



PARTNERS IN ENERGY
An Xcel Energy Community Collaboration

Renewable Energy Action Plan

Steering Committee Workshop #3

July 18, 2019

WELCOME & ORIENTATION



Agenda

WELCOME AND ORIENTATION	
5 min	Workshops 1 and 2 Recap
5 min	Revised Vision and Guiding Principles
PATHWAYS TO CARBON GOALS	
5 min	Results from Impact-Feasibility Assessment
15 min	Strategy Goals and Impacts
15 min	Program Background for Crafting Tactics
BREAK	
FOCUS AREA WORKING GROUPS	
10 min	“Forces for” and “Forces Against” Exercise
50 min	Draft Tactics in Small Groups
5 min	Next Steps and Wrap Up



Plan Development Steps



VISION & GUIDING PRINCIPLES



Vision Statement Feedback



Old Vision Statement

Eau Claire's Renewable Energy Action Plan will strengthen our leadership in sustainability and renewable energy development for generations to come.

These ongoing efforts will be guided by an evidence-based, transparent, equitable, and inclusive process to meet the goals of 100% renewable energy and carbon neutrality by 2050.

Flip the statement so that the goal is stated earlier.



Updated Vision Statement

Eau Claire's Renewable Energy Action Plan will be guided by an evidence-based, transparent, equitable, and inclusive process to meet the goals of 100% renewable energy and carbon neutrality by 2050.

These ongoing efforts will strengthen our leadership in sustainability and renewable energy development for generations to come.




Guiding Principles Feedback



Old Guiding Principles

Equity and Inclusiveness

Our work will benefit the entire Eau Claire community



Greater focus on under-resourced groups

Economic Development

We will develop and implement ideas that maximize community investment and local economic opportunity

Ecosystem Stewardship

We will nurture and enhance the natural world around us, for our benefit and for generations to come



“preserve and protect”

Revised Guiding Principles

Equity and Inclusiveness

Our work will engage and support the entire community, increasing benefits for under-resourced populations

Economic Development

We will develop and implement ideas that maximize community investment and local economic opportunity

Ecosystem Stewardship

We will preserve, protect, and enhance the natural world around us, for our benefit and for generations to come



PATHWAYS TO CARBON NEUTRALITY



Guide to Workshop Activities

Strategy Priorities from Workshop 2

Finalize the impact and feasibility of primary strategies

1

Focus on “Feasible” Strategies

These will be near term actions (2020 – 2030)

