

It is expected that a Quorum of the Personnel Committee, Board of Public Works, Plan Commission and Administration Committee will be attending this meeting: (although it is not expected that any official action of any of those bodies will be taken).

**CITY OF MENASHA
SUSTAINABILITY BOARD
Common Council Chambers
100 Main Street, Menasha
Room 132
Or Virtual**

1. Join the meeting from your computer, tablet or smartphone.

<https://global.gotomeeting.com/join/508398437>

2. Dial in using your phone.

United States: [+1 \(646\) 749-3122](tel:+16467493122)

Access Code: 508-398-437

Audio PIN: When prompted, just hit #

January 27, 2022 4:00 PM

AGENDA

A. CALL TO ORDER

B. ROLL CALL/EXCUSED ABSENCES

C. PUBLIC COMMENTS ON ANY MATTER OF CONCERN TO THE SUSTAINABILITY BOARD
(five (5) minute time limit for each person)

D. MINUTES TO APPROVE

E. COMMUNICATIONS

1. City of Menasha Sustainability Accomplishments
2. [2020 WPPI Energy Annual Report](#)

F. REPORTS

G. ACTION ITEMS

H. DISCUSSION

1. Welcome to New Members
2. Sustainability Plan, Benchmarking, and Comparison with Other Communities
 - a. [GTLC](#)
 - b. [Appleton Climate Action Plan Proposal](#)
3. Transportation
 - a. Bike Friendly Community Designation
4. Land Use
5. Natural Resources
 - a. [2021 Urban Forestry Grant – EAB Plan](#)
6. Energy
 - a. [PWF Solar Installation](#)
 - b. Third Party Financing Solar Options
 - c. Potential Streetlight Upgrades
7. Water
 - a. Downtown Underground Stormwater Treatment Facility
 - b. Stormwater Educational Signage
8. Waste
 - a. 2021 Refuse and Recycling Tonnage
 - b. 2021 Electronics Recycling Event
 - c. 2022 Electronics Recycling Event May 7 and Sept 21, 2022
 - d. 2022 Spring Cleanup FWWA May 7, 2022
 - e. America Recycles Day November 15, 2022
9. Health

I. Future Meeting Dates

J. ADJOURNMENT

"Menasha is committed to its diverse population. Our Non-English speaking population and those with disabilities are invited to contact the Menasha City Clerk at 967-3603 24-hours in advance of the meeting for the City to arrange special accommodations."

City of Menasha Sustainability Accomplishments

Mission

To advise the Mayor and Common Council on implementation of sustainable practices

What have we done?

A LOT

Resolutions

R-21-07 Resolution Supporting Eco Municipality Concepts

R-21-08 Resolution Supporting the creation of the Office of Energy Independence

R-24-19 Resolution for a Continued Commitment of a Municipal-Wide Energy Management Policy

Energy

- One-2-Five energy assessment 2010
- 2010 Energy Efficiency Block Grant (Public Protection Facility HVAC & Street Lighting)
- 2010 FEMA Grant (LEED Certified Fire Station 36)
- LED Street light
- Solar PWF <https://monitoringpublic.solaredge.com/solaredge-web/p/site/public?name=City%20of%20Menasha#/dashboard>
- Solar Fire Station 36 <https://easyview.auroravision.net/easyview/index.html?entityId=858211>
- Mix of energy sources through WPPI – 40.9% carbon free – 44% reductions in emissions (2020 WPPI Energy annual report) Goal carbon free by 2050
- MU choose renewable program

Built Environment

- Strong neighborhoods
- Rezoning south shore for mixed use C2

Transportation

- Complete streets
- Bike Friendly Community
- Salt Usage
- Hybrid police vehicles

Natural Resources and Environment

- Forestry Plan
- Stormwater Plan
- Added to Conservancy / Parks

Waste Reduction and Recycling

- Increased Recycling Pickup – changed to single stream
- Volume Bases Refuse Pickup
- Electronics Recycling
- Clean up day
- Recycling in parks & events
- Yard waste, composting, compost available to residents

R-21-07

RESOLUTION SUPPORTING ECO-MUNICIPALITY CONCEPTS

Introduced by Mayor Laux

WHEREAS, the City of Menasha recognizes that the people of this community desire a stable, sustainable future; and

WHEREAS, the City of Menasha acknowledges that a clean and healthy environment determines the quality of life, where the environment can support and sustain the community, and where citizens are committed to local and regional cooperation and a personal philosophy of stewardship; and

WHEREAS, the willingness of the City of Menasha to move in the direction of eco-municipality designation can serve as a model for our citizens, encouraging economic and industrial initiatives while protecting the ecosystem in which they raise their families; and

WHEREAS, by endorsing sustainable economic development, the City of Menasha is pledging to further educate itself about sustainable activities and to develop additional initiatives in support of sustainable practices; and

WHEREAS, Menasha has promoted alternative transportation methods by taking a leadership role in the Fox Cities Trestle Trail and installing bike trails that connect the Wisconsin Friendship Trail; and

WHEREAS, the following four guidelines were developed by the American Planning Association to help communities implement sustainable practices:

1. Reduce dependence upon fossil fuels, and extracted underground metals and minerals;
2. Reduce dependence on chemicals and other manufactured substances that can accumulate in Nature;
3. Reduce dependence on activities that harm life sustaining ecosystems;
4. Meet the hierarchy of present and future human needs fairly and efficiently;

WHEREAS, the redevelopment of the Gilbert Mill site has embraced principles of sustainability by reusing portions of existing buildings and reclaiming demolition materials for reuse at the site.

NOW THEREFORE, BE IT RESOLVED, by the Mayor and Common Council of the City of Menasha, Wisconsin, that the City of Menasha endorse the principles of sustainability as outlined above and that the City will endeavor to apply these principles when economically feasible to its decision-making, planning, policy making and municipal practices and the Mayor and Common Council challenge the citizens of Menasha and the private sector to promote and embrace the philosophy and principles of sustainability.

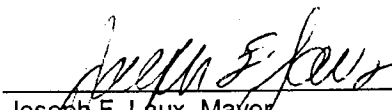
BE IT FURTHER RESOLVED, that the City of Menasha create a standing Sustainability Board to prepare a sustainable community plan following the guidelines of The Natural Step Model for Eco-Municipalities and to advise the Mayor and Common Council on implementation of sustainable practices.

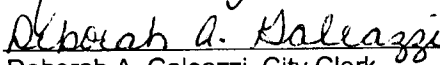
Passed and approved this 19th day of November, 2007.

Motion made by Ald. Merkes,
Seconded by Ald. Wisneski.

Voting Aye: Ald. Don Merkes
Ald. James Taylor
Ald. Sue Wisneski
Ald. Steve Pack
Ald. Eric Hendricks
Ald. Terry Eckstein
Ald. Tom Michalkiewicz
Ald. Jan Chase

Attest:


Joseph F. Laux, Mayor


Deborah A. Galeazzi, City Clerk

**RESOLUTION SUPPORTING THE CREATION OF THE OFFICE OF ENERGY
INDEPENDENCE**

Introduced by Alderman Wisneski as recommended by the Sustainability Board

Whereas; The City of Menasha adopted Resolution R-21-07 Supporting Eco-Municipality concepts; and,

Whereas; Governor Doyle, via Executive Order #192 created the Office of Energy Independence; and,

Whereas; the Office of Energy Independence is charged with the mission to advance energy independence in the State of Wisconsin by:

- Generating 25% of the states electricity and transportation fuels from renewable resources by 2025.
- Capturing 10% of the emerging bio industry and renewable energy market by 2030
- Leading the nation in groundbreaking research that will make renewable energy more affordable and will create good paying Wisconsin jobs; and,

Whereas; the Office of Energy Independence has established the Wisconsin Energy Independent Community Partnerships to gain voluntary cooperation among communities to foster innovation of energy resources and emerging technologies in pursuit of the "25 x 25 Goals" of generating 25% of Wisconsin's electricity and transportation fuels by 2025; and,

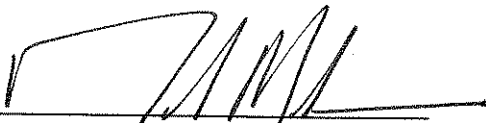
Whereas; it is in the City of Menasha's interest to join in the Wisconsin Energy Independent Community Partnership to derive the benefits of: Additional access to state and federal funding, Increased technical assistance from state and federal agencies, Improved energy efficiency creating additional savings and capital availability for budgeting;

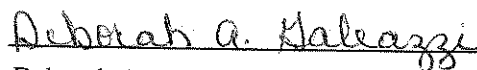
Now, Therefore, Be It Resolved, that the City of Menasha supports and adopts the 25 x 25 goals and wishes to become a community partner with the Office of Energy and independence.

Be it Further Resolved, that the City of Menasha resolves to advance Wisconsin's vision for energy independence by generating 25% of the City's electricity and 25% of its transportation fuels from renewable resources by 2025.

Be it Further Resolved, that a copy of this resolution be transmitted to the Governor of Wisconsin, the Office of Energy Independence, State and Federal legislators representing the City of Menasha, the Menasha Utilities, and the Menasha Sustainability Board.

Passed and approved this 15th day of December, 2008.


Donald Merkes, Mayor


Deborah A. Galeazzi, City Clerk



RESOLUTION R-24-19

**A RESOLUTION FOR A CONTINUED COMMITMENT OF A
MUNICIPAL-WIDE ENERGY MANAGEMENT POLICY**

Introduced by Mayor Merkes

WHEREAS, the City of Menasha and Menasha Utilities are committed to being an environmentally responsible community and municipally owned and operated utility dedicated to improving global and local quality of life through active environmental stewardship; and

WHEREAS, it is more cost-effective to use less energy than it is to generate and/or purchase energy for the operation of City of Menasha and Menasha Utilities facilities; and

WHEREAS, Menasha Utilities and WPPI Energy have developed and implemented mutually beneficial energy efficiency, conservation and renewable energy programs, projects and educational activities designed to increase community energy efficiency, promote clean air and water and reduce waste; and

WHEREAS, Menasha Utilities already promotes these initiatives through its Commitment to Community programs and partnership with WPPI Energy and Focus on Energy; and

WHEREAS, implementing a municipal-wide energy management policy will require that the City of Menasha and Menasha Utilities make a commitment of financial and human resources toward initiatives that save energy and money for the long-term.

NOW, THEREFORE, BE IT RESOLVED, that the City of Menasha and Menasha Utilities will set a goal to curb use of energy in municipal facilities by 5% from levels measured in 2018 within 5 years.

BE IT FURTHER RESOLVED, that the City of Menasha and Menasha Utilities will demonstrate the effectiveness of energy efficiency, conservation and renewable resource development and further seek to instill a strong conservation ethic within the community that will help establish the City of Menasha as a leader in these areas.


Passed and approved this 18th day of November, 2019.

Recommended by:
Water and Light Commission

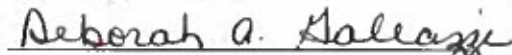
Motion/Second:
Ald. Nichols/Ald. Tom Grade

Passed: 8-0

Requires: Majority Vote


Donald Merkes, Mayor

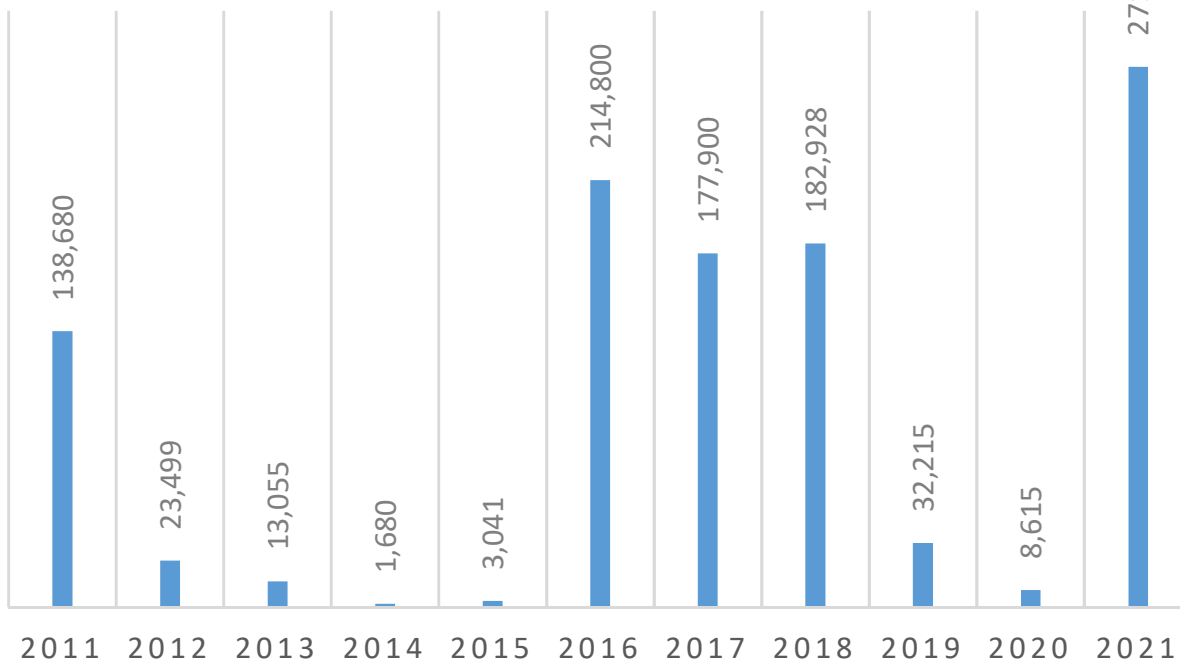
ATTEST:


Deborah A. Galeazzi, City Clerk

City of Menash Focus on Energy Incentives 2008-2021

Customer Name	Measure Master Name	Site Street	Account	Measure	Unit	Total	kW	kWh Savings	Therm Savings	kWh Savings	Therm		
			Number	Group	Quantity	Incentive	Savings	(First Year)	(First Year)	(Lifecycle)	(Lifecycle)		
			Payment Paid Date	Category									
			1/1/2011	EECBG Streetlights				97,840		880,560			
			1/1/2011	EECBG HVAC				40,840	4,440	367,560	39,960		
City of Menasha	Bonus, Early Completion 50%, By October 1st 2012	440 1st St	3289125-10	12/11/2012	Other	Bonus	1	\$ 313.50	-	-			
City of Menasha	Bonus, Early Completion 50%, By October 1st 2012	440 1st St	3289125-10	12/11/2012	Other	Bonus	1	\$ 209.00	-	-			
City of Menasha	LED Fixture, Exterior Wall-Pack, Dusk to Dawn	116 Main St	1061550-4	12/11/2012	Lighting	Light Emitting Diode (LED)	1	\$ 25.00	-	270	-		
City of Menasha	LED Fixture, Exterior Wall-Pack, Dusk to Dawn	430 1st St	03289110-10	12/11/2012	Lighting	Light Emitting Diode (LED)	1	\$ 25.00	-	270	-		
City of Menasha	VFD, Chilled Water Distribution Pump	440 1st St	3289125-10	12/11/2012	HVAC	Variable Speed Drive	1	\$ 500.00	-	7,608			
City of Menasha	VFD, Cooling Tower Fan	440 1st St	3289125-10	12/11/2012	HVAC	Variable Speed Drive	1	\$ 627.00	-	15,351			
City of Menasha	Bonus, Early Completion 25%, By November 1st, 2012	430 1st St	03289110-10	1/12/2013	Other	Bonus	1	\$ 37.50	-	-			
City of Menasha	VFD, HVAC Heating Pump	430 1st St	03289110-10	1/12/2013	Boilers & Controls	Variable Speed Drive	2	\$ 150.00		6,298			
City of Menasha	Vending Machine Controls, Occupancy Based, Cold Beverage Machine	430 1st St	03289110-10	5/10/2013	Vending & Controls	Controls	1	\$ 60.00	-	1,633	-		
City of Menasha	Vending Machine Controls, Occupancy Based, Cold Beverage Machine	440 1st St	3289125-10	6/12/2013	Vending & Controls	Controls	2	\$ 120.00	-	3,266	-		
City of Menasha	Occupancy Sensor, Ceiling Mount, <=500 Watts	140 Main St	01061660-01	12/3/2013	Lighting	Controls	1	\$ 15.00	-	465	-		
City of Menasha	Occupancy Sensor, Wall Mount, <=200 Watts	140 Main St	01061660-01	12/3/2013	Lighting	Controls	7	\$ 52.50	-	1,393	-		
City of Menasha	T8, Low Watt Relamp, 25 Watts, 4'	440 1st St	3289125-10	12/3/2013	Lighting	Fluorescent, Linear	60	\$ 60.00	0.37	1,680	-		
City of Menasha	A/C Split or Packaged System, High Efficiency	140 Main St	01061660-01	2/28/2014	HVAC	Rooftop Unit / Split System AC	1	\$ 1,890.00	5.06	3,041	-		
City of Menasha	LED Fixture, Downlights, <=18 Watts, Replacing 1 lamp pin based CFL Downlight	440 1st St	3289125-10	3/18/2016	Lighting	Light Emitting Diode (LED)	7	\$ 35.00	0.11	560	-		
City of Menasha	LED Fixture, Replacing 250 Watt HID, Exterior	430 1st St	03289110-10	3/18/2016	Lighting	Light Emitting Diode (LED)	2	\$ 100.00	-	1,740	-		
City of Menasha	LED Replacement of 4' T8 Lamps, Direct Wire	430 1st St	03289110-10	8/8/2016	Lighting	Light Emitting Diode (LED)	132	\$ 528.00	0.82	4,092	-		
City of Menasha	LED Fixture, Replacing 150-175 Watt HID, Exterior	140 Main St	01061660-01	8/22/2016	Lighting	Light Emitting Diode (LED)	202	\$ 8,080.00	-	119,988	-		
City of Menasha	LED Fixture, Replacing 250 Watt HID, Exterior	140 Main St	01061660-01	8/22/2016	Lighting	Light Emitting Diode (LED)	97	\$ 4,850.00	-	84,390	-		
City of Menasha	LED Replacement of 4' T8 Lamps, Direct Wire	1911 Manitowoc Rd	1044863-0	12/22/2016	Lighting	Light Emitting Diode (LED)	130	\$ 519.35	0.81	4,030	-		
City of Menasha	LED Fixture, Replacing 150-175 Watt HID, Exterior, Street Light	100 Main St Ste 200	01061660-01	9/8/2017	Lighting	Light Emitting Diode (LED)	6	\$ 180.00	-	3,564	-		
City of Menasha	LED Fixture, Replacing 250 Watt HID, Exterior, Street Light	100 Main St Ste 200	01061660-01	9/8/2017	Lighting	Light Emitting Diode (LED)	33	\$ 1,320.00	-	28,710	-		
City of Menasha	LED Fixture, Replacing 150-175 Watt HID, Exterior	140 Main St	01061660-01	9/22/2017	Lighting	Light Emitting Diode (LED)	169	\$ 6,760.00	-	100,386	-		
City of Menasha	LED Fixture, Replacing 250 Watt HID, Exterior	140 Main St	01061660-01	9/22/2017	Lighting	Light Emitting Diode (LED)	52	\$ 2,600.00	-	45,240	-		
City of Menasha	LED Fixture, Replacing 150-175 Watt HID, Exterior	140 Main St	01061660-01	6/6/2018	Lighting	Light Emitting Diode (LED)	182	\$ 7,280.00	-	108,108	-		
City of Menasha	LED Fixture, Replacing 250 Watt HID, Exterior	140 Main St	01061660-01	6/6/2018	Lighting	Light Emitting Diode (LED)	86	\$ 4,300.00	-	74,820	-		
City of Menasha	LED Fixture, Replacing 70-100 Watt HID, Exterior	140 Main St	01061660-01	6/7/2018	Lighting	Light Emitting Diode (LED)	0	\$ -	-	-	-		
City of Menasha	LED Replacement of 4' T8 Lamps, Direct Wire	1 Center St	1060677-04	1/26/2019	Lighting	Light Emitting Diode (LED)	64	\$ 128.00	0.40	1,984	-		
City of Menasha	LED Replacement of 4' T8 Lamps, Direct Wire	440 1st St	3289125-10	5/14/2019	Lighting	Light Emitting Diode (LED)	576	\$ 1,152.00	3.57	17,856	-		
City of Menasha	LED, Exterior Fixture, High Output, 10,000-29,999 lumens	440 1st St	3289125-10	5/14/2019	Lighting	Light Emitting Diode (LED)	6	\$ 300.00	-	10,338	-		
City of Menasha	LED, Exterior Fixture, Mid Output, 5,000-9,999 lumens	440 1st St	3289125-10	5/14/2019	Lighting	Light Emitting Diode (LED)	3	\$ 105.00	-	2,037	-		
City of Menasha	LED, Exterior Fixture, High Output, 10,000-29,999 lumens	440 1st St	3289125-10	12/8/2020	Lighting	Light Emitting Diode (LED)	5	\$ 250.00	-	8,615	-		
City of Menasha	A/C Split System, ? 65 MBh, SEER 15	455 Baldwin St	218-5695-0	2/9/2021	HVAC	Rooftop Unit / Split System AC	1	\$ 25.00	0.36	340	-		
City of Menasha	A/C Split System, ? 65 MBh, SEER 18, Data Center/Telecom	455 Baldwin St	218-5695-0	2/9/2021	HVAC	Rooftop Unit / Split System AC	1	\$ 200.00	0.13	1,460	-		
City of Menasha	A/C Split or Packaged System, High Efficiency, ? 11.25 to < 20.00 tons	455 Baldwin St	218-5695-0	2/9/2021	HVAC	Rooftop Unit / Split System AC	20	\$ 503.68	2.02	1,834	-		
City of Menasha	A/C Split or Packaged System, High Efficiency, ? 20.00 to < 63.33 tons	455 Baldwin St	218-5695-0	2/9/2021	HVAC	Rooftop Unit / Split System AC	89	\$ 1,860.30	8.07	4,042	-		
City of Menasha	Air-Source Heat Pump, ? 65 MBh, SEER 18 and 9.0 HSPF	455 Baldwin St	218-5695-0	2/9/2021	HVAC	Rooftop Unit / Split System AC	2	\$ 120.00	0.92	2,880	-		
City of Menasha	Furnace with ECM, 795%+ AFUE, NG	455 Baldwin St	218-5695-0	2/9/2021	HVAC	Furnace	1	\$ 180.00	-	73	308		
City of Menasha	Interior New Construction Lighting LPD Below Code	455 Baldwin St	218-5695-0	2/23/2021	Lighting	Light Emitting Diode (LED)	1	\$ 4,026.48	19.89	100,662	-		
City of Menasha	LED, Exterior Fixture, High Output, 10,000-29,999 lumens	455 Baldwin St	218-5695-0	2/23/2021	Lighting	Light Emitting Diode (LED)	3	\$ 150.00	-	5,169	-		
City of Menasha	LED, Exterior Fixture, Low Output, <= 4,999 lumens	455 Baldwin St	218-5695-0	2/23/2021	Lighting	Light Emitting Diode (LED)	15	\$ 150.00	-	5,265	-		
City of Menasha	LED, Exterior Fixture, Mid Output, 5,000-9,999 lumens	455 Baldwin St	218-5695-0	2/23/2021	Lighting	Light Emitting Diode (LED)	9	\$ 180.00	-	6,111	-		
City of Menasha	VFD, Pool Pump Motor	915 3rd St	3288550-00	10/26/2021	Pools	Variable Speed Drive	1	\$ 700.00	7.23	20,465	-		
City of Menasha	Solar PV	455 Baldwin St	3288550-00	11/23/2021	Renewable	Photovoltaics	1	\$ 33,496.00	26.83	123,638	-		
Totals							1,977	\$ 84,163.31	76.58	1,068,353	4,748	14,413,379	45,504

