



# Sustainable Middleton

December 01, 2022

Kelly Hilyard, Sustainability Coordinator





**Definition of Sustainability:**  
Collective well-being for all.

**Questions:**

What do we value? What do we measure? Are we in right relationship with others?

**2021 Comprehensive Plan:**

Middleton's vision for sustainability provides a roadmap for inclusive governance and empowers the wider community to co-create a better city to live in.

Middleton will respond to disruptive changes in our climate, ecological and social systems in ways that connect us to an emerging future rather than by reacting against the patterns of the past.





# Middleton Sustainability

2009 Sustainability Committee Constituted

2010 Sustainable City Plan

2016 Climate Referendum

2018 100% Renewable Energy Resolution

EIGP Seven City Energy Planning Grant

2019 Full time Sustainability Coordinator

2020 Energy Plan Complete

RER/MGE Agreement - Shared Solar Airport

2021 Comprehensive Plan Complete


2021-22 Six Solar Installations, Battery

Storage, LEED for Cities Certification,

Microgrid study, Energy Efficiency in

Affordable Housing, Sustainable City Plan

2022, and EV Fleet and Charging Plan!

A large field of solar panels stretches into the distance under a sunset sky. The panels are arranged in neat rows, and the sun is low on the horizon, casting a warm glow over the scene. The sky is a mix of blue and orange, with some clouds visible.

## Middleton 100% Renewable Energy Resolution – 2018-32

- City establishes goals to meet 100% of their energy needs with renewable energy by 2040
- City establishes goals to meet 100% of community-wide energy needs with renewable energy by 2050
- City will prioritize local and micro-grid-based renewable energy projects over remote generation and transmission
- City will develop a resiliency plan to deal with anticipated changes associated with climate change

<https://www.cityofmiddleton.us/118/Sustainability>



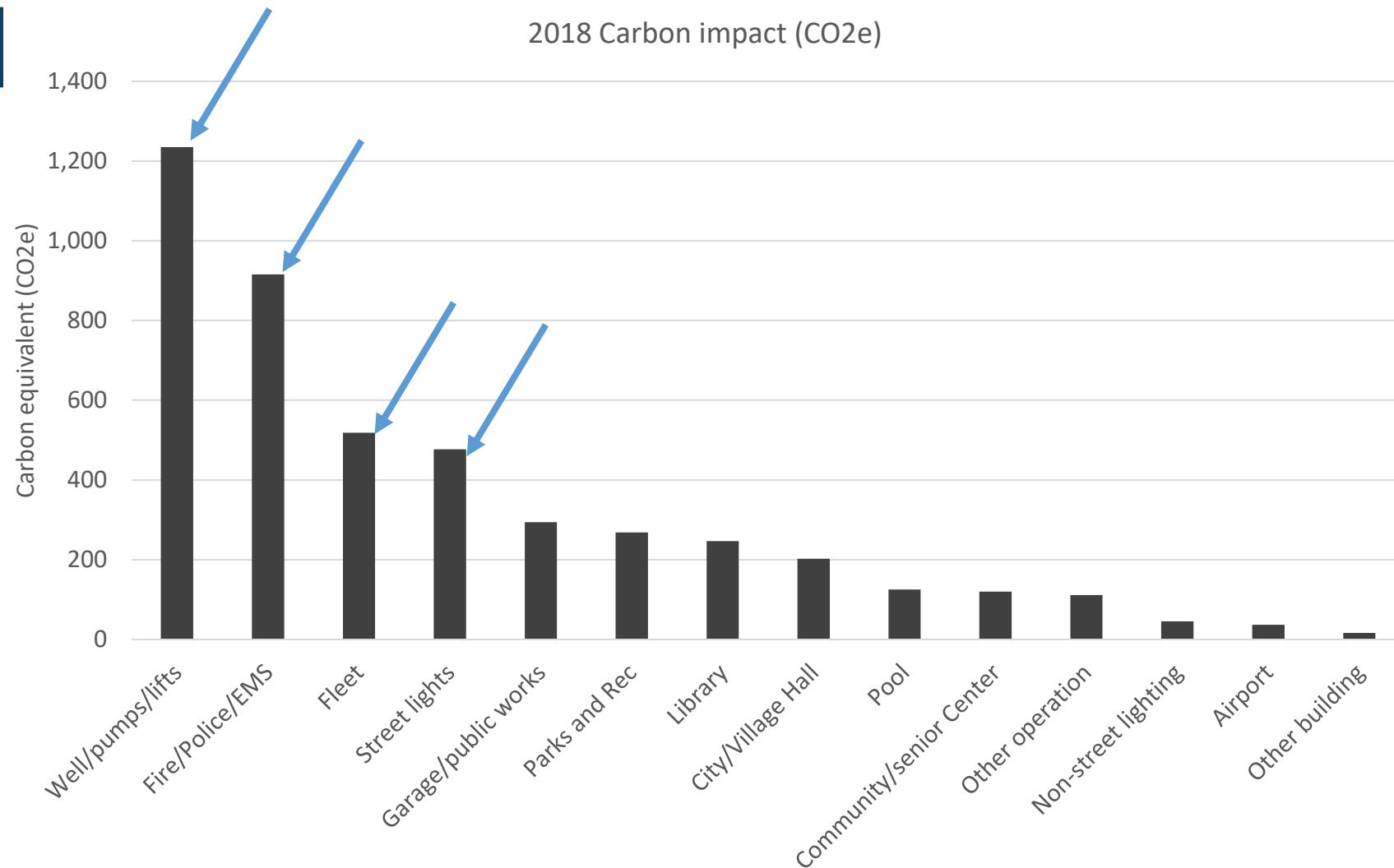
# Energy Plan Priorities: City of Middleton