2

Respond to Draft Goals

Goals achieve community carbon targets

3

Develop Tactics

Work in small groups to make strategies actionable

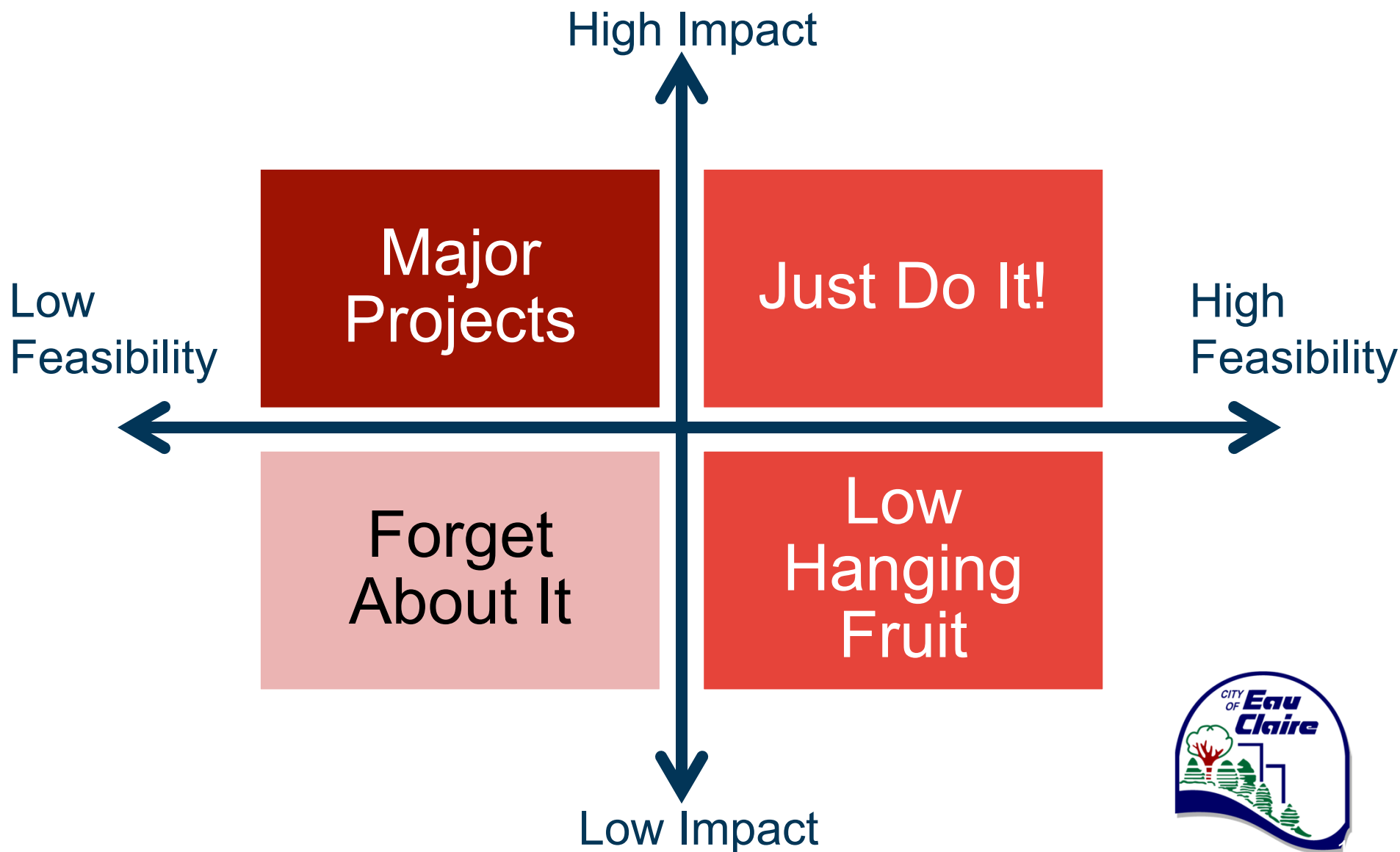
4



Impact Feasibility Results



Impact and Feasibility



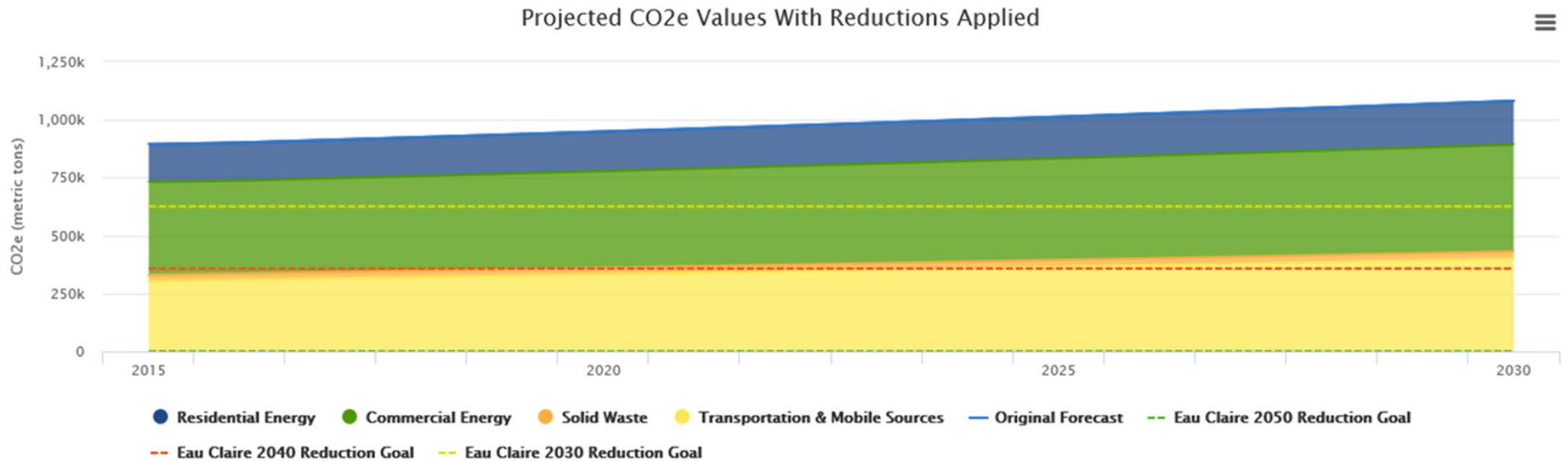
Results of Impact/Feasibility



Strategy Goals and Impacts



Business as Usual Carbon Footprint Growth



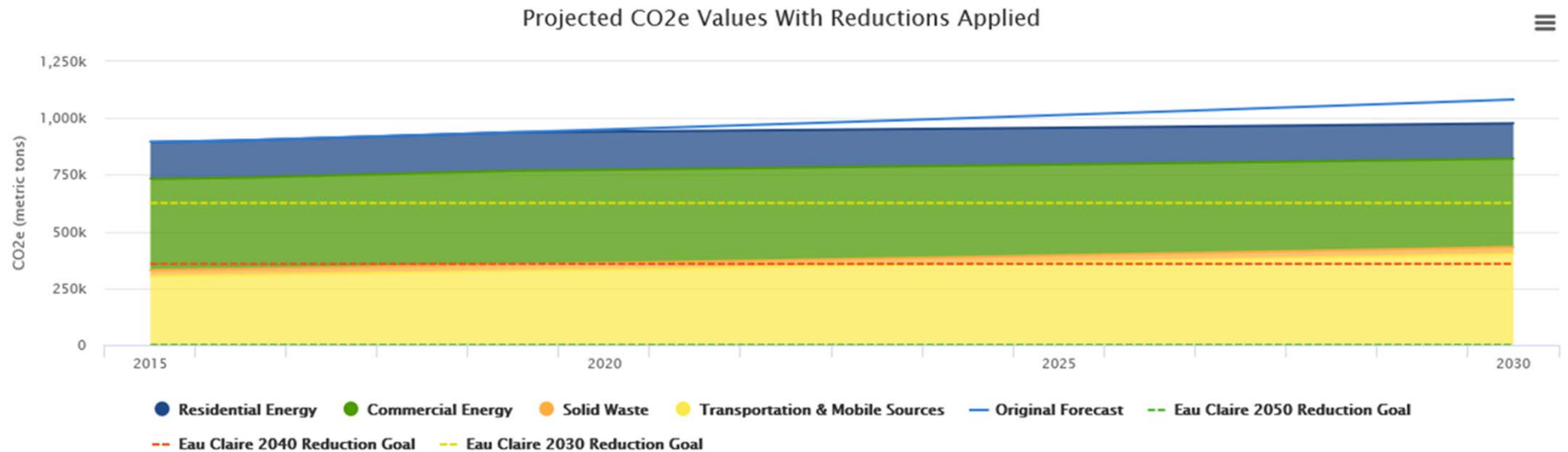
- Growth assumptions of 1% annual growth in residential and commercial energy. Transportation & mobile sources use a growth assumption of 1.87% based on historic vehicle miles traveled (VMT).



Commercial and Residential Efficiency: 2% Electricity & 1% Natural Gas



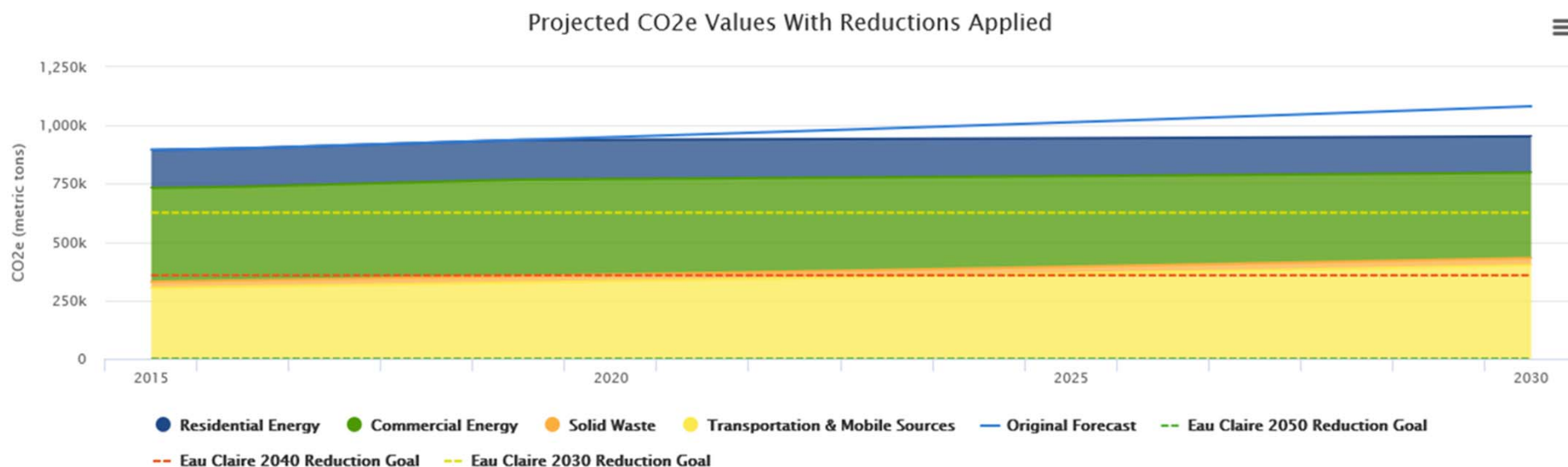
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- Assumptions in the modeling were gathered based on historical energy usage for the Eau Claire Community in 2018.



