



CITY OF
EAST GRAND RAPIDS

8

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www.eastgr.org

DOUG LA FAVE
DEPUTY CITY MANAGER

MEMORANDUM

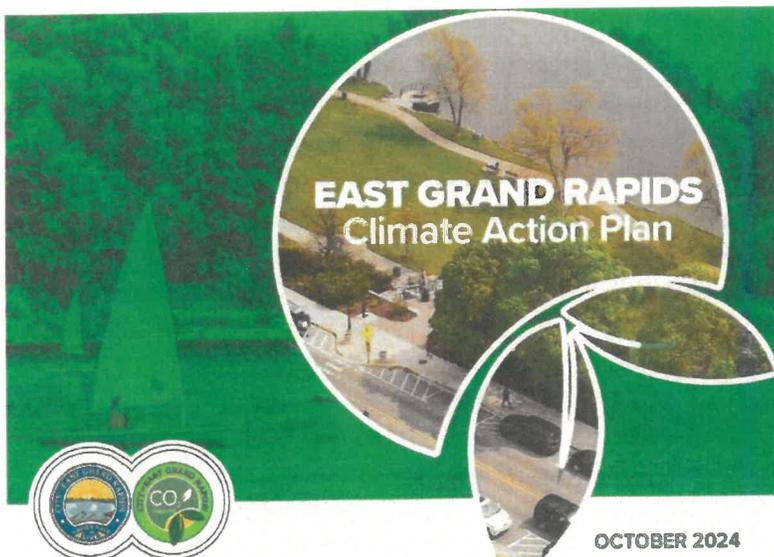
TO: Honorable Mayor and City Commissioners
FROM: Doug La Fave, Deputy City Manager
DATE: December 6, 2024

RE: Consumers Energy Renewable Energy Program-Electrical-City Facilities/Operations

Action Requested: That the City Commission consider an agreement with Consumers Energy to purchase 100% of remaining electric utility consumption for facilities and operations with Consumers Energy via Renewable Energy Certificates (RECs) for 2025-2028 and from the Consumers Energy Renewable Energy Program (REP) for a dedicated source of renewable energy with a 20-year commitment from 2028-2048 as noted in the proposed agreement.

Background: In 2022, the City Commission adopted a Climate Action Plan Resolution establishing a target date of 2040 for city operations to be carbon neutral and to develop a formal Climate Action Plan. Since that time, in accordance with past practices, the city has continued to move forward with energy efficiency measures and projects while a Carbon Action Plan for city operations was being developed.

At the December 2, 2024, City Commission meeting, the City Commission formally approved the City of East Grand Rapids Climate Action Plan (CAP). To view the EGR-Climate Action Plan-click link: [Item-71--EGR ClimatePlan Print 112624](#) or scan QR code:



REDUCTION STRATEGIES KEY	REDUCTION POTENTIAL	REDUCTION POTENTIAL	TIMEFRAME
	Low = 0-5 MT CO2e 	Low = <\$25k 	Near-term = 0-3 years
	Moderate = 5-75 MT CO2e 	Moderate = \$25k- \$250k 	Mid-term = 4-9 years
High = >75 MT CO2e 	High = >\$250k 	Long-term = 10 or more years	
		Ongoing = Present through 10 years or more	

ENERGY AND BUILDINGS					
CATEGORY	STRATEGY	REDUCTION POTENTIAL	FINANCIAL INVESTMENT	POTENTIAL PARTNER(S)	TIMEFRAME
Electricity Strategy	LED Lighting Improvement - Streetlights and Community Building			Consumers Energy	Near-term
Streetlights, depending on the location, are either owned or maintained by Consumers Energy or the City. The gaslights in Gaslight Village are owned and maintained by the City. The gaslights were converted from natural gas to electric in 2020 and are entirely LED lights. The remaining streetlights throughout the City that are being converted to LED over time by Consumers Energy. Approximately 50% of these streetlights have not yet been converted to LED. The last form of lighting improvements will take place in community buildings where approximately 20% of the lighting remains for conversion to LED. The proposed reduction action of upgrading conventional lighting to LED also includes occupancy sensors to reduce lighting based on occupancy in office buildings to reduce energy consumption.					
Electricity Strategy	Solar Arrays			Blue Path Solar, Harvest Solar, Consumers Energy	Mid-term
EGR is currently installing solar arrays that will generate 24% of the current annual electricity usage for the Community Center Complex and 100% or more of the Public Works building annual electricity usage. This will have a meaningful positive impact on EGR's footprint. Implementation of additional solar arrays, including rooftop, ground mount, and carports to decarbonize the remaining 250 mt CO2e from electricity usage offers great potential. Consumers Energy also offers a renewable energy program (solar blocks) that offers an alternative to on-site solar array installations.					
Electricity Strategy	Grid Decarbonization			Consumers Energy	Short-term through long-term
Decarbonization of the grid will be a cornerstone of our reduction actions that is expected to take place regardless of EGR's actions, but this will offer reduction potential to EGR's footprint by relying upon a cleaner grid to power our operations.					
Natural Gas Strategy	Efficiency Improvements - HVAC and Building Envelope			Consumers Energy	Mid-term
EGR should evaluate additional efficiency improvements, such as HVAC and building envelope improvements (e.g. retrofits and improvements to building envelope materials). EGR installed a new high-efficiency natural gas boiler in 2023 to support the snowmelt system. A second high-efficiency boiler is also planned for installation later in 2024. The installation of these two new boilers will allow the City to decommission the existing third boiler. Overall, these changes are projected to further reduce natural gas consumption from the snowmelt system. In the interim, EGR should consider working with Consumers Energy for a comprehensive tune-up. This is a service that Consumers Energy provides by sending contractors to perform an advanced diagnostic test to fully analyze your systems and identify issues that rob your system of efficiency or present potential health and safety issues. In the future, as these boilers reach the end of their useful life as 2040 approaches, the City should consider alternatives to move away from natural gas completed by employing the use of heat pump technologies or other alternative technologies that are expected to become more cost effective and technologically feasible by this timeframe.					
Natural Gas Strategy	Efficiency Improvements - Smart Sensing Technology			Consumers Energy	Short-term
The implementation of smart sensing technology can increase building efficiency and reduce utility bills. According to the American Council for an Energy Efficiency Economy (ACEEE), the following smart sensing technologies can help to reduce emissions by increasing efficiencies. <ul style="list-style-type: none"> • Installing occupancy-based wireless thermostats. This can save 5-10% of HVAC energy costs if programmed to allow the HVAC system to reduce its operation when the building or zone is unoccupied. • Advanced rooftop unit (RTU) controls. RTUs have the potential to cut HVAC energy use by 20-40%, depending on how they are set up and what components are used. • O2 demand-controlled ventilation (DCV) sensors, which can be coupled with sensors that detect a building's occupancy and adjust ventilation accordingly. Though costly to install, they can make the most sense in a building retrofit. 					
Natural Gas Strategy	Convert Space Heating to Heat Pumps				Long-term
Heat pumps are a technology that can provide heating and cooling without the use of fuels. According to DTE, geothermal heat pumps, for example, are estimated to save between 30-60% on heating and cooling costs and are four times more efficient than conventional systems. Consumers Energy currently provides rebates on equipment (including air-source pumps and ground-source heat pumps).					
Natural Gas Strategy	Evaluate New Technologies and Equipment As Needed				Mid-to-long term
Evaluate opportunities to replace existing equipment with low-carbon solutions, such as monitoring systems, snowmelt biofuels, and other emerging technologies. This will be a major strategic move to reduce emissions, as efficiency improvements will be long-lasting.					
Natural Gas Strategy	Renewable Natural Gas and Carbon offset Program			DTE & Consumers Energy	Long-term
Pursue continuation of the 100% renewable natural gas and carbon offset program through 2040 through the DTE Clean Energy program, if the implementation of electrifying equipment and efficiency measures are not sufficient. While renewable natural gas and carbon offsets are effective at eliminating near-term natural gas emissions until other technologies are more cost and technically feasible, it is recommended to pursue long lasting solutions which will benefit the City without an added cost.					

Under reduction strategies in the CAP, under Scope 1&2 specific to the electricity strategies, city staff meets each year with Consumers Energy (electric utility provider) and DTE (natural gas utility provider) to conduct facility energy efficiency audits related to electrical and natural gas consumption. These audits help refine operations and planned capital investments around efficiencies and reducing utility consumption and overall reduction of carbon impact. City staff worked with Consumers Energy (pre-dating the CAP) to review and study all city electrical accounts to provide for purchasing electricity for all city facilities and operations from renewable resources. The city has converted all city owned streetlighting to LED and is in-process with this effort with the current contract for streetlighting with Consumers Energy. Additionally, city owned facility efficiencies continue with operations and projects, like HVAC replacements.

The second strategy referenced is related to on-site production of renewable energy, which has recently been completed after several years of planning, coordination, and construction. Solar arrays completed on city facility roofs in 2024 provide for 24% of electrical needs for the Community Center/Municipal Complex/Library/Public Safety buildings and 100% of electrical needs for the Department of Public Works Complex.