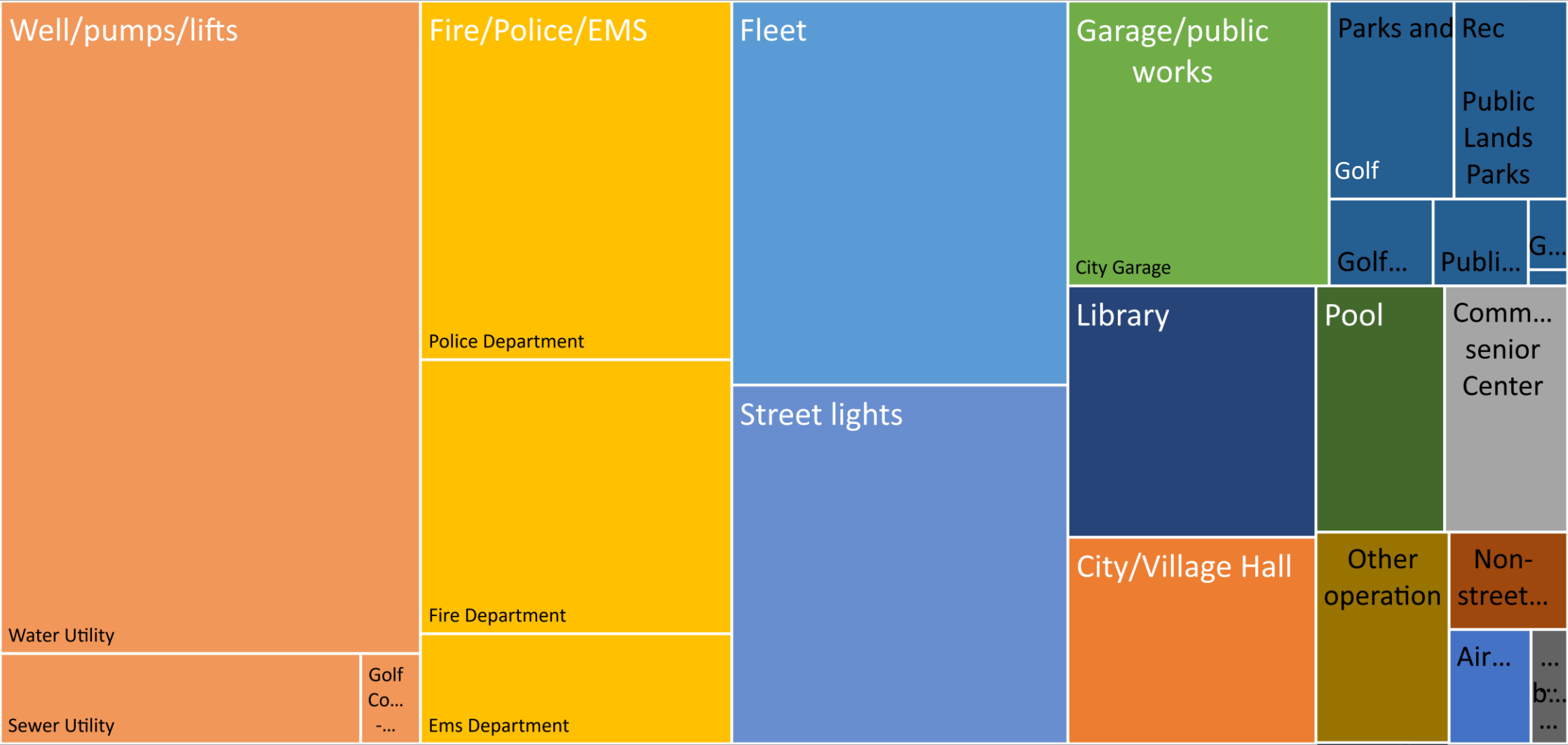
FEBRUARY 2020

## Municipal Energy Plan - Seven Community Collaboration

Main Report



# Middleton's Relative Carbon Impact of Energy: City Operations



- Airport
- City/Village Hall
- Community/senior Center
- Fire/Police/EMS
- Fleet
- Garage/public works
- Library
- Non-street lighting
- Other building
- Other operation
- Parks and Rec
- Pool
- Street lights
- Well/pumps/lifts

# Comprehensive Plan

## Sustainable City Plan

### SC Work Plan

3 Years: 2022–2024

20\* Actions from Comp Plan & Energy Plan,  
1 Goal (100% Renewable Energy)

SC/Planning Department Only, with  
Recommendations for Other Departments,  
Council

“Turning the Dream into Reality”

Updated Every 3 Years

\*Current draft

20 Years: 2021–2040  
225+ Actions, 8 Goals  
All City Departments  
“The Dream”

1 Year: 2022

15\* Actions from 3-Year Sustainable City Plan

SC Members Doing 2 Things:

1. Helping Kelly with what she is working on or is planning to work on (7\* actions from SCP)
2. Working on actions that we agree to do on our own or with volunteers (8\* actions from SCP plus 15\* educational and other actions)

“What We’re Working on This Year”

Updated Every Year

\*Current draft



# Middleton, WI Solar PV

Utility Scale

Commercial

Local Government

Residential





# Shared Solar Initiative

- 500 kW solar array on the Middleton Municipal Operations Center
- 100 kW solar array on the Middleton Police Department (25% of building's electricity use)
- 5 MW solar array at Middleton Municipal Airport (city purchases 0.5 MW and School District purchases 1 MW with a Renewable Energy Rider (RER) agreement)





MARKET WEST APARTMENTS



CARDINAL VIEW SENIOR LIVING



## Tax Increment Financing (TIF) Policy

- Goal: Mitigate climate change and adapt to our changing environment
- Middleton has incentivized ~1.5 MW of solar PV for 11 TID projects