KWH SAVED





Energy Innovation Grant Application

January 14, 2022

EXECUTIVE SUMMARY

Menasha is looking to engage in a Comprehensive Energy Study that would be created in partnership with the City of Menasha, Menasha Utilities, the Menasha Joint School District, and the community that we serve. Providing this grant would allow common goals to be set, identify innovative solutions to further reduce energy usage and greenhouse gas emissions, and educate residents/businesses how to best use current and new programs to reduce their own energy use.

- **Project Description:** Creating a Comprehensive Energy Plan is our community's next step in the process of meeting our energy goals for today and into the future. While the city, school district and utility have made progress through their own efforts, it is important to collaborate on a plan that will meet the needs of the community at large. The Plan would include an evaluation of current energy use and sources for facilities and fleets, explore renewable energy generation options, and expand our energy efficiency initiatives internally as well as programs available to our customers, and creation of long-term community-wide energy goals. This plan would include a comprehensive energy audit that seeks to identify all cost-effective investment opportunities through a combination of engineering analysis of energy-using systems and economic analysis of potential energy saving measures.
- **Key Partners and Stakeholders:** The City of Menasha, Menasha Joint School District, Menasha Utilities, WPPI Energy and Menasha Sustainability Board are collaborating on this project to ensure stakeholders are involved in the development of the Comprehensive Energy Plan.
- **Objectives and Metrics:** Given the City, Utility and School District all have a role in local government we feel we need to do our part in reducing the community-wide emissions. Energy-efficiency has been the most cost-effective option in the past and we would like to look at additional options moving forward that can further advance those goals at the municipal and community level. Menasha is a diverse community, we see that as an advantage mixing different cultures, ideas, and income levels. The economic impacts need to be taken into consideration to ensure they are mutually beneficial in accomplishing the goals and not largely impacting one group, the taxpayer or ratepayer. Community engagement throughout this process is important to best meet their needs as well as the goals locally and at the state level.
- **Reference Material List:**
 - Resolution R-21-08 Resolution Supporting the Creation of Office of Energy Independence
 - Resolution R-23-09 Implementing Community-Wide Energy Program
 - Resolution R-24-19 Continued Commitment of Municipal-Wide Energy Management Policy
 - City of Menasha 2021-2041 Comprehensive Plan
 - Menasha Joint School District Policy on Conservation of Natural and Material Resources
 - 2021 Smart Energy Provider Application
 - WPPI Energy At A Glance
 - Data from Customer Studies conducted for Residential, Small, Mid and Large Business Customers

INTRODUCTION

The City of Menasha, Menasha Utilities, and the Menasha Joint School District have a unique relationship of shared and contracted services among the three parties. The District and City share a joint administration building owned by the District. The three parties share fleet management and maintenance at the City's Public Works Facility. The City and District share health services managed by the City, the District contracts with the City Police Department to provide School Resource Officers, and the District partners with the City for winter salt purchases and storage. The Utility and City have partnered to replace all lead water laterals in the community and convert city streetlights to LED. All the entities partner with WPPI Energy for technical assistance with energy management.



Heckrodt Wetland Preserve Solar PV System & EV Charger

All three entities have worked on sustainability measures; however, they are at different points in data collections and implementation of these initiatives. Menasha is looking to engage in a Comprehensive Energy Study that would be created in partnership with the City of Menasha, Menasha Utilities, the Menasha Joint School District, and the community that we serve. Providing this grant would allow common goals to be set, identify innovative solutions to further reduce energy usage and greenhouse gas emissions, and educate residents/businesses how to best use current and new programs to reduce their own energy use.

Since 2009, the City of Menasha and Menasha Utilities committed to being an environmentally responsible Utility, dedicated to improving global and local quality of life through active stewardship. Our commitment includes promoting energy conservation and recycling, development and implementation of mutually beneficial renewable energy and energy conservation programs and projects, and educational activities within the community of Menasha to lead by example toward this initiative.

In 2019, Governor Evers issued an executive order relating to clean energy in Wisconsin and ensuring electricity consumed in the state will be carbon-free by 2050. WPPI Energy, our power provider, has committed to being carbon free by 2050. Additionally at the local level we feel we need to do our part in reducing the community-wide emissions. While energy-efficiency continues to be the most cost-effective option, innovative programs and new technological advancements need to be explored to reach these goals at the municipal and community level.

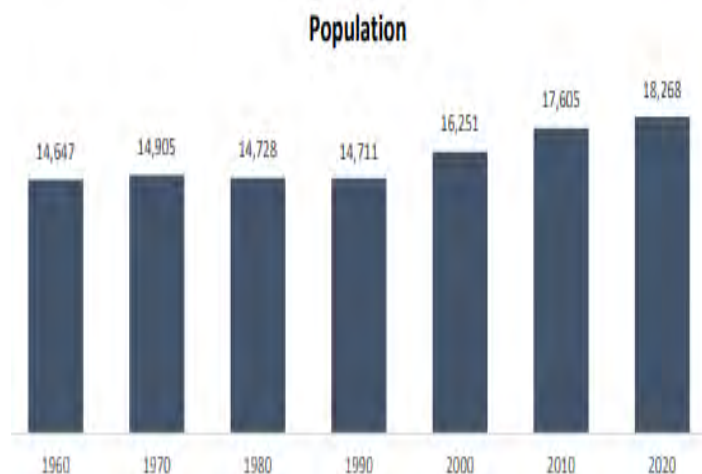
The economic impacts of new projects and programs need to be evaluated to ensure they are mutually beneficial in accomplishing the goals and not largely impacting the taxpayer, ratepayer or disproportionately, affecting a small group. The low-income population are not typically thinking of the future but rather about today and we need to make sure the programs support them. Community engagement throughout this process is important to best meet their needs as well as the goals locally and at the state level.

CITY OF MENASHA



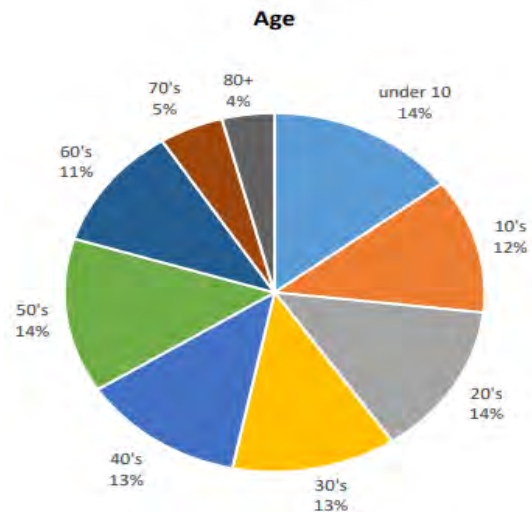
City Public Works Facility Solar PV System

Sustainability has been an important consideration in Menasha for nearly two decades. Menasha passed a resolution in 2007 to create a Sustainability Board to guide implementation of sustainability and energy efficiency measures. In 2008, the City of Menasha supported and adopted the 25x25 goals and became a community partner with the Office of Energy and Independence. We supported the mission to generate 25% of the state's electricity and transportation fuels from renewable energy sources by 2025, capture 10% of the emerging bio industry and renewable market by 2030, and lead the nation in groundbreaking research that will make renewable energy more affordable and create good paying jobs. With this initial resolution there was a commitment to reduce demand for



Nestled in the heart of the Fox Cities, the City of Menasha has created a sense of place that attracts people from around the region with friendly neighborhoods, unique businesses, neighborhood schools, major employers, and exceptional recreational opportunities. Menasha leads in providing quality services, low-cost electric rates, progressive public safety, and lifelong learning opportunities. Incorporated in 1874, the City is comprised of 7.76 square miles with a population of 18,268. Menasha has the most publicly accessible waterfront in the Fox Cities promoting itself as “Your Place on the Water”.

Demographics



electricity, water, and natural gas by 10%. This municipal wide energy management policy was reconfirmed in 2019 with a goal to reduce energy by 5% within the next 5 years.

The 2008 Comprehensive Plan included sustainability as a main component, and the 2021 update continues that emphasis. Energy efficiency initiatives, including street lighting, facilities, and solar have reduced the City's electrical use by over 1,000,000 kWh annually. As a community we have achieved sustainable outcomes through a

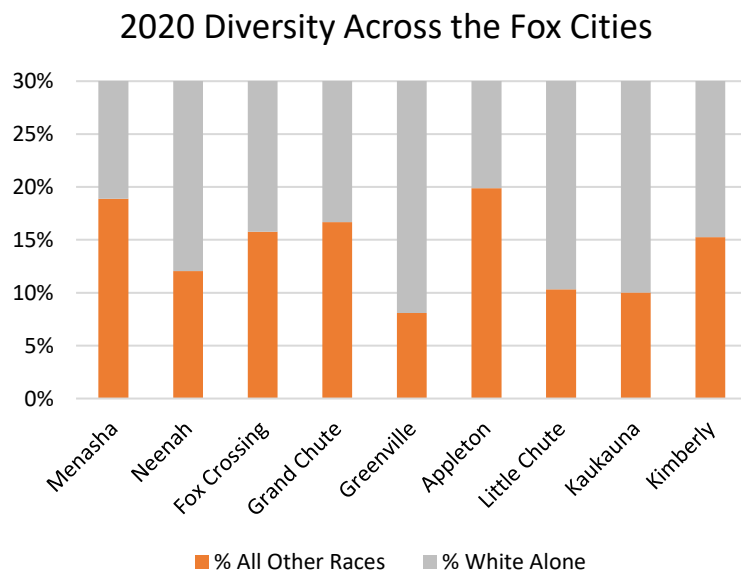
focus on efficiency, including the efficient use of land and infrastructure and the efficient use of energy. Those efforts have improved the capacity to sustain our way of life and intend to improve sustainability and resilience in the future.

Menasha is a diverse community which we see as an advantage, mixing different cultures, ideas, and incomes. While the Fox Cities as a whole is approximately 84% white, Menasha is home to a minority population of approximately 19% (2020 Census). Being that median income is approximately \$10,000 lower than the state average, we strive to ensure that there is equity in the programs and services that we offer. This extends to equity in the economic impacts of the carbon-free goals on the community. The median age of a home in Menasha is over 50 years, giving numerous opportunities for our residents to utilize programs to save energy and money.

Local to national demographic comparisons (2010 US Census Bureau):

Demographic Indicators	City	County	WI	US
Hispanic population	8%	4.10%	6.80%	18.00%
Non-white population	17%	11.40%	18.70%	39.30%
Persons with Disabilities	13.90%	11.90%	11.70%	12.60%
Female households' w/children	12.10%	9.50%	9.20%	9.90%
Unemployment rate	4.40%	3.10%	3.60%	5.30%
Poverty rate (individuals)	12.10%	11.00%	11.30%	13.40%
Poverty rate for children	18.30%	14.10%	14.90%	18.50%
Poverty rate for female households' w/children	39.00%	31.20%	33.40%	36.10%
Poverty rate (disabled persons)	25.80%	20.50%	20.10%	19.40%
Per capita income	\$33,092	\$32,571	\$33,375	\$34,103
Housing built 1979 or earlier	61.30%	60.50%	60.00%	53.60%

Fox Valley demographic comparisons:



MENASHA JOINT SCHOOL DISTRICT

Menasha Joint School District provides pre-kindergarten through grade 12 educational programs that offers opportunities to students to maximize individual potential in the City of Menasha, Village of Fox Crossing and City of Appleton (in Winnebago, Calumet, and Outagamie counties). Students will gain knowledge and skills to equip them with the ability to function as lifelong learners and responsible citizens in their communities.

The Vision of Menasha Joint School District:

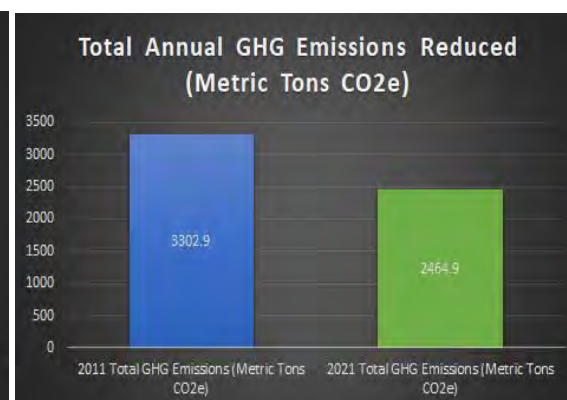


Maplewood Middle School Solar PV System

AN EDUCATIONAL COMMUNITY COMMITTED TO REACHING FOR EXCELLENCE

Our community consists of all district employees, students, parents, businesspeople and the community at large. As an educational community reaching for excellence, we will develop students' communication, mathematical, and technological skills; self-awareness, emotional adjustment, self-discipline, and other intrapersonal skills; self-discipline to function independently; interpersonal relationship skills; leadership skills; citizenship skills; decision making, problem solving, and other critical thinking skills; career planning skills; and fine arts appreciation skills. As an educational community reaching for excellence, we will provide students with essential knowledge from a comprehensive curriculum; teachers who are well trained and who receive ongoing training; learning opportunities from community resource persons; learning that has practical application; opportunities for advanced academic courses; opportunities for advanced technical training; and learning opportunities from the world of work.

Over the past 10 years, Menasha Joint School District has worked closely with energy partners like Menasha Utilities, WPPI and Focus on Energy as we worked to continuously improve our school district's overall energy conservation. We reduced our electrical load by over 1,000,000 kWh and 850 therms of natural gas while still increasing the district over 80,000 square feet during the last 10 years. Our school district's greenhouse gas emissions have reduced over 2200 metric tons which is the equivalent to over 3000 acres of carbon sequestered in a year.



Menasha Joint School District's commitment to energy conservation continues into the future by setting goals to reduce energy consumption annually at a minimum by 10%, working to achieve Energy Star rating at every facility, and pursuing the latest in green energy technology. Always looking at ways to reduce costs and utilize our facilities in the most efficient manner.

We will achieve this by using a program of energy management that looks at all aspects of a building's energy usage. Major building components, facility use, activity scheduling, and other items that impact the district's overall energy costs are analyzed in an effort to reduce our annual energy expenditures and improve our facilities.