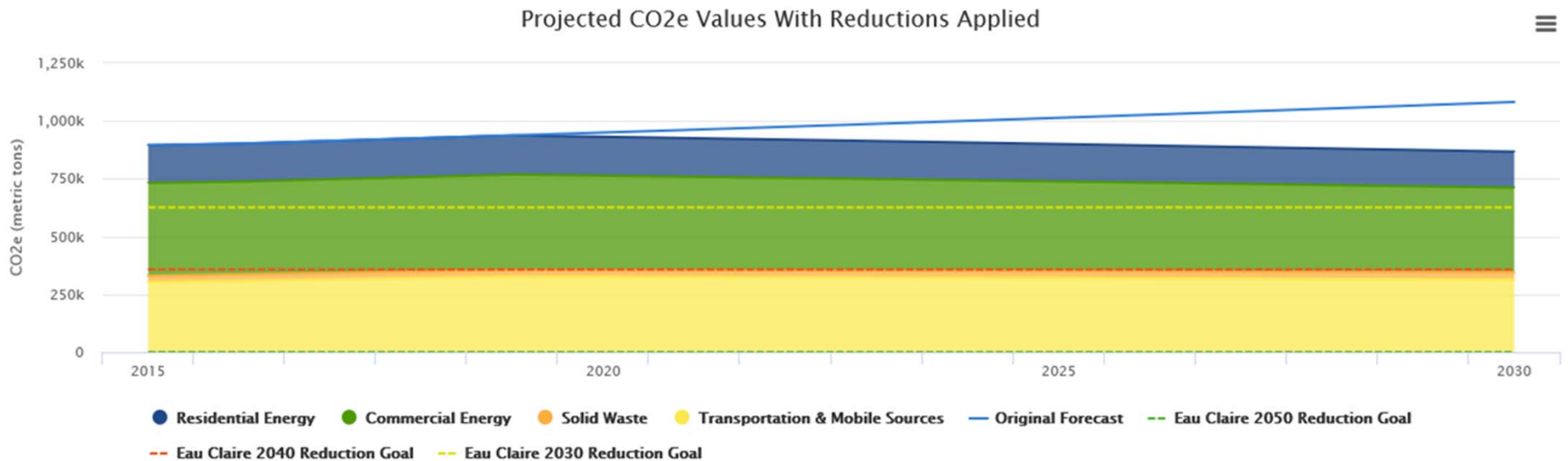
Renewables & Net Zero



- The assumptions for the modeling of the renewable projects used historical energy data
- Residential Goal: 200 new customers per year (electric); 20 new thermal
- Commercial Goal: 15 new signups per year (electric); 5 new thermal projects



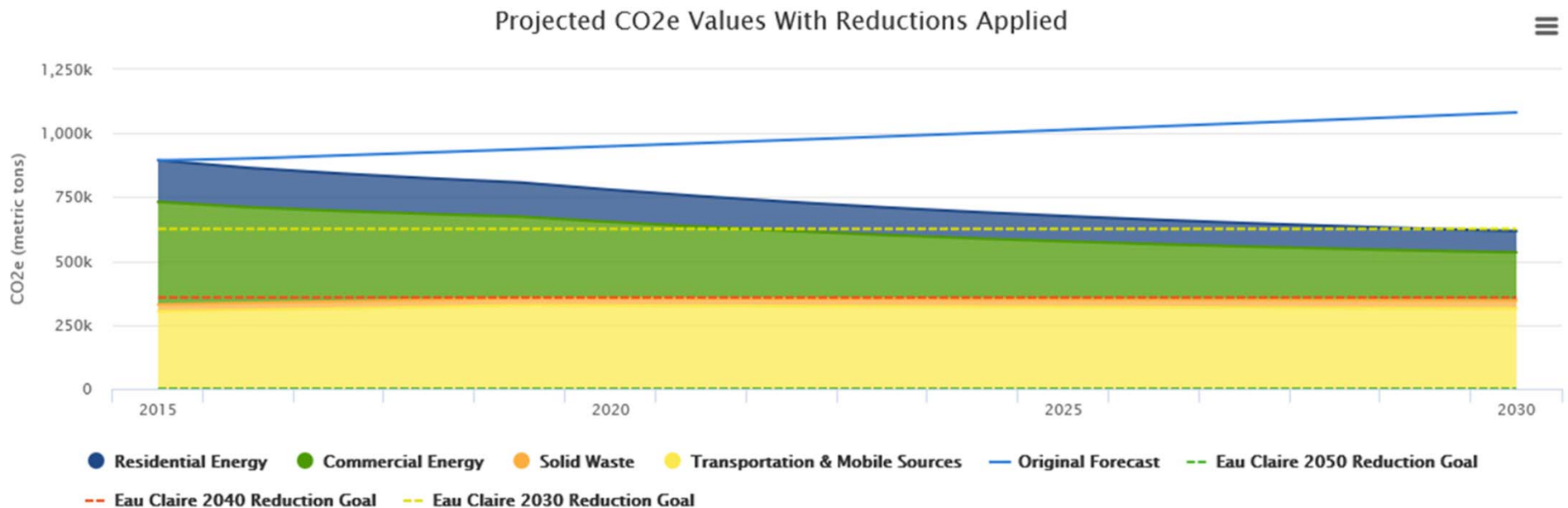
10% EV & 2 Person Vehicle Occupancy



- The assumption used in this scenario used historical vehicle miles traveled (VMT) and the 1.87% annual growth rate. We are assuming that at the end of the planning period (10 years) 10% of VMT's will be driven by electric vehicles charged by 80% carbon free electricity.
- An increase in vehicle occupancy was also assumed from the Midwest average of 1.63 persons per vehicle to 2.



