of this project were established as:

- Reduce utility usage in the buildings
- Implement City-owned Renewable Energy
- Reduce deferred capital improvements
- Reduce on-going maintenance costs within the buildings
- Improve environment for building occupants
- Create a positive impact on the environment

This report details the savings the City achieved during Year Two (February 1, 2024 through January 31, 2025) of the three-year Guarantee Term associated with the Phase 3 energy conservation and facility improvement measures.

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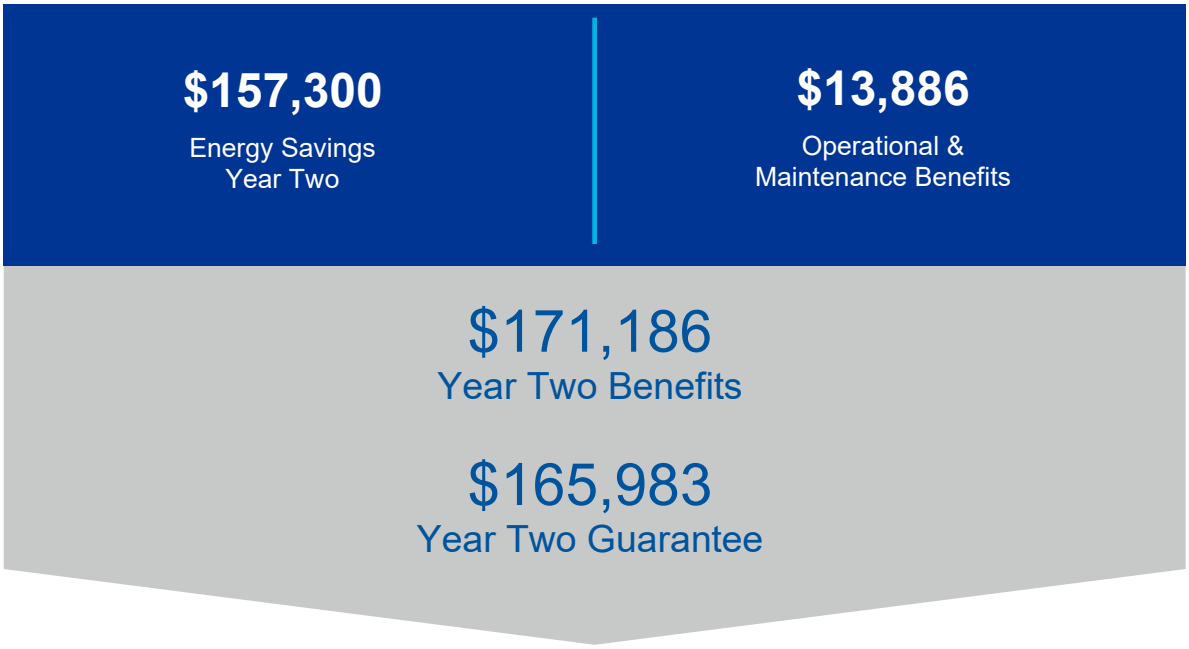
During Year Two, the City of La Crosse saved $157,300 in utility cost and $13,886 in operational and maintenance benefits. Thie total savings for Year Two are $171,186. The combined energy savings, capital benefits, energy rebate benefits, and operational benefits, have resulted in $567,730 total savings through the end of Year Two.



When compared against the guarantee of $165,983, this project has generated excess savings of $5,203 during Year Two

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Summary of Project Benefits and Results

The energy and operational savings are to be derived from the following energy conservation measures (ECM).

ECM #	ECM Name	Black River Beach Neighborhood Center	Myrick Park Center	Southside Neighborhood Center	Copeland Park Octoberfest Shelter	Copeland Park Enclosed Shelter	Copeland Park Tennis Courts	Copeland Park Stadium	La Crosse Fire Station #1	La Crosse Fire Station #3	North Neighborhood Library	South Neighborhood Library	Main Street Parking Ramp	City of La Crosse Street Lighting
ECM-31	Retrofit Facility Lighting to LED	X	X	X	X	X	X		X		X	X	X	
ECM-32	Retrofit Street Lighting to LED													X
ECM-33	Install New Solar PV							X	X	X				
ECM-34	Replace Existing Boilers								X		X	X		

Upon receipt of the Performance Contract, May 14, 2021, Johnson Controls mobilized to complete the scope of work. Upon completion of each measure, the City of La Crosse began to realize economic benefits.

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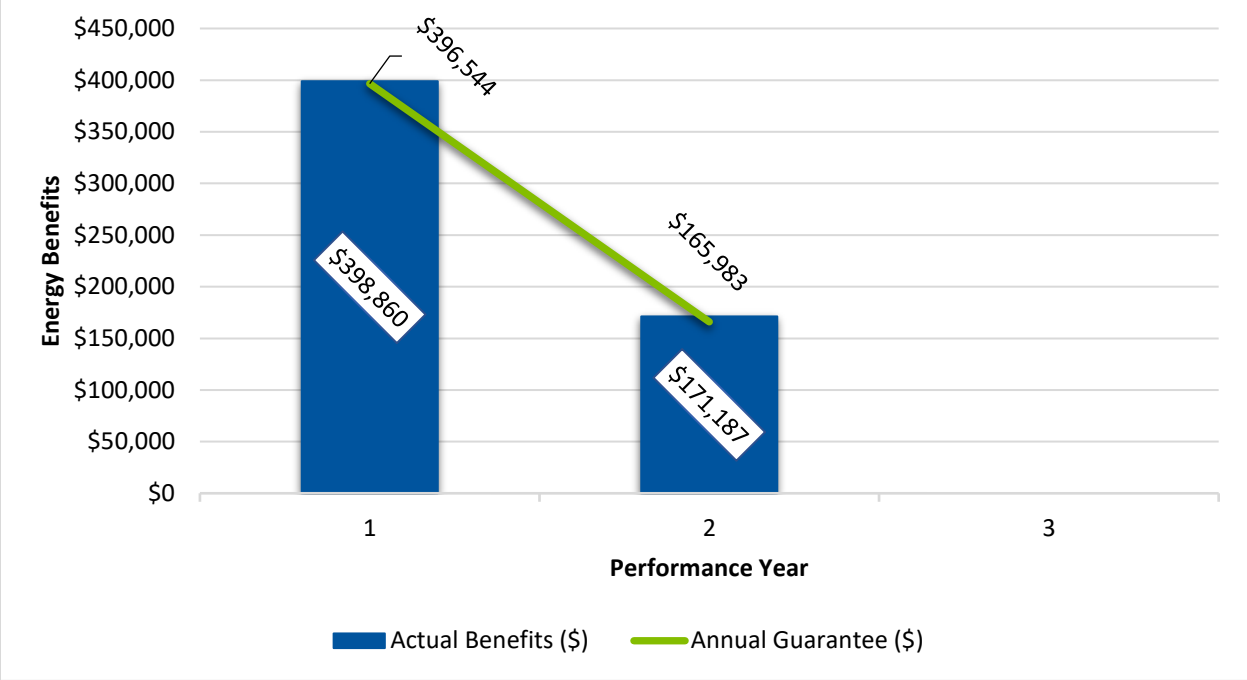
The following are highlights during Year Two of the guarantee term

- The City of La Crosse realized $157,300 in energy savings
- Year Two benefits exceeded expectations by $5,203.
- Environmental stewardship through reduced carbon emissions by 1,042 metric tons of CO_2

The following chart shows a comparison of the guaranteed measured and non-measured energy savings versus the actual achieved savings to date.



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Decarbonization Impact

This project has benefits to the City outside of reducing your expenditure on utilities and maintenance. The reduction in energy consumption by the City of La Crosse also has a positive impact on your carbon dioxide (CO_2), nitrogen oxide (NOx), sulfur dioxide (SO_2), and other environmentally harmful emissions. Through Year Two, CO_2 emissions were reduced by 1,042 metric tons.

The following graphic depicts the emission reduction equivalencies achieved by the City as a result of the improvements made during Year Two of the Guarantee Term.

1,042

Metric Tons of CO_2 Emissions equates to:

GHG emissions from:	**CO_2 emissions from:**	**Carbon sequestered by:**
251	**117,336**	**17,242**
Passenger vehicles driven for one year	Gallons of gasoline consumed	Tree seedlings grown for 10 years

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Additional Partnership Benefits to City of La Crosse

During the Installation Period, the City of La Crosse extended the Sustainability Partnership with Johnson Controls for an additional four-year period. Johnson Controls is fully committed to continuing our long-standing partnership with the City of La Crosse.

As part of our services, we recommend continued collaboration to identify additional projects to maximize the benefits of your current systems, as well as support your future goals and long-term planning. To that end, we recommend further investigating the following technology and services:

- Microgrid solutions at various City facilities
- Community resiliency solutions at key City properties
- Water metering and distribution system efficiency solutions
- Collaboration with local commercial/industrial companies on the design and implementation of green initiatives (ie City Brewing)

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Year Two Results

The City of La Crosse realized economic benefit throughout Year Two of the Guarantee Term. As a result of successful implementation, the Year Two energy savings have exceeded guarantee expectations. The table below details the energy unit performance of each Energy Conservation Measure (ECM) during the Year Two period.

		Electric Energy Savings
ECM Number	**ECM Name**	**Actual**
ECM-31	Retrofit Facility Lighting to LED	110,957
ECM-32	Retrofit Street Lighting to LED	1,210,771
ECM-33	Install New Solar PV (Adjusted)	190,143

The table below details the **energy cost performance** of each Energy Conservation Measure (ECM) during the Year Two period.

		Electric Cost Savings
ECM Number	**ECM Name**	**Actual**
ECM-31	Retrofit Facility Lighting to LED	$14,932
ECM-32	Retrofit Street Lighting to LED	$125,376
ECM-33	Install New Solar PV kWh (Adjusted)	$15,325
ECM-33	Install New Solar PV kW	$1,667
	Total:	**$157,300**

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Utility Rates for Calculations

The “Base Utility Cost(s)” were established after extensive review of the City of La Crosse’s actual energy usage during the time period January 2017 through December 2018. These “Base Utility Cost(s)” were set forth in the Contract as the basis for all savings calculations and are to be “escalated annually by the actual utility cost escalation but such escalation shall be no less than the mutually agree ‘floor’ escalation rate of three percent (3%).” Listed below are the unit utility rates used to calculate the Year Two energy savings.

Facility	Account	Premise	Rate Code	Unit	Effective Rate
Black River Beach Neighborhood Center	52-6054173-7	304194393	B15	kwh	$0.07187
Copeland Park Enclosed Shelter	52-6054173-7	302369749	B06	kwh	$0.12872
Copeland Park Octoberfest Shelter	52-6054173-7	302672654	B06	kwh	$0.12872
Copeland Park Stadium	52-6054173-7	302937321	B15	kwh	$0.06991
La Crosse Fire Station #1 - Lighting	52-4712246-9	303092584	B15	kwh	$0.07187
La Crosse Fire Station #1 - Solar PV	52-4712246-9	303092584	B15	kwh	$0.06947
La Crosse Fire Station #3	52-4712246-9	303618390	B06	kwh	$0.12483
Main Street Parking Ramp	52-0011625805-1	303030573	B15	kwh	$0.07187
Myrick Park Center	52-6054173-7	304161237	B06	kwh	$0.07187
North Neighborhood Library	52-4892112-8	302833164	B15	kwh	$0.07187
South Neighborhood Library	52-4892112-8	303071074	B15	kwh	$0.07187
Southside Neighborhood Center	52-6054173-7	303071074	B06	kwh	$0.12872

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Measurement & Verification

Overview

The performance measurement and verification (M&V) methodologies applicable to the Energy Conservation Measure (ECM) set forth below are predicated upon the International Performance Measurement & Verification Protocol (IPMVP) for the transparent, reliable and consistent reporting of savings for this project. The table below details the IPMVP M&V Option associated with each listed energy conservation measure (ECM).

Summary of M&V Options

M&V	ECM #	ECM Name	Black River Beach Neighborhood Center	Myrick Park Center	Southside Neighborhood Center	Copeland Park Octoberfest Shelter	Copeland Park Enclosed Shelter	Copeland Park Tennis Courts	Copeland Park Stadium	La Crosse Fire Station #1	La Crosse Fire Station #3	North Neighborhood Library	South Neighborhood Library	Main Street Parking Ramp	City of La Crosse Street Lighting
A	ECM-31	Retrofit Facility Lighting to LED	X	X	X	X	X	X		X		X	X	X	
NM	ECM-32	Retrofit Street Lighting to LED													X
A	ECM-33	Install New Solar PV							X	X	X				
NM	ECM-34	Replace Existing Boilers								X		X	X		

A = IPMVP Option A

NM = Non-measured

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ECM-31-Retrofit Facility Lighting to LED

ECM Description

Lighting retrofits were installed at the facilities listed below. The conversion to LED lighting and reengineering of the fixtures makes it possible to have consistent light levels and matching temperature colors to better illuminate the areas. Each was assessed to provide the most cost-effective solution. The final retrofit count across all facilities was 841 fixtures.