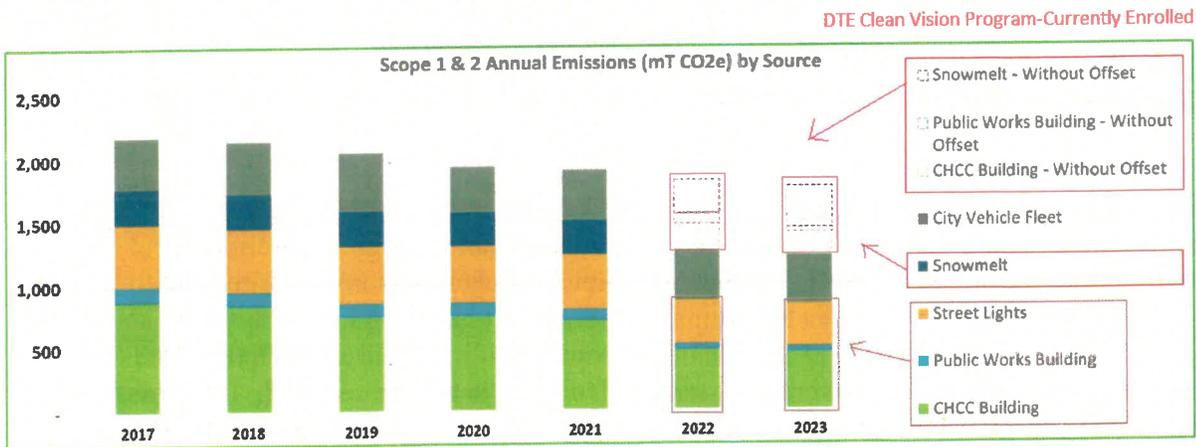


DPW Complex Fall 2024-Above

Library/Municipal Complex/Community Center/Public Safety Fall 2024-Above

Scope 1 and 2 emissions are noted below with natural gas impact addressed by the DTE Clean Vision Program that the city is currently enrolled in. Consumers Energy can provide for carbon offsets to cover electrical usage impacts on metered and unmetered accounts (streetlighting included) through their certified Renewable Energy Certificate Program (RECs) for 2025-2028 (through a mix of solar and wind RECs) until a dedicated solar power plant is constructed and online area through its Renewable Energy Program (REP) to cover the 20-year period from 2028-2048 for metered accounts. Unmetered accounts related to streetlighting will need to be addressed in 2028 depending on what programs are offered by Consumers Energy at that time or allowable via the State of Michigan. For more detailed information on RECs and how they work, please visit the following link from the United States Environmental Protection Agency: [Renewable Energy Certificates \(RECs\) | US EPA](#)

RECs would be transferred to the city through the MI-RECs system: [MIRECS](#). Consumers Energy would provide an attestation that has the serialized value of the RECs. The serial number then can be used to track the credit within MI-RECS, which is Michigan’s renewable energy credit management system. This provides the ability to document the RECs and trace their origin.

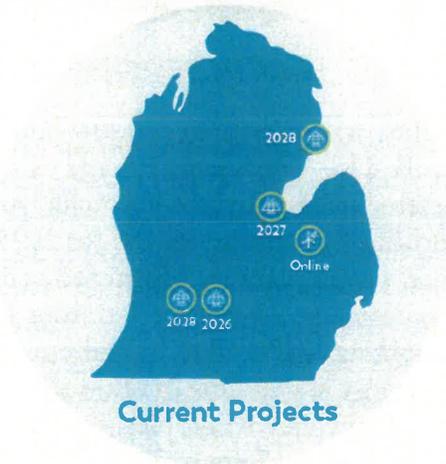


Consumers Energy Renewable Energy Certificates (2025-2028) and Renewable Energy Program (2028-2048) in conjunction with efficiency/reduction and on-site solar arrays

The CAP carbon emissions chart shows current natural gas and offsets and renewable sources in 2022 and 2023 with the projected impacts of the RECs and REP from Consumers Energy leaving the city

vehicle fleet remaining (which is also seeing progress) for carbon impact for Scope 1 and 2 emissions at this time.

The Consumers Energy REP has several renewable energy assets currently under construction that are projected to be operational in 2028. Consumers Energy assigns plant capacity to subscribers of the REP, so a physical site is dedicated to grid energy production. A 20-year term is requested as that is generally aligned with the expected useful life of the solar panels for the plant and would also closely align with the on-site city solar arrays that generate electricity on-site to align these renewable generating assets for coordinated efforts around 2048. As was noted the City of Kalamazoo and City of Grand Rapids have recently subscribed to this program/agreement including RECs to cover 2025-2028 and 20-year commitments from 2028-2048 in their efforts to reduce carbon emissions.



Tuscola County, 120 MW Wind Energy – Online

Calhoun County, 309 MW Solar Energy – In Development
(estimated to support enrollment in 2026)

Bay County, 85 MW Solar Energy – In Development
(estimated to support enrollment in 2027)

Kalamazoo County, 220 MW Solar Energy – In Development
(estimated to support enrollment in 2028)

Alcona County, 117 MW Solar Energy – In Development
(estimated to support enrollment in 2028)

Consumers Energy Renewable Energy Assets-Current-Near Future-Above

The Consumers Energy REP allows for the City of East Grand Rapids to subscribe up to 100% of each metered account's supplied energy source to be from renewable energy. Subscriptions to the program help to fund continued capital investment in renewable energy sources. Enrollment into the subscription program is based on the elected annual subscription volume in kilowatt-hours (kWh) and the fixed subscription fee per kWh. Over the life of the contract, if the fixed subscription fee is less than the market value of the renewable energy generated, a savings will be realized. If the market value of renewable energy is less than the fixed subscription fee, the net difference is charged.

The proposed RECs certificates to bridge the city from 2025-2028 to the REP would be an increase of \$14,000 per year to account for approximately 1,000,000 kWh of usage for all metered and unmetered accounts for all city facilities and operations. All metered accounts cost approximately \$158,800 and unmetered accounts (streetlighting) approximately \$93,500 in fiscal year 2023-2024. With the current partial year solar arrays generating electricity at city facilities and additional energy efficiency reductions, the current fiscal year projected ~~un~~ metered accounts are estimated at \$141,250, or a reduction in cost of \$17,800 compared to last fiscal year. Unmetered streetlighting is anticipated

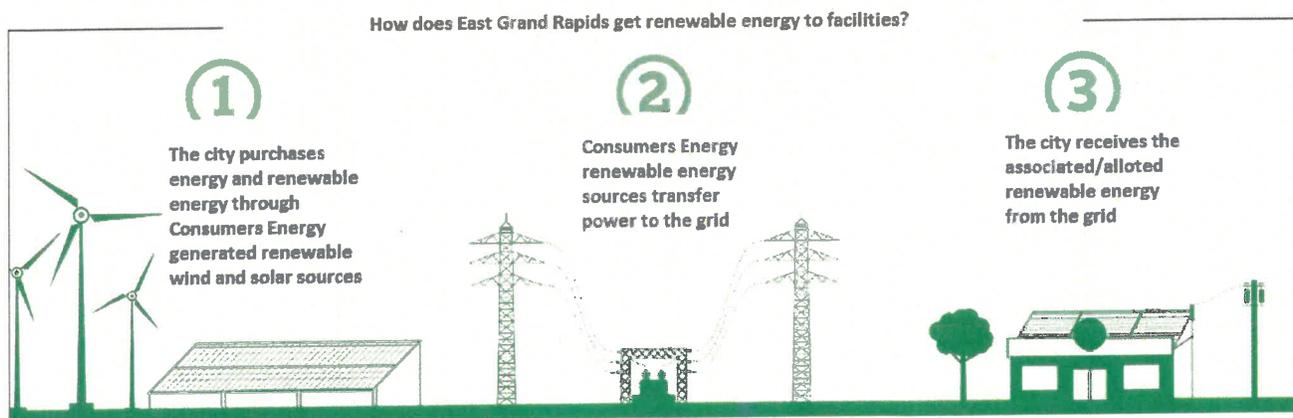
to decrease slightly as more lights are converted to LED. These savings help account for the increased cost of \$14,000 to participate in purchasing RECs. Fluctuations related to generation, more efficiencies/reduction in use will vary in the future but will be tracked as provided for in the CAP for reporting and benchmarking. For the next three years increased RECs costs would be mitigated as noted with on-site facilities electricity generation and reduction of usage via efficiencies.

The transition to the proposed 20-year REP for 2028-2048 will account for approximately 1,000,000 kWh. This is a one-to-one program, so actual usage matches the actual rates and associated costs, anticipated to decrease. The subscription rate is \$0.064 per kWh. The annual payment would be \$64,000 minus energy and capacity credits. In addition to current energy rates paid averaging about \$.15 per kWh or \$141,250 annually on metered accounts. The new total amount for electric energy for metered accounts, including existing charges and rates, plus the new renewable energy generation subscription, would be approximately \$205,250 annually minus energy and capacity credits.