## City-Owned Solar

Terrace Pavilion 20kW

Middleton PD 100kW

EMS 35kW

Lakeview Park Shelter 20kW

Middleton Operations 90kW

## Anticipated in 2022

Water Utility Pump #6

Water Utility Pump #8

Golf Course Clubhouse

Stone Horse Green

Battery Storage at PD







## Residential and Community Solar

### How to expand solar community-wide?

- Solar Group Buys
- American Rescue Plan Act
- Inflation Reduction Act Rebates
- EIGP Grants
- Focus on Energy
- Community Partnerships
- Net Zero Building Guidelines tied to TIF and Rezoning





# LEED for Cities

Awarded Grant in February 2020  
First city or community to certify in WI

- Integrative Process
- Natural Systems and Ecology
- Transportation and Land Use
- Water Efficiency
- Energy and Greenhouse Gas Emissions
- Materials and Resources
- Quality of Life
- Innovation/Regional Priorities

Certification identifies our city's gaps, and areas ripe for improvement. Certification is just the beginning.



## Impact of the Weekend Food Program



"We used to serve 190 kids per week, and now we're serving 320. We are buying the food from Woodman's. Having a healthy fun to shop from helps immensely!"

## Social and Climate Justice

Affordable housing policy and history of exclusion

Energy prices

Energy democracy

Feeling of belonging in our community

Who benefits from green economy and who doesn't

Civic engagement, empowerment, access to power

Transportation connection/access across the city

Social determinants of health

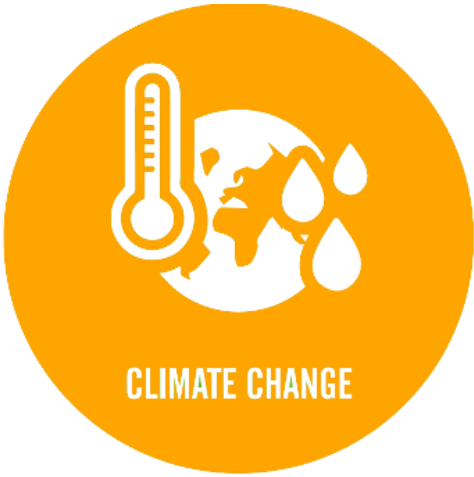




**Strategy 1: Mitigate climate change by reducing our community-wide energy use and eliminate greenhouse gas emissions by rapidly switching from fossil fuel sources to local, renewable sources of energy.**

**Action A: Partner with Dane County and other agencies to administer equitable energy efficiency programs for homeowners, renters, and businesses that reduce both energy costs and greenhouse gas emissions. Middleton will prioritize assistance to those who need it the most and for those who have been historically excluded from economic opportunities due to a legacy of unjust policies and racism.**

**CITY OF MIDDLETON**  
**COMPREHENSIVE PLAN 2021**



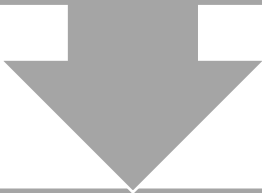
# The Need

- **HOUSING RESILIENCE:** We have an affordable housing shortage in Middleton. Need to build more units while also preserving and investing in our existing stock.
- **EQUITY:** Research shows that for working families, rent, utilities, and transportation costs are amongst the highest monthly expenses, especially those most impacted by COVID
- **CLIMATE CHANGE:** Affordable housing consumes on average 33% more energy than market rate housing because it is generally older and has deferred maintenance.
- **ACCESS:** Decrease time and effort in identifying efficiency opportunities and accessing benefits/incentives.