ECM Name	Black River Beach Neighborhood Center	Myrick Park Center	Southside Neighborhood Center	Copeland Park Octoberfest Shelter	Copeland Park Enclosed Shelter	Copeland Park Tennis Courts	La Crosse Fire Station #1	North Neighborhood Library	South Neighborhood Library	Main Street Parking Ramp
Retrofit Facility Lighting to LED	X	X	X	X	X	X	X	X	X	X

M&V Activities

Contract Compliance

The savings associated with this energy conservation measure have been calculated in accordance with the provisions associated with the International Performance Measurement and Verification Protocol (IPMVP), Option A, Retrofit Isolation with Key Parameter Measurement. Measured Project Benefits have been determined by partial field measurement of the energy use of the system(s); separate from the energy use of the rest of the facility. Partial measurement means that some but not all parameters have been measured. Careful review of the design and installation of Improvement Measures is intended to demonstrate that the agreed-upon values fairly represent the probable actual values. Agreed-upon values are detailed documented and agreed upon. Engineering calculations using measurements and agreed-upon values are used to calculate Measured Project Benefits for the duration of the Guarantee Term.

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Savings Methodology

Equations for Calculating Savings

The savings for this ECM are generated through a reduction in energy used by the lighting system; therefore, the measurement boundary is the lighting system itself.

Equations for Calculating Lighting Retrofit Savings (Option A)

Demand (kW)

$$\text{Connected kW Saving} = \sum_u [\ (\text{kW/Fixture}_{baseline} \times \text{Quantity}_{baseline} - \text{kW/Fixture}_{post} \times \text{Quantity}_{post})]_{t,u}$$

where:

$\text{kW/fixture}_{baseline}$ = lighting baseline demand per fixture for usage group *u*

kW/fixture_{post} = lighting demand per fixture during post-installation period for usage group

$\text{Quantity}_{baseline}$ = quantity of affected fixtures before the lighting retrofit for usage group *u*

Quantity_{post} = quantity of affected fixtures after the lighting retrofit for usage group *u*

Examples of usage groups include hallways and offices.

Energy (kWh)

$$\text{kWh Savings}_{Lighting} = \Sigma_u\ [\text{Connected kW Savings}_u \times \text{Hours of Operation}]_{t,u}$$

where:

Hours of Operation= number of operating hours during the time period *t* for the usage group *u*

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The lighting system annual run hours by space type are agreed to be as summarized in the table below. The run hours are based on building operating schedules and information provided by facility staff during walk-throughs. These values are considered non-measured and agreed upon by the City.

Facility	Area	Existing Burn Hours Assigned	Proposed Burn Hours
Black River Beach Neighborhood Center	Lobby Closet	2250	2250
	Bathrooms	2250	2250
	Lobby, Birch, Cotton, Bathrooms	2250	2250
	Birchwood, Cottonwood Pendants	2250	2250
	Boiler Rm	2250	2250
	Maplewood	1500	1500
	Offices, Lobby	1500	1200
	Kitchen and Maple W Closet	2250	2250
	Entries, Lobby, Hallway	2250	2250
	Birchwood, Cottonwood Cans	1500	1500
Myrick Park Center	Bathrooms	2000	2000
	Entries	2000	2000
	Marshview, Maint, Bath, E. Office	2000	1500
	N. West Office	1500	1500
	Wis Corps	1500	1500
	Marshview	1500	1500
	Wis Corps & La Crosse Rm	1500	1200
	Discovery	2000	1600
	Wis Corps Storage	500	500
	Exterior	4300	4300
	East Entry and Hallway	2500	2500
	Rear, Side, Front Entry, Rooms	2500	2500
Southside Neighborhood Center	Computer Lab, office closet	1500	1500
	Bathrooms	2000	2000
	Hall	1500	1500
	Office, CompLab, Foundation Rm	2000	2000
	Hallway	2000	2000
	Kitchen	500	500
	Exterior Parking	4300	4300
	Hall Room	2000	2000
	Exterior Sconce	4300	4300

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Facility	Area	Existing Burn Hours Assigned	Proposed Burn Hours
Copeland Park Octoberfest Shelter	Rink Canopy	4300	4300
	Rink Lights	2000	2000
Copeland Park Enclosed Shelter	Shelter Canopy	1000	1000
	Shelter	500	500
	Bathrooms	500	500
	Shelter Night Lights	8760	8760
Copeland Park Tennis Courts	Tennis Court Floods	500	500
La Crosse Fire Station #1	Front Entry, Reception	2000	2000
	Basement Hallways	2000	2000
	Basement Offices	2000	2000
	Front Sign	4300	4300
	Shop, Weight Rm	500	500
	Reception, Weight Room	2000	2000
	2nd Floor Bathroom	1000	1000
	Apparatus Floor, Basement Classroom	2000	2000
	2nd Floor (unassigned to other spaces)	750	750
	Boiler Rm, Weight Rm, SCBA Rm	500	500
	Apparatus Floor	2000	2000
	Shop	2000	2000
	Inspection Storage	500	500
North Neighborhood Library	1st Floor	2000	2000
	Front Entry Case	2000	2000
	Basement	500	500
	Bathrooms	2000	2000
	1st Floor Security Light	8760	8760
	Basement	500	500
	Front Sign	4300	4300
	Back Entrance	4300	4300

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Facility	Area	Existing Burn Hours Assigned	Proposed Burn Hours
South Neighborhood Library	1st Floor	2000	2000
	Basement	2000	2000
	1st Floor/Basement	2000	2000
	Front Entrance Case	2000	2000
	Basement Storage	500	500
	1st Floor Storage	500	500
	1st Floor Security Light	8760	8760
	Front Entry Exterior Sconce	8760	8760
	Front Entry Exterior Can	4300	4300
	Front Sign	4300	4300
Main Street Parking Ramp	Ramp	4380	4380
	Ramp Security Light	8760	8760

Annual Savings

The savings for this FIM were verified through actual pre- and post-wattage measurements conducted during the installation period. The savings were calculated for each building annually in energy units, applying the associated utility rates. The following table is the result of updating the lighting calculations to include the pre-retrofit and post-retrofit wattage measurements, final quantities, fixture types, and Year Two utility rates.

Retrofit Facility Lighting to LED	Actual (kWh)
Black River Beach	15,437
Copeland Park	19,913
Fire Station #1	12,225
Main Street Ramp	30,011
Myrick Park	13,605
North Library	3,599
South Library	9,940
Southside Center	6,226
Total	110,957
kWh Savings ($):	$9,744
Demand kW Savings ($):	$5,188
Total $ Saved	$14,932

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ECM-32-Retrofit Street Lighting to LED

ECM Description

This ECM included the retrofit of specified existing HID street lighting with LED sources by fixture as outline in the table below.

Fixture Type	Fixture Count	Retrofit Description	Replacement Type
150W Cobra	168	RWL2-M-50-40-U-D-X- w/out shorting	New Head
250W Cobra	147	RWL2-M-80-40-U-D-X- w/out shorting	New Head
400W Cobra	47	RWL2-M-135-40-U-D-X- w/out shorting	New Head
400W Deco Airport	13	ESL-MUR-120W-350	Retrofit
150 Acorn/Tear Drop	571	Lumecon L-Retro-T-55	Retrofit
5 Head Globe	105	KT-LED25A23-O-E26-830	Retrofit
	420	KT-LED14A21-O-E26-830	Retrofit
3 Head Globe	18	KT-LED35A25-O-E26-830	Retrofit
2 Head Globe	43	KT-LED35A25-O-E26-830	Retrofit
1 Head Globe	3	KT-LED25A23-O-E26-830	Retrofit
150W Matchstick	552	KT-LED25A23-O-E26-830	Retrofit
Shoe Box - Copeland/Badger	51	CREE PDRLX-ARE-EDR-2M-R3-04-E-UL-SV-525-40K	New Fixture & Pole

Savings Methodology

The calculated savings have been determined based upon the Utility Company's published rates as of the date of the Change Order. Existing HID street lighting had been billed under Rate Code B33 in three separate rate groups. The new LED street lighting will be metered and billed under Rate Code B36.

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Annual Savings

The savings table below is based upon the City taking necessary actions with the Utility Company to facilitate the rate change from Rate Code B33 to Rate Code B36. The City and JCI agree that the savings occur once the retrofit of street lighting to LED is complete.

Existing Rate Code	Lamp Type	Wattage	Qty of Lamps	Monthly Per-Lamp Cost [Rate B33]	LED Equivalent Wattage	Annual Total Cost [Rate B33]	Annual Total Cost [Rate B36]	Savings
B33-1	HPS	100	2	$ 7.11	28	$ 171	$ 18	$ 153
B33-1	HPS	150	421	$ 8.91	55	$ 45,011	$ 7,376	$ 37,635
B33-1	HPS	250	84	$ 12.98	80	$ 13,082	$ 2,141	$ 10,941
B33-1	HPS	400	81	$ 17.51	120	$ 17,020	$ 3,096	$ 13,923
B33-1N	HPS	100	2	$ 7.11	28	$ 171	$ 18	$ 153
B33-1N	HPS	150	97	$ 8.91	55	$ 10,371	$ 1,700	$ 8,671
B33-1N	HPS	250	9	$ 12.98	80	$ 1,402	$ 229	$ 1,172
B33-2	HPS	50	179	$ 1.80	14	$ 3,872	$ 798	$ 3,073
B33-2	HPS	70	76	$ 2.42	25	$ 2,207	$ 605	$ 1,602
B33-2	HPS	100	39	$ 3.61	28	$ 1,687	$ 348	$ 1,339
B33-2	HPS	150	791	$ 5.56	55	$ 52,795	$ 13,859	$ 38,936
B33-2	HPS	250	154	$ 8.65	80	$ 15,989	$ 3,925	$ 12,064
B33-2	HPS	400	10	$ 13.70	120	$ 1,644	$ 382	$ 1,262
Per-meter Monthly Charge ($7.25 per month for 62 meters)						$ -	$ 5,556	$ (5,556)
					Total:	**$165,419**	**$ 40,044**	**$125,376**

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ECM-33-Install New Solar Photovoltaic (PV) Array

ECM Description

Solar PV arrays were installed at Copeland Park Stadium, Fire Station #1, and Fire Station #3. The design considered the roof layout, potential shading sources and architectural constraints. The combined energy expected first year production is 140,448 kWh; following years are expected to have an annual 0.5% degradation.

Copeland Park

Fire Station #1

Fire Station #3

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M&V Activities

Contract Compliance

The electrical production for this ECM will be verified using IPMVP Option A, Retrofit Isolation with Key Parameter Measurement. The electrical production for this ECM is generated through a production of electricity through the solar photovoltaic arrays; therefore, the measurement boundary is the Solar PV system itself.

Parameter	Measurement Frequency	Measurement Description
Irradiance (kWh/m2)	ongoing	The irradiance shall be the Annual Total Collector Irradiance and will be measured using a pyranometer in the plane of array. The value will be totalized, and the totalized value will be recoded on an hourly basis using the system software. One pyranometer will be installed at the same tilt and azimuth angle as the PV array. This pyranometer will be the primary, will have a rate accuracy of +/- 5%, and will be used to account for factors that increase and/or decrease the Global Horizontal Irradiance as incident on the surface of the array (e.g., array tilt and azimuth, dirt, shading, etc.). A second pyranometer will be the backup and will have a rated accuracy of +/- 2%. This pyranometer will be used to measure Global Horizontal Irradiance as a backup to the primary pyranometer.
AC Energy (kWh)	ongoing	The AC energy will be measured using revenue-grade AC meters located near the AC interconnection point of each PV system.

Savings Methodology

Equations for Calculating Savings

The estimated energy production for this ECM is based on a computer simulation performed using the HelioScope software. Below is the baseline monthly and annual solar irradiance (Global Horizontal Irradiance) for La Crosse, based on the NSRDB TMY2 weather data for La Crosse Municipal Airport. Also shown in the table below is the Year Two Energy production estimate for the combined output of the PV systems.

PV Array	Baseline Global Horizontal Irradiance (kWh/m2)	Baseline Annual Total Collector Irradiance (kWh/m2)	Year 2 AC Energy Output (kWh)
Copeland Park Stadum PV Array	1,367	1,291	86,903
La Crosse Fire Station #1 PV Array	1,367	1,204	41,866
La Crosse Fire Station #3 PV Array	1,367	1,218	32,926

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Below is the Baseline AC Energy Output for the combined PV systems, by Project Year. These numbers include degradation of 3% during the first year then 0.5% per year thereafter from the 2nd until 20th year of the manufacturer's warranty period.