Energy and capacity credits issued monthly based on the market rate of renewable energy provide savings. The city will realize savings at all annual average growth rates above 0.0% for renewable energy costs. City staff reached out to one of the other municipalities that has also participated in the Consumers Energy Renewable Energy Program and their analysis was completed looking at average annual renewable energy cost growth rates from 0% to 2.5%, which resulted in scenarios that ranged from break even. This aligns with the projections for East Grand Rapids being break even or a savings of \$4,900 over the 20-year period.

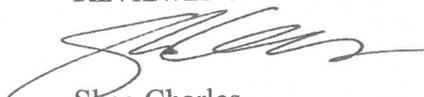
The impact of participating in the programs noted is estimated to reduce 582 metric tons of carbon emission annually according to the United States Environmental Agency Greenhouse Gas Equivalencies Calculator based on East Grand Rapids kWh subscribed usage at 1,000,000 kWh annually. The impacts of this coordinated and combined approach would be localized due to the on-site generation of solar arrays at city facilities, efficiencies realized locally at city facilities and operations, RECs from Michigan locations and REP generation locally in West Michigan.

The following graphic illustrates how the City of East Grand Rapids would receive renewable energy sources.



The associated agreement with Consumers Energy has been reviewed by legal counsel and is determined to be in order.

REVIEWED & APPROVED FOR SUBMISSION:


Shea Charles
City Manager

Greenhouse Gas Equivalencies Calculator

Convert emissions or energy data into concrete terms you can understand

The Greenhouse Gas Equivalencies calculator allows you to **convert emissions or energy data to the equivalent amount of carbon dioxide (CO₂) emissions from us** useful in communicating your greenhouse gas reduction strategy, reduction targets, or other initiatives aimed at reducing greenhouse gas emissions.

Updated November 2024

 These estimates are approximate and should not be used for emission inventories or formal carbon emissions analysis. See [Calculations & References](#) for eq

Step 1 - Enter and convert data

Select data to convert: 

- Energy data 
- Emissions data

Enter data:

Unit	Amount
<input type="radio"/> Gallons of gasoline	<input type="text" value="1,000,000"/>
<input type="radio"/> Gasoline-powered passenger vehicles 	
<input type="radio"/> Kilowatt-hours avoided 	
<input checked="" type="radio"/> Kilowatt-hours used 	
<input type="radio"/> MCF of natural gas	
<input type="radio"/> Therms of natural gas	

Enter ZIP Code for regional weighted marginal emission rate (lb/MWh)

Please enter a valid 5-digit zip code so the calculator can estimate emissions using an emissions factor specific to your region. If you don't enter a ZIP code or you enter an i

Step 2 - View results

582 Metric Tons of Carbon Dioxide (CO₂) equivalent

This is equivalent to greenhouse gas emissions from:

- 136 gasoline-powered passenger vehicles driven for one year 
- 1,480,998 miles driven by an average gasoline-powered passenger vehicle 

This is equivalent to CO₂ emissions from:

- 65,440 gallons of gasoline consumed 
- 646,015 pounds of coal burned 
- 78.1 homes' energy use for one year 
- 3.2 railcars' worth of coal burned 
- 26,717 propane cylinders used for home barbeques 
- 0.002 natural gas-fired power plants in one year 
- 348 electric-powered passenger vehicles driven for one year 

- 57,129 gallons of diesel consumed 
- 7.7 tanker trucks' worth of gasoline 
- 121 homes' electricity use for one year 
- 1,346 barrels of oil consumed 
- 0.0002 coal-fired power plants in one year 
- 173,461,495 number of smartphones charged 

This is equivalent to greenhouse gas emissions avoided by:

206 tons of waste recycled instead of landfilled 



49,437 trash bags of waste recycled instead of landfilled 



This is equivalent to carbon sequestered by:

9,616 tree seedlings grown for 10 years 



3.5 acres of U.S. forests preserved from conversion to cropland in one year 



29.4 garbage trucks of waste recycled instead of landfilled 



0.174 wind turbines running for a year 



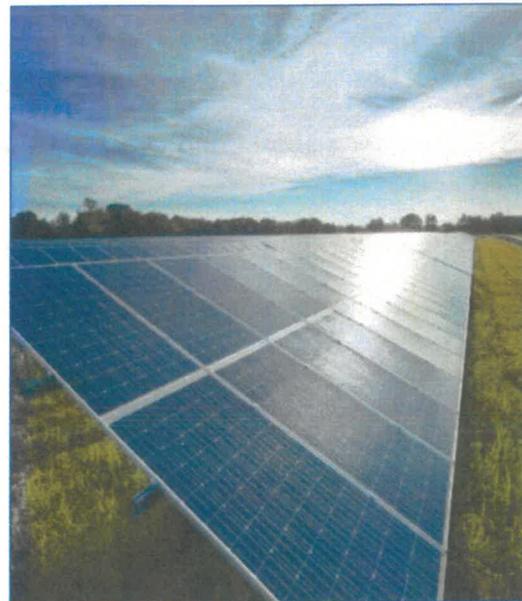
583 acres of U.S. forests in one year 



West Michigan Leads the Charge by Committing to Renewable Energy

City of Grand Rapids and City of Kalamazoo Sign Contracts for Renewable Energy Program to Power Their Cities

JACKSON, Mich., Sept. 17, 2024 – The cities of Grand Rapids and Kalamazoo are setting a new standard in sustainability by joining the Consumers Energy Renewable Energy Program (REP). This partnership represents a significant step toward achieving their ambitious climate goals and advancing their commitment to reducing greenhouse gas emissions. The Renewable Energy Program enables customers to match 100% of their energy use with cost-effective wind and solar power. This customer-powered clean energy effort lowers costs and helps protect the planet.



"Consumers Energy appreciates the partnership from our two largest West Michigan municipalities by committing to this program," said Lauren Snyder, Consumers Energy's vice president of customer experience. "The leadership shown by the Cities of Grand Rapids and Kalamazoo highlights the importance of our Clean Energy Plan and helps us to continue to build out more renewable energy resources like solar and wind."

This partnership with Consumers Energy not only supports Kalamazoo and Grand Rapids in meeting their sustainability goals but also serves as a model for other businesses and municipalities striving to embrace renewable energy and achieve sustainability goals. The program already includes 3 dozen participants including General Motors, 7/11, Walmart and the State of Michigan. In 2025, the program will expand giving residential and small business customers an option to [sign up for cost-effective](#), utility-scale renewable energy projects.

"By joining the Renewable Energy Program, Kalamazoo is taking a bold step forward in our mission to enhance environmental sustainability and reduce our carbon footprint," said Kalamazoo Mayor David Anderson. "This initiative reflects our commitment to reduce carbon emissions to net-zero by 2050, working towards a greener future for all."

Similarly, Grand Rapids is embracing this opportunity to make substantial progress toward its sustainability objectives. "Our participation in the Renewable Energy Program aligns perfectly with Grand Rapids' vision of a cleaner, more sustainable community," said Mayor Rosalynn Bliss of Grand Rapids. "This commitment underscores our dedication to environmental stewardship and supports our goal of powering all municipal operations with renewable energy by 2025 and beyond."

Consumers Energy is Michigan's largest energy provider, providing natural gas and/or electricity to 6.8 million of the state's 10 million residents in all 68 Lower Peninsula counties. Consumers Energy's Clean Energy Plan calls for eliminating coal as an energy source in 2025, achieving net-zero carbon emissions and meeting 90% of customers' energy needs through clean sources, including wind and solar.

###

Media Contacts: Trisha Bloembergen, 517-614-2689 or Brian Wheeler, 517-740-1545

For more information on the City of Grand Rapids' Green Grand Rapids plan, [learn more here](#).

For more information on the City of Kalamazoo Sustainability plan, [learn more here](#).

For more information about Consumers Energy, go to ConsumersEnergy.com.