80% Carbon Free Electricity



- We are assuming that from our baseline of 2015 out to 2030 we will gradually reach 80% carbon free electricity across residential and commercial sectors.



CO2e at the End of Planning Period



Residential Energy

Year	CO2e
2015	162740
2030	83708

Commercial Energy

Year	CO2e
2015	401923
2030	188500

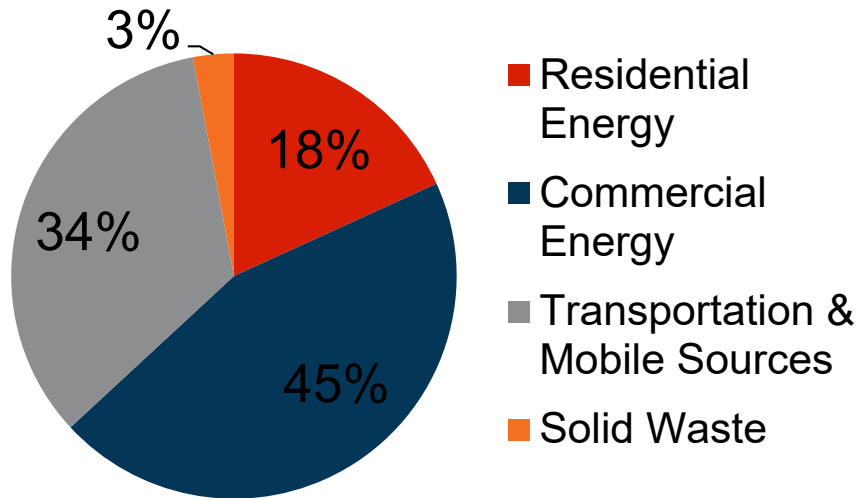
Transportation

Year	CO2e
2015	303536
2030	314593

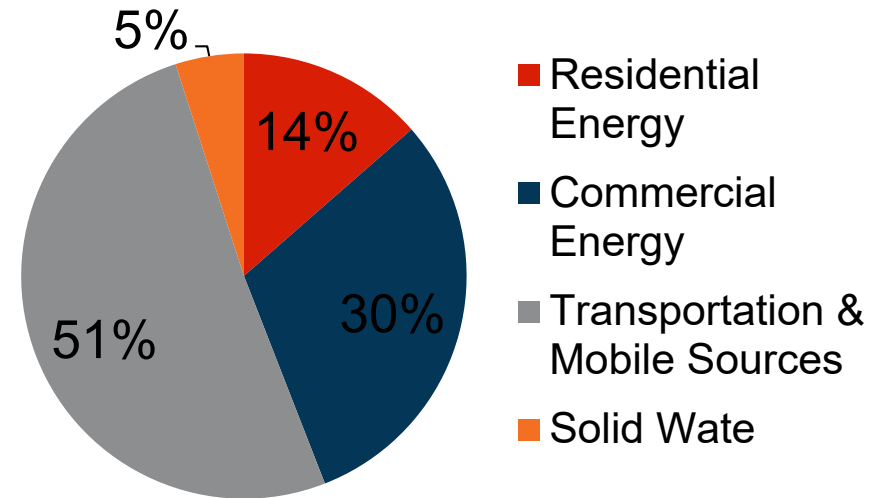


Sector Changes in Carbon Footprint Based on Scenario

2015 Emissions
% by Sector



2030 Emissions
% by Sector



Community & Program Background



More services/jobs closer to where you live



City's Comprehensive Plan

- #1 Goal: Sustainable Growth
 - Compact urban patterns
 - Promote infill & redevelopment
 - New residential neighborhoods carefully planned with commercial and civic uses
 - Preserve environmental resources (trees, open space, wetlands, etc.)
 - Reduced need for energy use and auto trips/VMTs



Stapleton Airport Redevelopment - Denver



Creating Walkable Neighborhoods



TND - Traditional Neighborhood Development

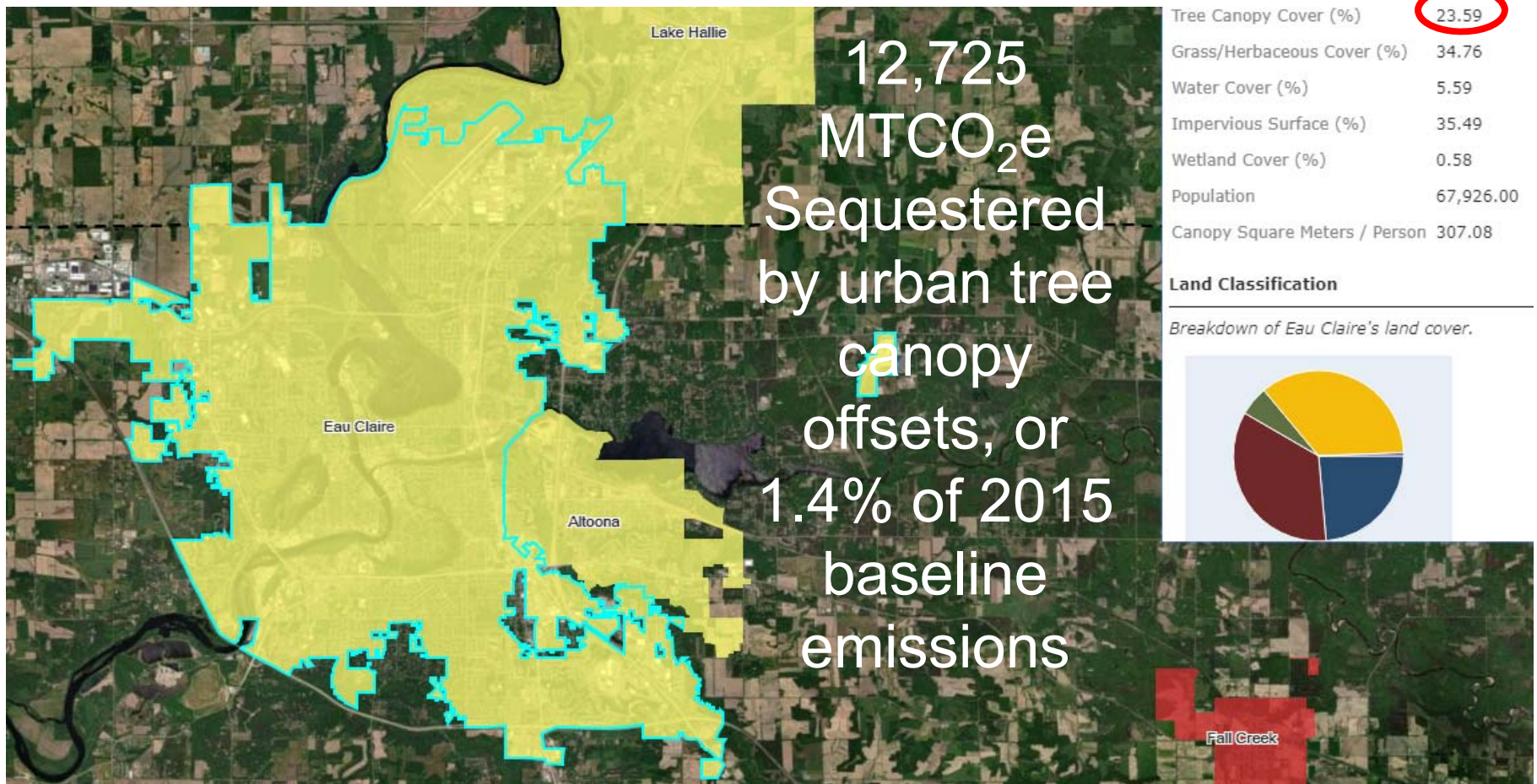
- 18.14.050 Design standards.
 - In order to achieve the proximity necessary to make neighborhoods walkable, it is important to **mix land uses**....
 - A mixed-use area of commercial, residential, civic or institutional, and open space uses shall be provided within a TND.
 - All residents should be within approximately ¼ mile or a **5-minute walk** from existing or proposed commercial, civic, and open space area.
 - Bicycle circulation shall be accommodated on streets and/or dedicated paths
 - Where public transit service is available or planned, convenient access to transit stops shall be provided
 - For each affordable housing unit...., one additional dwelling unit shall be permitted, up to a maximum 15% increase in dwelling units.