Project Year	Baseline AC Energy Output (kWh)
1	140,448
2	139,746
3	139,047
4	138,352
5	137,660
6	136,972
7	136,287
8	135,605
9	134,927
10	134,253
11	133,582
12	132,914
13	132,249
14	131,588
15	130,930
16	130,275
17	129,624
18	128,976
19	128,331
20	127,689

The energy production guarantee shall assume the monthly baseline (reference) solar irradiance as shown above. On an annual basis (recorded monthly), the total measured AC Energy output of the PV systems will be adjusted based on the actual measured plane-of-array solar irradiance compared to the baseline (reference) plane-of-array solar irradiance, as per the following formula:

$$P_{Adjusted} = (P_{Measured})\left(\frac{Q_{reference}}{Q_{actual}}\right)$$

Where P is energy measured in kWh and Q is solar irradiance measured in kWh/m2, either the actual measured or the reference as shown. If the adjusted amount of measured energy produced is less than the baseline energy for a given Project Year, the amount of kWh shortfall will be multiplied by the applicable site electricity rate ($/kWh) for that Project Year, and the result will be the PV ECM Project Benefit Shortfall for that year. If the adjusted amount of measured energy produced is greater than the baseline energy for a given Project Year, the amount of kWh surplus will be multiplied by the applicable site electricity rate ($/kWh) for that Project Year, and the result will be the PV ECM Project Benefit Surplus for that year.

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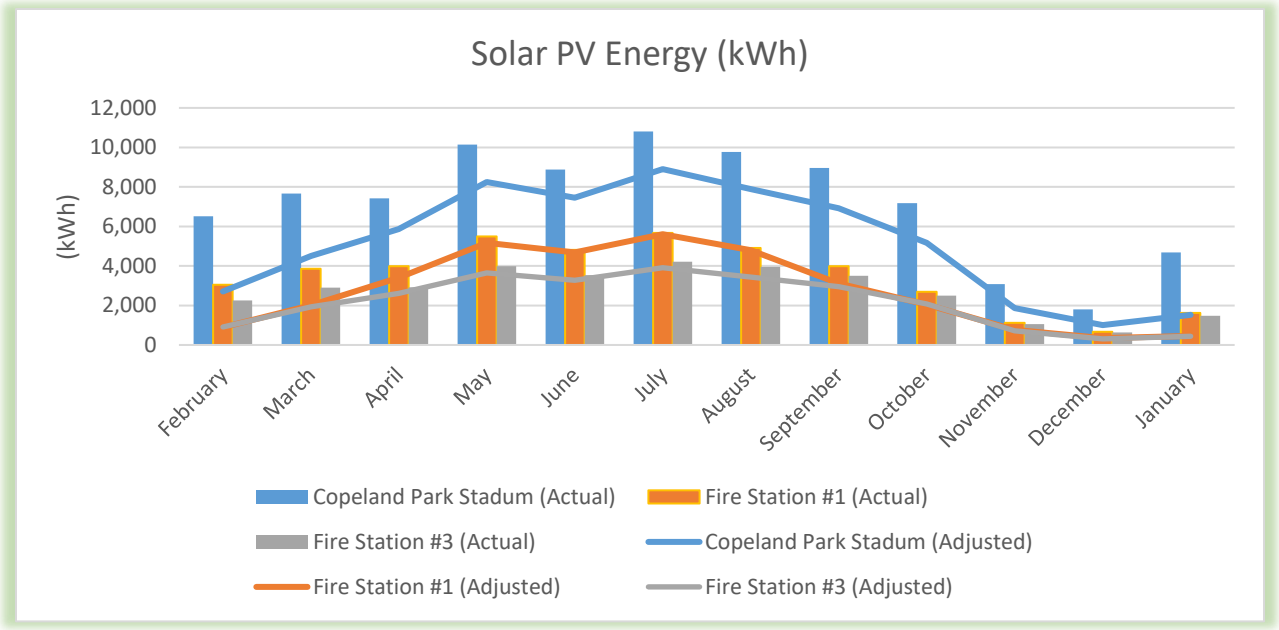
The table below reflects the actual solar PV energy production (kWh) as compared to the guaranteed production when the guaranteed production is adjusted to align with the actual solar irradiance realized during this reporting period. Where the columns are greater than the lines, the systems produced more energy than expected, Based on the results, the systems performed better than expected.



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Annual Savings

The following tables reflect the Year Two results and are based upon the utility rates applicable to this reporting period.

Copeland Park Stadum	Baseline Irradiance [Plain of Array] (kWh/m2)	Guaranteed Production [per Baseline Irradiance] (kWh)	Actual Irradiance [Plain of Array] (kWh/m2)	Actual Production (kWh)	Adjusted Production [Actual v Baseline Irradiance] (kWh)
February	75	2,561	79	6,523	6,162
March	131	5,537	106	7,662	9,399
April	155	7,925	114	7,417	10,027
May	161	8,133	163	10,148	10,008
June	176	8,680	151	8,882	10,337
July	197	9,554	183	10,806	11,599
August	170	8,359	161	9,764	10,347
September	142	7,161	137	8,958	9,272
October	100	5,252	98	7,180	7,293
November	67	3,179	39	3,076	5,225
December	64	2,224	29	1,803	3,984
January	68	1,964	53	4,685	6,017
	Total Production	**70,530**		**86,903**	**99,669**
	Cost	**$4,931**			**$6,968**
			Excess Production (kWh):		**29,139**
Electric Rate:	*$0.0699*	*per kWh*	**Excess Savings ($):**		**$2,037**

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Fire Station #1	Baseline Irradiance [Plain of Array] (kWh/m2)	Guaranteed Production [per Baseline Irradiance] (kWh)	Actual Irradiance [Plain of Array] (kWh/m2)	Actual Production (kWh)	Adjusted Production [Actual v Baseline Irradiance] (kWh)
February	72	1,131	57	3,056	3,861
March	128	3,061	84	3,852	5,870
April	154	4,745	110	3,995	5,577
May	161	4,936	169	5,500	5,254
June	177	5,309	156	4,807	5,450
July	197	5,842	189	5,666	5,903
August	170	4,998	163	4,909	5,111
September	140	4,097	106	3,992	5,251
October	97	2,876	69	2,684	3,773
November	64	1,666	29	1,125	2,449
December	61	906	23	660	1,711
January	65	786	37	1,622	2,832
	Total Production	**40,353**		**41,866**	**53,041**
	Cost	**$2,803**			**$3,685**
			Excess Production (kWh):		**12,688**
Electric Rate:	*$0.0695*	*per kWh*	**Excess Savings ($):**		**$881**

Fire Station #3	Baseline Irradiance [Plain of Array] (kWh/m2)	Guaranteed Production [per Baseline Irradiance] (kWh)	Actual Irradiance [Plain of Array] (kWh/m2)	Actual Production (kWh)	Adjusted Production [Actual v Baseline Irradiance] (kWh)
February	72	841	79	2,261	2,075
March	128	2,290	108	2,901	3,431
April	154	3,468	116	2,918	3,870
May	161	3,599	164	3,984	3,925
June	177	3,866	150	3,526	4,164
July	197	4,240	182	4,219	4,575
August	170	3,633	161	3,956	4,174
Septemb	140	3,045	135	3,500	3,617
October	97	2,143	94	2,498	2,586
Novembe	64	1,220	38	1,061	1,804
Decembe	61	649	29	628	1,326
January	65	570	51	1,474	1,886
	Total Production	**29,565**		**32,926**	**37,433**
	Cost	**$3,690**			**$4,673**
			Excess Production (kWh):		**7,868**
Electric F	*$0.1248*	*per kWh*	**Excess Savings ($):**		**$982**

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ECM-34-Replace Existing Boilers

ECM Description

This ECM included the replacement of the existing boilers with new high efficiency condensing boilers at the North Neighborhood Library, South Neighborhood Library, and the La Crosse Fire Station #1.

M&V Activities

It is reasonable to conclude that the new, more efficient boilers will allow the City of La Crosse to realize economic benefit as the result of reduced natural gas consumption. However, since no savings were included in the Project Benefits, no measurement and verification activities have been, or will be, conducted.

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Non-Measured Agreed Upon Engineering Calculations

Non-Measured Utility Benefits

Where the cost to validate the projected savings is determined to be potentially greater than the value of the savings, the City of La Crosse and Johnson Controls have agreed upon the engineering calculations associated with the projected savings. With reasonable effort, the City of La Crosse should expect to realize the energy savings detailed below. These Non-Measured Project Benefits were derived using engineering calculations based upon industry standards and data provided by the City of La Crosse. Details can be found in the Performance Contract.

ECM-33-Install New Solar Photovoltaic (PV) Array

ECM Description

The calculated demand savings for solar photovoltaic installations depend on peak solar generation occurring at the same time as peak building demand. Due to the unpredictability of weather and building usage patterns, these values are calculated based on historical weather data (Typical Meteorological Year, or TMY) and assumed building energy demand profiles and will not be measured. A benefit will only be realized for buildings where the electric rates charge for demand.

The monthly demand charges are calculated as follows:

$$Demand\ Charges\ (\$) = Monthly\ Distribution\ Demand\ Charges\ (\$) + Monthly\ Peak\ Demand\ Charges\ (\$)$$

$$Distribution\ Demand\ Charge\ (\$) = [Max\ (Annual\ Distribution\ Demand(kW)) * Distribution\ Demand\ Rate\ (\$/kW)]$$

$$Monthly\ Peak\ Demand\ Charge\ (\$) = Monthly\ Peak\ Demand\ (kW) * Seasonal\ Peak\ Demand\ Rate\ (\$/kW)$$

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Annual Savings

The estimated energy production for this ECM is based on a computer simulation performed using the HelioScope software. Hourly simulation results from the HelioScope software were then fed into the Energy Toolbase software to determine the demand savings by comparing the estimated demand profile of the building before solar is installed to the estimated demand profile after solar is installed. Below are the Year 2 monthly estimated demand charges before and after installation, and the anticipated demand savings for each site:

Copeland Park Stadium			
Typical Month	**Estimated Baseline Demand Charges**	**Estimated Future Demand Charges**	**Demand Savings Contribution**
January	$134	$122	$12
February	$134	$122	$13
March	$157	$144	$13
April	$530	$439	$90
May	$1,380	$1,311	$68
June	$2,086	$1,731	$344
July	$1,952	$1,618	$325
August	$1,483	$1,377	$104
September	$1,015	$761	$247
October	$485	$473	$13
November	$145	$133	$13
December	$145	$133	$13
Total	$9,646	$8,364	$1,282

La Crosse Fire Station #1			
Typical Month	**Estimated Baseline Demand Charges**	**Estimated Future Demand Charges**	**Demand Savings Contribution**
January	$536	$536	$-
February	$524	$517	$7
March	$445	$390	$53
April	$434	$402	$31
May	$479	$448	$30
June	$642	$592	$48
July	$642	$592	$48
August	$615	$525	$87
September	$628	$592	$35
October	$468	$448	$19
November	$502	$502	$-
December	$592	$562	$29
Total	$6,505	$6,107	$399

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Operational and Capital Benefits

Non-Measured Operational and Maintenance Benefits are derived from avoided future costs. The City of La Crosse and Johnson Controls have agreed upon the engineering calculations associated with the projected savings. These Non-Measured Project Benefits were derived using engineering calculations based upon industry standards and data provided by the City of La Crosse.

Non-Measured Operational Benefits		**Year 2 Benefits**
Material Savings due to lighting retrofit		
ECM-31: Retrofit Facility Lighting to LED	Black River Beach Neighborhood Center	$332
	Myrick Park Center	$348
	Southside Neighborhood Center	$206
	Copeland Park Octoberfest Shelter	$802
	Copeland Park Enclosed Shelter	
	Copeland Park Tennis Courts	
	La Crosse Fire Station #1	$435
	North Neighborhood Library	$154
	South Neighborhood Library	$207
	Main Street Parking Ramp	$868
ECM-32: Retrofit Street Lighting to LED	Typical annual streeting lighting re-lamping costs avoided due to LED lighting replacement	$10,534
	Total Non-Measured Operational Benefits:	$13,886

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City of La Crosse, Wisconsin

City Hall
400 La Crosse Street
La Crosse, WI 54601

Text File

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In Control: Climate Action Plan Steering Committee **File Type:** Report

Agenda Number: 3

La Crosse Youth Climate Action Fund Program Results

2024 - 2025

Youth Climate Action Fund Global Reach & Impact

Three Focus Areas of the Youth Climate Action Fund

1. Government Innovation
2. Climate Change
3. Young People

La Crosse students install a rain garden at their school to help mitigate stormwater runoff

YOUTH CLIMATE ACTION FUND
Supported by Bloomberg Philanthropies

Global Program Impact

YOUTH CLIMATE ACTION FUND
Supported by Bloomberg Philanthropies

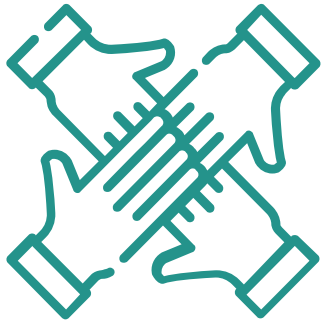
Youth Climate Action Fund Global Reach & Impact