Check out Consumers Energy on Social Media



Consumers Energy

Count on Us[®]

Renewable Energy Program

City of East Grand Rapids
12/06/2024

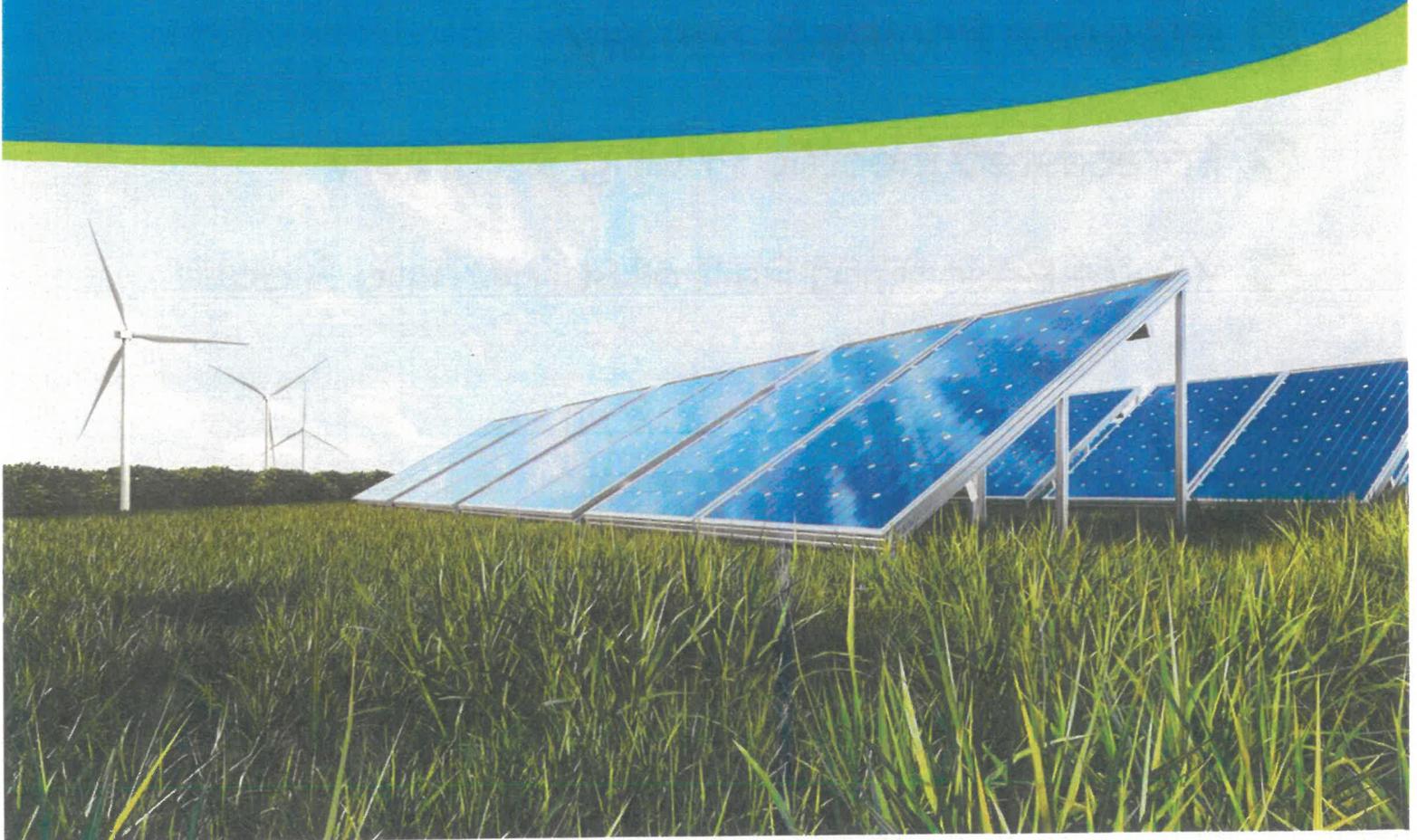


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Why Decarbonize?

You're doing something bigger for your business and Michigan. Count on us to help you do it. Sustainable energy use can be significantly important and impactful in many ways:

- 1. Environmental Responsibility:** Investing in sustainable energy use can reduce your carbon footprint and mitigate environmental impact.
- 2. Cost Savings:** Sustainable energy use creates the opportunity for long-term cost savings. The Renewable Energy Program can act like a hedge to standard energy charges on your bill.
- 3. Energy Security and Independence:** Increasing renewable energy sources provides Michigan and its businesses greater energy security and independence. Unlike fossil fuels, renewable energy resources are abundant and locally available, reducing reliance on external sources and mitigating supply chain disruptions.
- 4. Regulatory Compliance:** By procuring renewable energy, businesses can ensure compliance with environmental regulations and avoid potential penalties while preparing for the future.
- 5. Competitive Advantage:** Renewable energy helps differentiate your brand, attract environmentally conscious customers and appeal to investors.

Count on us for a plan that's tailored to your unique needs.

Decarbonization by the Numbers

What are scope 1, 2 and 3 emissions?

Scope 1 Emissions

Greenhouse gas (GHG) emissions from sources directly controlled or owned by an organization, such as fuel combustion in boilers, furnaces and vehicles.



Energy Efficiency



PowerMI Fleet



Renewable Natural Gas



MI Clean Air Carbon Offsets

Scope 2 Emissions

Indirect GHG emissions associated with the purchase of electricity, steam, heat or cooling.



Energy Efficiency



Demand Response



Renewable Energy Program

Scope 3 Emissions

Emissions from assets not owned or operated by an organization, but rather, from its value chain.

We can also help Michigan-based suppliers from your value chain decarbonize; ask one of our Energy Experts.

Count on us for the know-how to help you find the best path for your business.

Is your business looking to electrify to reduce on-site, Scope 1 emissions?

If you're planning large electric load increases, contact us to ensure your facility has the right equipment installed, there's available capacity and you're on the right rate.

Renewable Energy Program

Here's how it works.



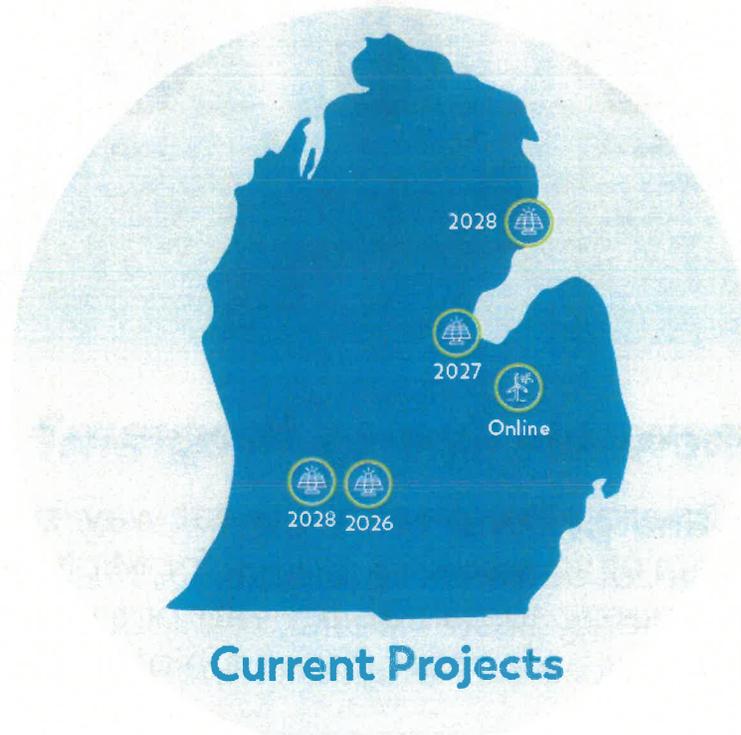
Why the Renewable Energy Program?

Our **Renewable Energy Program** is a great way for your company to be part of something bigger for Michigan. We can help you simplify energy sustainability without upfront investments, infrastructure changes, or maintenance.

- ✓ **Cost-Effective**
 Our Renewable Energy Program requires no upfront costs.
- ✓ **Easy to Implement**
 Once you subscribe, we handle the rest.
- ✓ **Trusted Partner**
 Utility-scale wind and solar projects are built and managed by Michigan's energy experts.
- ✓ **Local**
 Michigan-based wind and solar resources strengthen our economy and create jobs.
- ✓ **Build Your Brand**
 Demonstrate your commitment to energy sustainability to your customers, employees, investors and community.
- ✓ **Flexible**
 You choose how much of your electricity use to match with renewable energy. If your use changes, your plan can flex with you.

Renewable Energy Program Resources Statewide

We offer a wide range of solar and wind resources across Michigan. We're continually evaluating and developing new facilities to meet the needs of our customers and **Renewable Energy Program** subscribers.



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Alcona County, 117 MW Solar Energy – In Development
(estimated to support enrollment in 2028)

Enrollment start dates and asset details are subject to construction progress.

Program Pricing | Overview

Subscription Fee

- Fixed for the life of the agreement.
- Pre-payment options are available.
- Covers the cost for construction, operation and maintenance of the facilities.