Carbon Land Value

 Community Tree Canopy
Legend Layers Basemap gallery Measure Details Print

2013 Data. <https://dnr.wi.gov/topic/urbanForests/ufia/landcover.html>



Property Assessed Clean Energy



- Anywhere in Eau Claire County
- Low-cost, long-term loans
- For energy efficiency, renewable energy, and water conservation projects
- Financing from open lending market, secured through a voluntary PACE Special Charge, repaid directly to the lender
- Projects generate positive cash flow upon completion with no up-front, out-of-pocket cost to property owners
- Result are improved profitability, an increase in property value, and enhanced sustainability



Examples of eligible improvement projects include:



Community Development Block Grant Programs



- Substantial Housing Rehabilitation
 - Eliminate Blight, preserve Housing Stock & conserve energy
 - Homeowners eligible for 0% interest loans (max. \$20,000)
 - Owners also eligible for Weatherization grants up to \$3,500 via HOME Program
 - Investors eligible for 3% interest loans (must rent to low-income)
- Homeownership Program
 - Div. purchases homes w/major renovations needed including HVAC systems
 - Direct sale to qualifying 1st time home buyers
 - Up to \$50,000 second mortgage w/\$15,000 forgivable after 10 yrs.



Park Tower Apartments



- 122 incoming qualifying units
- Solar Hot Water Project w/new roof in 2014
- \$165,000 system
- As of 3/2019, saved approximately \$9,300 in heating energy costs
- All costs were covered by the Housing Authority Focus on Energy grant





WESTERN DAIRYLAND ECONOMIC OPPORTUNITY COUNCIL

Weatherization and Energy Programs

Energy-related programs offered at WDEOC

- Weatherization
- WHEAP
- Crisis Assistance
- Emergency Furnace



PROGRAM YEAR 2017 SUMMARY

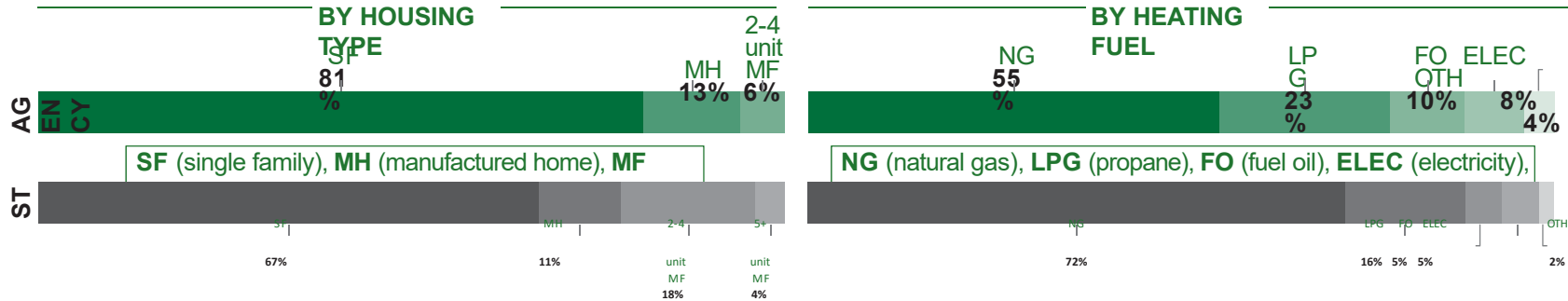


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Western Dairyland EOC

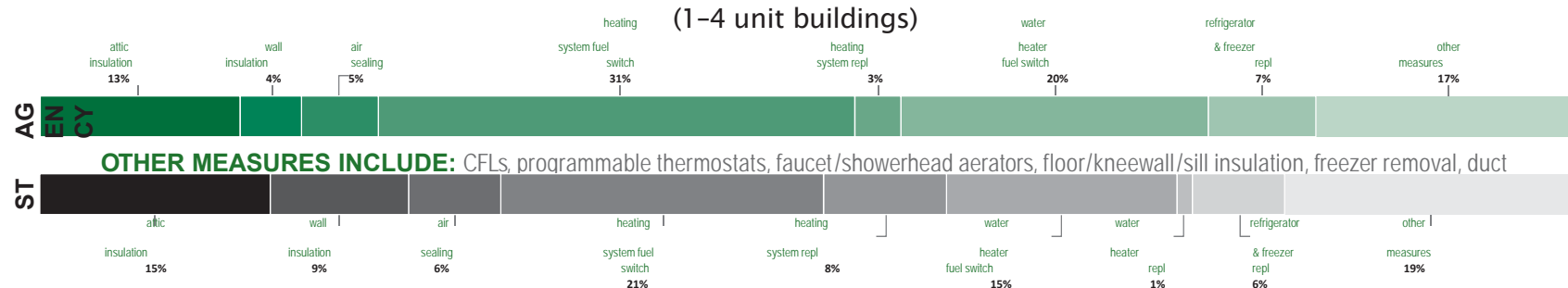
Serving the counties of Buffalo, Eau Claire, Jackson and Trempealeau