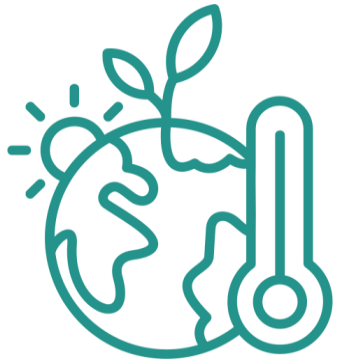
Program Highlights Around the World

98
cities participated

38
countries were represented

10,000
young people (age 15–24) led local climate projects





3,000
projects funded by city microgrants

$11.3M
total funding (USD) disbursed globally by cities

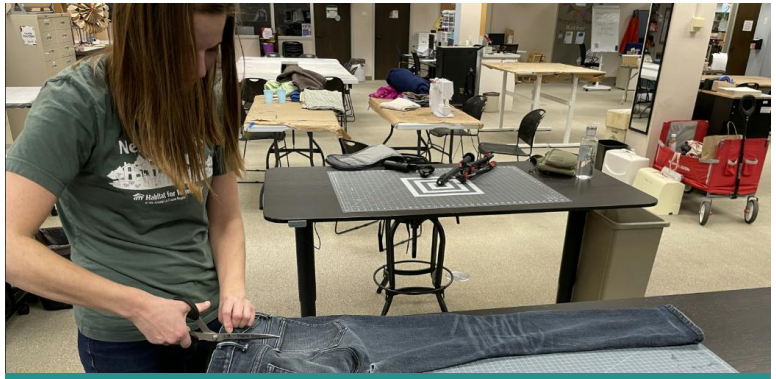
average microgrant award (USD) was
$3,800

YOUTH CLIMATE ACTION FUND
Supported by Bloomberg Philanthropies

Program Highlights and Results in La Crosse

Highlights from the Youth Climate Action Fund in La Crosse

Youth produce a documentary on what climate action means to local community members



Youth reuse clothing waste to create and donate home insulation materials

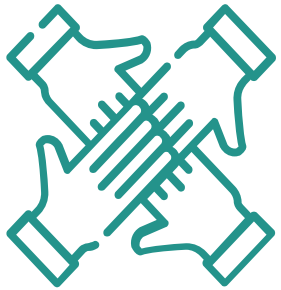
A youth team plants a pollinator garden full of native plant species

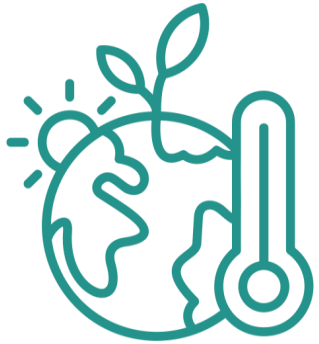
La Crosse Youth Climate Action Fund Outputs

4
Projects on Community Engagement and Partnerships

YOUTH-LED PROJECTS

39
Youth leading local projects and events





29
Youth-led projects focused on climate action

$150,000
Funding (USD) for local youth-led projects

Average microgrant award (USD) was
$4,330

YOUTH CLIMATE ACTION FUND
Supported by Bloomberg Philanthropies

Project Highlight

Scraps to Soil

ABOUT THE PROJECT

Youth conducted community outreach and led a hands-on composting workshop to show residents how they can divert food waste from landfills where it breaks down and releases methane, a powerful greenhouse gas. **Through hands-on training, youth helped residents build practical composting skills and shift their view of food waste from garbage to a valuable resource,** fostering lasting behavior change and building a community-driven model for sustainable waste management.

PROJECT IMPACT

$4,900
Microgrant Award

5
Youth Participants

30
Composting bins distributed

1
Composting workshop held

Project Highlight

Roots & Rise: A Youth Pocket Forest

ABOUT THE PROJECT

Youth planted dense clusters of native trees in an underused space at Summit Environmental Elementary School using a method that helps trees grow quickly and become self-sustaining within two years. The newly planted trees and shrubbery **restored local plant and animal life, cooled the surrounding area, and improved air and soil quality.** It also **created a hands-on outdoor classroom** tor students to learn outside and deepen their connections to nature.

PROJECT IMPACT

$5,000
Microgrant Award

13
Youth Participants

200
Plants, trees & shrubs planted

303
Elementary students engaged

Project Highlight

EBT, Double Dollars and Youth Vendors for Farmers Market

ABOUT THE PROJECT

In partnerships with the La Crosse Farmers Market Association, youth served as vendors at the La Crosse Farmers Market, **launching small businesses that accept and support EBT and Double Dollars—a fund match program for low-income families to increase their access to fresh, local food.** The project expanded all residents' access to nutritious, affordable food and promoted a more resilient, community-driven food system.

PROJECT IMPACT

$2,705
Microgrant Award

27
Youth Participants

10 first-time youth producers

75 youth market hours

$1,500 worth of produce distributed through match program

Youth Climate Action Fund Impact in La Crosse

"Through the Youth Climate Action Fund, **I was able to make an impact in my city.**"

— La Crosse Youth Microgrant Participant

"The most meaningful outcome for La Crosse's participation in the Youth Climate Action Fund has been **the connections we've made with youth-centered organizations and identifying small parts of our plan that youth can build on.**"

— Shaundel Washington-Spivey, Mayor

Key Learnings Across Cities

Key Learnings Across Cities

Insights from our city and others participating in the Youth Climate Action Fund

Young people deliver when given responsibility

Across cities participating in the Youth Climate Action Fund, this work demonstrates that young people are effective organizers, communicators, and problem-solvers when they are trusted with responsibility, resourced appropriately, and given space to lead.

Co-creation strengthens outcomes and ownership

By designing projects with young people, our city and others are seeing more creative and relevant climate solutions, along with stronger ties between local government, youth, and communities.

Collaboration is shifting how cities work

Cities are embedding youth voice in decision-making, expanding pathways for youth leadership, and showing that small, targeted grants can help catalyze broader, longer-term change.

Partnerships amplify impact

Cities have built new cross-sector partnerships spanning schools, youth organizations, NGOs, universities, and local government, strengthening relationships that extend beyond individual projects and support sustained impact.

YOUTH CLIMATE ACTION FUND

Supported by Bloomberg Philanthropies

UCLG
United Cities and Local Governments

BLOOMBERG
Center for Public Innovation
AT JOHNS HOPKINS

City of La Crosse, Wisconsin

City Hall
400 La Crosse Street
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Text File

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City of La Crosse, Wisconsin

City Hall
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Text File

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CITY OF LA CROSSE
CLIMATE ACTION PLAN

City of La Crosse
2026 CAP Communication Plan

CONTENTS

03 CAMPAIGN PURPOSE & GOALS

05 TARGET AUDIENCES

06 FOCUS SRATEGIES/CAMPAIGNS

07 IMPLMENTATION

09 BRANDING

08 MARKETING CALENDAR

CITY OF LA CROSSE
CLIMATE ACTION PLAN

CAMPAIGN PURPOSE

1 **INCREASE AWARENESS OF CLIMATE ACTION PLAN GOALS AND BENEFITS**

2 **ENCOURAGE VOLUNTARY BEHAVIOR CHANGE ALIGNED WITH 2030 TARGETS**

3 **BUILD TRUST THROUGH TRANSPARENCY AND PROGRESS REPORTING**

4 **SUPPORT CITY DEPARTMENTS IN IMPLEMENTING CLIMATE-RELATED INITIATIVES**

5 **ENSURE EQUITABLE ACCESS TO INFORMATION AND OPPORTUNITIES FOR PARTICIPATION**

CITY OF LA CROSSE
CLIMATE ACTION PLAN

CAMPAIGN GOALS

2030 TARGETS SUPPORTED

1 **20% ELECTRIC VEHICLE ADOPTION COMMUNITYWIDE**

2 **30% ELECTRIFICATION OF MUNICIPAL FLEET**

3 **RENEWABLE ELECTRICITY INCREASE FROM 0.24% TO 5%**

4 **RECYCLING INCREASE FROM 12.8% TO 20%**

5 **INCREASED PUBLIC TRANSIT RIDERSHIP**

6 **EXPANDED URBAN TREE CANOPY**

CITY OF LA CROSSE
CLIMATE ACTION PLAN

TARGET AUDIENCES

1 **RESIDENTS (HOMEOWNERS, RENTERS, STUDENTS)**

2 **BUSINESSES AND INSTITUTIONS**

3 **MUNICIPAL EMPLOYEES**

4 **DEVELOPERS AND PROPERTY MANAGERS**

CITY OF LA CROSSE
CLIMATE ACTION PLAN

KEY CAMPAIGNS

Campaign	Strategy
1 Drive Electric La Crosse	Promote EV benefits, incentives, charging infrastructure, and local success stories through a coordinated “Drive Electric La Crosse” campaign. Demonstrate the city’s leadership through branded vehicles, internal communications, and transparent reporting of cost and emissions savings.
2 Grow Solar La Crosse	Educate residents and businesses on solar and green power options through a “Power La Crosse Renewably” campaign
3 Recycle La Crosse	Improve clarity and consistency of recycling education with visual tools and renter-focused outreach.
4 WaterSmart La Crosse	Encourage efficient indoor and outdoor water use through seasonal campaigns and utility partnerships.
5 Ride La Crosse	Improve visibility, usability, and perception of transit through rider education, employer partnerships, and branding under a “Ride La Crosse” campaign.
6 Go Green La Crosse	Promote planting programs, neighborhood greening, and heat mitigation through a “Grow La Crosse” initiative.

CITY OF LA CROSSE
CLIMATE ACTION PLAN

IMPLEMENTATION ROLES

Department: Environmental Planner (lead)
Campaign(s): All

- Maintain Climate Action webpage and dashboard
- Coordinate annual communications calendar
- Track metrics and prepare annual progress report
- Manage campaign branding and consistency
- Convene interdepartmental coordination meetings

Department: Communications / Public Information Office
Campaign(s): All

- Ensure messaging is included across all city platforms
- Coordinate media outreach
- Support campaign launches
- Manage internal communications channels

CITY OF LA CROSSE
CLIMATE ACTION PLAN

IMPLEMENTATION ROLES

Department: Public Works / Utilities
Campaign(s): WaterSmart La Crosse

- Integrate water conservation messaging into billing
- Promote rebates and efficiency programs
- Provide seasonal conservation content
- Share water use data annually

Department: Parks & Recreation
Campaign(s): Go Green La Crosse

- Promote tree planting programs
- Coordinate community planting events
- Track tree canopy metrics
- Target outreach in low-canopy areas

Department: Solid Waste / Recycling
Campaign(s): Recycle La Crosse

- Standardize recycling messaging
- Distribute visual recycling guides
- Coordinate with haulers and property managers
- Track contamination and diversion rates

Department: Transit Department
Campaign(s): Ride La Crosse

- Update route maps and rider guides
- Support Ride La Crosse campaign
- Coordinate free-ride or promo days
- Share ridership data for reporting

Department: Fleet Management
Campaign(s): Drive Electric La Crosse

- Identify vehicles eligible for electrification
- Brand EV fleet vehicles
- Train operators on EV use
- Report cost and emissions savings

CITY OF LA CROSSE
CLIMATE ACTION PLAN

BRANDING

Color

Our primary colors

PURPOSE

The City of La Crosse is committed to making climate-smart choices accessible, affordable, and beneficial for everyone—today and for future generations.

MISSION

The Climate Action Plan brand exists to inspire residents, businesses, and institutions in La Crosse to take practical, collective action that protects local natural resources, strengthens the community, and prepares the city for a sustainable future.

VISION

The brand emphasizes progress, shared responsibility, and local pride, positioning climate action as something that improves daily life—not an abstract or distant issue.

CITY OF LA CROSSE
CLIMATE ACTION PLAN

BRANDING

Color

Our primary colors

PRIMARY COLORS

Green	Blue
#068542	**#106efd**
95/0/50/48	16 / 110 / 253 93 / 56 / 0 / 0

SECONDARY COLORS

Blue	Green	White
#83e3de	**#37c563**	**#ff801d**
131 / 227 / 222 42 / 0 / 2 / 11	55 / 197 / 99 72 / 0 / 50 / 23	255 / 128 / 29 0 / 50 / 89 / 0

FONTS

Montserrat	Title	42 pt
Montserrat	Heading	32 pt
Aptos	**Subtitle**	36 pt
Roboto	**Section header**	20 pt
Aptos	Subheading	24 pt
Roboto	Body	16 pt

CITY OF LA CROSSE
CLIMATE ACTION PLAN

BRANDING

VOICE

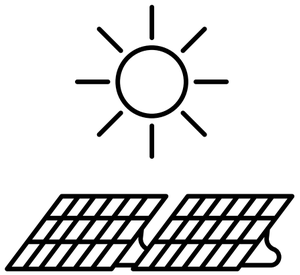
- INCLUSIVE (“WE,” “OUR COMMUNITY”)
- ENCOURAGING, NOT DIRECTIVE
- PLAIN LANGUAGE, NOT JARGON

TONE

- POSITIVE AND EMPOWERING
- PRACTICAL AND SOLUTION-FOCUSED
- CALM AND CONFIDENT (NOT ALARMIST)