Specific District Goals:

- To reduce energy costs district-wide through conservation efforts, renewable energy systems such as solar, cooperative partnerships, and energy savings projects.
- Research future energy savings projects.
- Continue partnerships with local utility providers and municipalities.
- Provide safe, comfortable learning and working environments for all of Menasha Joint School District students, staff, and building users.
- Measure and track energy performance quarterly and annually

The district consists of the following schools:

- Menasha High School (Shelter location in emergencies)
- Maplewood Middle School
- Banta Elementary School
- Butte des Morts Elementary School
- Clovis Grove Elementary School (Shelter location in emergencies)
- Gegan Elementary School
- Jefferson-Nicolet Elementary School
- Fox Valley Virtual School

MENASHA UTILITIES

Menasha Utilities is a municipally owned and operated electric and water utility, serving more than 9,000 customers in Menasha. Menasha is one of the largest municipal electric utilities in the state based on load and currently the 8th largest based on customers served. We strive to provide low-cost, reliable service with a community-focused, personal touch. We are friends and neighbors who share values and understand the local needs.

Menasha Utilities was founded in 1905. While a lot has changed over the past century, the focus of the utility has not. Today, we still offer our customers some of the lowest electric rates in the area - rates significantly lower than those in territories that are served by most investor-owned utilities. And, since we live and work in the community, we provide reliable energy with superior customer service.

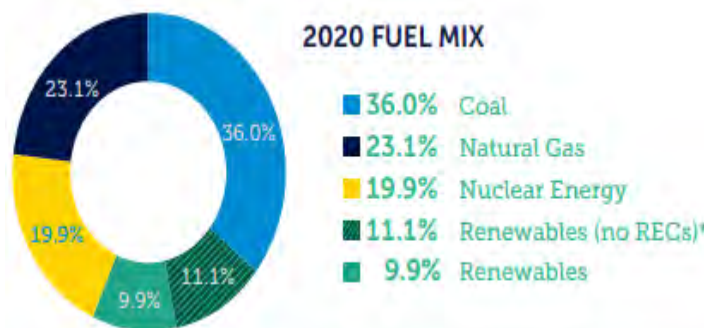
Menasha Utilities also provides our customers with clean, high-quality water that meets or exceeds all state and federal standards. Our water quality and capacity are monitored every day by well-trained system operators.

Menasha Utilities has been recognized by the American Public Power Association as a 2021 Smart Energy Provider. This designation is for utilities that show commitment to proficiency in energy efficiency, distributed generation, renewable energy, and environmental initiatives that support a

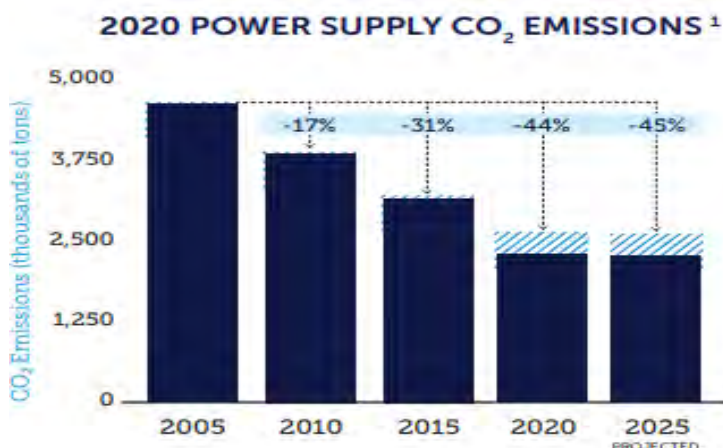
utility's mission to provide low-cost, safe, and reliable electric service. Menasha first received this designation in 2019 and the certification is good for 2 years. Menasha is continuing to lead the way in supporting our community's responsible energy use by offering great programs to our customers to help them save money and reduce the collective footprint on the environment.

WPPI ENERGY

Member-owned, not-for-profit WPPI Energy serves 51 locally owned electric utilities. Together, WPPI members have built a diverse, competitive, and responsible power supply. They share advanced technologies and forward-thinking services, and they speak with a unified voice for effective energy policy advocacy. Menasha is a full requirements member for power supply with WPPI Energy and makes up 10% of the demand of the entire WPPI power supply system.



The 2022-2026 WPPI Energy Strategic Plan includes climate goals and policy. WPPI is targeting net-zero carbon electricity by 2050 which is consistent with Wisconsin's 100% carbon-free goal. In setting this goal WPPI recognizes that costs are important, as is ensuring reliability. Reaching this goal will require continuing improvements in technology. Based on the current initiatives WPPI will achieve approximately 50% carbon reduction by 2030; two of the most recent major generation projects are from renewable sources.



COMMUNITY ENERGY MAKEUP

With our power supply makeup of 19.9% nuclear, 11.1% renewable (Renewable Energy Certificates not claimed) and 9.9% Renewable (with RECs retained), Menasha is currently being served 40.9% carbon-free. With the addition of Point Beach Solar in 2021 this will increase the renewables by 4%. In addition, our customers have voluntarily purchased 778 of renewable energy blocks (233,400 kWh) to offset their usage, showing support for greener energy options. We also have 25 solar PV installations in Menasha, totaling 261.42 kW (AC); the vast majority being owned by residential customers.

Distributed Generation Inventory					
Customer Name	Rate Class	DG Resource	Nameplate Rating (kW)	Tariff	Interconnection Date
MENASHA					
Maplewood School	C	Solar PV	1.05	Net meter-Pgs-1	2004
Commercial	C	Solar PV	19.2	Net meter-Pgs-1	11/24/2010
Non-Profit	C	Solar PV	5.06	Net meter-Pgs-1	12/17/2010
N/M Fire Station	C	Solar PV	5.28	Net meter-Pgs-1	11/28/2011
Non-Profit	C	Solar PV	10.35	Net meter-Pgs-1	5/17/2018
Heckrodt Preserve	C	Solar PV	19.6	Net meter-Pgs-1	8/15/2018
Non-Profit	C	Solar PV	18	Net meter-Pgs-1	10/15/2021
City Public Works	C	Solar PV	86.4	Pgs-2	10/1/2021
17 Total Residential	Rg	Solar PV	96.48	Solar Buyback and Net meter-Pgs-1	2010-2022



Menasha Commercial Customer Solar PV System

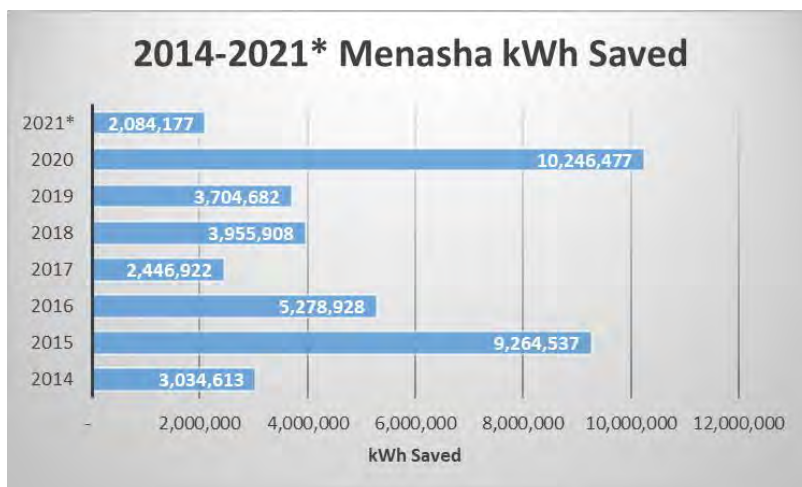
ENERGY TEAM

The Joint Energy Team that was established for this project includes representation from all partners on the leadership and technical side:

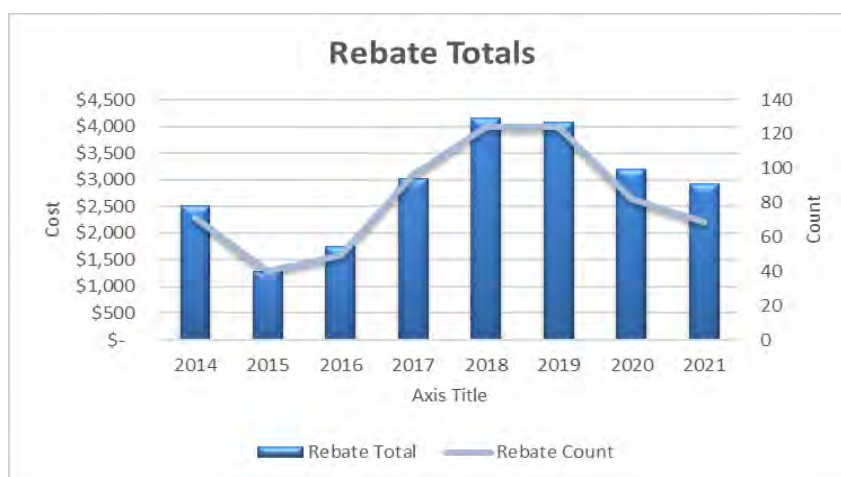
Donald Merkes, City of Menasha, Mayor
Megan Sackett, City of Menasha, Director of Parks, Recreation, Forestry, Cemeteries and Facilities
Brian Haessly, City of Menasha, Electrician and Facilities Technician
Brian Adesso, Menasha School District, Director of Business Services
David Elliott, Menasha School District, Supervisor of Buildings & Grounds
Melanie Krause, Menasha Utilities, General Manager
Steve Grenell, Menasha Utilities, Engineering Manager
Lisa Miotke, WPPI Energy, Energy Services Manager
City of Menasha Sustainability Board

ENERGY GOALS ACCOMPLISHED

For many years the City, School District, Utilities, and the community have been making strides to increase efficiency and reduce energy consumption in their homes, business, and schools. Since 2014 over 40,000,000 kWh has been saved by customers who have installed measures such as LED lighting, Energy Star rated equipment, high performance motors and drives, HVAC equipment and solar PV installations.



Menasha Utilities offers Energy Star Appliance, Central Air Conditioner Tuneup, and TreePower! rebates and our residential customers take advantage of them each year. In 2021 a new Heat Pump Water Heater rebate is being offered to encourage adoption of newer technology that offers higher efficiency alternatives.

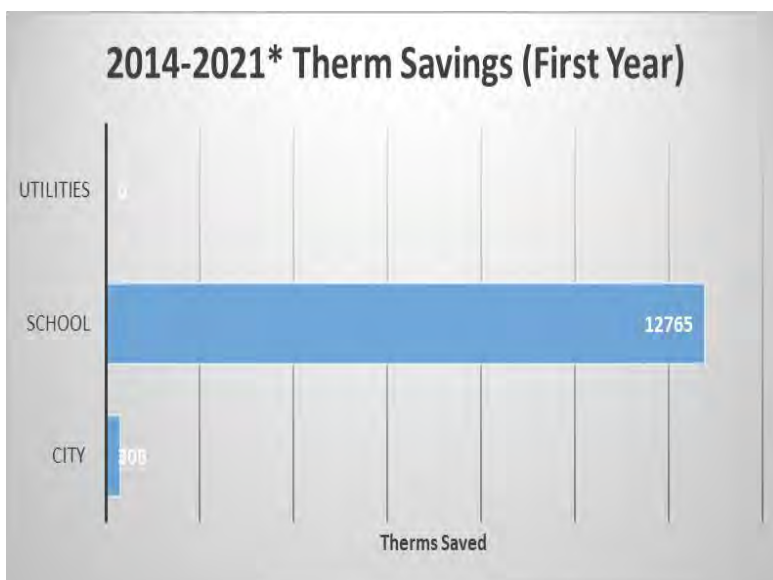


*2021 data not fully reported.

The city, utility and school district have steadily been making progress on their efficiency goals by implementing many projects at their facilities over many years. The main focus has been converting a variety of older and inefficient lighting to LED (Light Emitting Diode), adding more efficient HVAC equipment and building controls. The School District and City have utilized a New Construction Design assistance program on multiple buildings which worked with 3rd party engineers to review plans and adopt recommended equipment that was more efficient than the plans. Adoption of these

recommendations has saved energy from the start. Since 2016, the city and utility have worked together on a concerted effort to transition high pressure sodium streetlights to LED in the city. Most of the energy savings have been electric, but the district has done multiple projects recently with estimated natural gas savings of 12,765 therms.

In addition, the city has been proactive in installing solar photovoltaic systems at the Neenah-Menasha Fire Station #36 and the newly constructed Public Works Facility and is evaluating additional locations. The school district installed a teaching/demonstration solar PV and weather station at the Maplewood Middle School, which is used by educators at the school. Menasha Utilities/WPPI Energy have provided incentives to a number of non-profit organizations for the installation of solar PV. The district would like to evaluate options for a 1 MW solar PV system with battery backup at the High School in the future. Since the High School is designated as a shelter during an emergency, looking at resiliency through renewable energy with battery backup is important for the community. The City's Public Protection Facility is also a prime candidate for battery backup with its emergency response focus.



CUSTOMER BASE

The Electric Utility has 9,319 customers. One large industrial customer makes up 41% of the operating revenue, 83 additional industrial customers make up 34%, and 9,235 residential and commercial customers make up 25%. One of the Utility key strategic initiatives is to maintain energy efficiency programs, conservation and renewable energy programs and look to diversify the programs and rebates each year to benefit all customers.

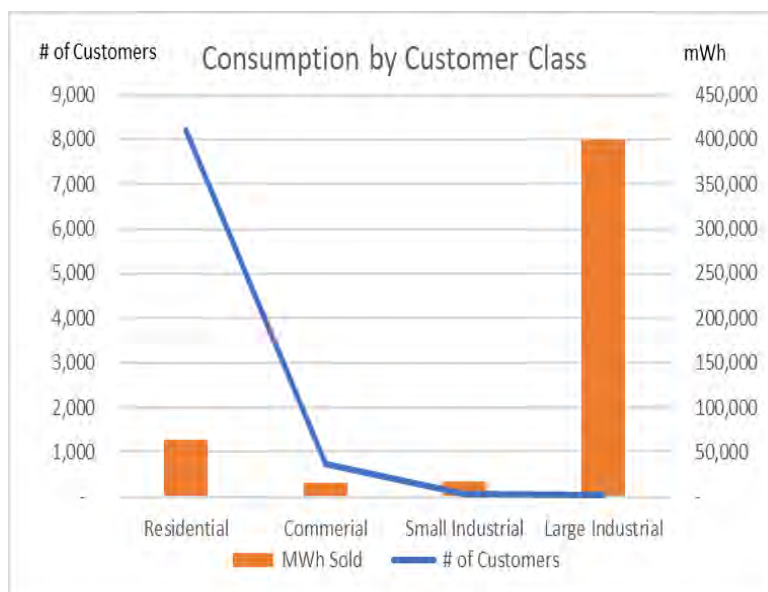
Menasha Utilities strives to assist our customers with their goals, including keeping energy costs manageable by reducing waste through energy efficiency, exploring renewable energy options, and assessing available alternative rate options. We also partner with Focus on Energy to bring many more program options to them if they choose. Some of our programs include:

Residential: Annual Home Energy Report, home energy assessments, rebate programs, Time of Use rate, Electric Vehicle charger incentive (EVCI), educational opportunities.

Commercial: Matching incentives through Main Street Efficiency program, facility assessments, New Construction Assistance (NCDA), Shared Savings program (SS), EVCI, educational opportunities.

Schools and Government: Energy Management for Schools, Utility & Municipal Buildings incentives, RFP for Energy Efficiency grant, RFP for Renewable Energy for Nonprofits grant, NCDA, SS, EVCI, educational opportunities.

Industrial: Matching incentives, RFP for Energy Efficiency, Study Grant, NCDA, SS, EVCI, capacity programs, New Load Market Price tariff, and educational opportunities.



Menasha Non-Profit Commercial Customer Solar PV System

WPPI Energy has conducted surveys each year for the various customer classes to gauge the importance of energy related goals, interest in programs and services, interest in energy efficiency, and participation in these programs. These surveys are conducted on behalf of Menasha and other members and compares the WPPI communities to the other utilities nationally. From these results we can see what the levels of participation have been for energy efficiency and that there is interest from our customers in additional programs and services to help them meet their own energy related goals.



University of Wisconsin Fox Cities Solar PV System

EDUCATION

Engaging and educating our customers and the community has always been one of our key objectives especially when it comes to sustainability and efficiency initiatives. Like many other utilities we have information available to our customers on our website, bill stuffers, and in printed form. Additionally, our customers annually receive a Home Energy Report to explain their energy and water usage and how they compare to the average in Menasha. This report also includes information on various programs and services that we offer. Each year we celebrate Public Power Week by hosting an event to provide energy efficient products and educational opportunities. We have also participated in various community functions like the Farmers Market and Library Educational Series to help get more information out to our customers.

EDUCATIONAL KIOSK

Menasha Utilities has partnered with UW-Fox Cities to create interactive educational kiosks and an online portal for students and the community to use at various locations around the City of Menasha including the library, schools, university, utility building and Heckrodt Wetland Preserve. We envision the kiosks to include renewable energy information for the public systems in the City of Menasha. The software/hardware development has been completed and any new solar systems will be added as they come online. In 2022, the intent is to complete the design and deploy the initial kiosk at the UW Campus Barlow Planetarium and then expand to other locations. In the future other renewable/carbon-free data and information will be added. Our objective of this project was to bring more awareness to our community on the benefits of renewable options and look to expand upon this as we develop our Comprehensive Energy Plan.



PROJECT DESCRIPTION

Creating a Comprehensive Energy Plan is our community's next step in the process of meeting our energy goals for today and into the future. While the city, school district and utility have made progress through their own efforts, it is important to collaborate on a plan that will meet the needs of the community at large. The Plan would include an evaluation of current energy use and sources for facilities and fleets, explore renewable options, expand our energy efficiency initiatives internally as well as programs available to our customers, and creation of long-term community-wide energy goals. This plan would include a comprehensive energy audit that seeks to identify all cost-effective investment opportunities through a combination of engineering analysis of energy-using systems and economic analysis of possible energy saving measures. The details of the plan would include:

Energy Plan

A consultant will facilitate stakeholder engagement between the City of Menasha, Menasha Utilities, and Menasha Joint School District. The primary role will be facilitating meetings with key stakeholders to assess and prioritize different approaches to achieving Menasha's energy goals.

- **Needs Assessment and Prioritization:** The workshop will identify and document stakeholder barriers, priorities, and roles as they relate to the comprehensive energy plan. The consultant will also provide an introductory and educational session on carbon reduction opportunities and best practices across the U.S. to consider as part of the comprehensive energy plan. The outcome of this workshop will be to provide a starting point for a draft comprehensive energy plan.
- **Plan Development:** The consultant will facilitate a workshop to refine and iterate on the comprehensive energy plan. The workshop objective is to align on the prioritized list of projects and future utility programs and identify next steps for implementation (if consensus is achieved). The plan will include recommendations for projects that are feasible in the near term, next steps for implementation, as well as the timeline for achieving long term energy goals.

Facility Audits

Facility wide analyses that culminate in quantification of project costs, prioritization, and critical maintenance needs.

- **Analyze energy use** and building characteristics for preliminary energy use analysis. This involves analysis of historic utility use and cost and development of the energy utilization index (EUI) of the buildings and to compare the buildings' EUI to similar buildings (benchmarking).
- **Identify possible Facility Improvement Measures (FIM)** and critical maintenance needs--Based on energy usage, plan review, maintenance logs, past projects, safety issues, staff input etc., identify possible projects and critical maintenance needs.
- **Detailed audit of facility--walkthrough analysis.** This assesses each building's current utility cost, condition, safety and compliance issues, and operations efficiency by analyzing and carefully surveying each building. This analysis identifies low-cost/no-cost measures, capital improvements, and pressing maintenance tasks that merit further consideration.