WEATHERIZED HOUSING UNITS



RESULTS FOR 1-4 UNIT BUILDINGS	AGENCY	STATE
Homes weatherized during program year 2017	173	5,074
Average weatherization cost per home	\$5,950	\$5,570
Average annual energy cost savings per home	\$620	\$480
Projected energy cost savings per home (over life of measures)	\$14,020	\$10,940
Annual energy cost savings	\$107,000	\$2,442,900
Projected lifetime energy cost savings	\$2,425,400	\$55,520,400

TOP MEASURES AS PERCENT OF LIFETIME ENERGY COST SAVINGS



Home Energy Plus is administered by the Wisconsin Department of Administration - Division of Energy, Housing and Community Resources through a network of county health and social service agencies, tribal governments, community action agencies, community based organizations and utilities. Home Energy Plus programs include the Wisconsin Home Energy Assistance program and the Weatherization Assistance program which serves eligible households with heating and electric assistance and energy efficiency measures that reduce energy usage.

©2018 Home Energy Plus



DEPARTMENT OF ADMINISTRATION
DIVISION OF ENERGY
WISCONSIN HOME ENERGY ASSISTANCE PROGRAM (WHEAP)

PAYMENTS AND SERVICES

County/Tribe

FISCAL YEAR 2019

Eau Claire

	Count	Expenditures	Average Benefit
Total Households Applied for Energy Assistance	3,425		
Total Households Paid Energy Assistance	3,146	\$1,850,170	
Total Households Paid LIHEAP Funded Benefits	3,022	\$1,080,347	\$361
Total Households Paid Public Benefit Funded Benefits	3,139	\$759,823	\$242
Total Households Paid Crisis Assistance	308	\$92,972	
Total Households Paid LIHEAP Funded Crisis Applications	211	\$62,606	\$297
Total Households Paid Public Benefit Funded Crisis Applications	100	\$30,366	\$304
Total Households Receiving Non Payment Additional Services	53	\$0	\$0
Total Households Paid Non-WHEAP Additional Services	0	\$0	\$0
Total Heating Unit Repairs Paid	97	\$38,064	\$392
Total Heating Unit Replacements Paid	33	\$109,219	\$3,310
Total Heating Unit Paid Assessment Only	4	\$691	\$173
Total Heating Unit Activity Paid	134	\$147,974	

An aerial photograph of a Wisconsin farm. The landscape is dominated by vibrant green fields, likely corn, with a winding dirt road cutting through them. In the middle ground, there are several farm buildings, including a large barn and a tall silo. The sky is filled with large, white, fluffy clouds, suggesting a bright but slightly overcast day. The overall scene is peaceful and rural.

WISCONSIN

Focus on Energy Overview

Presented by: Heather Feigum

Date: July 18, 2019

Overview

Focus on Energy is Wisconsin utilities' statewide program for energy efficiency and renewable energy. Provides financial incentives, education, information and other resources in an effort to encourage participation that leads to increased energy savings and reduced utility bills.

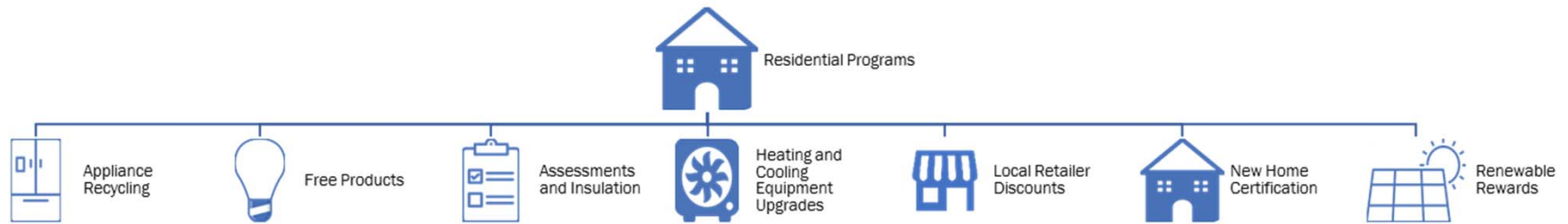
Goals

- Help Wisconsin residents and businesses manage rising energy costs
- Promote in-state economic development
- Protect our environment
- Control Wisconsin's growing demand for electricity and natural gas

Focus by the numbers

Focus on Energy has delivered more than \$1 billion in economic benefits over the past 10 years. Focus on Energy's positive net employment impacts supported more than 1,000 full-time equivalent jobs per year over Served customers at more than 128,000 residences and more than 6,100 businesses in 2018.

Residential Program Overview



WISCONSIN

Business Program Overview



WISCONSIN

More Information



www.focusonenergy.com

1.800.762.7077

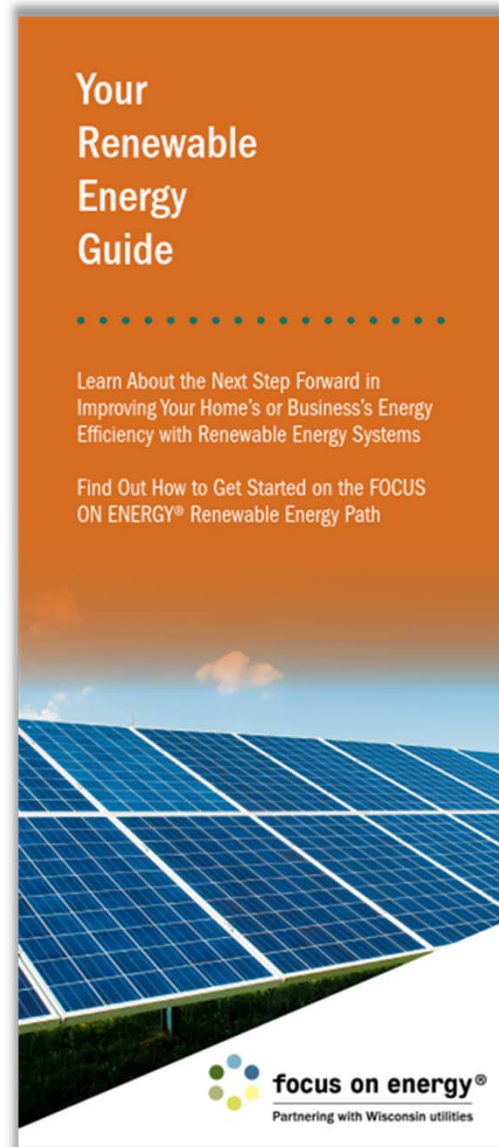
Email: heather.feigum@focusonenergy.com



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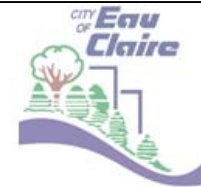
Renewable Energy Options