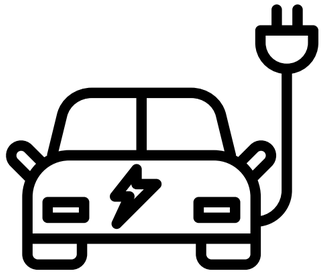
BRANDING

ICONS

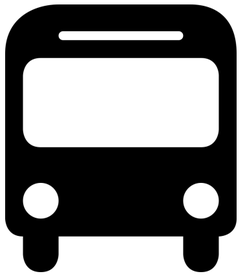


GROW SOLAR LA CROSSE

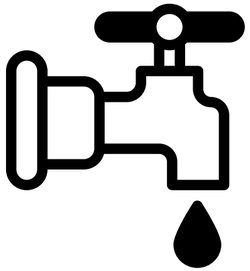
GO GREEN LA CROSSE



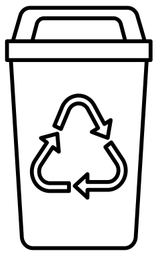
DRIVE ELECTRIC LA CROSSE



RIDE LA CROSSE



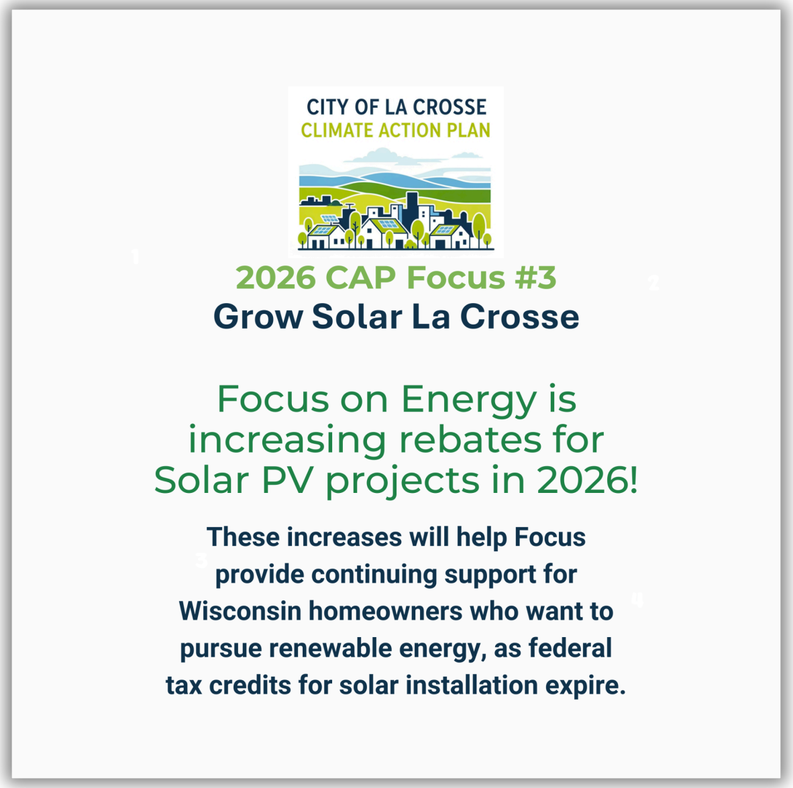
WATERSMART LA CROSSE



RECYCLE LA CROSSE

BRANDING

SOCIAL MEDIA POSTS WILL CONSISTENTLY INCLUDE ELEMENTS AND THEMES, KEEPING IN LINE WITH OUR FOCUS INITIATIVE FOR 2026.



1. Simply number the focus campaigns and do not use the section identifiers like BE 4-5 that are in the CAP.
   - Focus #1 Drive Electric La Crosse
   - Focus #2 Grow Solar La Crosse
   - Focus #3 Recycle La Crosse
   - Focus #4 WaterSmart La Crosse
   - Focus #5 Ride La Crosse
   - Focus #6 Go Green La Crosse
2. Always include the 2026 CAP Campaign Logo
3. Keep the colors in each post consistent with the branding colors in the logo

CITY OF LA CROSSE
CLIMATE ACTION PLAN

MARKETING CALENDAR

CONTENTS

1. **Two posts per month for each of the 6 focus strategies**

   Populate calendar 1 month in advance with graphics and copy.

   - Focus #1 Drive Electric La Crosse
   - Focus #2 Grow Solar La Crosse
   - Focus #3 Recycle La Crosse
   - Focus #4 WaterSmart La Crosse
   - Focus #5 Ride La Crosse
   - Focus #6 Go Green La Crosse

2. **Press Releases as needed**

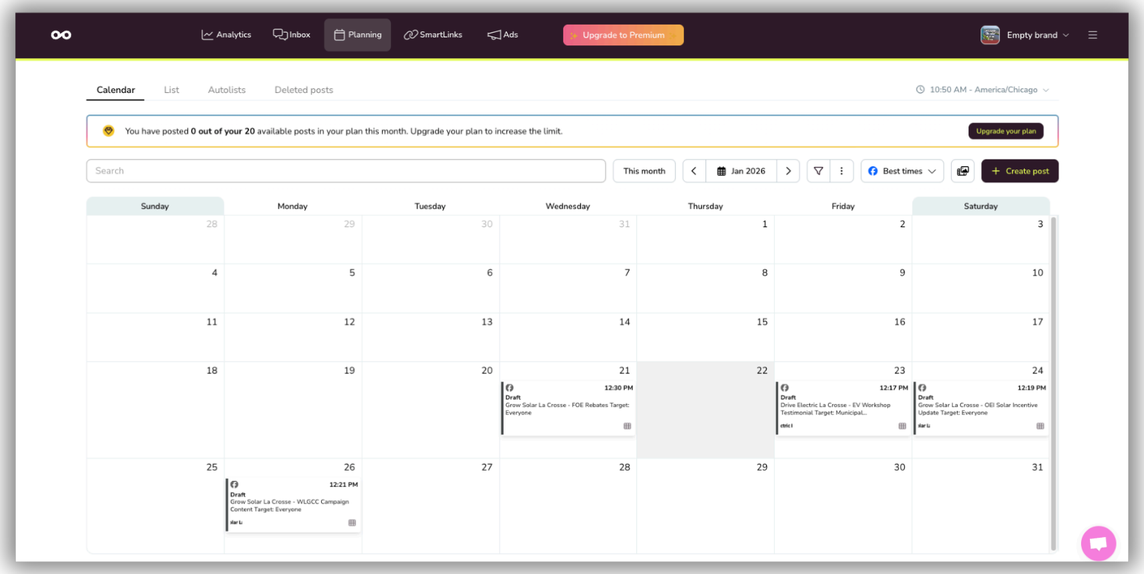
3. **One Blog post per month**

4. **Events**

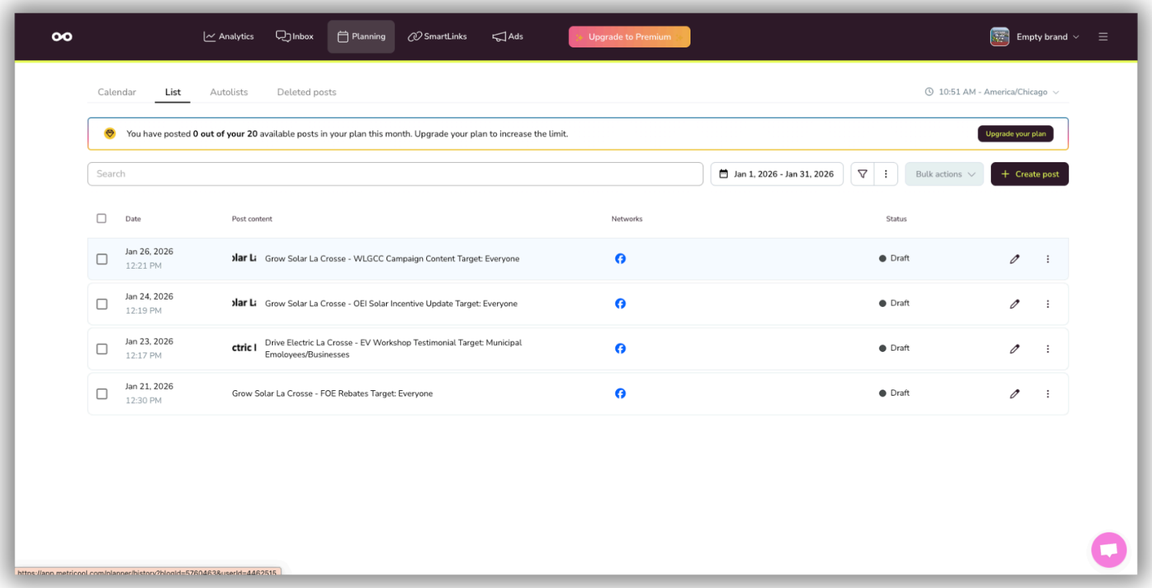
CITY OF LA CROSSE
CLIMATE ACTION PLAN

MARKETING CALENDAR

SAMPLE CALENDAR VIEW



SAMPLE LIST VIEW

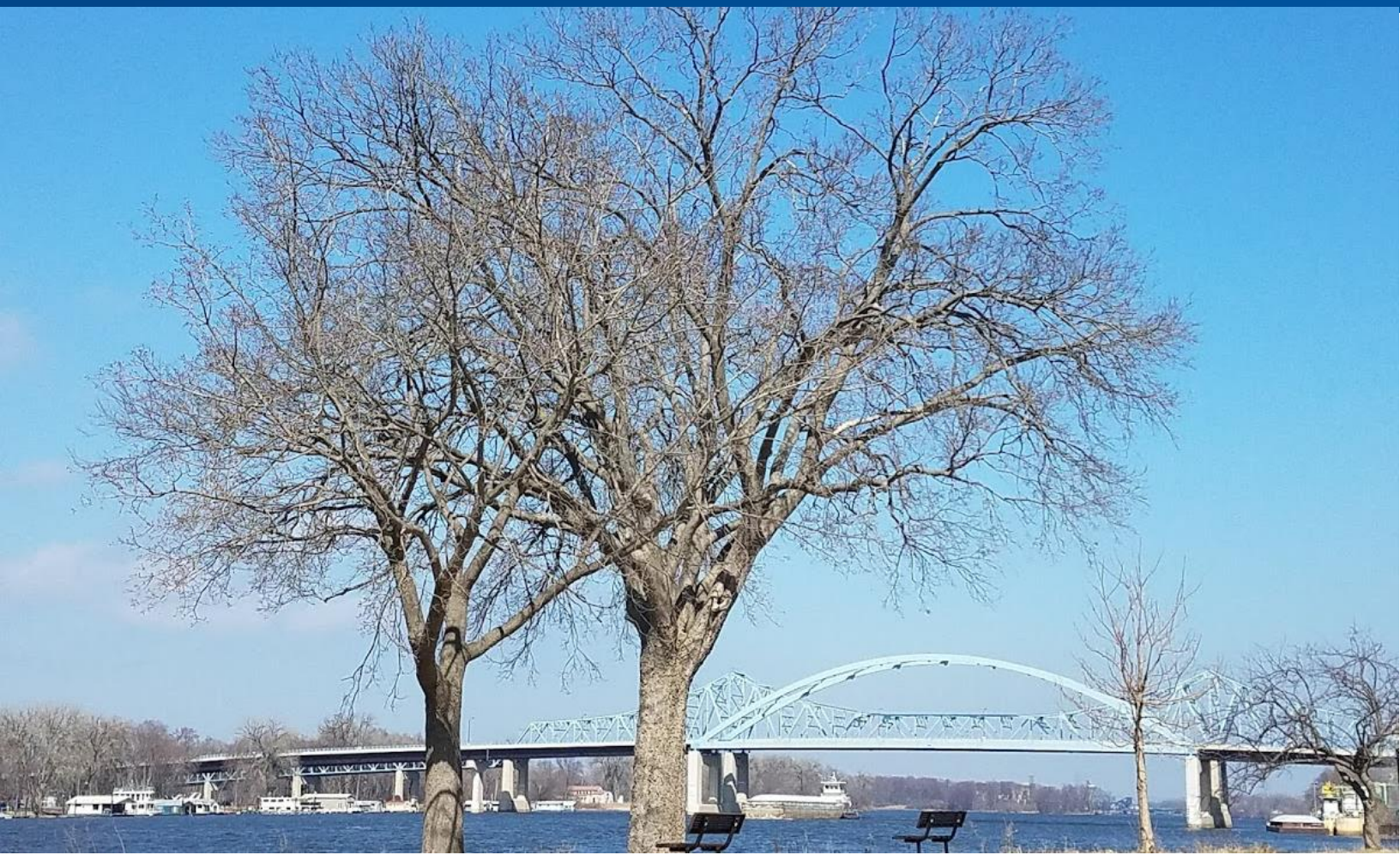


City of La Crosse

Facility Improvements Through Performance Contract

Phase 3: Measurement & Verification Report

Year Two



Submitted by:
Jeff Van Ess
Douglas Carlson

December 2025

Presented to:
Lewis Kuhlman

The power behind **your mission**

Johnson Controls

March 23, 2026

Lewis Kuhlman, AICP
Environmental Planner
400 La Crosse St.
La Crosse, WI 56401

Dear Mr. Kuhlman:

On April 22, 2019, the City of La Crosse partnered with Johnson Controls to complete an initial Performance Contract designed to reduce the City's energy consumption and associated operational cost. Based upon the success of the initial Performance Contract, a second scope of work was implemented later that same year. As a result of the success of the first two phases, on May 14, 2021, the City of La Crosse and Johnson Controls embarked on a third phase to reduce energy consumption and provide solar photovoltaic (PV) energy to additional facilities throughout La Crosse. This report has been prepared to detail the economic benefits realized by the City of La Crosse during Year Two (February 1, 2024 through January 31, 2025) of the three-year Guarantee Term associated with the Phase 3 energy conservation and facility improvement measures.