# What is the **Efficiency Navigator?** w/ Elevate Energy and Sustain Dane

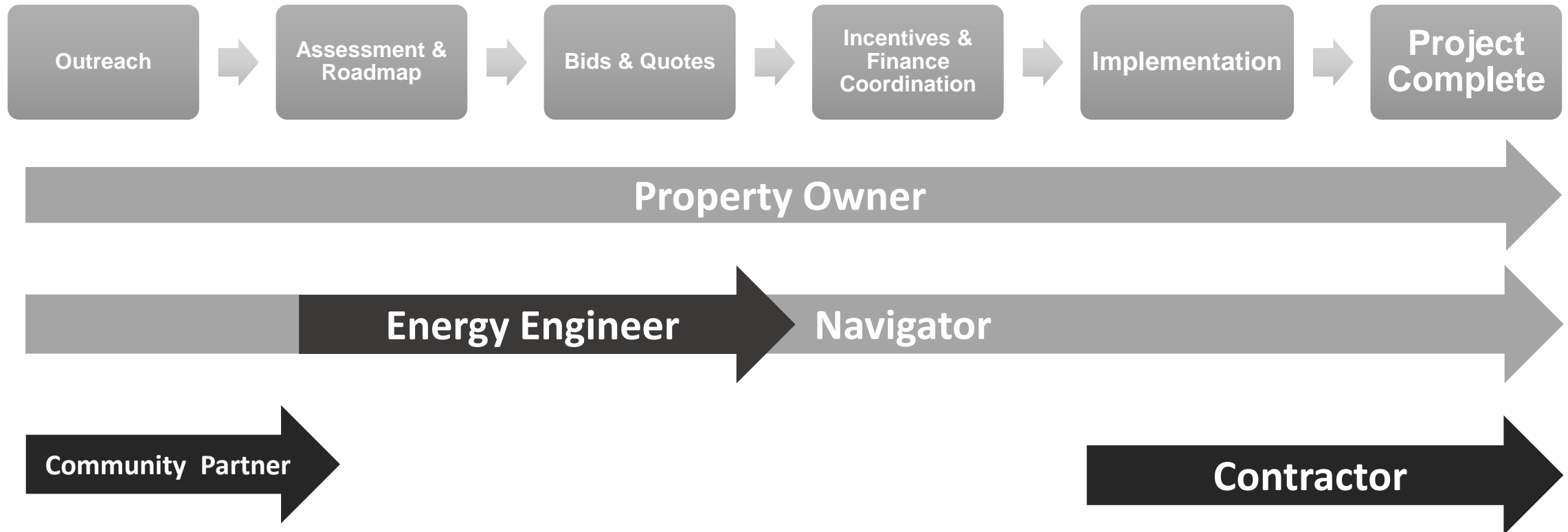
The program's aim is to help small to medium size multi-family housing become more efficient and resilient while reducing operating costs to remain affordable.



| Eligibility:   |                 |  |
|--|-----------------|--|
| Residents at or below 80% area median income based on census area data | Renter occupied | There are 40,000 of those units considered naturally occurring affordable in Dane County |



# Navigator Process



- High quality service through a single point of contact (Navigator)
- Robust data to support energy savings



## Future Projects 2023

- Sustainable Building Guidelines
- Electric Vehicle Charging Infrastructure
- Fleet Assessment Life Cycle Cost Analysis Tool
- Sustainable Purchasing Plan
- Lighting Ordinance
- Voluntary Benchmarking Program
- Lakeview Electrification + Solar + Battery
- How To Help The Lakes At Home
- Zoning Code Update
- Sustainable Middleton Awards



# MIDDLETON RECYCLING CENTER

[cityofm Middleton.us/recyclingcenter](http://cityofm Middleton.us/recyclingcenter)