- Focus on Energy Renewable Incentives
 - Financial incentives for rooftop solar installations
- Xcel Energy Renewable*Connect
 - Subscription renewable program
- Solar*Connect CommunitySM
 - Community solar gardens



Community Data Sheets

City of Eau Claire
Renewable Energy Action Plan Committee
Planning Data¹



Population

Population estimate (2018): 68,866²

Demographics (2017)

- Percent of Population White: 90%
- Percent of Individuals Below Poverty Level: 17.4%
- Population enrolled in college or graduate school: 11,242
- Median Age: 31.4

Educational Attainment (2017)

Degree	Percent
High school graduate or higher	93.4%
Bachelor's degree or higher	31.7%

Housing

Housing Demographics (2017)


- Number of housing units: 28,790
- Median household income: \$47,660
- Percent of housing that is renter-occupied: 45.7%

Housing by number of units in structure (2017)

Units in Structure	Count	Percent
1-unit, detached	15,620	54.3%
1-unit, attached	2,206	7.7%
2 units	2,868	10.0%
3 or 4 units	2,814	9.8%
5 to 9 units	2,085	7.2%
10 to 19 units	626	2.2%
20 or more units	2,142	7.4%
Mobile home	413	1.4%

Age of housing stock (2017)

Year Built	Count	Percent
2010 or later	830	2.9%
2000 to 2009	2,854	9.9%
1990 to 1999	3,941	13.7%
1980 to 1989	3,623	12.6%
1970 to 1979	5,207	18.1%
1960 to 1969	2,748	9.5%
1950 to 1959	2,635	9.2%
1940 to 1949	2,025	7.0%
1939 or earlier	4,927	17.1%

 Top House Heating Fuel (2017)



Average Energy Costs (2018)

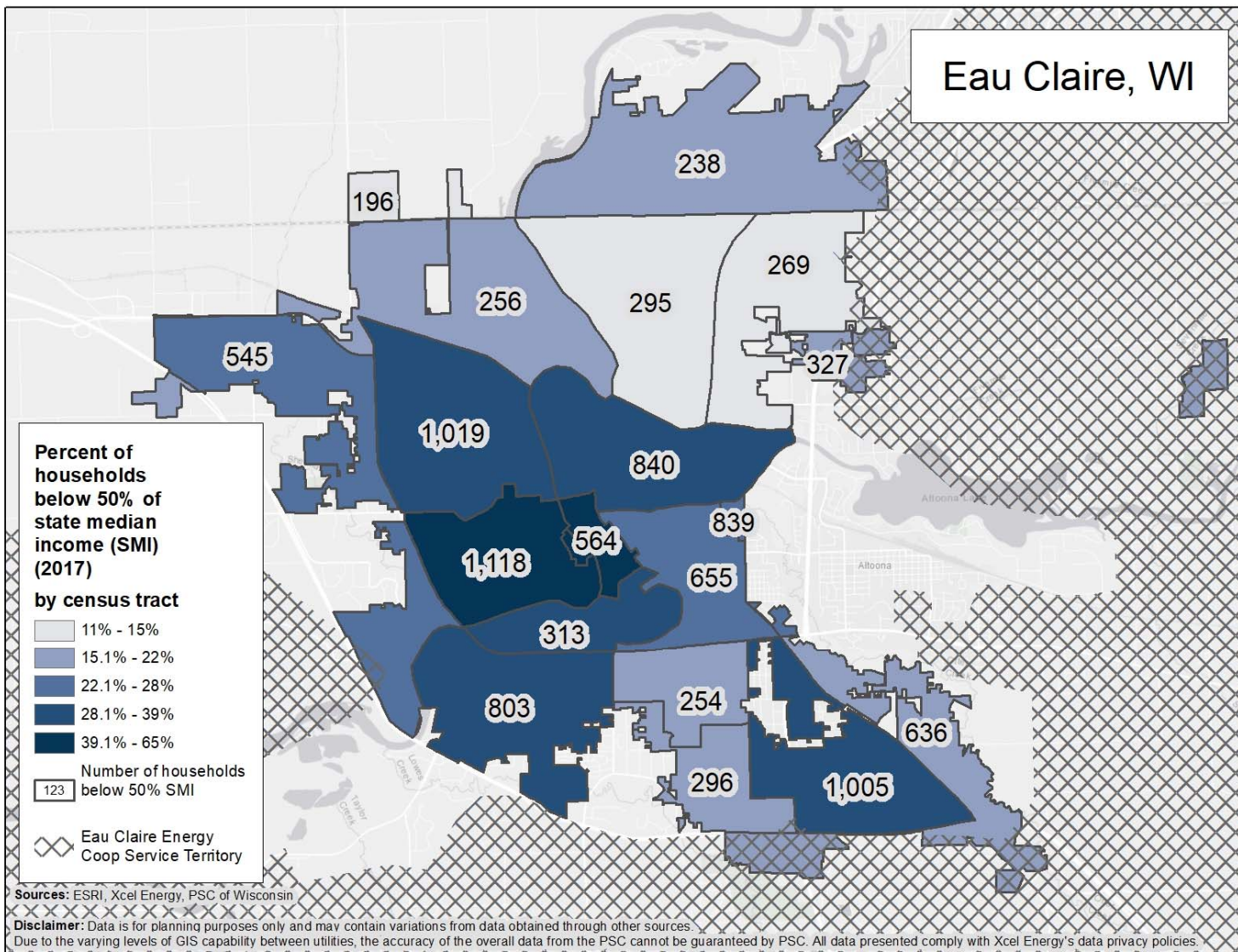


Sector	Average Costs Per Premise
Residential	\$1,376
Commercial and Industrial	\$17,484
Municipal	\$10,719

Total spent on energy: \$108 Million



State Median Income



Community Assets



BREAK



STRATEGY WORKING GROUPS



Focus Groups by Sector

Transportation

Waste

Biodiversity

Commercial,
Industrial and
Institutional
Energy

Residential
Energy



Instructions



- In Focus Groups
 - Break into pairs
 - Select Strategies to focus on



Forces For / Forces Against

1. Break into pairs amongst Focus Area
2. Divide Strategies (3-4 strategies per pair) based on interest and expertise
3. Designate a scribe for each pair
4. 10 minutes to brainstorm **Forces For** and **Forces Against** each strategy
 - “Barriers” and “Benefits”