- **Confirm FIMs** using survey and analysis, efficiency and infrastructure, and potential costs and savings. This includes a more detailed building survey and analysis, including a breakdown of energy use in each building, a savings and cost analysis of all practical measures that meet the City/District's needs and constraints, and a discussion of any effect on operation and maintenance procedures. It also lists potential capital-intensive improvements that require more thorough data collection and analysis, along with an initial judgment of potential costs and savings.
- **Gather any needed additional information** from vendors and/or facility managers including prioritizing and providing detailed analysis of capital-intensive modifications and maintenance. This step focuses on potential capital-intensive projects identified earlier in the process and involves more detailed field data gathering and engineering analysis. It provides detailed project cost and savings rating with a level of confidence high enough for major capital investment decisions.
- **Create Report and Present Report to City/Utility/District.** The Auditor will bring in subject matter experts (i.e. electrical, technology, environmental health and safety), provide extensive photographic documentation, and perhaps of most value, create a body of detailed, prioritized recommendations in a flexible format tool that can pivot based on District, Board and community decisions regarding how to proceed, whether it be in the future annual capital allocations, other funding opportunities, and/or referendum.



Neenah/Menasha Fire Station Solar PV System

OPPORTUNITIES TO BECOME A CARBON FREE COMMUNITY

Distributed solar and/or wind – Currently we have solar on the City Public Works facility, Neenah/Menasha Fire Station #36, Maplewood Middle School, and at Heckrodt Wetland Preserve. Evaluate other Municipal and School District facilities that have larger loads and the economics of the capital investment make sense.

Energy Efficiency Programs – Currently we have many programs for our different rate classes as well as owner occupied/tenant customers and partner with Focus on Energy and WPPI Energy to maximize the return on investment to our customers. We would look to explore additional programs and services in the future and ensure equitable benefits to our diverse community.

Heat Pump – Explore feasibility of air source and ground source heat pump technologies.

Renewable energy certificates – We will work with WPPI Energy and explore the options of purchasing REC's at the wholesale level or assist larger industrial customers with an interest in acquiring them.

Community solar gardens – There were 2 WPPI member utilities that did a Pilot program previously. Moving forward this option may have additional advantages to customers if the economics improve.

Renewable Energy blocks – In 2021 we made changes to the tariff structure that the Utility has had in place for many years. We could look to better promote this program to our customers and if there are other benefits to be gained in the future.

Renewable/Carbon-free power supply – We are one of the largest members in WPPI Energy and have a say in the makeup of our power supply. If there are changes in the portfolio that is directly passed back to Menasha. Additionally, if we want to explore other options to progress faster than the state-wide goal than we can work directly with our provider.

Fleet Management – Evaluate the municipal and school district fleet to determine best options for replacement to help accomplish the carbon-free goals. Support programs and incentives for our customers that are looking to purchase Electric Vehicles.

Communitywide Transportation Opportunities – Explore ideas identified in the City 2041 Comprehensive plan.

EV Charging Stations – With the increase in electric vehicles an evaluation will need to be done on public access to EV charging and the best way to meet the needs of the community.

Batteries/Storage – Explore opportunities separately or in conjunction with solar PV projects to determine if there are benefits to be gained including Demand Side Management, peak shaving, and increased resiliency.

Other Technologies – Technological advancements are happening every day and we want to be flexible in our plan to take advantage of opportunities that make sense for Menasha. Between 2022 and 2050 there will be other technologies or opportunities that we will continue to explore.

IMPLEMENTATION

Phase 1: Completion of the Comprehensive Energy Plan in 2022. Developing project lists and recommendations and rolling information out to the community.

Phase 2: Start implementation in 2023 of Lead by Example municipal or school initiatives for infrastructure and fleet management that make economic sense. Look to better educate our customers about the energy efficiency and renewable programs that we offer. Continue to explore new programs, incentives, tariffs for customers in our community.

Phase 3: Review and evaluate what initiatives were implemented to determine the progress that has been made. Continue to explore other carbon-free initiatives as technology advances.

FINANCIAL LEVERAGE AND ECONOMIC IMPACT

Receiving this grant will allow the audits, benchmarking, and energy plan development to be done concurrently with facilitation from consultants with expertise within a contracted period. We currently have some basic level assessments that were completed by Focus on Energy however not to the extent that is being proposed in this Comprehensive Energy Plan. Currently, benchmarking through Energy Star has been done only for the school district buildings. Adding utility and city building tracking needs to be established to better evaluate and track the impacts of the projects. The development of the Energy plan would be worked on by the Energy Team and some funds could be budgeted each year by the City, Utility and School to help evaluate various options as well as develop the plan for the future.

BUDGET JUSTIFICATION AND COST SHARE

The budget consists of two components: the comprehensive energy audit and the development of the energy plan. We spoke with several consultants to get quotes and scope of services to determine the pricing however a selection was not made. The energy audit would be based on the square footage of the buildings we wanted to include for the City/Utility/School. Our intent is to go out more formally for a RFQ for these services if we are successful with this grant.

Comprehensive Energy Audit	\$75,000
Development of the Energy Plan	<u>\$65,000</u>
Total Estimated Contracted Services	\$140,000

We are seeking \$100,000 from the grant with the remainder of the contracted costs to be paid by the City of Menasha, Menasha School District, Menasha Utilities and WPPI Energy. Additional contributions not detailed above would be made in the form of personnel time and fringe benefits of the members of the energy team.

Transportation

Require bike parking for all new non-residential and multifamily uses.

Set standards for placement and number (as function of intensity of use) for bike parking spaces.

Commuter bike routes identified and cleared.

League of American Bicyclists certification. (Bronze 5, Silver 7, Platinum 10)

Funded and operating SRTS program (or functional equivalent) covering at least 10 percent of students.

Site schools in the Comprehensive Plan for accessibility with existing or new bicycle and pedestrian infrastructure

Conduct annual survey of students' mode of transport to school.

Require large employers seeking rezoning to set a price signal (cash-out or charge).

Require large employers seeking rezoning to provide subsidized transit.

Require large employers seeking rezoning to provide a TDM plan that would reduce trips by 20 percent over business as

Track VMT or traffic counts and report on efforts at reduction (including those on this list).

Eliminate parking minimums from non-residential districts.

Set parking maximums at X per square feet for office and retail uses.

Scheduled transit service at basic level (hour peak service within half-mile of 50 percent of addresses).

Scheduled transit service at enhanced level (half-hour peak service within 75 percent of addresses).

Develop and fully fund comprehensive maintenance program for existing roads.

Charge impact fees for new roads.

Calculate lane-miles per capita for arterials and collectors, and show reductions

Prepare a plan identifying disconnections in bike and pedestrian networks, prioritizing fixes and identifying potential funding sources for the most important projects.

Any proposal to add lanes to a two-lane roadway shall be evaluated for a center turn lane, the preferred option over an expansion to four lanes.

Identify four-lane roadways with fewer than 20,000 vehicles per day (AADT) and evaluate them for "road diets" with bike lanes or on-street parking

Electric vehicles in gov't fleets - 2% of fleet=5 points. 5% of fleet=10 points.

Allow NEVs on appropriate roadways.

Provide public charging stations

Ban idling (more than 5 minutes) with local government vehicles.

Ban idling (more than 5 minutes) community-wide.

Establish a pedestrian safety task force.

Establish an expanded public transit that serves commuters from all neighborhoods and major parks and recreation facilities, and has racks on vehicles for carrying bicycles.

Require sidewalks in new residential areas and establish a policy for adding sidewalks, as appropriate, in areas built out without sidewalks.

Implement a Complete Streets policy.

Provide an on-street and/or off-street trail network connecting recreational areas in the community (e.g. safe routes to

Encourage pedestrian and bicycle site connections from front door of businesses or apartments to a public sidewalk and/or bike lane ensuring connections to all neighborhoods.

LAND USE

Identify priority areas for infill development, including those eligible for brownfields funding.

Create land bank to acquire and assemble priority infill sites

Develop an inventory of known contaminated properties for reuse planning, with possible GIS application

Measure Walkscore at 10 random residential addresses per Census tract, compute average, and improve upon overall

Adopt traditional neighborhood design ordinance (If population is less than 12,500)

Zoning for office and retail districts permits floor-area ratio > 1, on average.

Zoning for office and retail districts requires floor-area ratio > 1, on average.

Zoning code includes mixed use districts
Mixed-use language from Smart Code TBA.
Support placemaking at varying scale (neighborhood to major city facility) and permanence (temporary to permanent) through programming, financial support and removal of regulatory barriers
Adopt form-based codes or similar type design guidelines for healthy active living environments.
<u>NATURAL RESOURCE MANAGEMENT</u>
Adopt tree preservation ordinance per GTLC standards
Set a tree canopy goal and develop a management plan to achieve it (Appleton at 35%)
Have a Master Naturalist; ISA Certified Arborist or WDNR Community Tree Management Institute (CTMI) graduate on staff
Have community tree canopy mapped - https://pg-cloud.com/Wisconsin/
Require trees to be planted in all new developments
Certification as Tree City USA
Certification as Bird City Wisconsin Community
Certification as a polinator friendly community
Certification as a monarch friendly community
Public properties and rights of way mown or cleared only for safe sightlines and/or to remove invasive species.
Create community policy and BMP guidelines on minimizing chemical use during vegetation management of public and private properties
Create program to eliminate use of chemical vegetation management on playgrounds and replace with horticultural vinegar
Establish 75-foot natural vegetation zone by surface water.
Inventory wetlands and ensure no net annual loss.
Energy
Adopt PACE ordinance
Use PACE financing
Watt meters available to the public
Offer residents and businesses a mechanism to purchase shares of the electricity generated through a local renewable energy project. (Ex. a community solar program)
Facilitate a group-buy program through which residents receive discounted, volume-based pricing on energy efficiency or renewable energy projects based on aggregated demand.
Commit to achieving a science-based, community-wide GHG reduction goal.
Adopt Residential Energy Conservation Ordinance (time-of-sale certification and upgrades).
Work with local utilities to calculate total electricity and natural gas consumption annually, beginning with the fifth year before entering the program.
Achieve milestone reductions in GHG emissions, as specified in the community's science-based GHG reduction goals.
State of Wisconsin Energy Independent (EI) Community designation.
Include transportation energy/emissions as criterion in RFPs for purchases of goods over \$10,000.
Develop list of lighting, HVAC and shell improvements to raise Energy Star Portfolio Manager or LEED EBO&M score
Reduce motor fuels use for non-transit activities --
Provide transit passes at 50 percent or more off the regular price and/or provide parking cash-out options for local government employees.
Streetlights operate at 75 lumens/Watt or higher
Stoplights are LED or functional equivalent
Establish a policy requiring that all major remodeling projects on municipal buildings result in the building receiving an ENERGY STAR score that is five points higher than the building's pre-
Commit to achieving a science-based GHG reduction goal for emissions resulting from all municipal operations.
Incorporate energy use intensity (EUI) targets into the contracting process for all significant municipal construction projects
Establish policies requiring that all new municipal buildings achieve an ENERGY STAR score of 75 or higher.

Municipal electricity purchases are at least 5 percentage points higher in renewable content than the statewide renewable portfolio standard requires. Calculation may include self-generated
Set benchmark for emission free electrical purchases for city use including self generation
Work with Energy Task Force OEI to track municipal facilities - Complete EPA Energy Star Portfolio Manager spreadsheet for government energy use. Or score existing buildings with LEED
Achieve milestone reductions in GHG emissions, as specified in the municipality's science-based GHG reduction goal.
Calculate annual government fleet use of motor fuels, in gallons of petroleum and biofuels, beginning with the fifth year before entering the program.
All new and renovated municipal buildings must meet LEED Silver or greater.
<u>WATER</u>
Track water and sewer use annually, beginning with fifth year before entering program, and develop plan for reductions.
Develop a water loss control plan with targets below the 15% required by the state and include a system-wide water
Join EPA's WaterSense Program for water utilities or the Groundwater Guardian Green Sites program and promote them to local business.
Use block rates and flat rates to encourage water conservation among residential, commercial, and industrial users.
Infiltration and inflow reduction by 10%
Plan for replacing all toilets using > 1.6 gpf and annual progress sufficient to reach 90 percent replacement in 10 years.
Install waterless urinals in men's restrooms at municipal facilities (city hall, parks, etc.)
All outdoor watering by local government, excluding parks and golf courses, from rain collection.
Develop a water efficiency and conservation plan for municipal buildings
Develop and implement asset management plans that set targets for the sustainable maintenance, operation and renewal of water and wastewater infrastructure.
Wastewater biogas captured and used in operations.
Conduct an energy assessment for municipal water and wastewater facilities and develop a plan to increase energy
Financial assistance for sewer lateral replacements.
Develop plan to replace all lead laterals in water system
Set goals for increasing the recovery of resources from wastewater for energy generation (heat or electricity) and
Explore partnership options with high-strength waste.
Upgrade water and wastewater utility equipment (e.g., variable frequency drive motors) to achieve energy efficiency
Develop a regular street sweeping program to reduce total suspended solids
Stormwater utility fees offer credits for best management practices such as rain barrels, rain gardens, and pervious
Inventory all paved surfaces (e.g., by GIS mapping), and develop a plan for reduction
Work with commercial or light industrial businesses to develop stormwater pollution plans
Identify key green infrastructure areas during plan development and/or implement a plan to acquire and protect key green infrastructure areas
Replace concrete channels with re-meandered and naturalized creeks, wetlands, or swales
Develop a system for identifying culverts that obstruct fish migration and install fish friendly culverts where needed
Provide incentives for protection of green infrastructure, sensitive areas, important wildlife habitat, or for the restoration or rehabilitation of wetlands or other degraded habitats such as credit
Develop onsite educational signage for green infrastructure projects
<u>WASTE</u>
Community waste stream monitored at least annually . Waste reduction plan prepared and updated annually
Set waste diversion to recycling percentage goal
Waste and materials management plan based on "zero-waste" principles, with specific goals, prepared and updated
Construction/deconstruction waste recycling ordinance
Mandatory residential curbside recycling pickup that covers paper, metal cans, glass and plastic bottles
Develop a municipal collection program that encourages the diversion of food discards, yard materials, and other

Develop and promote programs that dispose of household hazardous, medical, and electronic waste
Use anaerobic digesters to process organic waste and produce energy
Implement municipal ordinances requiring manufacturer takeback for fluorescent bulbs, thermostats and other mercury- containing devices
Ordinances in place to reduce the usage of phone books as well as single-use shopping bags, styrofoam food containers
Pay-as-you-throw system implemented by municipality or required of private waste haulers
Use public education and outreach to promote recycling, backyard composting, product re-use and waste reduction
Establish partnerships to reduce waste pharmaceuticals generated in the community and to efficiently collect remaining waste
Celebrate America Recycle's Day
Create educational program to help identify what can and cannot be recycled to help combat recycling contamination potentially sickens for all cans
<u>HEALTH</u>
Adopt a resolution that promotes Health in All Policies at the community level (e.g., HEAL Resolution). Include that educational campaigns supporting a program covered by the resolution are
Establish a Health Impact Assessments policy, including when an assessment is required and its scope
Add health policies in 1 or more of the community's plans, including the comprehensive plan, long-range transportation plan, bicycle/pedestrian plan and open spaces recreation plan (embedded
Encourage the formation and/or support of Neighborhood Improvement Districts (NIDs), Neighborhood Development Corporations, or other similar types of neighborhood reinvestment and
Implement strategies (urban agriculture, community gardens on public land, diversified farmer's markets, expanded traditional retail food options, ordinances to allow urban chickens and
Create a Food Systems Plan that addresses the production, distribution, value-added, marketing, end-market, and
Provide education and establish programming to encourage physical activity, especially by youth.
Provide recreation programs for youth, adults, senior citizens and disabled persons.
Adopt ordinances and programs to maintain a healthy housing stock (code enforcement, landlord licenses, volunteer program, truth-in housing disclosure before sale, etc.).
Allow life cycle or adaptable housing options, such as "aging in place", accessory dwelling units, Universal or Inclusive Design, Dementia Friendly Communities, Age-Friendly Communities, etc.
Establish a program to make housing more affordable.
Establish a program to address chronic homelessness, such as "permanent housing".
Use by policy, ordinance or practice, Crime Prevention Through Environmental Design and active threat planning to make public spaces, such as recreational space, crime free.
Establish and implement Harm Reduction strategies for alcohol outlet density and sexual oriented establishments (e.g. zoning limitations)
Adopt an ordinance or policy that requires tobacco-free and e-cigarette free apartments or places limitations on such
Adopt an ordinance or policy that promotes tobacco-free and e-cigarette free parks and/or public events on local government-owned property.
Create and implement a climate change action plan that includes a carbon footprint study, and health related components on reducing air pollution from combustion of fossil fuels and
Adopt an ordinance, including conditional use permits, on noise abatement for various zoning districts.
Implement a wellness program for employees of the local jurisdiction.
Encourage or partner with others, such as the Chamber of Commerce, etc., to advance workplace wellness programs within the community.

Bike Friendly Menasha Overview



Menasha strives to create a community where biking is fun and safe for people of all ages and abilities year round. Through a process of continuous improvement, the City added on and off street facilities, road diets, safety facilities, wayfinding, and bike parking. Our schools are located in areas that are bike and pedestrian friendly, and trails connect major destinations like parks, healthcare and grocery stores. Bike facilities are located in all neighborhoods, including historic and low income areas, encouraging everyone to get out on their bike for transportation and enjoyment.

Planning has a long history in Menasha with founding and current members of our regional advocacy group [Fox Cities Greenways](#) (est 1994) residing in the City. In addition, [East Central Wisconsin Regional Planning Commission](#), one of the most active agencies in the State regarding bike and pedestrian improvements, is located steps from one of Menasha's trails and downtown. [Trail Summits](#) bring together advocates and decision makers which makes Menasha a leader in connectivity, ensuring facilities line up across municipal boundaries.

These meetings led to three award-winning projects in Menasha. In 2017, the Trestle Trail was named one of [Wisconsin's Great Places by the American Planning Association – Wisconsin](#), as well as a Destination Builder Award in 2006 from the Fox Cities Visitor and Convention Bureau and an ACEC Best of State award in 2007. Loop the Lake Trail received a Destination Builder Award in 2017 from the Fox Cities Visitor and Convention Bureau and an Engineering Achievement Award from ASCE in 2019. The Gilbert Riverfront Trail received an Award of Excellence from the Wisconsin Park and Recreation Association in 2016. Current planning efforts are bolstered by a recent announcement of a [planning grant by the Community Foundation for the Fox Cities Region to enable a connection to High Cliff State Park](#) from Menasha.



Why do we invest in bike friendly streets and trails? We've found that you see the world differently on a trail, people connect, explore, re-energize, and interact with nature. More importantly, visitors come back; they want to be close to trails in their everyday life. Menasha is positioned at the heart of some of the most used and attractive trails in the Fox Cities: Loop the Lake, Friendship Trail, Paper Trail, and Province Terrace Boardwalk. These trails connect our parks, natural areas, schools, work, shopping and neighborhoods allowing our residents to live an active lifestyle. These facilities not only won awards, they improved our residents' health, increased mobility, offered independence, and provided countless recreational opportunities.