Please know that Johnson Controls values our relationship with the City of La Crosse, and we look forward to working in partnership with the City's personnel to continue to provide programs, services, and support to enhance a comfortable, safe, and sustainable City.

Sincerely,

Jeff Van Ess
Senior Account Executive
Sustainable Infrastructure
262-505-0842
jeff.vaness@jci.com

Douglas Carlson
Senior Customer Experience Specialist
Sustainable Infrastructure
630-804-6399
douglas.r.carlson@jci.com

Acceptance

Following review and acceptance of this report, please return a signed copy of this letter to:

Johnson Controls
Attn: Douglas Carlson
douglas.r.carlson@jci.com

The Year Two report for the Performance Contract is accepted by the undersigned.

Signature: DocuSigned by: 6603D9B2E5504DF _____ Date: 3/27/2026

Title: Environmental Planner

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Executive Summary

The City of La Crosse's leadership team wished to deploy innovation to reduce the City's environmental footprint. In doing so, they would remain on track to reach their 2050 environmental goals, including achieving carbon neutrality and transitioning to 100% renewable energy. To reach these targets, enrich the community for generations to come and remain fiscally responsible to constituents, the City of La Crosse partnered with Johnson Controls. Together, we have embarked on a multi-phase sustainability and modernization initiative under a performance contract.

Via our partnership, the City of La Crosse and Johnson Controls created a comprehensive infrastructure improvement program through a twenty-year Performance Contract, dated May 14, 2021. The program optimizes systems and equipment, improves building environments, saves energy, and has provided benefits totaling $398,860, with a performance guarantee based on both measured and non-measured savings.

The primary goals of this project were established as:

- Reduce utility usage in the buildings
- Implement City-owned Renewable Energy
- Reduce deferred capital improvements
- Reduce on-going maintenance costs within the buildings
- Improve environment for building occupants
- Create a positive impact on the environment

This report details the savings the City achieved during Year Two (February 1, 2024 through January 31, 2025) of the three-year Guarantee Term associated with the Phase 3 energy conservation and facility improvement measures.

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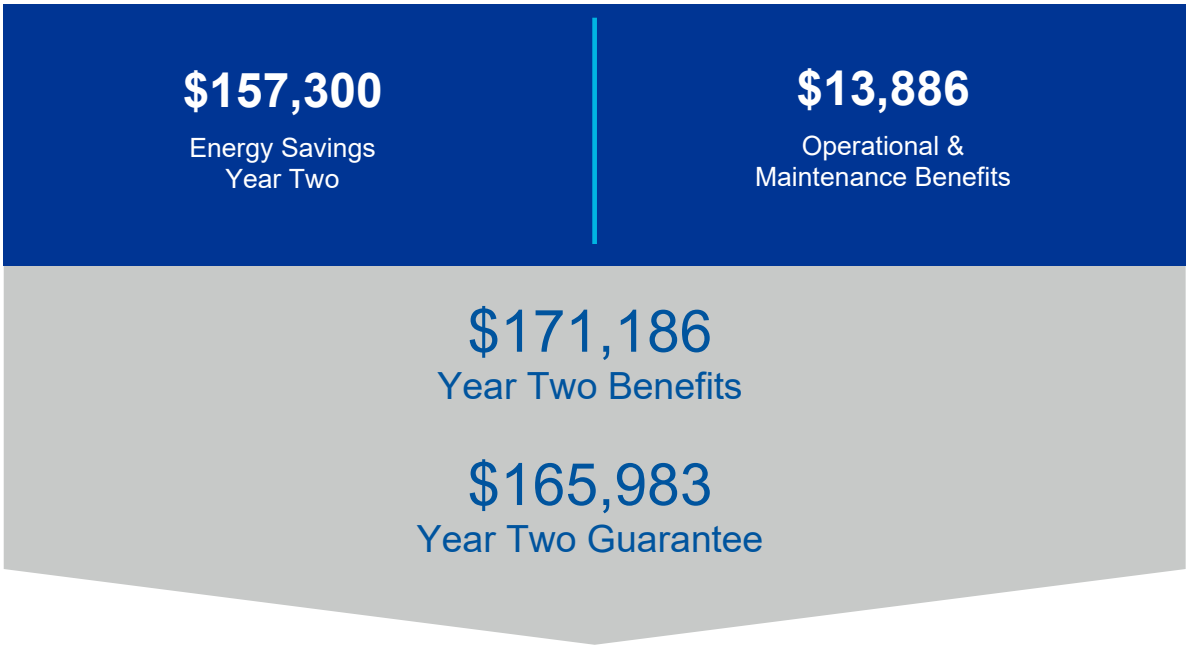
During Year Two, the City of La Crosse saved $157,300 in utility cost and $13,886 in operational and maintenance benefits. Thie total savings for Year Two are $171,186. The combined energy savings, capital benefits, energy rebate benefits, and operational benefits, have resulted in $567,730 total savings through the end of Year Two.



When compared against the guarantee of $165,983, this project has generated excess savings of $5,203 during Year Two

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Summary of Project Benefits and Results

The energy and operational savings are to be derived from the following energy conservation measures (ECM).

ECM #	ECM Name	Black River Beach Neighborhood Center	Myrick Park Center	Southside Neighborhood Center	Copeland Park Octoberfest Shelter	Copeland Park Enclosed Shelter	Copeland Park Tennis Courts	Copeland Park Stadium	La Crosse Fire Station #1	La Crosse Fire Station #3	North Neighborhood Library	South Neighborhood Library	Main Street Parking Ramp	City of La Crosse Street Lighting
ECM-31	Retrofit Facility Lighting to LED	X	X	X	X	X	X		X		X	X	X	
ECM-32	Retrofit Street Lighting to LED													X
ECM-33	Install New Solar PV							X	X	X				
ECM-34	Replace Existing Boilers								X		X	X		

Upon receipt of the Performance Contract, May 14, 2021, Johnson Controls mobilized to complete the scope of work. Upon completion of each measure, the City of La Crosse began to realize economic benefits.

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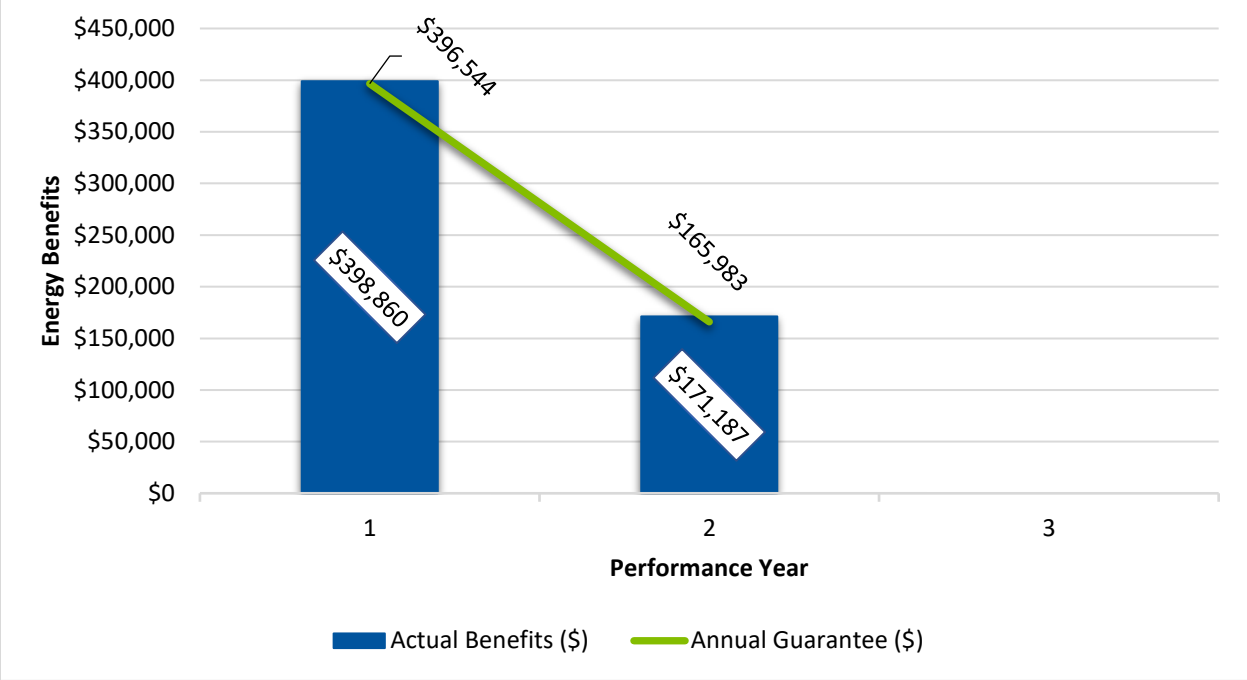
The following are highlights during Year Two of the guarantee term

- The City of La Crosse realized $157,300 in energy savings
- Year Two benefits exceeded expectations by $5,203.
- Environmental stewardship through reduced carbon emissions by 1,042 metric tons of CO_2

The following chart shows a comparison of the guaranteed measured and non-measured energy savings versus the actual achieved savings to date.



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Decarbonization Impact

This project has benefits to the City outside of reducing your expenditure on utilities and maintenance. The reduction in energy consumption by the City of La Crosse also has a positive impact on your carbon dioxide (CO_2), nitrogen oxide (NOx), sulfur dioxide (SO_2), and other environmentally harmful emissions. Through Year Two, CO_2 emissions were reduced by 1,042 metric tons.

The following graphic depicts the emission reduction equivalencies achieved by the City as a result of the improvements made during Year Two of the Guarantee Term.

1,042

Metric Tons of CO_2 Emissions equates to:

GHG emissions from:	CO_2 emissions from:	Carbon sequestered by:
251	117,336	17,242
Passenger vehicles driven for one year	Gallons of gasoline consumed	Tree seedlings grown for 10 years

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Additional Partnership Benefits to City of La Crosse

During the Installation Period, the City of La Crosse extended the Sustainability Partnership with Johnson Controls for an additional four-year period. Johnson Controls is fully committed to continuing our long-standing partnership with the City of La Crosse.

As part of our services, we recommend continued collaboration to identify additional projects to maximize the benefits of your current systems, as well as support your future goals and long-term planning. To that end, we recommend further investigating the following technology and services:

- Microgrid solutions at various City facilities
- Community resiliency solutions at key City properties
- Water metering and distribution system efficiency solutions
- Collaboration with local commercial/industrial companies on the design and implementation of green initiatives (ie City Brewing)

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Year Two Results

The City of La Crosse realized economic benefit throughout Year Two of the Guarantee Term. As a result of successful implementation, the Year Two energy savings have exceeded guarantee expectations. The table below details the energy unit performance of each Energy Conservation Measure (ECM) during the Year Two period.

		Electric Energy Savings
ECM Number	**ECM Name**	**Actual**
ECM-31	Retrofit Facility Lighting to LED	110,957
ECM-32	Retrofit Street Lighting to LED	1,210,771
ECM-33	Install New Solar PV (Adjusted)	190,143

The table below details the **energy cost performance** of each Energy Conservation Measure (ECM) during the Year Two period.

		Electric Cost Savings
ECM Number	**ECM Name**	**Actual**
ECM-31	Retrofit Facility Lighting to LED	$14,932
ECM-32	Retrofit Street Lighting to LED	$125,376
ECM-33	Install New Solar PV kWh (Adjusted)	$15,325
ECM-33	Install New Solar PV kW	$1,667
	Total:	**$157,300**

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Utility Rates for Calculations

The “Base Utility Cost(s)” were established after extensive review of the City of La Crosse’s actual energy usage during the time period January 2017 through December 2018. These “Base Utility Cost(s)” were set forth in the Contract as the basis for all savings calculations and are to be “escalated annually by the actual utility cost escalation but such escalation shall be no less than the mutually agree ‘floor’ escalation rate of three percent (3%).” Listed below are the unit utility rates used to calculate the Year Two energy savings.

Facility	Account	Premise	Rate Code	Unit	Effective Rate
Black River Beach Neighborhood Center	52-6054173-7	304194393	B15	kwh	$0.07187
Copeland Park Enclosed Shelter	52-6054173-7	302369749	B06	kwh	$0.12872
Copeland Park Octoberfest Shelter	52-6054173-7	302672654	B06	kwh	$0.12872
Copeland Park Stadium	52-6054173-7	302937321	B15	kwh	$0.06991
La Crosse Fire Station #1 - Lighting	52-4712246-9	303092584	B15	kwh	$0.07187
La Crosse Fire Station #1 - Solar PV	52-4712246-9	303092584	B15	kwh	$0.06947
La Crosse Fire Station #3	52-4712246-9	303618390	B06	kwh	$0.12483
Main Street Parking Ramp	52-0011625805-1	303030573	B15	kwh	$0.07187
Myrick Park Center	52-6054173-7	304161237	B06	kwh	$0.07187
North Neighborhood Library	52-4892112-8	302833164	B15	kwh	$0.07187
South Neighborhood Library	52-4892112-8	303071074	B15	kwh	$0.07187
Southside Neighborhood Center	52-6054173-7	303071074	B06	kwh	$0.12872

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Measurement & Verification

Overview

The performance measurement and verification (M&V) methodologies applicable to the Energy Conservation Measure (ECM) set forth below are predicated upon the International Performance Measurement & Verification Protocol (IPMVP) for the transparent, reliable and consistent reporting of savings for this project. The table below details the IPMVP M&V Option associated with each listed energy conservation measure (ECM).