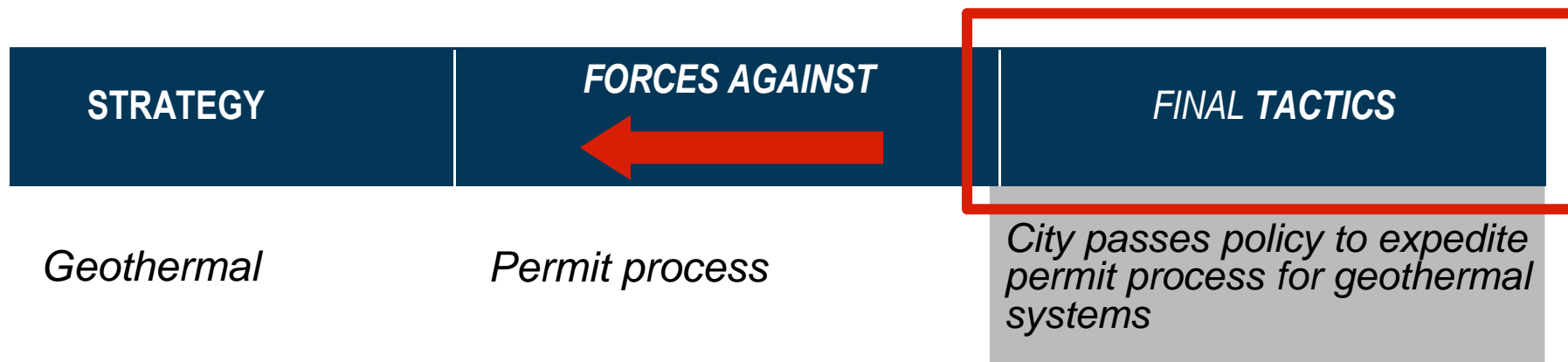


Attitudes & Beliefs \neq Behavior



Tactics Exercise

- In Pairs
 1. Brainstorm on **sticky notes** tactics to address the forces for and against that you identified (25 min)
 1. Place sticky notes on top of the *forces for or against* that they address
 2. Identify the top tactics for each strategy and **transcribe** in the far right column (10 min)
 1. *Who, What, When*



REPORT OUT



Share with the Full Group



- Which strategies you were working on
- What is one force for and force against you came up with?
- Share one of your top tactics you think will be highly successful at reaching goals



WRAP UP AND NEXT STEPS



Upcoming Workshops



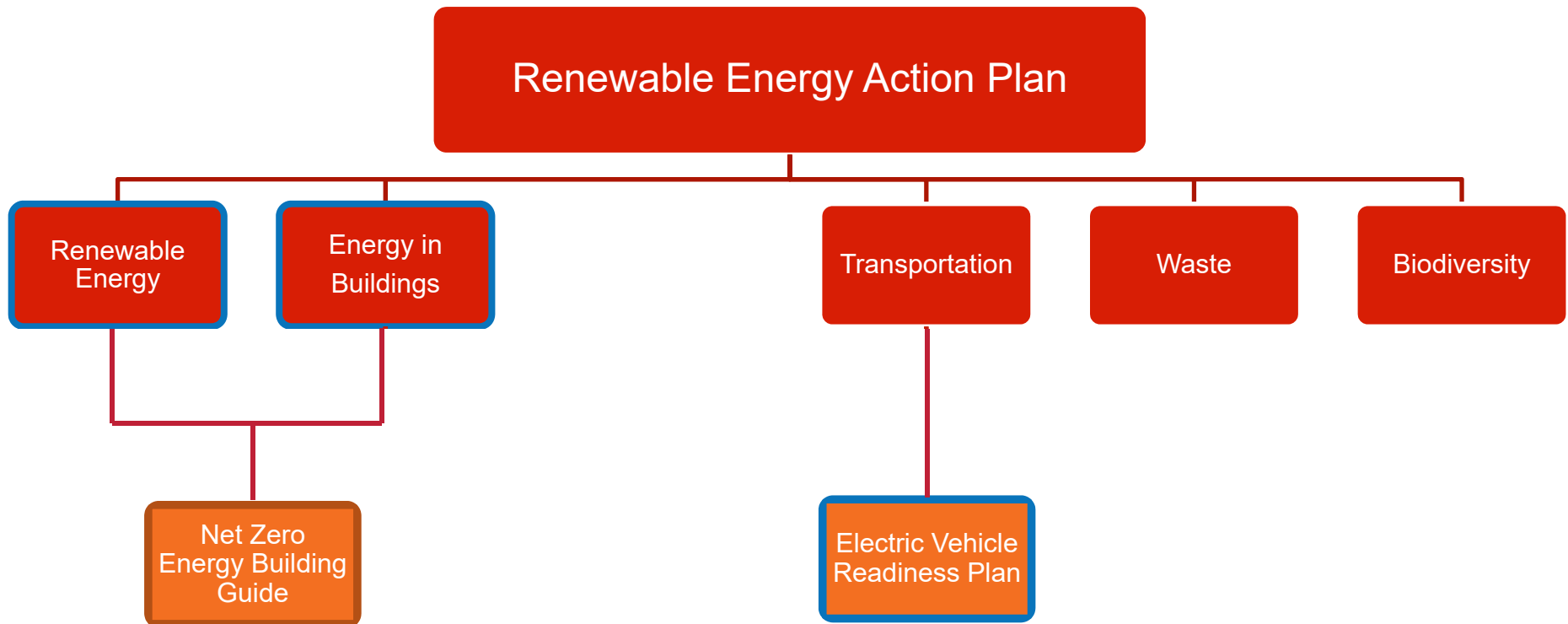
All workshops are 6:30 – 8:30 p.m.
Chippewa Valley Technical College
Energy Education Center


UPCOMING DATES

- **September 19th** – Workshop #4
- Please hold **November 7th** for tentative Workshop #5



Plan Structure & Focus Areas




 = Supported by Partners in Energy



Reminder: Sign up for the Exchange



- Monthly “Office Hour” webinars on a special topic related to implementing your plan
 - Featuring topic experts and case studies
- Upcoming August Office Hours: **Electric Vehicles Part II: Community Outreach and Engagement**

Residential Event Identification  **PARTNERS IN ENERGY**
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Good Candidates

- Well-attended by target audience
- Opportunities for visibility/exposure (e.g., table location, dedicated agenda time, etc.)
- Vibe aligns with Energy Action Plan vision or message
- Low level of costs and/or logistics to participate



Contact Jamie Johnson to receive information about upcoming webinars
jcjohnson@mncee.org