Our goal is that you can get there on a bike in Menasha safely.

Bike Friendly Menasha Engineering



Menasha is known as [“your place on the water”](#) due to the city’s unique topography and barriers to connectivity. It also creates an opportunity for the community to offer, along with our forestry department, some of the most beautiful connections in the area with unique award-winning engineering solutions & partnerships.

Loop the Lake Trail not only offered a 5K loop for recreation, it also provided a connection for bikers separate from two heavily traveled bridges. The [Province Terrace Boardwalk](#) provides a connection to nearly 3,000 people who previously had to travel on a four-lane highway to reach facilities like the City Pool. The Lake Park Villas trail is part of a stormwater facility. These trails provide transportation connections and natural beauty.

The City’s [Complete Streets policy](#) was recently approved by elected officials, however, these concepts were in place for many years. Menasha was among the first to implement “sharrows” in the Fox Cities. Menasha also worked extensively with WISDOT to provide bike lanes on a portion of Highway 47 and a safely separated trail along Highway 114. The City also had bike/ped wayfinding signage both on and off street before other communities in the area. The City, and our residents, embraced what is safest for people biking, from back-in angle parking to use the full lane on narrow bridges, in-street signage for bike and pedestrian crossings, and HAWK signals at high traffic crossings. We evaluate opportunities to calm traffic not by whether we should do something, but by which method is the best: bump outs, road diets, HAWK signals, crosswalk signs, or a diverging diamond with both bike lanes and paths to navigate by bicycle. Valley Transit implemented its [Rack ‘n Roll](#) program nearly 20 years ago. More recently, [Valley Transit’s Strategic Plan](#) has committed to advocate for multimodal transportation such as bike share.



Menasha recently updated its [CORP](#) and is in the process of updating the Transportation chapter of the [Comprehensive Plan](#). Both plans identified trails and on-street non-motorized transportation as a priority for future health and economic development opportunities. The [CORP](#) identifies six trail opportunities (one that has already been completed). The [Racine Street Bridge](#) which has been a major barrier to family biking is currently under construction which will include bike facilities. This has led to an RFP for Racine Street reconstruction with bike facilities to the North and plans for a connecting riverfront trail to the south. It also led to planning for road diets on

Third Street and Nicolet Boulevard and a discussion regarding the first bike box in the Fox Cities. We have two times more ways for people to cross our water by bicycle (8) than by motor vehicle (4)!

Our goal is that you can get there on a bike in Menasha safely.

Bike Friendly Menasha Encouragement



Our goal is that you can get there on a bike in Menasha, therefore, we have implemented policies, created safe routes, and maintain services to make biking more accessible and self-explanatory.

Most importantly, all trails are maintained for year-round use including plowing during winter months, and most are lit for night use. Menasha has directed off-street facilities to provide service to important services like groceries and supplied bike racks at numerous locations around the City especially Downtown. Menasha's schools are all in bike and pedestrian-friendly neighborhoods.

[Fox Cities Greenways](#) and [Fox Cities Convention and Visitors Bureau](#) have partnered with Menasha to create excellent promotional materials. Maps showing day trips as well as the complete local trail network are available in both printed form and [online](#). Additionally, Menasha installed wayfinding signage with mileage along some of the most popular routes in the community.

People learn by example, and for that reason Menasha included biking, trails, and fitness in many events as well as positioning events in areas that are accessible by bike. The [Backdraft Bike Tour](#) sponsored by Neenah-Menasha Fire Rescue includes rides of every level from expert to family showcasing the accessibility of trails and long distance routes. [Race the Lake](#) and Diablo Criterion showcase professional level cycling and the strategy that is part of racing in a team. The [Fox Cities Marathon](#) includes Loop the Lake as the final leg of its journey. Special events such as the Dive in Movie, [CommunityFest](#), Brews on Bago, and [Fox JazzFest](#) are easily accessed by bike.



Menasha is a very popular place to ride as a recreational group or a part of an event including: Ride with the Mayor, FLOC (Fearless Ladies of Cycling Menasha riders out of a Neenah shop), Different Spokes (Gay mens' ride), and Cycling Without Age tri-shaws.

Climate change is having an effect nationwide as to when the temperature is conducive to outdoor activities. Combining forestry and biking creates pleasant corridors for transportation and recreation. Arbor Day 2021 included not only planting 300 trees, but also showed students at St. Mary's school how a cargo bike could be used to transport trees and supplies.

What better way to encourage people to try biking than to see others in action biking and having fun.

Bike Friendly Menasha Education



We consider every bike ride an opportunity for education. By emphasizing clear routes, signage welcoming bikes on street, educational maps and yard signs, business involvement in Bicycle Benefits, and more, we help build confidence in every person about sharing the roads. Every bike ride is an opportunity to build strong relationships between people biking and driving. We work with the Wisconsin Bike Fed to teach riders to be their own best advocates and communicate with others along the way. With the many amazing trails through our neighborhoods, our strong sense of community grows even more. People biking are happy and meet friendly neighbors everywhere around our city. This equates to thousands of *cyclists* as educators every time they pedal their bikes in our 7.75 mi² community.

Confidence on a bike begins with education while you are young. First, second, and third graders participated in a week long bike skills rodeo during summer-school in the Menasha School District where several learned to ride on borrowed bikes. The program will be able to build on its success with a SafetyTown course planned for the future at Clovis Grove School. We'll be helping parents teach their children safe riding by being the first community in Wisconsin to roll out the ["Teaching Safe Bicycling"](#) video instructional series developed by the [Wisconsin Bike Federation](#) and [Wisconsin DOT](#) along our trail system this Fall. In addition, our Parks & Recreation department hosts events like "Wheely Fun" to keep kids engaged with biking. Not to forget young drivers, driver's education includes a chapter on how to share the road.



League Cycling Instructors in or near Menasha host classes and events regularly. Our goal is to expand offerings by developing six additional instructors to help with classes and rides. Menasha hosted several Smart Cycling classes and two LCI classes prior to COVID; we are building a group of Smart Cycling "graduates" to fill another LCI class in Spring 2022. Menasha based [ECWRPC](#) is home to the [regional Safe Routes to School program](#), and our Wisconsin Bike Fed local office is only a mile and a half away. These organizations share resources, including a bike fleet, cones, safety giveaways, training materials, training space, open class seats and instructors with each other as well as our local schools, library, police and fire departments and advocates as well as many businesses.

Our "Bikes Welcome" attitude draws people from all over the region and our throughout our connected Fox Cities including Menasha, they love our trails and feel confident sharing the roads with our bike savvy drivers.



Leading the movement to create a bicycle-friendly America for everyone

1612 K STREET NW, SUITE 1102, WASHINGTON, DC 20006 | phone 202-822-1333 | fax 202-822-1334 | WWW.BIKELEAGUE.ORG

December 8, 2021

Joe Stephenson
Principal Planner
Community Development
City of Menasha
100 Main Street, Suite 200
Menasha, WI, 54952

Dear Joe,

Congratulations to Menasha on receiving the Bicycle Friendly Community designation at the Bronze level! This award is presented only to communities with impressive commitments to bicycling.

Enclosed you will find your 2021 Bicycle Friendly Community Award Certificate. If you would like to order Bicycle Friendly Community road signs, certificate duplicates, or Smart Cycling educational materials, please visit the League store online at: bikeleague.org/bfcstore.

I have also included information from our partners at Eco-Counter to help your community more effectively collect and track ridership data to improve your Evaluation & Planning efforts.

Your 2021 BFC award status will be promoted by the League for four years, after which time your designation must be renewed. You will be reminded via email prior to the Fall 2025 application deadline. Until then, your community's 2021 award status and report card will be publicly available in our online award database: bikeleague.org/bfa/awards#community.

Once again, congratulations on your efforts to create a great Bicycle Friendly Community! Thank you for your engagement with the Bicycle Friendly Community program and for your commitment to improve bicycling conditions in your community.

Best Regards,

Amelia Neptune
Director, Bicycle Friendly America Program
League of American Bicyclists

**THE LEAGUE
OF AMERICAN BICYCLISTS**

since 1880

is pleased to designate

Menasha, WI

as a

**BICYCLE FRIENDLY
COMMUNITY**

in recognition of your outstanding efforts to encourage bicycling in your community

2021 - 2025 » BRONZE

Bill New

PRESIDENT



Kenneth J. Noddy

CHAIR, BOARD OF DIRECTORS

PV Solar third party finance

Discussion with:

Mark Hanson PhD, LEED BD+C
Director of Sustainable Services
Hoffman Planning, Design & Construction, Inc.
608.692.1915 mobile
mhanson@hoffman.net | www.hoffman.net

Potential projects on roofs:

- PWF 70,000 (partially used)
- Police 25,000
- Library 30,000
- Utility 20,000
- Clearwell / Wintz Park

Potential projects on ground:

- Province Terrace pond
- CTH N substation property
- 441 Substation property & DOT pond property

Considerations:

200kwh and up make most sense for investors

Investors take tax credits (minimum 6 years)

Projects are property tax exempt being owned by municipality

Ground mount often gets better results due to less snow accumulation also better for public marketing when it can be seen

Utility has the right to decide if they will allow interconnect

Projects with battery or micro-grid do better on grant applications

This group has two recent municipal utility projects Eagle River & Clintonville

This group hasn't done projects for a municipal utility where the production would be owned by the utility behind the meter (self generation), but thinks that it could be modified to do this.

Average return on investment is 10-12 years

Projects are designed so that there is a guaranteed production that will cover the cost of the lease/loan payments annually

Process if we wish to continue:

Phase I – determine if sites are good candidates for the project, determine size, determine grant opportunities, determine if utility will allow interconnect. Determine if third party investors are interested

Phase II – create RFP & bid project

Phase III – construction and oversee first year of operations of system

Phase I cost about \$10,000

Total cost about \$30,000

Full cost can be rolled into third party finance

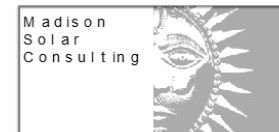


City of Menasha: Solar Opportunities with Third Party Participation

DECEMBER 1, 2021

Presented by:
**Mark Hanson, Niels Wolter, and
John Young**

G S D SOLAR



Why are we here?

- Provide examples of on-site solar PV (photovoltaic) systems with third-party funding
- Describe estimated and actual financial performance
- Provide overview of third-party financing
- Describe next steps
 - Phase 1: preliminary feasibility study of potential PV sites
 - Phase 2: competitive bidding and grant applications
 - Phase 3: contracting, installation, and M&V
- Answer your questions



Madison Country Day School
Village of Westport, WI



Darlington Schools
Darlington, WI



Sauk County Health Care Center
Reedsburg, WI



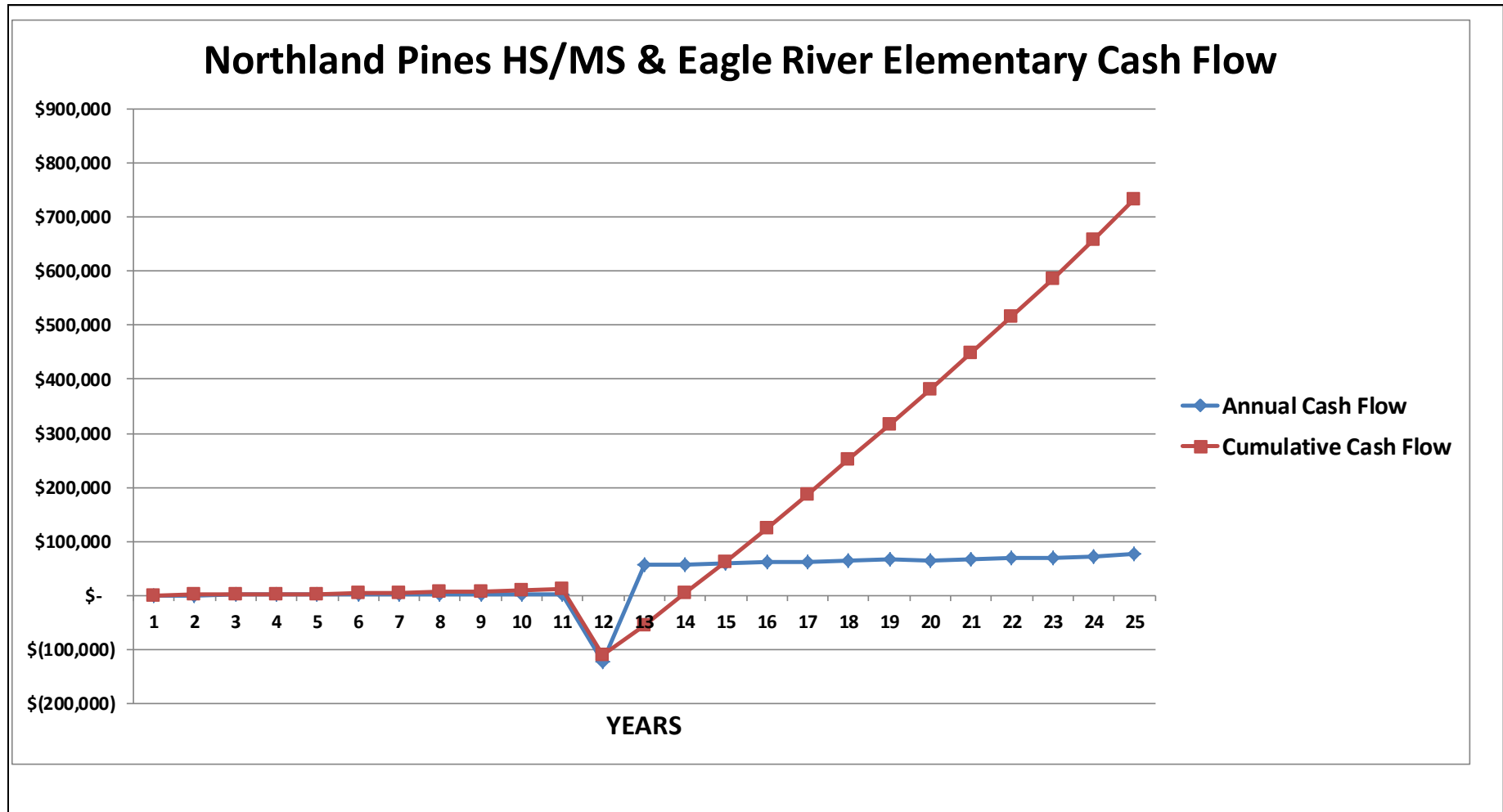
Northland Pines School District

Eagle River, WI

- Roof and Ground-Mounted Arrays
- 332 kilowatts (kW) DC total capacity
- Installed in December, 2017



Northland Pines Financial Projection Prior to Contracting



Actual Financial Impact of Solar and Efficiency

Northland Pines High and Middle School	2016	2019
Total Electricity Use in MWh (thousands of KWh)	1509	1208
Solar Electricity Use included in Total in MWh	none	193
Percentage of Total from Solar (not including 8% of solar production sold to the grid)	none	16%
Solar Electricity Cost (until a buy-out of the PV system owned from investors at market value)	none	\$27,200
Total Electricity Cost including Solar Cost	\$160,718	\$111,936
Annual Cost Savings from Solar with Demand Management and Efficiency	-	\$48,782





Specifications



Energy Meter Data-logger Web server

Features and Benefits:

- Measures electric power on up to 12 conductors:
 - Building demand/consumption
 - Renewable energy production
 - Sub-metering
- Built-in web server
- 16, 64 or 128 recordable register options.
- Multi-layered password protection and information hiding
- Fully web-configurable
- CSV export & data API
- Built-in solid-state memory and data logger:
 - 1 second granularity for 10 minutes (volatile)
 - 1 minute granularity for current year
 - 15 minute granularity for 30 years
- URI data push available / open API
- Internet-enabled or stand-alone operation
- Remote device support
 - Team multiple eGauge units
 - Weather station & inverter direct readout
 - Air temperature
- BACnet/IP compatible
- Windows, Mac, linux & smartphone compatible
- For residential, commercial, municipal, and industrial use
- See real-time devices at <http://www.egauge.net/>

Revenue Grade

ANSI C12.1 - 1% Accuracy

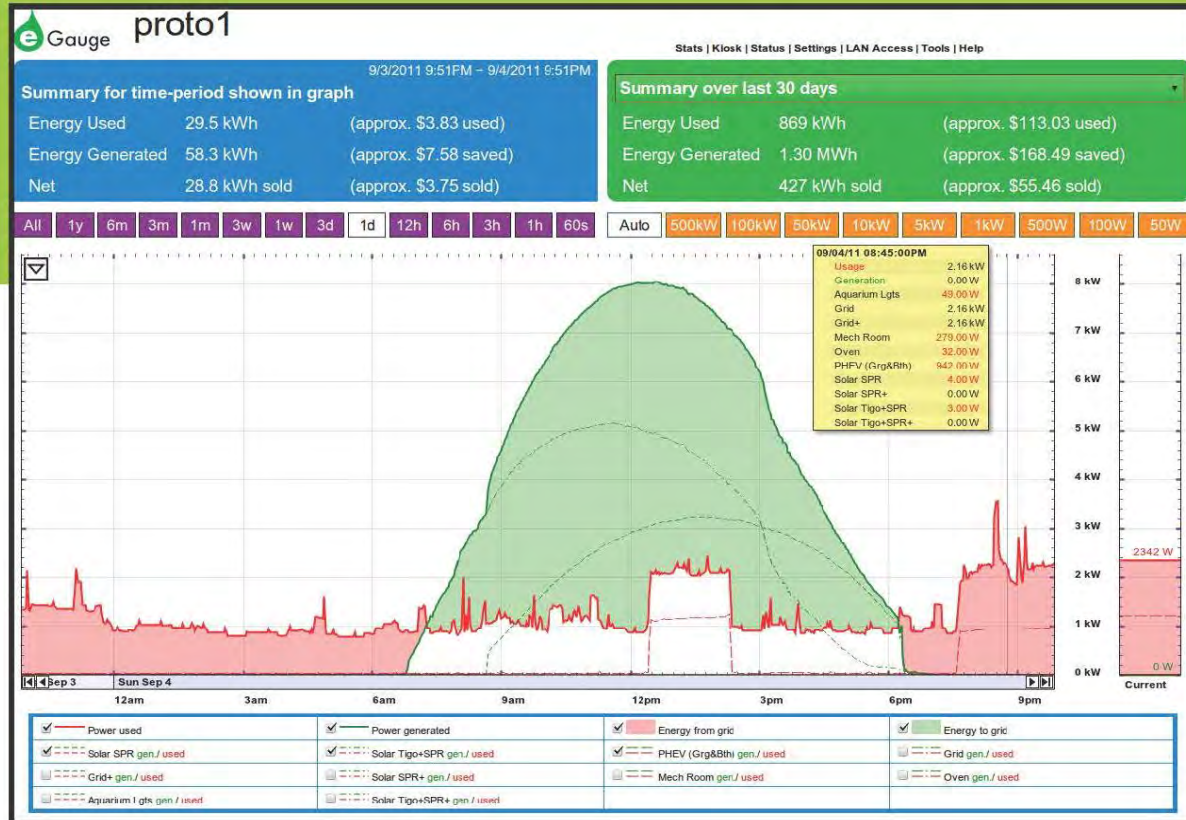
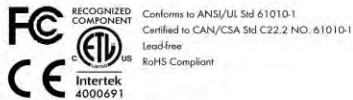
Hardware Options

eGauge3 Series
EG3010 Power-line communication
EG3000 Ethernet hardwire only

New Features:

- Remote device additions
- Accu-CT integration (rev)
- Factory reset button
- Automatic Homeplug pa
- eGuard Manager updat
- Production/consumpti
- Mapping of installatic

For more information
Sales@eGauge.net



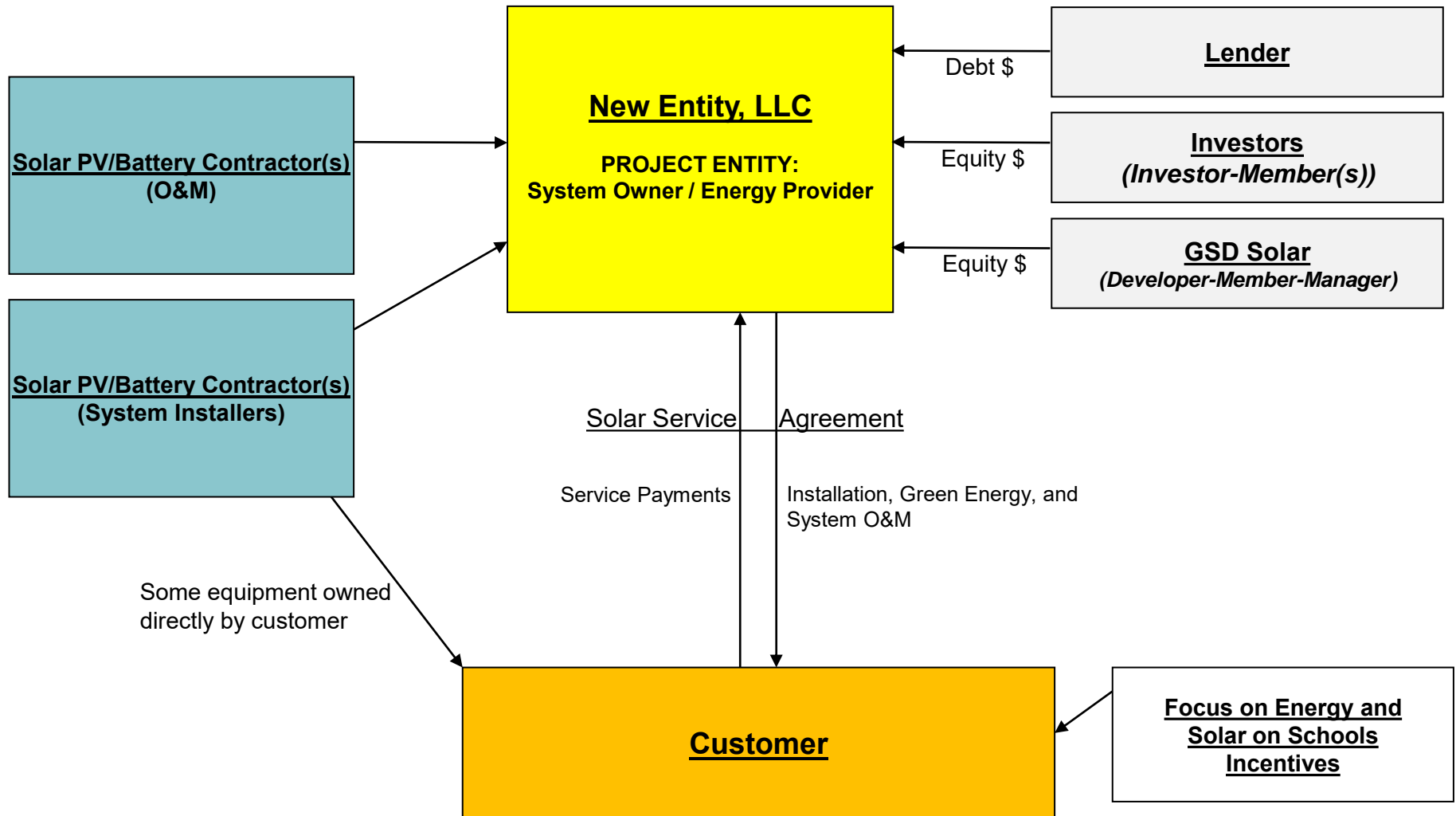
Who's Involved?

- Customers: Established, credit-worthy customers with large facilities and large electrical loads
- Development Team: John Young (GSD Solar), Niels Wolter (Madison Solar Consulting), and Mark Hanson (Hoffman Planning, Design & Construction)
- Equity Investors: Accredited investors with a need for passive income tax credits
- Debt Providers: Interested lenders
- Other Involved Parties: System Installers / O&M Providers, Legal & Accounting Professionals, Local Utilities for Interconnection, Insurance Providers, etc

How Does it Work?

- Working with the customer, the development team arranges for the final design and construction of a solar PV/Battery system on customer property at minimal upfront customer cost.
 - *The installation contractor is chosen via a competitive Request-for-Proposals (RFP) process that ensures both high-quality and reasonable cost.*
- The system is owned by a newly formed “project entity”: a separate, developer-controlled limited liability companies (LLC) whose owners include investors able to utilize the federal investment tax credit (ITC).
- The solar PV/Battery system offsets the customer’s electric utility bill, and the project entity sells renewable energy to the customer (via a “Solar Service Agreement”) at a pre-negotiated rate. Once a year, a “true-up” occurs to correct for deviations between the pre-negotiated rate and actual solar energy production. This ensures that the customer only pays for energy that is delivered.
- At the end of the initial 12-year contract term, the customer can choose to extend the contract 5 more years or buy the solar PV/Battery system outright.

SOLAR PV/BATTERY PROJECT DEAL DIAGRAM



Primary Agreements

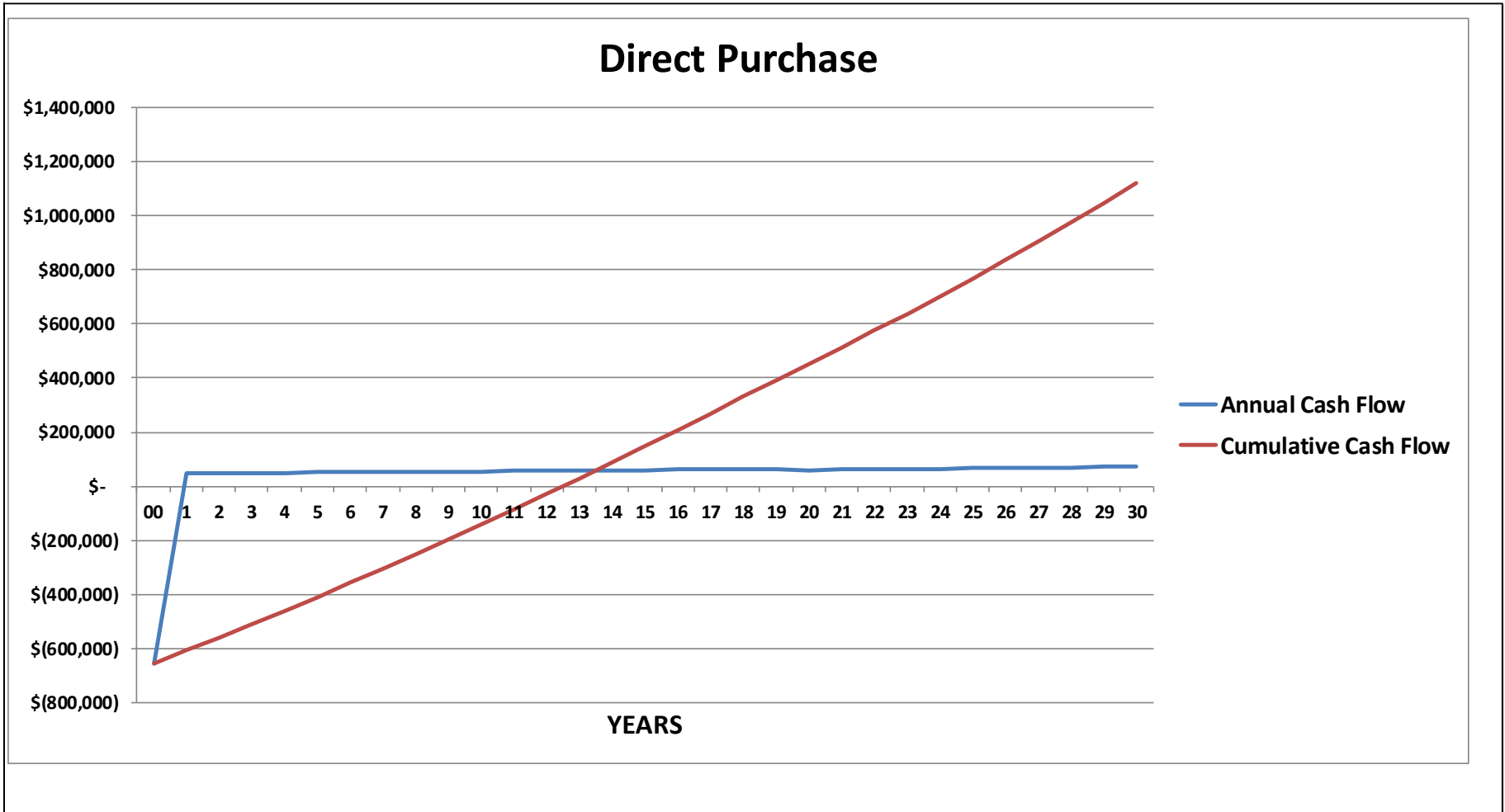
- Solar Service Agreement
- Site Access License Agreement (for right of access)
- Distributed Generation / Interconnection Agreement
- PV/Battery System Ownership Agreement (governs shared ownership of equipment)

Clintonville School District Third-Party Financing

- Large third-party solar PV and battery installation similar to or larger than Northland Pines HS/MS, with District's upfront costs funded by grants:
 - PV system size of 300-500 kW-DC PV initially feeding into the high school
 - Wisconsin Office of Energy Innovation grant (\$150,000)
 - Solar on Schools grant (\$23,150 module value)
 - Wisconsin Focus on Energy grant (\$33,000 - \$50,000)

PRELIMINARY CASH FLOWS COMPARISON

400 kW - DC

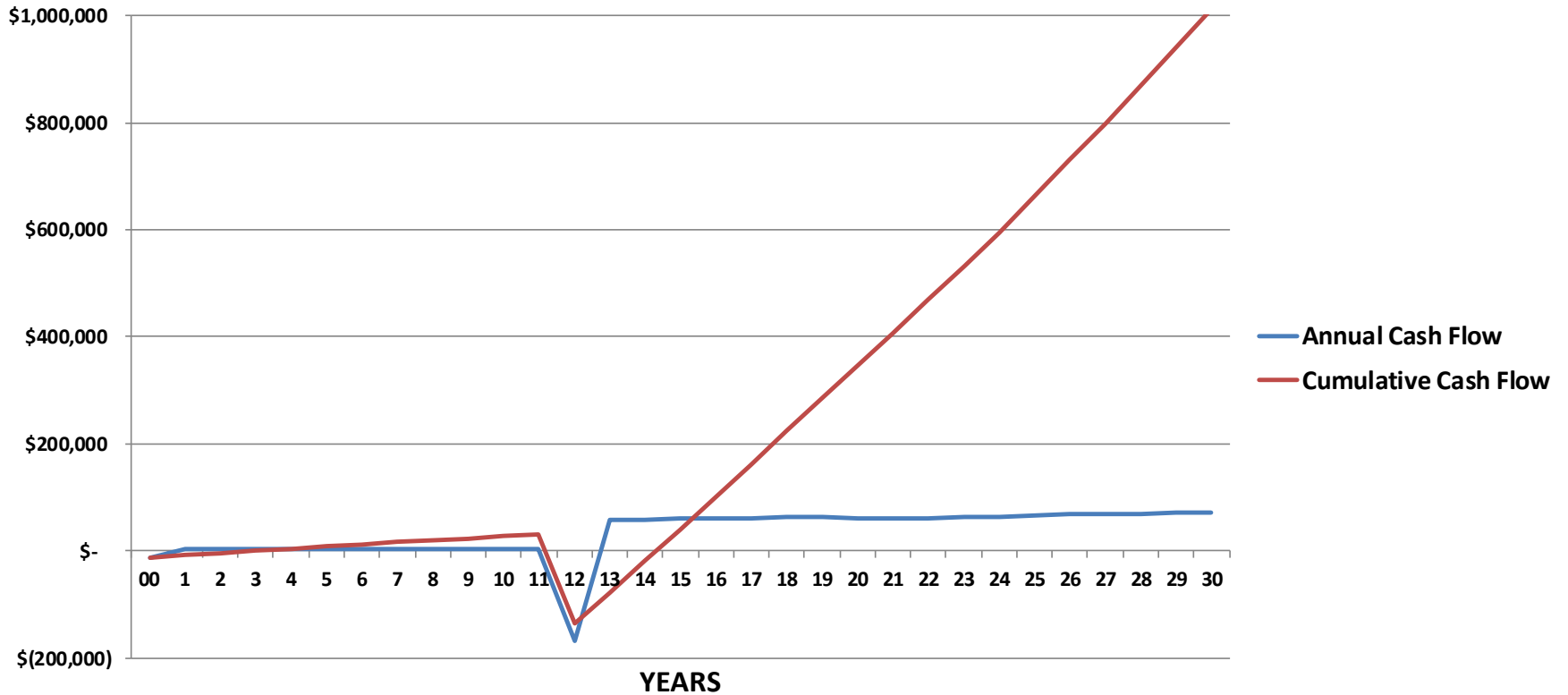


30 Year NPV = \$328,720

PRELIMINARY CASH FLOWS COMPARISON

400 kW - DC

Third Party Participation



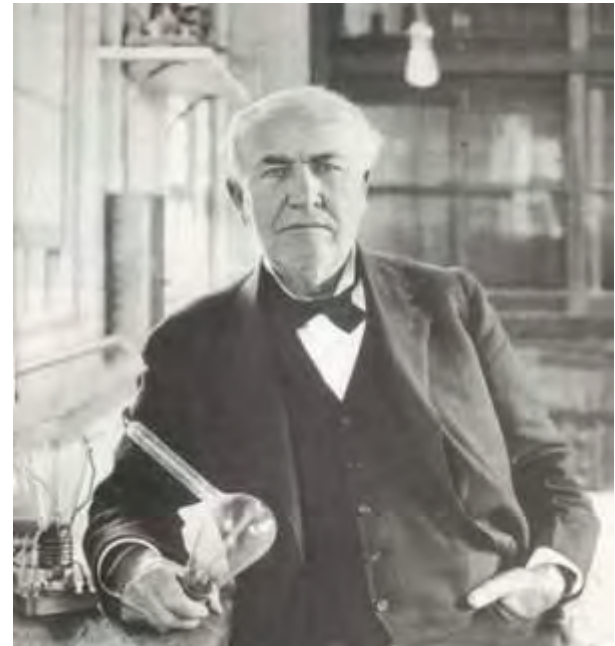
30 Year NPV = \$416,305

“I’d put my money on the sun and solar energy. What a source of power! I hope we don’t have to wait till oil and coal run out before we tackle that.”

- Thomas Edison

We are like tenant farmers chopping down the fence around our house for fuel when we should be using Nature’s inexhaustible sources of energy — sun, wind and tide. ... I’d put my money on the sun and solar energy...

In conversation with Henry Ford and Harvey Firestone (1931); as quoted in *Uncommon Friends : Life with Thomas Edison, Henry Ford, Harvey Firestone, Alexis Carrel & Charles Lindbergh* (1987) by James Newton, p. 31



Q & A



Darlington School District ribbon-cutting, 156 kW array, June 1, 2016



Darlington



Eagle River

Don Merkes

From: Lisa Miotke <lmiotke@wppienergy.org>
Sent: Thursday, October 14, 2021 2:24 PM
To: Don Merkes
Cc: Melanie Krause
Subject: LED Street Light estimations
Attachments: Street Lighs all HPS.XLS

[EXTERNAL EMAIL] DO NOT CLICK links, attachments, or reply unless you recognize the sender and know the content is safe.

Good afternoon-

I have updated the estimation for street light replacements to include the most current fixture & labor costs under the 2021 rates. There are multiple tabs to consider:

Tab 1 is for transferring all Type A to Type B which allows the city to receive the Focus on Energy incentive- Payback estimate is 5.68 years with incentives

Tab 2 is converting only the Type B lights- payback is 14.61 years

Tab 3 is converting all Type A to B and combining with the existing Type B lights- payback is about 8.51 years

Tab 4 is replacing all Type C lights to LED- payback is 16.21 years

Tab 4 is replacing all lights- payback is estimated to be 9.85 years.

The labor cost is estimated based on the hours billed for the project done in 2015-2017. You will see multiple notes in red detailing the assumptions.

All of these options include Focus on Energy incentives at the 2021 rate. It is unknown if the incentives will stay the same or change in 2022 and beyond. To lock in the incentive rates we would need to work with Focus on Energy to create a multi-year plan. Since the project would not start until 2022, they would lock in whatever the rate is as of the new year.

The options also include the WPPI Energy Utility & Municipal Buildings program incentive. My best guess is that will be the same.

I talked with Melanie today and she stated you may want to use the Member Loan program for this; we can plan to apply for that as well.

Please let me know if you have questions or want to proceed with anything.

I will be out of the office Friday and Monday, returning on Tuesday.

Enjoy the day.