Summary of M&V Options

M&V	ECM #	ECM Name	Black River Beach Neighborhood Center	Myrick Park Center	Southside Neighborhood Center	Copeland Park Octoberfest Shelter	Copeland Park Enclosed Shelter	Copeland Park Tennis Courts	Copeland Park Stadium	La Crosse Fire Station #1	La Crosse Fire Station #3	North Neighborhood Library	South Neighborhood Library	Main Street Parking Ramp	City of La Crosse Street Lighting
A	ECM-31	Retrofit Facility Lighting to LED	X	X	X	X	X	X		X		X	X	X	
NM	ECM-32	Retrofit Street Lighting to LED													X
A	ECM-33	Install New Solar PV							X	X	X				
NM	ECM-34	Replace Existing Boilers								X		X	X		

A = IPMVP Option A

NM = Non-measured

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ECM-31-Retrofit Facility Lighting to LED

ECM Description

Lighting retrofits were installed at the facilities listed below. The conversion to LED lighting and reengineering of the fixtures makes it possible to have consistent light levels and matching temperature colors to better illuminate the areas. Each was assessed to provide the most cost-effective solution. The final retrofit count across all facilities was 841 fixtures.

ECM Name	Black River Beach Neighborhood Center	Myrick Park Center	Southside Neighborhood Center	Copeland Park Octoberfest Shelter	Copeland Park Enclosed Shelter	Copeland Park Tennis Courts	La Crosse Fire Station #1	North Neighborhood Library	South Neighborhood Library	Main Street Parking Ramp
Retrofit Facility Lighting to LED	X	X	X	X	X	X	X	X	X	X

M&V Activities

Contract Compliance

The savings associated with this energy conservation measure have been calculated in accordance with the provisions associated with the International Performance Measurement and Verification Protocol (IPMVP), Option A, Retrofit Isolation with Key Parameter Measurement. Measured Project Benefits have been determined by partial field measurement of the energy use of the system(s); separate from the energy use of the rest of the facility. Partial measurement means that some but not all parameters have been measured. Careful review of the design and installation of Improvement Measures is intended to demonstrate that the agreed-upon values fairly represent the probable actual values. Agreed-upon values are detailed documented and agreed upon. Engineering calculations using measurements and agreed-upon values are used to calculate Measured Project Benefits for the duration of the Guarantee Term.

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Savings Methodology

Equations for Calculating Savings

The savings for this ECM are generated through a reduction in energy used by the lighting system; therefore, the measurement boundary is the lighting system itself.

Equations for Calculating Lighting Retrofit Savings (Option A)

Demand (kW)

$$\text{Connected kW Saving} = \sum_u [\ (\text{kW/Fixture}_{baseline} \times \text{Quantity}_{baseline} - \text{kW/Fixture}_{post} \times \text{Quantity}_{post})]_{t,u}$$

where:

$\text{kW/fixture}_{baseline}$ = lighting baseline demand per fixture for usage group *u*

kW/fixture_{post} = lighting demand per fixture during post-installation period for usage group

$\text{Quantity}_{baseline}$ = quantity of affected fixtures before the lighting retrofit for usage group *u*

Quantity_{post} = quantity of affected fixtures after the lighting retrofit for usage group *u*

Examples of usage groups include hallways and offices.

Energy (kWh)

$$\text{kWh Savings}_{Lighting} = \Sigma_u\ [\text{Connected kW Savings}_u \times \text{Hours of Operation}]_{t,u}$$

where:

Hours of Operation= number of operating hours during the time period *t* for the usage group *u*

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The lighting system annual run hours by space type are agreed to be as summarized in the table below. The run hours are based on building operating schedules and information provided by facility staff during walk-throughs. These values are considered non-measured and agreed upon by the City.

Facility	Area	Existing Burn Hours Assigned	Proposed Burn Hours
Black River Beach Neighborhood Center	Lobby Closet	2250	2250
	Bathrooms	2250	2250
	Lobby, Birch, Cotton, Bathrooms	2250	2250
	Birchwood, Cottonwood Pendants	2250	2250
	Boiler Rm	2250	2250
	Maplewood	1500	1500
	Offices, Lobby	1500	1200
	Kitchen and Maple W Closet	2250	2250
	Entries, Lobby, Hallway	2250	2250
	Birchwood, Cottonwood Cans	1500	1500
Myrick Park Center	Bathrooms	2000	2000
	Entries	2000	2000
	Marshview, Maint, Bath, E. Office	2000	1500
	N. West Office	1500	1500
	Wis Corps	1500	1500
	Marshview	1500	1500
	Wis Corps & La Crosse Rm	1500	1200
	Discovery	2000	1600
	Wis Corps Storage	500	500
	Exterior	4300	4300
	East Entry and Hallway	2500	2500
	Rear, Side, Front Entry, Rooms	2500	2500
Southside Neighborhood Center	Computer Lab, office closet	1500	1500
	Bathrooms	2000	2000
	Hall	1500	1500
	Office, CompLab, Foundation Rm	2000	2000
	Hallway	2000	2000
	Kitchen	500	500
	Exterior Parking	4300	4300
	Hall Room	2000	2000
	Exterior Sconce	4300	4300

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Facility	Area	Existing Burn Hours Assigned	Proposed Burn Hours
Copeland Park Octoberfest Shelter	Rink Canopy	4300	4300
	Rink Lights	2000	2000
Copeland Park Enclosed Shelter	Shelter Canopy	1000	1000
	Shelter	500	500
	Bathrooms	500	500
	Shelter Night Lights	8760	8760
Copeland Park Tennis Courts	Tennis Court Floods	500	500
La Crosse Fire Station #1	Front Entry, Reception	2000	2000
	Basement Hallways	2000	2000
	Basement Offices	2000	2000
	Front Sign	4300	4300
	Shop, Weight Rm	500	500
	Reception, Weight Room	2000	2000
	2nd Floor Bathroom	1000	1000
	Apparatus Floor, Basement Classroom	2000	2000
	2nd Floor (unassigned to other spaces)	750	750
	Boiler Rm, Weight Rm, SCBA Rm	500	500
	Apparatus Floor	2000	2000
	Shop	2000	2000
	Inspection Storage	500	500
North Neighborhood Library	1st Floor	2000	2000
	Front Entry Case	2000	2000
	Basement	500	500
	Bathrooms	2000	2000
	1st Floor Security Light	8760	8760
	Basement	500	500
	Front Sign	4300	4300
	Back Entrance	4300	4300

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Facility	Area	Existing Burn Hours Assigned	Proposed Burn Hours
South Neighborhood Library	1st Floor	2000	2000
	Basement	2000	2000
	1st Floor/Basement	2000	2000
	Front Entrance Case	2000	2000
	Basement Storage	500	500
	1st Floor Storage	500	500
	1st Floor Security Light	8760	8760
	Front Entry Exterior Sconce	8760	8760
	Front Entry Exterior Can	4300	4300
	Front Sign	4300	4300
Main Street Parking Ramp	Ramp	4380	4380
	Ramp Security Light	8760	8760

Annual Savings

The savings for this FIM were verified through actual pre- and post-wattage measurements conducted during the installation period. The savings were calculated for each building annually in energy units, applying the associated utility rates. The following table is the result of updating the lighting calculations to include the pre-retrofit and post-retrofit wattage measurements, final quantities, fixture types, and Year Two utility rates.

Retrofit Facility Lighting to LED	Actual (kWh)
Black River Beach	15,437
Copeland Park	19,913
Fire Station #1	12,225
Main Street Ramp	30,011
Myrick Park	13,605
North Library	3,599
South Library	9,940
Southside Center	6,226
Total	110,957
kWh Savings ($):	$9,744
Demand kW Savings ($):	$5,188
Total $ Saved	$14,932

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ECM-32-Retrofit Street Lighting to LED

ECM Description

This ECM included the retrofit of specified existing HID street lighting with LED sources by fixture as outline in the table below.

Fixture Type	Fixture Count	Retrofit Description	Replacement Type
150W Cobra	168	RWL2-M-50-40-U-D-X- w/out shorting	New Head
250W Cobra	147	RWL2-M-80-40-U-D-X- w/out shorting	New Head
400W Cobra	47	RWL2-M-135-40-U-D-X- w/out shorting	New Head
400W Deco Airport	13	ESL-MUR-120W-350	Retrofit
150 Acorn/Tear Drop	571	Lumecon L-Retro-T-55	Retrofit
5 Head Globe	105	KT-LED25A23-O-E26-830	Retrofit
	420	KT-LED14A21-O-E26-830	Retrofit
3 Head Globe	18	KT-LED35A25-O-E26-830	Retrofit
2 Head Globe	43	KT-LED35A25-O-E26-830	Retrofit
1 Head Globe	3	KT-LED25A23-O-E26-830	Retrofit
150W Matchstick	552	KT-LED25A23-O-E26-830	Retrofit
Shoe Box - Copeland/Badger	51	CREE PDRLX-ARE-EDR-2M-R3-04-E-UL-SV-525-40K	New Fixture & Pole

Savings Methodology

The calculated savings have been determined based upon the Utility Company's published rates as of the date of the Change Order. Existing HID street lighting had been billed under Rate Code B33 in three separate rate groups. The new LED street lighting will be metered and billed under Rate Code B36.

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Annual Savings

The savings table below is based upon the City taking necessary actions with the Utility Company to facilitate the rate change from Rate Code B33 to Rate Code B36. The City and JCI agree that the savings occur once the retrofit of street lighting to LED is complete.

Existing Rate Code	Lamp Type	Wattage	Qty of Lamps	Monthly Per-Lamp Cost [Rate B33]	LED Equivalent Wattage	Annual Total Cost [Rate B33]	Annual Total Cost [Rate B36]	Savings
B33-1	HPS	100	2	$ 7.11	28	$ 171	$ 18	$ 153
B33-1	HPS	150	421	$ 8.91	55	$ 45,011	$ 7,376	$ 37,635
B33-1	HPS	250	84	$ 12.98	80	$ 13,082	$ 2,141	$ 10,941
B33-1	HPS	400	81	$ 17.51	120	$ 17,020	$ 3,096	$ 13,923
B33-1N	HPS	100	2	$ 7.11	28	$ 171	$ 18	$ 153
B33-1N	HPS	150	97	$ 8.91	55	$ 10,371	$ 1,700	$ 8,671
B33-1N	HPS	250	9	$ 12.98	80	$ 1,402	$ 229	$ 1,172
B33-2	HPS	50	179	$ 1.80	14	$ 3,872	$ 798	$ 3,073
B33-2	HPS	70	76	$ 2.42	25	$ 2,207	$ 605	$ 1,602
B33-2	HPS	100	39	$ 3.61	28	$ 1,687	$ 348	$ 1,339
B33-2	HPS	150	791	$ 5.56	55	$ 52,795	$ 13,859	$ 38,936
B33-2	HPS	250	154	$ 8.65	80	$ 15,989	$ 3,925	$ 12,064
B33-2	HPS	400	10	$ 13.70	120	$ 1,644	$ 382	$ 1,262
Per-meter Monthly Charge ($7.25 per month for 62 meters)						$ -	$ 5,556	$ (5,556)
					Total:	**$165,419**	**$ 40,044**	**$125,376**

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ECM-33-Install New Solar Photovoltaic (PV) Array

ECM Description

Solar PV arrays were installed at Copeland Park Stadium, Fire Station #1, and Fire Station #3. The design considered the roof layout, potential shading sources and architectural constraints. The combined energy expected first year production is 140,448 kWh; following years are expected to have an annual 0.5% degradation.

Copeland Park

Fire Station #1

Fire Station #3

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M&V Activities

Contract Compliance

The electrical production for this ECM will be verified using IPMVP Option A, Retrofit Isolation with Key Parameter Measurement. The electrical production for this ECM is generated through a production of electricity through the solar photovoltaic arrays; therefore, the measurement boundary is the Solar PV system itself.

Parameter	Measurement Frequency	Measurement Description
Irradiance (kWh/m2)	ongoing	The irradiance shall be the Annual Total Collector Irradiance and will be measured using a pyranometer in the plane of array. The value will be totalized, and the totalized value will be recoded on an hourly basis using the system software. One pyranometer will be installed at the same tilt and azimuth angle as the PV array. This pyranometer will be the primary, will have a rate accuracy of +/- 5%, and will be used to account for factors that increase and/or decrease the Global Horizontal Irradiance as incident on the surface of the array (e.g., array tilt and azimuth, dirt, shading, etc.). A second pyranometer will be the backup and will have a rated accuracy of +/- 2%. This pyranometer will be used to measure Global Horizontal Irradiance as a backup to the primary pyranometer.
AC Energy (kWh)	ongoing	The AC energy will be measured using revenue-grade AC meters located near the AC interconnection point of each PV system.