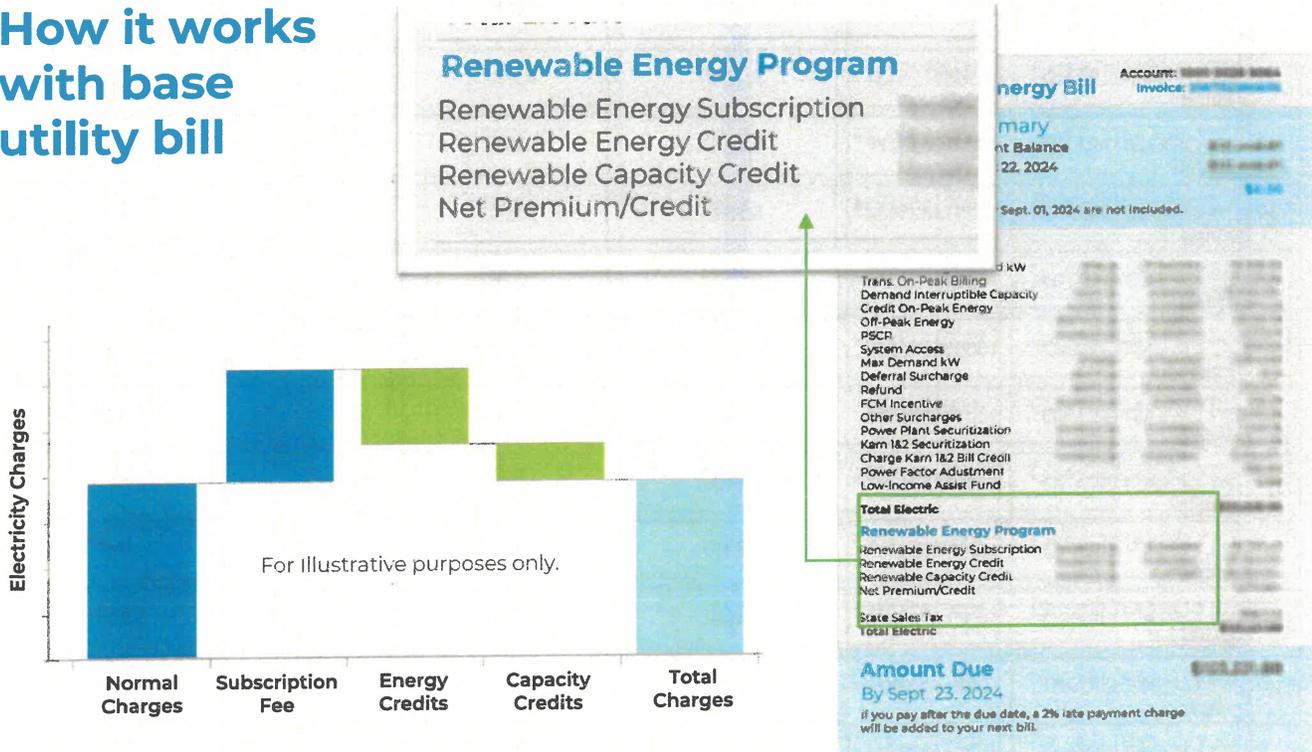
Subscription Term

Available in 5-, 10-, 15- or 20-year term lengths.

Program Credits

When capacity is sold, you'll earn consistent monthly bill credits based on year-round forecasting. These will help offset your subscription fee and may even lower your energy bills. We'll reconcile what you've earned annually with the resources' actual value to ensure you're credited accurately.

How it works with base utility bill



How does this program protect businesses?

If energy prices go up, so do your credits, increasing the likelihood of a net bill reduction and hedging your business against the effects of changes in the energy market that show up on your bill as Power Supply Cost Recovery (PSCR) charge.

Your Account List

Below are your electric accounts covered in this proposal. This account list can be updated to your desired preferences and subscription levels as well as to reflect the desired percentage you wish to match with renewable energy.

1,000,000 kWh
annual electric use

	Facility Name	Contract Account #	Total Estimated Annual Consumption (kWh)	Subscription Level Populate Only One Column		Annual Contract Quantity (kWh)
				Percent Usage (%)	Fixed Monthly Volume (kWh)	
1	CITY OF EAST GRAND RAPIDS	100000377133	782,524	100%		782,524
2	CITY OF EAST GRAND RAPIDS	100016965541	87,789	100%		87,789
3	CITY OF EAST GRAND RAPIDS	100015526393	54,075	100%		54,075
4	CITY OF EAST GRAND RAPIDS	100015526468	10,901	100%		10,901
5	CITY OF EAST GRAND RAPIDS	100015525627	9,424	100%		9,424
6	CITY OF EAST GRAND RAPIDS	100059128031	7,118	100%		7,118
7	CITY OF EAST GRAND RAPIDS	100015526179	6,794	100%		6,794
8	CITY OF EAST GRAND RAPIDS	100016835934	5,759	100%		5,759
9	CITY OF EAST GRAND RAPIDS	100015526278	5,983	100%		5,983
10	CITY OF EAST GRAND RAPIDS	100015526559	5,308	100%		5,308
11	CITY OF EAST GRAND RAPIDS	100015526328	4,347	100%		4,347
12	CITY OF EAST GRAND RAPIDS	100015526096	3,515	100%		3,515
13	CITY OF EAST GRAND RAPIDS	100016836015	3,641	100%		3,641
14	CITY OF EAST GRAND RAPIDS	100016965608	3,403	100%		3,403
15	CITY OF EAST GRAND RAPIDS	100016153973	2,244	100%		2,244
16	CITY OF EAST GRAND RAPIDS	100016839266	2,274	100%		2,274
17	CITY OF EAST GRAND RAPIDS	100015649906	1,645	1,645		1,645
18	CITY OF EAST GRAND RAPIDS	100016893297	1,524	100%		1,524
19	CITY OF EAST GRAND RAPIDS	100053349997	1,034	100%		1,034
20	CITY OF EAST GRAND RAPIDS	100015526690	677	100%		677
21	CITY OF EAST GRAND RAPIDS	100099999268	20	100%		20

Forecasted Electric Pricing Summary

Below are examples of forecasted cost and value across all your accounts at different program subscription durations.

\$4,906
savings

Subscription Percentage: 100%	20 Years	15 Years	10 Years	5 Years
kWh Subscribed (annually)	1,000,000	1,000,000	1,000,000	1,000,000
kWh Subscribed (contract term)	20,000,000	15,000,000	10,000,000	5,000,000
Subscription Payments (Present Value)	(\$676,439)	(\$581,804)	(\$448,887)	(\$262,202)
Estimated Energy & Capacity Credits (Present Value)	\$581,345	\$577,759	\$439,094	\$251,746
Net Savings or Premium Present Value	\$4,906	(\$4,045)	(\$9,793)	(\$10,456)
Carbon Avoided (Metric Tons)	8,340	6,255	4,170	2,085

What is Present Value? What does it illustrate?

The net present values shown above put the total amount of payments, credits and overall net savings or premium you can expect the subscription to generate over each contract term length in terms of today's value. This view can be helpful if you're considering multiple options to achieve your sustainability goals by putting cost projections in today's dollars for a direct comparison.

Assuming certain minimum and maximum market pricing at a certain percent subscription could yield this NPV over a specific time.

- Based on an estimated subscription fee of \$64/MWh. This fee may change once new projects are awarded.
- Forecasted energy and capacity market prices are based on market intelligence as of November 2024.
- Capacity credits are based on resources being valued at 46% CONE.
- Actual energy and capacity credits are subject to market price volatility and may be higher or lower.
- Discount rate of 7.03% used based on Federal Energy Management Program's 04/22/2021 [report](#)
- Emissions reduction calculated using the [EPA Greenhouse Gas Equivalencies Calculator](#). This calculation is intended for users who would like to know the equivalencies associated with greenhouse gas emissions associated with electricity consumed, not reduced.

Forecasted Pricing | Electric

The table below shows forecasted net premiums and credits for participating in our Renewable Energy Program. Actual results may vary based on future energy and capacity prices.

Renewable Energy Program Financial Analysis - Model Inputs			
Customer: City of East Grand Rapids			
Estimated Annual Subscription Volume (kWh):	1,000,000	Subscription Level:	100%
Estimated Subscription Fee:	\$0.064		

Financial Analysis - Estimated Yearly, Financial Impact of Enrollment							
Year	Year	kWh Subscribed	Subscription Cost	Savings (Energy & Capacity Credits)	Annual Net Savings/(Premium)	Net Savings/(Premium) \$/kWh	Metric Tons of CO2 Avoided
1	2028	1,000,000	\$64,000	\$59,765	(\$4,235)	(\$0.00424)	417
2	2029	1,000,000	\$64,000	\$80,260	(\$3,740)	(\$0.00374)	417
3	2030	1,000,000	\$64,000	\$83,145	(\$855)	(\$0.00085)	417
4	2031	1,000,000	\$64,000	\$82,608	(\$1,392)	(\$0.00139)	417
5	2032	1,000,000	\$64,000	\$81,927	(\$2,073)	(\$0.00207)	417
6	2033	1,000,000	\$64,000	\$82,619	(\$1,381)	(\$0.00138)	417
7	2034	1,000,000	\$64,000	\$64,339	\$339	\$0.00034	417
8	2035	1,000,000	\$64,000	\$64,590	\$590	\$0.00059	417
9	2036	1,000,000	\$64,000	\$64,704	\$704	\$0.00070	417
10	2037	1,000,000	\$64,000	\$65,275	\$1,275	\$0.00128	417
11	2038	1,000,000	\$64,000	\$65,837	\$1,837	\$0.00184	417
12	2039	1,000,000	\$64,000	\$66,413	\$2,413	\$0.00241	417
13	2040	1,000,000	\$64,000	\$66,930	\$2,930	\$0.00293	417
14	2041	1,000,000	\$64,000	\$67,341	\$3,341	\$0.00334	417
15	2042	1,000,000	\$64,000	\$67,626	\$3,626	\$0.00363	417
16	2043	1,000,000	\$64,000	\$68,433	\$4,433	\$0.00443	417
17	2044	1,000,000	\$64,000	\$68,959	\$4,959	\$0.00496	417
18	2045	1,000,000	\$64,000	\$70,071	\$6,071	\$0.00607	417
19	2046	1,000,000	\$64,000	\$71,338	\$7,338	\$0.00734	417
20	2047	1,000,000	\$64,000	\$72,126	\$8,126	\$0.00813	417