Lisa

ENERGY ESTIMATION
Projected Savings from an Energy Efficient Lighting Retrofit

Project: City of Menasha-Switch Option A to B
Description: LED Ornamental Street Lighting Energy Estimation
Date: 2022-2024- 3 year installation period

Equations: [a] Reduced kW = [(Qty_{existing}) x (Watts_{existing})] - [(Qty_{proposed}) x (Watts_{proposed})] / 1000
[b] Annual kWh Saved = [(Qty_{existing}) x (Watts_{existing}) x (hours)] - [(Qty_{proposed}) x (Watts_{proposed}) x (hours)] / 1000

PROJECT	EXISTING FIXTURE					PROPOSED FIXTURE					SAVINGS		
Room or Area	Qty.	Description	Annual Hours		Input Watts	Qty.	Description	Annual Hours		Input Watts	Reduced kW ^[a]	Annual kWh ^[b] Saved	
			On-Pk	Off-Pk				On-Pk	Off-Pk			On-Pk	Off-Pk
ornamentals	36	100 W HPS	372	3,734	130	36	LED	372	3,734	46	3.0	1,100	11,300
ornamentals	116	150 W HPS	372	3,734	188	116	LED	372	3,734	46	16.5	6,100	61,500
ornamentals	4	250 W HPS	372	3,734	300	4	LED	372	3,734	63	0.9	400	3,500
156						156					20	7,600	76,300
Total On & Off Peak energy Savings											83,900 kWh/yr		

12,400

67,600

3,900

ESTIMATE

2-3 on Racine St Bridge that may be changed

Notes:
[1] Annual Dusk to Dawn hours calculated edoc#10968
[2] Fixture cost from Joint Purchasing Sept 2021
[3] Labor charges from Melanie based on last project
[4] No model selected yet for 400W HPS replacement. Estimated \$466 cost/fixture.
[5] 400W HPS- may be removed
[6] Focus incentives based on 2021 catalog
[7] Unknown wattages estimated based on similar LED models
[8] Does not include any pole replacement costs

Leotek Cobra Jr- 54 W
American Rev 247L

ESTIMATE 2-3 on Racine St Bridge that may be changed

LABOR COSTS @ \$86 each-remove/install					Monthly Fixed charges-existing Lights					Annual		Energy Savings			
Labor & Materials Costs					Count	Cost		monthly	wattage	Cost		Rate	Saved/annual kWh		
Remove/Install	36	100W	\$86	\$3,096	Opt A	36	\$ 10.25	\$ 369.00	100W	\$ 4,428	12,400 kWh	0.0534	\$ 662	100WHPS	
	116	150W	\$86	\$9,976		116	\$ 10.75	\$ 1,247.00	150W	\$ 14,964	67,600 kWh	0.0534	\$ 3,610	150WHPS	
	4	250W	\$86	\$344		4	\$ 12.25	\$ 49.00	250W	\$ 588	3,900 kWh	0.0534	\$ 208	250WHPS	
Total Labor				\$13,416											
Material Cost	36	\$191 Fix	\$ 466	\$16,776											
	116	\$383 Fix	\$ 466	\$54,056											
	4	Uknown	\$ 466	\$1,864											
				\$72,696											
Total Labor & Materials	100W		\$19,872		Opt B	Proposed Monthly Fixed changes-LEDs			Annual		TOTAL Energy & Fixed Cost Savings/yr				
	150W		\$64,032			156	\$ 5.50	\$ 858	38-75	\$ 10,296	\$ 9,684	Fixed costs			
	250W		\$2,208								\$ 4,480	Energy			
Total cost of Labor/Materials for all lights				\$86,112				Total LED fixed costs			\$ 10,296		\$ 14,164 Total Energy & Fix Cost savings/yr		
estimated cost of unknowns															
					Savings		Current	\$ 19,980							
							LED	\$ 10,296							
					Total annual Fixed cost savings					\$ 9,684					
FOE Incentives					UMB Incentives- Options A,B,C										
		Count	Incentive	total FOE			Count	UMB	UMB + FOE						
Low output	0		\$ -	\$ -	100 W		36	\$ 496	\$ 496						
	156		\$ 15	\$ 2,340	150W		116	\$ 2,704	\$ 5,044						
	0		\$ -	\$ -	250W		4	\$ 156	\$ 156						
	0		\$ -	\$ -	400W		0	\$ -	\$ -						
Total FOE Incentives				\$ 2,340		Total Incentives		\$ 3,356		\$ 5,696					
Based on 2021 incentive level															
										\$ 86,112		Total Cost			
										\$ 2,340		less FOE Incentive			
										\$ 3,356		less WPPI Match			
										\$ 80,416		Net Cost			
										\$ 26,805.33		Annual cost for 3 yrs			
										Simple Payback		5.68 yrs			

[illegible]

ENERGY ESTIMATION
Projected Savings from an Energy Efficient Lighting Retrofit

Project: City of Menasha- Existing Option C- CITY buys & Maintains
DescriptionLED Ornamental Street Lighting Energy Estimation
Date: 2022-2024 - 3 year installation period

Equations [a] Reduced kW = [(Qty_{existing}) x (Watts_{existing})] - [(Qty_{proposed}) x (Watts_{proposed})] / 1000
[b] Annual kWh Saved = [(Qty_{existing}) x (Watts_{existing}) x (hours)] - [(Qty_{proposed}) x (Watts_{proposed}) x (hours)] / 1000

PROJECT
Room or Area
ornamentals
ornamentals

EXISTING FIXTURE				
Qty.	Description	Annual Hours		Input Watts
		On-Pk	Off-Pk	
1	400W HPS	372	3,734	465
122	150 W HPS	372	3,734	188

123

PROPOSED FIXTURE				
Qty.	Description	Annual Hours		Input Watts
		On-Pk	Off-Pk	
1	LED	372	3,734	63
122	LED	372	3,734	46

123

SAVINGS		
Reduced kW ^[a]	Annual kWh ^[b] Saved	
	On-Pk	Off-Pk
0.4	100	1,500
17.3	6,400	64,700
18	6,500	66,200

1,600

71,100

Total On & Off Peak energy Savings

72,700 kWh/yr

NOTES:

- [1] Annual Dusk to Dawn hours calculated edoc#10968
[2] Fixture cost from Joint Purchasing Sept 2021
[3] Labor charges from Melanie based on last project
[4] No model selected yet for 400W HPS replacement. Estimated \$466 cost/fixture.
[5] 400W HPS- may be removed
[6] Focus incentives based on 2021 catalog
[7] Unknown wattages estimated based on similar LED models
[8] Does not include any pole replacement costs

LABOR COSTS @ \$86 each- replace and install

Labor & Materials Costs

Remove/Inst	1	400W	\$86	\$86
	122	150W	\$86	\$10,492

Total Labor \$10,578

Material Cos	1	Fixture	\$ 466	\$466
	122	Fixture	\$ 466	\$56,852

\$57,318

Total Labor & Materials

\$0

Total cost of Labor/Materials for all lights \$67,896

Estimated cost of unknowns

FOE Incentives			
	Count	Incentive	total FOE
Low output	122	15	\$ 1,830
Mid- output	1	25	\$ 25
	0	0	\$ -
	0	0	\$ -
Total FOE Incentives			\$ 1,855

Incentive for unknowns could be \$25 depending on model chosen

Monthly Fixed charges-existing Lights

Count Cost monthly wattage

Opt C	1	\$ 5.25	\$ 5.25	400W
	122	\$ 4.25	\$ 518.50	150W

Total current annual fixed costs

Proposed Monthly Fixed changes-LEDs

Opt C	123	\$ 4.25	\$ 523	46-63
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Total LED fixed costs

Savings	Current	\$ 6,285
	LED	\$ 6,273

Total annual Fixed cost savings \$ 12

UMB Incentives			
	Count	UMB	UMB + FOE
100 W	0	\$ -	\$ -
150W	122	\$ 2,844	\$ 4,674
250W	0	\$ -	\$ -
400W	1	\$ 64	\$ 89
Total Incentives		\$ 2,908	\$ 4,674

Annual Cost

Energy Savings

Rate

Saved/annual kWh

1,600 kWh	0.0534	\$ 85	400WHPS
71,100 kWh	0.0534	\$ 3,797	150WHPS

72,700 total kWh \$ 3,882 Total/yr

TOTAL Energy & Fixed Cost Savings/yr

\$ 12 Fixed costs

\$ 3,882 Energy

\$ 3,894 Total Energy & Fix Cost savings/yr

\$ 67,896	Total Cost
\$ 1,855	less FOE Incentive
\$ 2,908	less WPPI UMB
\$ 63,133	Total cost

\$21,044.33 Annual cost for 3 yrs

Simple Payback 16.21 yrs

ENERGY ESTIMATION
Projected Savings from an Energy Efficient Lighting Retrofit

Project:	City of Menasha-Switch Option A to B & same C
Descriptio	LED Ornamental Street Lighting Energy Estimation
Date:	2022-2024- 3 year installation period

Equations [a] Reduced kW = $[(Qty_{existing}) \times (Watts_{existing})] - [(Qty_{proposed}) \times (Watts_{proposed})] / 1000$
[b] Annual kWh Saved = $[(Qty_{existing}) \times (Watts_{existing}) \times (hours)] - [(Qty_{proposed}) \times (Watts_{proposed}) \times (hours)] / 1000$

PROJECT	EXISTING FIXTURE					PROPOSED FIXTURE					SAVINGS			
Room or Area	Qty.	Description	Annual Hours		Input Watts	Qty.	Description	Annual Hours		Input Watts	Reduced kW ^[a]	Annual kWh ^[b] Saved		
			On-Pk	Off-Pk				On-Pk	Off-Pk			On-Pk	Off-Pk	
ornamentals	98	100 W HPS	372	3,734	130	98	LED	372	3,734	46	8.2	3,100	30,700	33,800
ornamentals	381	150 W HPS	372	3,734	188	381	LED	372	3,734	46	54.1	20,100	202,000	222,100
ornamentals	4	250 W HPS	372	3,734	300	4	LED	372	3,734	63	0.9	400	3,500	3,900
ornamentals	1	400W HPS	372	3,734	465	1	LED	372	3,734	63	0.4	100	1,500	1,600 ESTIMATE
484						484					64	23,700	237,700	
Total On & Off Peak energy Savings												261,400	kWh/yr	

Notes:
[1] Annual Dusk to Dawn hours calculated edoc#10968
[2] Fixture cost from Joint Purchasing Sept 2021
[3] Labor charges from Melanie based on last project
[4] No model selected yet for 400W HPS replacement. Estimated \$466 cost/fixture.
[5] 400W HPS- may be removed
[6] Focus incentives based on 2021 catalog
[7] Unknown wattages estimated based on similar LED models
[8] Does not include any pole replacement costs

Leotek Cobra Jr- 54 W
American Rev 247L

LABOR COSTS @ \$86 each-remove/install				
Labor & Materials Costs				
Remove/Inst:	98 100W	\$86	\$8,428	
	381 150W	\$86	\$32,766	
	4 250W	\$86	\$344	
	1 400W	\$86	\$86	
Total Labor			\$41,624	
Material Cost	98 Fixture	\$ 466	\$45,668	
	381 Fixture	\$ 466	\$177,546	
	4 Fixture	\$ 466	\$1,864	
	1 Fixture	\$ 466	\$466	
			\$225,544	
Total Labor & Materials	100W		\$54,096	
	150W		\$210,312	
	250W		\$2,208	
	400W		\$552	
Total cost of Labor/Materials for all lights			\$267,168	

Monthly Fixed charges-existing Lights				
Count	Cost	monthly	wattage	Annual Cost
Opt A	36 \$	10.25 \$	369.00	100W \$ 4,428
	116 \$	10.75 \$	1,247.00	150W \$ 14,964
	4 \$	12.25 \$	49.00	250W \$ 588
Opt B	62 \$	5.75 \$	356.50	150W \$ 4,278
	143 \$	6.00 \$	858.00	250W \$ 10,296
Opt C	1 \$	5.25 \$	5.25	400W \$ 63
	122 \$	4.25 \$	518.50	150W \$ 6,222
Total current annual fixed costs				\$ 40,839
Proposed Monthly Fixed changes-LEDs				
Opt B	361 \$	5.50 \$	1,986	38-75W \$ 23,826
Opt C	123 \$	4.25 \$	523	38-75W \$ 6,273
Total LED fixed costs				\$ 30,099
Savings Current				\$ 40,839
LED				\$ 30,099
Total annual Fixed cost savings				\$ 10,740

FOE Incentives			
Count	Incentive	total FOE	
0	\$ -	\$ -	
Low output	356 \$ 15	\$ 5,340	
Mid Output	5 \$ 25	\$ 125	
0	\$ -	\$ -	
Total FOE Incentives		\$ 5,465	

Based on 2021 incentive level

UMB Incentives- Options A,B,C			
Count	Incentive	UMB	UMB + FOE
100 W	36 \$	1,352	\$ 1,352
150W	116 \$	8,884	\$ 14,224
250W	4 \$	64	\$ 189
400W	0 \$	-	\$ -
Total Incentives	\$ 10,300		\$ 15,765

Energy Savings		Rate	Saved/annual kWh
33,800 kWh	0.0534	\$ 1,805	100WHPS
222,100 kWh	0.0534	\$ 11,860	150WHPS
3,900 kWh	0.0534	\$ 208	250WHPS
1,600 kWh	0.0534	\$ 85	400WHPS
261,400	total kWh	\$ 13,959	Total/yr

TOTAL Energy & Fixed Cost Savings/yr		
\$ 10,740	Fixed costs	
\$ 13,959	Energy	
\$ 24,699 Total Energy & Fix Cost savings/yr		

\$ 267,168	Total Cost
\$ 5,465	less FOE Incentive
\$ 10,300	less WPPI Match
\$ 251,403	Net Cost
\$ 83,801.00 Annual cost for 3 yrs	

Simple Payback	9.85 yrs
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Wetlands

The Menasha Conservancy is part of what was once a much larger area of wetlands in Menasha. Wetlands are areas where water covers the soil for at least part of the year. They can contain both areas of grassy plants and areas with trees and shrubs. These wetlands soak up excess water during wet seasons and slowly release it during dry seasons to Lake Winnebago and the Fox River after trapping pollutants and filtering excess nutrients.

Wetlands are the earth's filter system: they *naturally clean* the water passing through them.



Sedges, grasses and reeds are dominant in wetlands many also have blue flag iris, marsh milkweed, mint and goldenrod and aster.



Turtles, frogs, salamanders, snakes, insects, and other animals also live in or use wetlands.



Wetlands, which include bogs and alder thickets, are characterized by woody shrubs and small trees such as tag alder, bog birch, willow and dogwood.

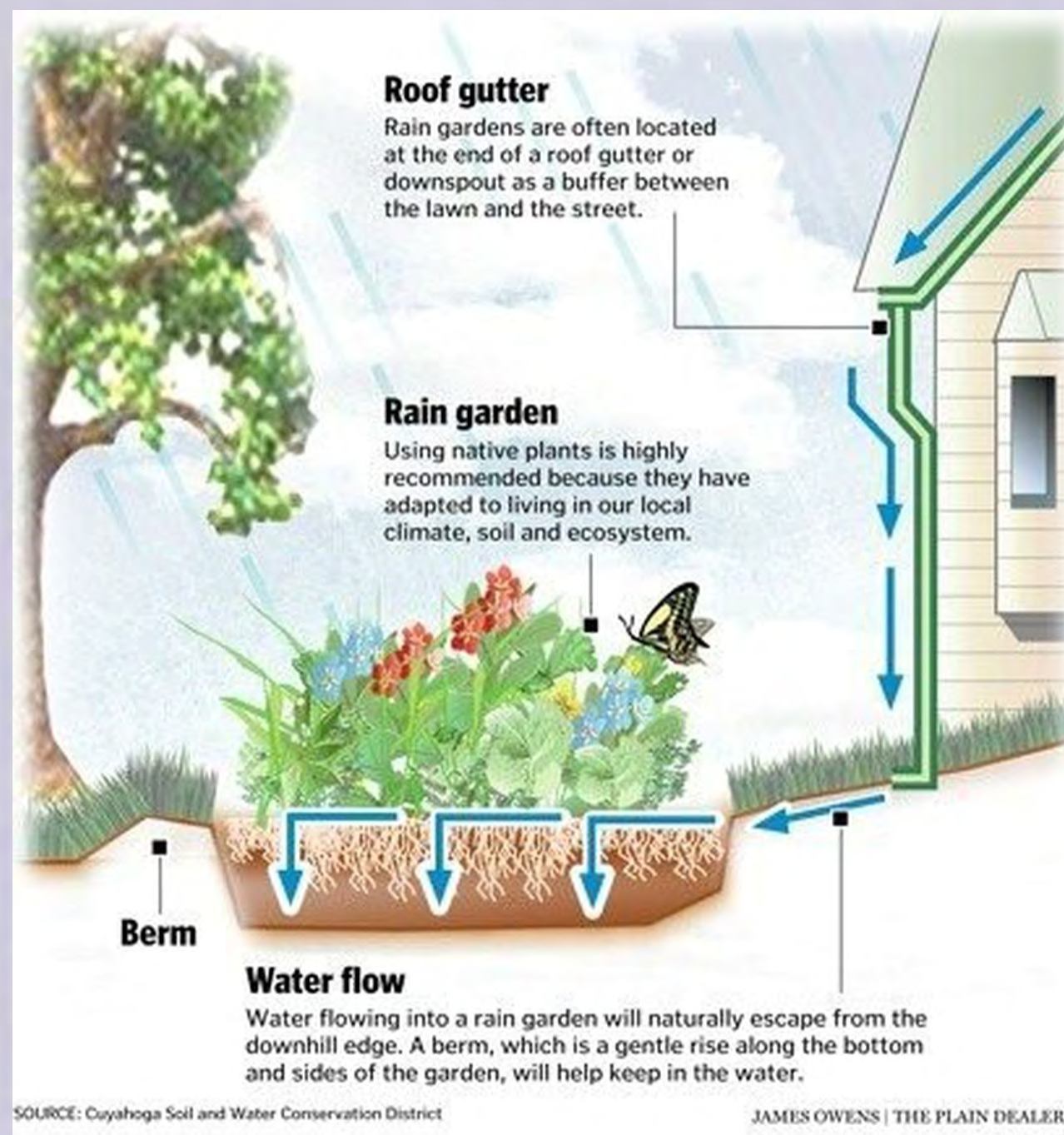


Wetlands are spawning grounds for fish like pike and muskies; migration and breeding habitat for waterfowl, cranes, and songbirds; and habitat for deer, otter, beaver, and mink.

Rain Gardens

A **rain garden** is a shallow depression planted with native plants. It temporarily holds and soaks in stormwater runoff from hard surfaces such as a roof, driveway, street or parking lot. This reduces flooding, keeps pollutants out of local water systems, and brings beauty and wildlife to landscapes.

Rain gardens protect our rivers, lakes, and streams by *filtering pollutants found in stormwater* and by recharging groundwater.



When it rains, water runs off hard surfaces like concrete and pavement. This stormwater picks up pollutants like fluids from cars, pet wastes, and lawncare chemicals. The polluted water can then flow into storm drains or directly into our lakes, streams, and rivers. Rain gardens **slow down the rush of stormwater**, allowing the water to be filtered by plants and soak into the soil. This helps remove pollutants and

recharge our groundwater aquifers.

By using native plants when creating rain gardens, their deeper roots help water soak into the soil instead of becoming runoff. Native plants also provide habitat for wildlife.

Rain gardens **do not grow mosquitoes**. Mosquito larvae need a week or more of standing water to mature, and rain gardens are designed to absorb rainwater in 48 hours or less.



Stormwater Wet Pond

Stormwater is the **runoff from rain and melting snow**. In grassy or wooded areas, plants help slow runoff and absorb water. Rooftops, parking lots, streets and other solid surfaces block stormwater from soaking into the ground. This increases the amount of runoff, resulting in larger, faster floods.