Savings Methodology

Equations for Calculating Savings

The estimated energy production for this ECM is based on a computer simulation performed using the HelioScope software. Below is the baseline monthly and annual solar irradiance (Global Horizontal Irradiance) for La Crosse, based on the NSRDB TMY2 weather data for La Crosse Municipal Airport. Also shown in the table below is the Year Two Energy production estimate for the combined output of the PV systems.

PV Array	Baseline Global Horizontal Irradiance (kWh/m2)	Baseline Annual Total Collector Irradiance (kWh/m2)	Year 2 AC Energy Output (kWh)
Copeland Park Stadum PV Array	1,367	1,291	86,903
La Crosse Fire Station #1 PV Array	1,367	1,204	41,866
La Crosse Fire Station #3 PV Array	1,367	1,218	32,926

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Below is the Baseline AC Energy Output for the combined PV systems, by Project Year. These numbers include degradation of 3% during the first year then 0.5% per year thereafter from the 2nd until 20th year of the manufacturer's warranty period.

Project Year	Baseline AC Energy Output (kWh)
1	140,448
2	139,746
3	139,047
4	138,352
5	137,660
6	136,972
7	136,287
8	135,605
9	134,927
10	134,253
11	133,582
12	132,914
13	132,249
14	131,588
15	130,930
16	130,275
17	129,624
18	128,976
19	128,331
20	127,689

The energy production guarantee shall assume the monthly baseline (reference) solar irradiance as shown above. On an annual basis (recorded monthly), the total measured AC Energy output of the PV systems will be adjusted based on the actual measured plane-of-array solar irradiance compared to the baseline (reference) plane-of-array solar irradiance, as per the following formula:

$$P_{Adjusted} = (P_{Measured})\left(\frac{Q_{reference}}{Q_{actual}}\right)$$

Where P is energy measured in kWh and Q is solar irradiance measured in kWh/m2, either the actual measured or the reference as shown. If the adjusted amount of measured energy produced is less than the baseline energy for a given Project Year, the amount of kWh shortfall will be multiplied by the applicable site electricity rate ($/kWh) for that Project Year, and the result will be the PV ECM Project Benefit Shortfall for that year. If the adjusted amount of measured energy produced is greater than the baseline energy for a given Project Year, the amount of kWh surplus will be multiplied by the applicable site electricity rate ($/kWh) for that Project Year, and the result will be the PV ECM Project Benefit Surplus for that year.

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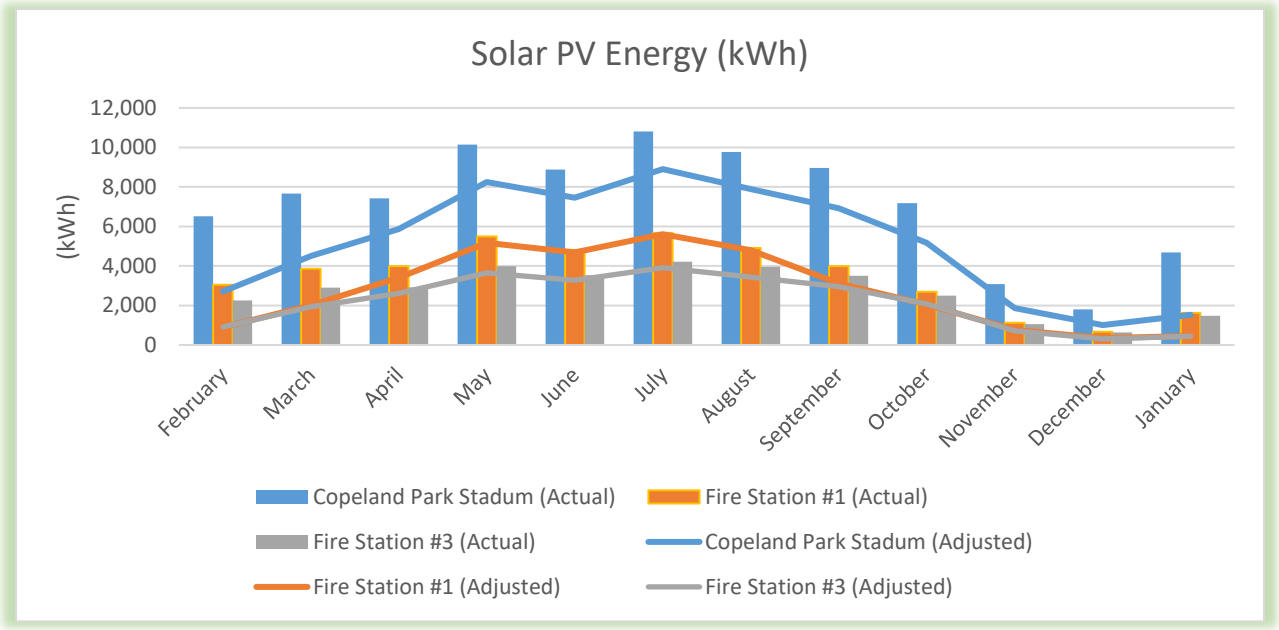
The table below reflects the actual solar PV energy production (kWh) as compared to the guaranteed production when the guaranteed production is adjusted to align with the actual solar irradiance realized during this reporting period. Where the columns are greater than the lines, the systems produced more energy than expected, Based on the results, the systems performed better than expected.



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Annual Savings

The following tables reflect the Year Two results and are based upon the utility rates applicable to this reporting period.

Copeland Park Stadum	Baseline Irradiance [Plain of Array] (kWh/m2)	Guaranteed Production [per Baseline Irradiance] (kWh)	Actual Irradiance [Plain of Array] (kWh/m2)	Actual Production (kWh)	Adjusted Production [Actual v Baseline Irradiance] (kWh)
February	75	2,561	79	6,523	6,162
March	131	5,537	106	7,662	9,399
April	155	7,925	114	7,417	10,027
May	161	8,133	163	10,148	10,008
June	176	8,680	151	8,882	10,337
July	197	9,554	183	10,806	11,599
August	170	8,359	161	9,764	10,347
September	142	7,161	137	8,958	9,272
October	100	5,252	98	7,180	7,293
November	67	3,179	39	3,076	5,225
December	64	2,224	29	1,803	3,984
January	68	1,964	53	4,685	6,017
	Total Production	**70,530**		**86,903**	**99,669**
	Cost	**$4,931**			**$6,968**
			Excess Production (kWh):		**29,139**
Electric Rate:	*$0.0699*	*per kWh*	**Excess Savings ($):**		**$2,037**

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Fire Station #1	Baseline Irradiance [Plain of Array] (kWh/m2)	Guaranteed Production [per Baseline Irradiance] (kWh)	Actual Irradiance [Plain of Array] (kWh/m2)	Actual Production (kWh)	Adjusted Production [Actual v Baseline Irradiance] (kWh)
February	72	1,131	57	3,056	3,861
March	128	3,061	84	3,852	5,870
April	154	4,745	110	3,995	5,577
May	161	4,936	169	5,500	5,254
June	177	5,309	156	4,807	5,450
July	197	5,842	189	5,666	5,903
August	170	4,998	163	4,909	5,111
September	140	4,097	106	3,992	5,251
October	97	2,876	69	2,684	3,773
November	64	1,666	29	1,125	2,449
December	61	906	23	660	1,711
January	65	786	37	1,622	2,832
	Total Production	**40,353**		**41,866**	**53,041**
	Cost	**$2,803**			**$3,685**
			Excess Production (kWh):		**12,688**
Electric Rate:	*$0.0695*	*per kWh*	**Excess Savings ($):**		**$881**

Fire Station #3	Baseline Irradiance [Plain of Array] (kWh/m2)	Guaranteed Production [per Baseline Irradiance] (kWh)	Actual Irradiance [Plain of Array] (kWh/m2)	Actual Production (kWh)	Adjusted Production [Actual v Baseline Irradiance] (kWh)
February	72	841	79	2,261	2,075
March	128	2,290	108	2,901	3,431
April	154	3,468	116	2,918	3,870
May	161	3,599	164	3,984	3,925
June	177	3,866	150	3,526	4,164
July	197	4,240	182	4,219	4,575
August	170	3,633	161	3,956	4,174
Septemb	140	3,045	135	3,500	3,617
October	97	2,143	94	2,498	2,586
Novembe	64	1,220	38	1,061	1,804
Decembe	61	649	29	628	1,326
January	65	570	51	1,474	1,886
	Total Production	**29,565**		**32,926**	**37,433**
	Cost	**$3,690**			**$4,673**
			Excess Production (kWh):		**7,868**
Electric F	*$0.1248*	*per kWh*	**Excess Savings ($):**		**$982**

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ECM-34-Replace Existing Boilers

ECM Description

This ECM included the replacement of the existing boilers with new high efficiency condensing boilers at the North Neighborhood Library, South Neighborhood Library, and the La Crosse Fire Station #1.

M&V Activities

It is reasonable to conclude that the new, more efficient boilers will allow the City of La Crosse to realize economic benefit as the result of reduced natural gas consumption. However, since no savings were included in the Project Benefits, no measurement and verification activities have been, or will be, conducted.

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Non-Measured Agreed Upon Engineering Calculations

Non-Measured Utility Benefits

Where the cost to validate the projected savings is determined to be potentially greater than the value of the savings, the City of La Crosse and Johnson Controls have agreed upon the engineering calculations associated with the projected savings. With reasonable effort, the City of La Crosse should expect to realize the energy savings detailed below. These Non-Measured Project Benefits were derived using engineering calculations based upon industry standards and data provided by the City of La Crosse. Details can be found in the Performance Contract.

ECM-33-Install New Solar Photovoltaic (PV) Array

ECM Description

The calculated demand savings for solar photovoltaic installations depend on peak solar generation occurring at the same time as peak building demand. Due to the unpredictability of weather and building usage patterns, these values are calculated based on historical weather data (Typical Meteorological Year, or TMY) and assumed building energy demand profiles and will not be measured. A benefit will only be realized for buildings where the electric rates charge for demand.

The monthly demand charges are calculated as follows:

$$Demand\ Charges\ (\$) = Monthly\ Distribution\ Demand\ Charges\ (\$) + Monthly\ Peak\ Demand\ Charges\ (\$)$$

$$Distribution\ Demand\ Charge\ (\$) = [Max\ (Annual\ Distribution\ Demand(kW)) * Distribution\ Demand\ Rate\ (\$/kW)]$$

$$Monthly\ Peak\ Demand\ Charge\ (\$) = Monthly\ Peak\ Demand\ (kW) * Seasonal\ Peak\ Demand\ Rate\ (\$/kW)$$

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Annual Savings

The estimated energy production for this ECM is based on a computer simulation performed using the HelioScope software. Hourly simulation results from the HelioScope software were then fed into the Energy Toolbase software to determine the demand savings by comparing the estimated demand profile of the building before solar is installed to the estimated demand profile after solar is installed. Below are the Year 2 monthly estimated demand charges before and after installation, and the anticipated demand savings for each site:

Copeland Park Stadium			
Typical Month	**Estimated Baseline Demand Charges**	**Estimated Future Demand Charges**	**Demand Savings Contribution**
January	$134	$122	$12
February	$134	$122	$13
March	$157	$144	$13
April	$530	$439	$90
May	$1,380	$1,311	$68
June	$2,086	$1,731	$344
July	$1,952	$1,618	$325
August	$1,483	$1,377	$104
September	$1,015	$761	$247
October	$485	$473	$13
November	$145	$133	$13
December	$145	$133	$13
Total	$9,646	$8,364	$1,282

La Crosse Fire Station #1			
Typical Month	**Estimated Baseline Demand Charges**	**Estimated Future Demand Charges**	**Demand Savings Contribution**
January	$536	$536	$-
February	$524	$517	$7
March	$445	$390	$53
April	$434	$402	$31
May	$479	$448	$30
June	$642	$592	$48
July	$642	$592	$48
August	$615	$525	$87
September	$628	$592	$35
October	$468	$448	$19
November	$502	$502	$-
December	$592	$562	$29
Total	$6,505	$6,107	$399

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Operational and Capital Benefits

Non-Measured Operational and Maintenance Benefits are derived from avoided future costs. The City of La Crosse and Johnson Controls have agreed upon the engineering calculations associated with the projected savings. These Non-Measured Project Benefits were derived using engineering calculations based upon industry standards and data provided by the City of La Crosse.

Non-Measured Operational Benefits		**Year 2 Benefits**
Material Savings due to lighting retrofit		
ECM-31: Retrofit Facility Lighting to LED	Black River Beach Neighborhood Center	$332
	Myrick Park Center	$348
	Southside Neighborhood Center	$206
	Copeland Park Octoberfest Shelter	$802
	Copeland Park Enclosed Shelter	
	Copeland Park Tennis Courts	
	La Crosse Fire Station #1	$435
	North Neighborhood Library	$154
	South Neighborhood Library	$207
	Main Street Parking Ramp	$868
ECM-32: Retrofit Street Lighting to LED	Typical annual streeting lighting re-lamping costs avoided due to LED lighting replacement	$10,534
	Total Non-Measured Operational Benefits:	$13,886

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