Financial Summary - Estimated, Financial Impact of Contract Term Options (In Present Value)						
Contract Term Length	kWh Subscribed	Subscription Cost	Savings (Energy & Capacity Credits)	Term Net Savings/(Premium)	Net Savings/(Premium) \$/kWh	Metric Tons of CO2 Avoided
20 years	20,000,000	(\$676,439)	\$681,345	\$4,906	\$0.00025	8,340
15 Years	15,000,000	(\$581,804)	\$577,759	(\$4,045)	(\$0.00027)	6,255
10 Years	10,000,000	(\$448,887)	\$439,094	(\$9,793)	(\$0.00098)	4,170
5 Years	5,000,000	(\$262,202)	\$251,746	(\$10,456)	(\$0.00209)	2,085

- Based on an estimated subscription fee of \$64/MWh. This fee may change once new projects are awarded.
- Forecasted energy and capacity market prices are based on market intelligence as of November 2024.
- Capacity credits are based on resources being valued at 46% CONE.
- Actual energy and capacity credits are subject to market price volatility and may be higher or lower.
- Discount rate of 7.03% used based on Federal Energy Management Program's 04/22/2021 [report](#).
- Emissions reduction calculated using the [EPA Greenhouse Gas Equivalencies Calculator](#). This calculation is intended for users who would like to know the equivalencies associated with greenhouse gas emissions associated with electricity consumed, not reduced.

You're becoming part of something bigger

Together, businesses like yours avoided releasing **153,545 metric tons of carbon emissions** into the atmosphere in 2023 through the Renewable Energy Program. To put that in perspective, this amount of carbon reduction is equal to:

GHC emissions avoided by

53,150

Tons of waste recycled

GHC emissions avoided by

+5.8 Million

Incandescent lamps
switched to LEDs

Carbon sequestered by

183,105

Acres of U.S. forests
in one year

What's next?

Let's work together to meet your energy sustainability goals. Contact me with any questions you may have or for information on how to enroll in the Renewable Energy Program.

Dave Zokoe, CEA

Senior Energy Solutions Manager
David.Zokoe@CMSEnergy.com • (616) 430-7757
ConsumersEnergy.com/BusinessRenewable

A Portfolio of Clean Energy Solutions



Energy Efficiency

Reduce your energy use, earn rebates and save money with energy efficiency upgrades to your facilities.



Demand Response

Earn incentives by shifting your energy use and helping reduce demand on the grid.



PowerMIFleet

Transition to an electric fleet easily and cost-effectively with expert guidance and financial incentives.



Renewable Energy

Complete your decarbonization journey with utility-scale renewable energy solutions.

CONTRACT FOR PARTICIPATION IN THE VOLUNTARY RENEWABLE ENERGY PROGRAM – MULTI FACILITY



PART I – PROGRAM ENROLLMENT DETAIL

The City of East Grand Rapids

(Customer Name)

Subscription Information:

Contract Account Number: See Attachment A

If enrolling more than one facility, utilize Attachment A

Subscription Level: 100 % or _____ Monthly kWh Volume
(see Part II, Section 4)

Annual Contract Quantity (kWh) for all facilities: 1,000,000

Subscription Term: 5 Years 10 Years 15 Years 20 Years Other _____ Renewal

Subscription Charge: \$0.064 per kWh
(see Part II, Section 9)

Optional – Renewable Energy Credit (REC) Subscription:

As a "Bridge" solution, you can elect to purchase RECs in accordance with the Company's REC program tariff prior to new renewable energy resource(s) coming online. Once capacity is available, your REP subscription will begin.

REC Subscription Level: 100 %

REC Source: National Michigan

REC Price: National = \$0.005/kWh Michigan = \$0.014/kWh

Procurement Option: One-time Monthly

Effective Start Date: _____

Effective End Date: _____ or Bill month prior to REP subscription commencing

REC Fuel and Age (optional):

REC Fuel Type: Solar Wind

REC Vintage (Year/s Generated): 24

Other: _____

Billing Information:

Electric Rate Option: Standard Rate Market Index Provision
(see Part II, Section 13)

Renewable Energy Credit (REC) Treatment: Retire RECs on subscriber's behalf Transfer RECs to subscriber
(see Part II, Section 14)

Contact Information:

Energy Contact to be contacted regarding program updates and enrollment inquiries. Accounting Contact to be contacted regarding billing or payment inquiries.

Energy Contact

Name: _____

Title: _____

Phone Number: _____

Email: _____

Address: _____

Accounting Contact

Name: _____

Title: _____

Phone Number: _____

Email: _____

Address: _____

Part II, Terms and Conditions are a part of this Agreement. CUSTOMER ACKNOWLEDGES HAVING READ SAID TERMS AND CONDITIONS.

CONSUMERS ENERGY COMPANY

The City of East Grand Rapids

(Customer Name)

By: _____
(Signature)

By: _____
(Signature)

(Print or Type Name)

(Print or Type Name)

Title: _____

Title: _____

Date: _____

Date: _____

PART II
TERMS AND CONDITIONS

1. **Request for Service:** Consumers Energy Company ("Company") agrees to supply, and the Customer agrees to purchase hereunder, all energy usage identified in Part I in accordance with the Company's Voluntary Renewable Energy Program (REP) [Tariff](#), a copy of which is attached hereto and made a part hereof, and in accordance with such tariff amendments thereto as may be filed with and approved by the Michigan Public Service Commission (MPSC) during the term of this Agreement.

Customers that receive at least 50% of their average monthly electricity consumption through this program will be exempt from paying surcharges for incremental costs of compliance associated with the renewable energy plan. Customers that receive less than 50% of their average monthly energy through this program will be responsible for the full applicable surcharges for incremental costs of compliance.

2. **Rate Schedule for Electric Service:** This Agreement does not include the providing of electric service. Electric service will be provided at an available rate in accordance with the appropriate Rate Schedule in Section D of the [Electric Rate Book](#).
3. **Application of Rate Schedule:** Such service shall be governed by the Company's Electric Rate Book and such future revisions and amendments thereof, supplements thereto or substitutions therefore as may be filed with and approved by the MPSC during the term of this Agreement.
4. **Subscription Level:** The Subscription Level is the percentage or a fixed volume of their monthly kWh energy use of the Customer's participating account(s) to be matched with renewable energy and associated RECs. The minimum participation match is 1% of kWh energy use for each enrolled Customer account. The Customer may select participation levels in 1% whole number increments up to 100% of their total kWh energy use.
5. **Energy Use Above Annual Contract Quantity:** The Annual Contract Quantity (ACQ) is the amount of energy (kWh) on a program year basis the customer is enrolling in the REP. Annual Contract Quantities are based on the aggregate volume noted in Part 1 of the contract. If Customer's annual kWh energy use exceeds the Annual Contract Quantity, the Company will match the additional kWh energy use with renewable energy based on the Subscription Level to the extent renewable energy is available in REP at the Subscription Charge. If renewable energy is only available at a cost greater than the Subscription Charge, Customer will have the option to match the additional energy use in that year at the increased cost. If renewable energy is not available the Company will provide, at Customer's option and cost, RECs in an amount that satisfies Customer's additional annual energy use above the Annual Contract Quantity.
6. **Multiple Facilities:** Customer has elected to subscribe Customer facilities sufficient to meet annual usage of 90% of the ACQ under the program, but because the parties recognize that the specific location and number of Customer facilities may change over time Customer has the right to:
 - 6.1. Remove facilities from the attached account list without penalty as long as Customer maintains a minimum annual usage of 90% of the ACQ under the program for the duration of the Subscription Term stated in Part I of this Agreement,
 - 6.2. Add additional Customer facilities to the Agreement at the stated subscription charge (or, if in effect at the time of the requested addition, the final subscription charge) at the Company's discretion and subject to program renewable energy availability, or
 - 6.3. Transfer part or all its Annual Contract Quantity from certain Customer facilities to another Customer facility(ies) (whether such new facility is identified in Part I or otherwise), additionally
 - 6.4. Customer facilities that are closed temporarily due to remodel are not subject to penalty or removal from the program. Customer will provide sixty (60) days prior written notice to the Company to document facilities to be closed due to remodels. The notification will include date of closure, estimated date of reopening, and details of account ownership changes.