## What can YOU do to help Middleton be more sustainable?

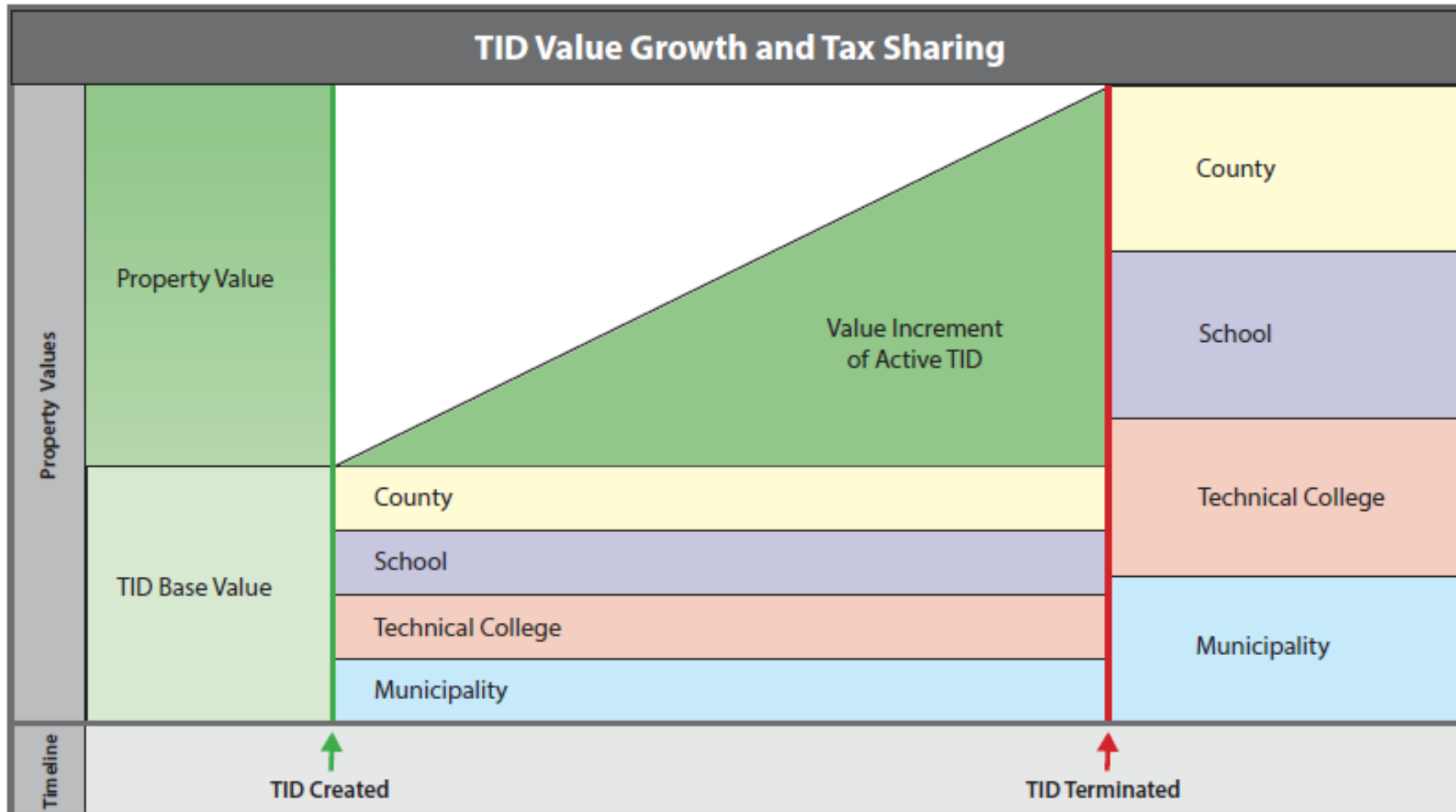
- Join a solar group buy through [RENEW Wisconsin's MadiSUN Program](#) or [Legacy Solar Coop](#).
- Learn more about beneficial electrification and how to electrify your appliances and car. Find resources on the city [Sustainability Website](#).
- Transition all your household lights to LEDs.
- Vote and reach out to the [Alder of your district](#).
- If you have time, join a City Committee or attend [Sustainability Committee](#) meetings the third Monday of each month at 6:30.
- Learn more about [Recycling effectively](#).



Thank you!

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# How Tax Increment Financing Works



Source: Wisconsin Department of Revenue 2019 Tax Incremental Financing Manual