Stormwater management is important to *reduce flooding and to protect our waterways from pollution.*



The Province Terrace Pond is a wet pond serving an area of 162.8 acres. Stormwater ponds are designed to capture runoff from impervious surfaces helping mitigate flooding and improve water quality in urban areas. Stormwater wet ponds capture pollutants that are picked up from impervious surfaces such as sediment, oil, salt, and nutrients associated with fertilizers and plant materials such as grass and leaves. This pond captures approximately 18,000lbs of sediment annually or about one dump truck load every two years



Students helping build awareness



Litter collected in a grate after a storm

Refuse & Recycling Tonnage Summary

	2017	%+/-	2018	%+/-	2019	%+/-	2020	%+/-	2021	%+/-
Recyclables (drop site and pickup)	1556.83 Tons	14.0359%	1515.1 Tons	-2.6804%	1382.02 Tons	-8.7836%	1555.4 Tons	12.5454%	1488.44 Tons	-4.3050%
Single Stream Curbside	1403.55 Tons	12.8183%	1513.56 Tons	7.8380%	1382.02 Tons	-8.6908%	1555.4 Tons	12.5454%	1488.44 Tons	-4.3050%
Drop Site Single Stream	119.69 Tons	-1.1888%	0 Tons	-100.0000%	0 Tons	#DIV/0!	0 Tons	#DIV/0!	0 Tons	#DIV/0!
Drop Site News/Mags	33.59 Tons	-13.3608%	1.54 Tons	-95.4153%	0 Tons	-100.0000%	0 Tons	#DIV/0!	0 Tons	#DIV/0!
Scrap Metal/Appliances	83.5 Tons	27.2090%	76.08 Tons	-8.8862%	61.85 Tons	-18.7040%	78.17 Tons	26.3864%	49.71 Tons	-36.4078%
Freon Based Appliances	336 ea	12.3746%	167 ea	-50.2976%	123 ea	-26.3473%	294 ea	139.0244%	212 ea	-27.8912%
Tires	4.67 Tons	-20.3072%	12.6 Tons	169.8073%	14 Tons	11.1111%	30 Tons	114.2857%	9.6 Tons	-68.0000%
# of stops	6476 carts	0.6059%	6500 carts	0.3706%	6525 carts	0.3846%	6542 carts	0.2605%	6560 carts	0.2751%
Refuse	6071.11 Tons	0.314%	5534.09 Tons	-8.845%	6389.94 Tons	15.465%	6280 Tons	-1.721%	6281.91 Tons	0.030%
Residential	5005.18 Tons	0.2797%	4673.2 Tons	-6.6327%	5085.3 Tons	8.8184%	4997 Tons	-1.7364%	4959.28 Tons	-0.7549%
Commercial	1065.93 Tons	0.4751%	860.89 Tons	-19.2358%	1304.64 Tons	51.5455%	1283 Tons	-1.6587%	1322.63 Tons	3.0889%
	6446 carts	-0.5247%	6581 carts	2.0943%	6606 carts	0.3799%	6640 carts	0.5147%	6686 carts	0.6928%
Totals	7627.94 Tons	2.8396%	7049.19 Tons	-7.5872%	7771.96 Tons	10.2532%	7835.4 Tons	0.8163%	7770.35 Tons	-0.8302%
Percentage of Waste Recycled	21.90%		24.46%		21.37%		23.74%		23.08%	

**WINNEBAGO COUNTY SOLID WASTE MANAGEMENT BOARD
2021 RECYCLING TONNAGE REPORT**

	January	February	March	April	May	June	July	August	September	October	November	December	YTD
	SS Tons	SS Tons	SS Tons	SS Tons	SS Tons	SS Tons	SS Tons	SS Tons	SS Tons	SS Tons	SS Tons	SS Tons	SS Tons
T. Algoma	51.15	43.39	53.84	43.83	42.49	63.29	46.70	56.57	44.45	43.96	59.07		548.74
T. Black Wolf	21.95	21.55	24.68	16.91	17.62	25.84	22.48	19.83	27.73	18.89	1.07		218.55
T. Clayton	42.37	39.35	34.22	39.43	33.03	37.30	50.97	35.34	33.51	39.95	34.12		419.59
V. Fox Crossing	105.15	93.45	113.05	109.03	99.63	111.93	134.31	104.56	140.75	99.20	101.91		1212.97
T. Neenah	34.27	29.54	29.41	37.16	31.59	36.40	36.66	26.87	35.77	28.23	27.23		353.13
T. Nekimi	13.25	11.03	12.26	9.73	8.09	16.67	9.28	12.14	8.63	9.35	13.29		123.72
T. Omro	9.85	11.01	11.58	11.48	10.01	12.36	9.98	11.85	9.60	9.71	12.90		120.33
T. Vinland	14.94	11.88	25.26	18.38	16.20	21.64	15.26	19.69	16.67	15.48	20.41		195.81
T. Winchester	21.38	16.42	15.44	17.82	11.02	16.56	21.57	17.80	12.65	15.03	12.01		177.70
T. Winneconne	21.59	22.72	18.62	26.65	20.91	21.85	26.63	19.04	24.93	20.18	20.99		244.11
T. Wolf River	6.07	4.95	5.78	6.28	5.69	4.45	3.87	5.28	4.99	6.35	4.43		58.14
V. Winneconne	15.89	18.94	12.20	15.97	12.93	18.51	22.36	18.79	19.36	16.95	17.03		188.93
C. Menasha	131.33	128.66	162.66	152.37	118.36	144.23	126.34	114.84	96.90	102.03	91.19		1368.91
C. Neenah	179.44	146.20	180.79	175.32	166.29	188.96	175.11	170.03	167.46	158.02	172.30		1879.92
C. Omro	31.04	20.64	22.50	17.49	18.55	18.44	30.03	22.12	19.71	19.60	13.90		234.02
C. Oshkosh	356.85	299.56	370.39	369.47	334.31	383.56	369.88	358.91	343.68	319.41	327.80		3833.82
Other SS	127.63	143.05	216.14	181.68	284.37	263.09	321.23	254.74	237.61	258.32	219.03		2506.89
TOTAL TONS	1184.15	1062.34	1308.82	1249.00	1231.09	1385.08	1422.66	1268.40	1244.40	1180.66	1148.68		13685.28

	Population	SS lbs./person		Population	SS lbs./person		Population	SS lbs./person
T. Algoma	6,939	158.16	T. Omro	2,325	103.51	C. Menasha	17,468	156.73
T. Black Wolf	2,446	178.70	T. Vinland	1,736	225.59	C. Neenah	26,333	142.78
T. Clayton	4,193	200.14	T. Winchester	1,824	194.85	C. Omro	3,584	130.59
V. Fox Crossing	19,090	127.08	T. Winneconne	2,436	200.42	C. Oshkosh	66,595	115.14
T. Neenah	3,632	194.45	T. Wolf River	1,195	97.31			
T. Nekimi	1,422	174.01	V. Winneconne	2,499	151.20			

**WINNEBAGO COUNTY SOLID WASTE MANAGEMENT BOARD
2020 RECYCLING TONNAGE REPORT**

	January	February	March	April	May	June	July	August	September	October	November	December	YTD
	SS Tons	SS Tons	SS Tons	SS Tons	SS Tons	SS Tons	SS Tons	SS Tons	SS Tons	SS Tons	SS Tons	SS Tons	SS Tons
T. Algoma	50.11	40.23	55.40	55.51	54.01	62.74	39.76	53.43	43.57	45.00	63.08	48.33	611.17
T. Black Wolf	29.22	18.11	20.91	31.46	28.62	22.11	26.08	18.69	24.96	19.38	18.30	20.40	278.24
T. Clayton	39.97	28.60	32.62	33.44	49.76	35.14	35.58	26.26	31.58	40.49	33.64	27.55	414.63
V. Fox Crossing	119.88	87.70	109.45	135.35	128.20	113.06	118.51	97.83	109.97	111.94	105.98	130.89	1368.76
T. Neenah	30.18	23.44	22.37	39.93	32.81	30.22	36.30	28.39	28.11	35.51	27.91	35.17	370.34
T. Nekimi	8.71	8.55	11.40	9.91	10.61	11.73	9.22	8.38	10.93	9.21	10.78	10.53	119.96
T. Omro	8.70	8.87	11.66	9.98	9.53	12.01	7.34	6.53	9.94	6.83	10.74	9.54	111.67
T. Vinland	17.08	14.72	15.99	16.21	18.67	21.33	15.11	13.70	16.22	14.13	20.87	20.91	204.94
T. Winchester	14.97	13.41	15.31	16.91	21.48	14.71	14.85	14.15	13.62	17.20	15.20	15.39	187.20
T. Winneconne	23.88	16.52	19.64	26.06	24.43	24.49	27.23	19.76	22.26	19.72	20.50	20.03	264.52
T. Wolf River	2.71	5.65	4.78	5.19	6.15	5.27	5.22	6.02	2.73	3.28	4.86	5.38	57.24
V. Winneconne	21.02	15.64	18.11	22.62	24.92	16.38	21.72	16.24	16.26	21.72	15.51	17.60	227.74
C. Menasha	155.45	114.90	125.47	131.53	108.19	168.48	126.06	124.15	142.18	117.72	107.54	133.73	1555.40
C. Neenah	187.49	136.48	174.88	200.65	194.30	197.00	179.65	154.51	154.95	165.27	180.37	199.87	2135.42
C. Omro	28.90	14.70	23.17	21.89	24.08	21.67	29.67	20.40	19.23	19.60	22.41	21.49	267.21
C. Oshkosh	370.61	278.15	353.21	408.57	398.12	391.54	364.61	315.36	338.33	342.97	348.67	383.21	4293.35
Other SS	328.38	274.93	356.94	233.92	310.70	394.62	341.07	289.91	351.37	310.61	220.63	168.12	3581.20
TOTAL TONS	1437.26	1100.60	1371.31	1399.13	1444.58	1542.50	1397.98	1213.71	1346.21	1300.58	1226.99	1268.14	16048.99

	Population	SS lbs./person		Population	SS lbs./person		Population	SS lbs./person
T. Algoma	6,908	176.95	T. Omro	2,324	96.10	C. Menasha	17,510	177.66
T. Black Wolf	2,452	226.95	T. Vinland	1,746	234.75	C. Neenah	26,436	161.55
T. Clayton	4,186	198.10	T. Winchester	1,819	205.83	C. Omro	3,566	149.87
V. Fox Crossing	19,084	143.45	T. Winneconne	2,929	180.62	C. Oshkosh	67,201	127.78
T. Neenah	3,619	204.66	T. Wolf River	1,198	95.56			
T. Nekimi	1,427	168.13	V. Winneconne	2,494	182.63			



RECYCLING FACTS AND FIGURES

PARTICIPATION

- Ninety-four percent of Wisconsin households recycle and feel it is worthwhile.
- Fifty-eight percent of Wisconsin households recycle at least as much as they did two years ago, and 32 percent are recycling more now.
- Over 50 percent of Wisconsin households compost yard waste and 73 percent leave grass clippings on their lawns.

NATURAL RESOURCE CONSERVATION

- Rigorous recycling efforts keep almost 1.7 million tons of material out of Wisconsin landfills and incinerators each year.
- Wisconsin citizens have saved landfill space equivalent to the size of five average landfills since 1990.
- Recycling one ton of aluminum saves the energy equivalent of 2,350 gallons of gasoline or the total amount of electricity used by a typical Wisconsin home over 10 years.
- Recycling paper produces 73 percent less air pollution than using virgin materials.
- Recycling glass reduces mining waste by 80 percent.

ENERGY SAVINGS

- Recycling 1 ton of glass saves the equivalent of 10 gallons of oil.
- Recycling 1 ton of plastic saves the equivalent of 1-2,000 gallons of gasoline.
- Recycling 1 ton of newspaper saves the equivalent of 100 gallons of gasoline.
- Recycling one ton of aluminum saves the energy equivalent of 2,350 gallons of gasoline or the total amount of electricity used by a typical Wisconsin home over ten years.
- Recycling 1 ton of iron saves 1 ton of coal.

TRASH TRIVIA

- In Wisconsin, we generate 4.6 million tons of trash and recyclables each year. That's enough to fill a typical city street over 4 feet deep with trash (curb to curb) for 575 miles! If you remove the recyclables, only 357 miles would be filled with trash.



would be needed.

LANDFILLS

- There are 39 municipal landfills and 37 industrial landfills in Wisconsin (2002).
- There are 1,967 municipal landfills (2000) in the United States.

OFFICE PAPER

- In Wisconsin, we use enough office paper each year to build a 10-foot high wall, 145 miles long. We recycle 56 miles of that wall.
- In the United States, we use enough office paper each year to build a 10-foot high wall, 6,815 miles long or two and a half times the distance from New York to Los Angeles.

OUR SHARE

- The average person in Wisconsin generates 4.7 pounds of trash (residential and their share of commercial trash) each day and recycles 1.9 pounds of that trash per day.
- The average person in the United States generates 4.7 pounds of trash each day and recycles 1.4 pounds of that trash per day.



CERTIFICATE OF RECYCLING

All Computers & Electronics Will Be Recycled For Their Metal, Glass, & Plastic

Received From
Address

City of Menasha
455 Baldwin
Menasha, WI 54952

Items Received:

**7221 lbs TVs, 3001lbs Electronics, 1277 lbs CPUs, 549 lbs Monitors,
2674 lbs Freon Appliances, 5880 lbs Small Electronics, Printers, &
Appliances**

Total Collected: 20,602 lbs

Date Received: September 11th, 2021

This is to certify that the above items received by [Recycle That Stuff](#) have been recycled in accordance with all applicable Federal, State, and Local Regulations and **will not** be landfilled, or otherwise improperly disposed of.



14001:2015
Environmental
Management
Systems Certified



**E-CYCLE
WISCONSIN**
Registered Collector



121 N Linwood Ave Appleton, WI 54914
Phone: (920) 955-3760 Email: RTS@RecycleThatStuff.com



CERTIFICATE OF RECYCLING

All Computers & Electronics Will Be Recycled For Their Metal, Glass, & Plastic

Received From
Address

City of Menasha
100 Main Street
Menasha, WI 54952

Items Received:

5934 lbs TVs, 495 lbs Monitors, 5092 lbs Electronics, 2530 lbs CPUs, 1320 lbs Freon, 6680 lbs Appliances, Printers, & Small Electronics

Total Collected: 22,051 lbs

Date Received: September 14th, 2019

This is to certify that the above items received by [Recycle That Stuff](#) have been recycled in accordance with all applicable Federal, State, and Local Regulations and **will not** be landfilled, or otherwise improperly disposed of.



121 N Linwood Ave Appleton, WI 54914
Phone: (920) 955-3760 Email: RTS@RecycleThatStuff.com

Results of 2021 Electronics Recycling Event Survey

How did you hear about the Event?

Word of Mouth	13
Facebook	59
Flyer in the Mail	38
Utility Bill	51
KC Email	18
Sign at PWF	3
Faith Technologies Email	3
Mayor	3
Library	3
Downtown Poster	3
Fire Station Signage	4
Menasha Utilities	6
City Employee	4
Senior Center	3
City Website	5
Park and Recreation	2
Menasha School District	4
Online Search	6
Saw on day of event sign	1
Police Station	1
Sustainability Board Member	1

Participants by Time

Before 8:00AM	20
8:00AM	19
8:15AM	8
8:30AM	18
8:45AM	10
9:00AM	27
9:15AM	19
9:30AM	16
9:45AM	8
10:00AM	21
10:15AM	23
10:30AM	20
10:45AM	23
11:00AM	23
11:15AM	17
11:30AM	9
11:45AM	12
Total	293

Don Merkes

From: Tyler Rueth <tyler@recyclethatstuff.com>
Sent: Tuesday, January 4, 2022 12:15 PM
To: Don Merkes
Subject: Re: Menasha - 2022 Electronics Recycling Event Dates

[EXTERNAL EMAIL] DO NOT CLICK links, attachments, or reply unless you recognize the sender and know the content is safe.

Good Afternoon Don,

Here are the dates that I have available in 2022 for Electronics Recycling Events:

May 7th

June 4th

June 25th

September 10th

September 17th

October 1st

October 15th

Let me know as soon as you know which date or dates you would like to reserve so that I can hold the date(s) for you.

Thank you,

Tyler Rueth
Marketing Coordinator
Tyler@RecycleThatStuff.com
920.955.3760 Main
920.428.2244 Cell

On 1/4/2022 10:13 AM, Don Merkes wrote:

> Tyler

> We are going to have our first sustainability committee meeting in

> January could you update your list of dates for me so that I could

> get them to choose some

>

> Don

>

> -----Original Message-----

> From: Tyler Rueth [mailto:tyler@recyclethatstuff.com]

> Sent: Wednesday, November 17, 2021 10:27 AM

> To: Don Merkes <dmerkes@ci.menasha.wi.us>

> Subject: Menasha - 2022 Electronics Recycling Event Dates

>

> [EXTERNAL EMAIL] DO NOT CLICK links, attachments, or reply unless you recognize the sender and know the content is safe.

>

> Good Morning Don,

>

> I am contacting you because our 2022 electronics recycling event calendar is filling up fairly quickly and I want to make sure you have the opportunity to reserve a date or dates if you would like.

>

> In the past, I know you have preferred an April or May spring date and I only have one date left available in those two months, Saturday, May 7th, 2022. Otherwise, If you don't mind going a bit later in the spring, I do have all of the Saturdays in June open yet; June: 4th, 11th, 18th, and 25th.

>

> For the fall, I having the following dates available yet:

> August: 27th

> September: 10th, 17th

> October: 1st, 15th

>

> Let me know if you would like to reserve any electronics recycling event dates for the 2022 season.

>

> Thank you,

>

> Tyler Rueth

> Marketing Coordinator

> Tyler@RecycleThatStuff.com

> 920.955.3760 Main

> 920.428.2244 Cell

>

>

> As a local governmental entity, the City of Menasha is subject to Wisconsin statutes relating to open records. Any e-mail received by anyone at the City of Menasha, as well as any e-mail sent by someone from the City of Menasha are subject to these laws. Unless otherwise exempted from the Open Records law, senders and receivers of City e-mail should presume that any e-mail is subject to release upon request.

Don Merkes

From: Kelly Reyer <kelly@fwwa.org>
Sent: Monday, January 3, 2022 9:26 AM
To: Don Merkes
Subject: Re: FWWA Spring Cleanup

[EXTERNAL EMAIL] DO NOT CLICK links, attachments, or reply unless you recognize the sender and know the content is safe.

Good morning Don,

You are correct! Our 2022 Fox-Wolf Watershed Cleanup event will take place on Saturday, May 7th. Would you be able to let me know which sites are to be cleaned by the other group and which sites you recommend for Fox-Wolf volunteers? We like to have the sites along the water 😊

Thanks for reaching out!

For our waters,

Kelly Reyer, Volunteer & Member Coordinator

Fox-Wolf Watershed Alliance | P.O. Box 1861 | Appleton, WI 54912

📞 920.915.1502 | ✉️ Kelly@fwwa.org | [Web](#) | [Facebook](#) | [Instagram](#)



From: Don Merkes <dmerkes@ci.menasha.wi.us>
Sent: Friday, December 31, 2021 10:19 AM
To: Kelly Reyer <kelly@fwwa.org>
Subject: FWWA Spring Cleanup

Kelly

Wondering if you have a date for the 2022 cleanup yet? We're thinking of promoting this and working to get more volunteers to get the entire City as well as not overlap sites with Doty Island that typically holds their event the same day.

Are you looking at May 7th 2022?

Don

Donald Merkes
Mayor, City of Menasha

[100 Main Street](#)
[Menasha, WI 54952](#)

(920) 967-3608
Fax: (920) 967-5273
dmerkes@ci.menasha.wi.us

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