Customer will provide thirty (30) days prior written notice to the Company to request the remodeled facility's enrollment to recommence. Remodeled facilities' subscriptions will take effect on the next available billing cycle. If a remodeled facility is not reopened within [180] days after it closed for remodeling the facility will be deemed to have closed and will be considered an additional facility under clause (6.2) above if Customer wants to add the facility to the program. Customer will provide sixty (60) days prior written notice to the Company to remove or transfer one or more Customer facilities from this Agreement, which such notice shall automatically amend this Agreement to reflect the modified Customer facilities in Part I without further action of the parties or consent of the Company. Transfers or removals in accordance with the foregoing clause shall not constitute a termination of Customer's subscription, which shall continue for the remaining Customer facilities. Upon removal from the program the renewable energy associated with the removed Customer facility or facilities shall be released to the Company. If Customer fails to maintain the minimum annual usage of 90% of the ACQ then Customer is subject to an annual early termination penalty as stated in Section 15.

- 7. Subscription Term:** The subscription term is the applicable five (5) year, ten (10) year, fifteen (15) year, or twenty (20) year Service Agreement option, as selected in Part I. The Agreement will become effective the date the Agreement is signed. Customer's program participation will begin on the date the designated facility or facilities supporting this Agreement are available to REP and in operation (which may be after the effective date if such facility or facilities are in development when this Agreement is signed) and will continue for the duration of the selected Subscription Term.
- 8. Re-enrollment:** Customers with contracts that terminate prior to the end of the useful life of the resource(s) to which they subscribe shall have priority to re-subscribe to that resource(s) up to the end of the useful life at the same rate with the exception of Customers that enroll at a 10-year or less term. If Customer is on a 10-year or less Subscription Term and elects to re-enroll after that term for an additional 10-year or less Subscription Term, then they will pay their current Subscription Charge plus a 2% increase for the subsequent Subscription Term. The 2% increase will be limited to 10-year or less reenrollments, after which it is subject to increase at the Company's discretion. A customer may elect to re-enroll from a 10-year Service Agreement to a 15-year or 20-year Service Agreement at the same Subscription Charge, subject to availability.
- 9. Subscription Charge:** In accordance with Act 342 of 2016, Section 61, Voluntary Green Pricing (VGP) subscribers are responsible for the full applicable charges for the incremental costs of participation in REP. The subscription charge will be a fixed, flat fee, based on the weighted average levelized cost of service for the unsubscribed generation at the time of active program enrollment in the Program's existing and planned designated renewable facilities and other Program costs.

 - 9.1. Subscription Charge Reconciliation:** The renewable energy facility or facilities that will ultimately support this Agreement have not yet been added to the program and therefore the final subscription charge is yet to be established. The Company will seek to develop the facility or facilities with all reasonable dispatch. The Company will reconcile the Subscription Charge noted in Part I to represent actual project costs at time of commercial operation. If the final subscription charge is less than or equal to 110% of the Subscription Charge noted in Part I, this Agreement will remain in full force and effect and the final subscription charge will become the Subscription Charge. If the final subscription charge is greater than 110% of the Subscription Charge noted in Part I of this Agreement, within ten (10) days from the date of notification, Customer will have the option to (1) agree to contract at the updated final subscription charge, or (2) terminate this Agreement and without penalty upon written notification to the Company. An amendment to this Agreement will be executed to confirm the final subscription charge if it differs from the Subscription Charge noted in Part I.
 - 9.2. Subscription Pre-payments:** Participating customers have the option of paying a lump sum to the Company to reduce their Subscription Charge at any time. The lump sum shall reduce the customer's monthly Subscription Charge for the remaining term of the Service Agreement.
- 10. Renewable Energy Resource Credits:** Customer will receive energy and capacity monetary bill credits based on the customer's renewable energy subscription under this Program and value of energy and capacity payments received from MISO on behalf of the Company's designated renewable facilities for the given program year.

 - 10.1. Capacity Credit:** Customer will be provided a monthly dollar per kWh capacity credit based on Customer's renewable energy subscription under this program and the value of the auction clearing price in the annual Midcontinent Independent System Operator Inc.'s (MISO) capacity auction for the planning period. The annual MISO planning resource auction currently takes place in March with the revenue from system capacity being updated for the next twelve (12) months beginning June 1st of each year. In the event the MISO capacity auction schedule or process changes, the program will adjust accordingly.
 - 10.2. Energy Credit:** Customer will be provided a monthly dollar per kWh energy credit based on the MISO settled Day Ahead and Real Time Locational Marginal Price (RT-LMP) related payments for the renewable energy at the assigned Commercial Load Nodes for the generated output of the designated renewable facilities. The credit will be based on Customer's pro rata share of the energy produced from the designated renewable facilities based on Customer's Subscription Level and usage of energy on Customer's account(s) participating in REP.
- 11. Monthly Billing:** Customer will be charged or credited a dollar per kWh monthly value applied to the Customer's renewable energy subscription under this program. This charge or credit shall be the net difference between the Subscription Charge identified in Part II, Section 9 of this agreement less a forecasted energy and capacity credit for the program year.

 - 11.1. Forecasted Renewable Energy Bill Credits:** Monthly energy and capacity credits billed to Customer will be based on forecasted energy and capacity value of the designated renewable facilities. Customers will be charged or credited for any deficiency or sufficiency in actual subscription payments made to the Company as defined in Section 11.2. The Company may adjust its forecasted capacity credits or energy credits at any time throughout the subscription year to minimize the annual true-up adjustment.
 - 11.2. Monthly Generation Shortfall:** If on a monthly basis the Program's designated renewable facilities have a shortfall of generation from what is required to fully satisfy Customer's Subscription Level, then the Company will record the shortfall and attempt to satisfy the shortfall with renewable generation in excess of customer subscriptions from past or future months.

12. Annual Reconciliation and True Up: No later than Customer's April bill month, the Company will reconcile for program generation and forecasted energy and capacity credits as outlined below:

12.1. Renewable Energy Generation: The Company will conduct annual reviews of the program to reconcile the energy generated by the program's designated renewable facilities against the amount of renewable energy subscribed by program participants. Subject to Section 5, if Customer's Subscription Level exceeds the Annual Contract Quantity (kWh) stated in Part 1 of this agreement or upon an annual review the Program's designated renewable facilities have a shortfall of generation from what is required to fully satisfy Customer's Subscription Level, then the Company will provide, at Customer's option and cost, RECs in an amount that satisfies Customer's share of the shortfall.

12.2. Renewable Energy Bill Credits: An annual reconciliation of the forecasted energy and capacity credit provided to the customer against the actual energy and capacity payments received on behalf of the Company's designated renewable facilities in the Program will be completed in the first quarter of each year for each preceding Program year. Customers will be charged or credited for any deficiency or sufficiency in actual subscription payments made to the Company.

13. Electric Rate Option: Customer must select one full-service electric rate option as described below as part of enrollment in REP:

- 1) **Standard Rate:** Customer will pay all applicable Full-Service monthly standard tariff charges for their Full-Service rate, plus the REP Subscription Charge based on Customer's selected Subscription Level, monthly usage, program supplied generation and Subscription Term. Customer will be billed on a calendar-month basis.
- 2) **Market Index Provision:** If Customer is a Full-Service customer served on Rate GPD, and elects a Subscription Level at a minimum of 85%, Customer may substitute the Real Time Locational Marginal Price (RT-LMP) at Company's Zonal Load Node plus a Market Settlement Fee of \$0.002 per kWh for the standard-rate power supply energy charges. If Customer selects the Market Index Provision they shall be responsible for all capacity and non-capacity Power Supply charges included in the standard, Full-Service GPD Rate. Customer may select the Market Index Provision on an annual basis for the program after providing Company a 60-day advance notice.

14. Renewable Energy Credit (REC) Treatment: Customer must select one REC treatment option as described below to facilitate enrollment:

- 1) **Retire RECs:** Company will track and retire the RECs in the Customer's name via the MIRECS system associated with the Customer's subscription.
- 2) **Transfer RECs:** Company will transfer the RECs via the MIRECS system associated with the Customer's subscription to the Customer.

REC transfers and/or retirement will take place by March 31 of the following year, annually. An attestation will be provided by March 31 to Customer indicating the volume and serial numbers of RECs transferred and/or retired.

15. Early Termination of Contract: If Customer ceases to be a Full-Service customer or elects to terminate their subscription (except as expressly permitted under this Agreement) or has annual usage under the program below 90% of the ACQ as stated in Section 6, they will be subject to an early termination fee.

15.1. Reduced Usage: If the Customer reduces their annual usage under the program below 90% of the ACQ, then the Customer will be assessed an Early Termination Fee as described in Section 15.2. The Early Termination Fee will be calculated based on the difference between the ACQ and the customer's actual annual usage. The customer's actual annual usage used to calculate the Early Termination Fee will become the Customer's new ACQ by executing an amendment to this agreement and the terminated kWh will be released back to the Company.

15.2. Early Termination Fee: The Early Termination Fee will be calculated based on the terms of the Agreement, remaining Subscription Term and Subscription Charge, not to exceed the remaining value of the Agreement, as explained further below (Termination Payment). If Customer chooses to terminate or transfer their REP subscription, Customer will be required to give Company a sixty (60) day prior written notice. If Customer would like to re-enroll in REP after termination, they will be eligible, subject to REP availability.

The Termination Payment will be equal to the sum of the present value of the remaining Monthly Payment(s) anticipated under the Agreement, assuming a discount rate equal to the annual 10-year United States (US) treasury rate at the time of termination as published in the Wall Street Journal (or other equivalent source if the Wall Street Journal is no longer published). The Monthly Payment is defined as the average monthly usage in kilowatt hours (kWh) for the prior 12-months for all Customer accounts enrolled in REP, multiplied by the Subscription Charge. The Future Time Period of Payment is defined as the month into the future that the payment is expected to be made from the date of termination, for example a payment expected to be made 4 months into the future from the date of termination would be Future Time Period four (4).

$$\text{Monthly Payment} = \text{Prior 12-month average monthly usage (kWh)} \times \text{Subscription Charge (\$/kWh)}$$

$$\text{Present Value of Monthly Payment} = \frac{\text{Monthly Payment}}{\left(\left(1 + (\text{Annual 10-Year US Treasury Rate})/12 \right)^{\text{Future Time Period of Payment}} \right)}$$

$$\text{Termination Payment} = \sum \text{Present Value of Monthly Payments for all Future Time Periods remaining during the Subscription Term}$$

If Company is able to transfer the level of Customer's subscription (based on the Annual Contract Quantity stated in Part I) to another customer that meets REP eligibility requirements and is outside the existing program queue (or as otherwise acceptable at the Company's discretion), the Termination Payment may be waived.

16. **Entire Agreement:** This Agreement inures to and binds the heirs, administrators, successors and assigns of the respective parties hereto. There are no understandings or agreements between the parties to this Agreement in relation to electric service at Customer's sites except as contained herein. This Agreement supersedes all previous representations, negotiations, understandings or agreements, either written or oral, between the parties hereto or their representatives pertaining to the subject matter hereof and constitutes the entire agreement of the parties. This Agreement shall not be transferred by Customer or otherwise alienated without Company's written consent; any such attempted transfer without Company's written consent shall be void.
17. **Limitation of Liability:** The Company's maximum liability to Customer arising from Customer's enrollment and participation in REP will be limited to the refund of any pre-payments the Customer pays to the Company under this contract.
18. **Dispute Resolution:** The parties to this Agreement agree the service provided hereunder is subject to the exclusive jurisdiction of the MPSC. The parties agree to attempt to resolve any dispute arising out of this Agreement in good faith. The parties agree, in the event they are unable to resolve any dispute arising out of this Agreement, any claim arising out of this Agreement and service provided hereunder shall be made exclusively at the MPSC.
19. **Counterparts and Electronic Documents:** This Agreement may be executed and delivered in counterparts, including by a facsimile or an electronic transmission thereof, each of which shall be deemed an original. Any document generated by the parties with respect to this Agreement, including this Agreement, may be imaged and stored electronically and introduced as evidence in any proceedings as if original business records. Neither party will object to the admissibility of such images as evidence in any proceeding on account of having been stored electronically.

Optional Renewable Energy Credit (REC) Subscription

The terms and conditions noted below are specific to the optional REC bridge solution subscription, if selected in Part I. This purchase of RECs will be pursuant to the Company's REC Program [Tariff](#), and in accordance with such tariff amendments thereto as may be filed with and approved by the MPSC during the term of this Agreement.

18. Subscription Payments and RECs: Customer will pay the full cost of RECs procured on their behalf on a per kilowatt-hour (kWh) basis on their Company utility bill.

18.1. Michigan RECs: Subscription fees will be based on a REC value for the most current year (using the most recent available information at the time of REC Program enrollment as published quarterly) in the Midwest Market Notes by Clear Energy Brokerage and Consulting LLC, or a successor publication, plus a \$0.004 per kWh administrative fee to support program administration, REC procurement and marketing. Subscription fees shall be adjusted on an annual basis using the most recent available values at that time. Should REC prices as referenced above increase 25% or more above current program subscription costs for the REC component of the charge during the year, the subscription fee will be adjusted quarterly. The Company shall retire the RECs on the Customer's behalf or transferred to them.

18.2. National RECs: Subscription fees are based on a REC value for the most current year (using the most recent available information at the time of REC Program enrollment as published quarterly) in the Midwest Market Notes by Clear Energy Brokerage and Consulting, LLC, or a successor publication, plus a \$0.002 per kWh administrative fee to support program administration and REC procurement. Subscription fees shall be adjusted on an annual basis using the most recent available values at that time. Should REC prices, referenced above, increase 25% or more above current program subscription costs for the REC component of the charge during the year, then the subscription fee will be adjusted quarterly. An annual reconciliation will be completed by March 31 for each preceding REC Program year, and Customer will be charged or credited any underage or overage in actual REC procurement costs. Participating customers have the option of an annual subscription to procure a full year of RECs by the first quarter of the following year of participation and pay the actual cost of subscribed RECs and the same \$0.002 per kWh administrative fee to support REC Program administration and REC procurement. The Company shall retire the RECs on the Customer's behalf, or the Company will transfer RECs to the Customer based on the Customer's selection should that option be available.

19. Resource Specification: Customers with an annual single site or aggregated consumption meeting or exceeding 1,000,000 kWh may specify a renewable fuel type, age of REC, or other requested specification deemed appropriate by the Company and will pay any premium costs associated with such REC procurement under this Agreement. This premium will be applied and may be recalculated annually.

20. Term: Customer is entering into this Agreement as a REC procurement contract with a minimum term of 12 months or a term length to coincide with the start date of the Renewable Energy Program. Effective start and end dates for this Agreement are noted in Part I, Subscription Information.

21. Early Termination of Contract: If Customer chooses to terminate this optional REC contract early, Customer will pay an early termination fee in the amount of the subscribed RECs to which the Company has purchased or is contracted to purchase for the Customer (and that Customer has not previously paid for), unless the terminating Customer's optional REC subscription level is adopted by another eligible customer. This termination fee is separate from any Termination Payment that would apply under Part II, Section 15 if Customer also terminates their REP subscription.

22. Limitation of Liability: The Company's maximum liability to Customer arising from Customer's enrollment and participation in the REC Program will be limited to the refund of any payments the Customer pays to the Company under this contract.

ATTACHMENT A – ACCOUNT LIST TO ENROLL

	Facility Name	Contract Account #	Total Estimated Annual Consumption (kWh)	Subscription Level Populate Only One Column		Annual Contract Quantity (kWh)
				Percent Usage (%)	Fixed Monthly Volume (kWh)	
1	CITY OF EAST GRAND RAPIDS	100000377133	782,524	100%		782,524
2	CITY OF EAST GRAND RAPIDS	100016965541	87,789	100%		87,789
3	CITY OF EAST GRAND RAPIDS	100015526393	54,075	100%		54,075
4	CITY OF EAST GRAND RAPIDS	100015526468	10,901	100%		10,901
5	CITY OF EAST GRAND RAPIDS	100015525627	9,424	100%		9,424
6	CITY OF EAST GRAND RAPIDS	100059128031	7,118	100%		7,118
7	CITY OF EAST GRAND RAPIDS	100015526179	6,794	100%		6,794
8	CITY OF EAST GRAND RAPIDS	100016835934	5,759	100%		5,759
9	CITY OF EAST GRAND RAPIDS	100015526278	5,983	100%		5,983
10	CITY OF EAST GRAND RAPIDS	100015526559	5,308	100%		5,308
11	CITY OF EAST GRAND RAPIDS	100015526328	4,347	100%		4,347
12	CITY OF EAST GRAND RAPIDS	100015526096	3,515	100%		3,515
13	CITY OF EAST GRAND RAPIDS	100016836015	3,641	100%		3,641
14	CITY OF EAST GRAND RAPIDS	100016965608	3,403	100%		3,403
15	CITY OF EAST GRAND RAPIDS	100016153973	2,244	100%		2,244
16	CITY OF EAST GRAND RAPIDS	100016839266	2,274	100%		2,274
17	CITY OF EAST GRAND RAPIDS	100015649906	1,645	1,645		1,645
18	CITY OF EAST GRAND RAPIDS	100016893297	1,524	100%		1,524
19	CITY OF EAST GRAND RAPIDS	100053349997	1,034	100%		1,034
20	CITY OF EAST GRAND RAPIDS	100015526690	677	100%		677
21	CITY OF EAST GRAND RAPIDS	100099999268	20	100%		20
Total:						1,000,000

If you are enrolling more accounts that this form allows, request an excel copy of this form by emailing: RenewableProgram@ConsumersEnergy.com.

ATTACHMENT B – CUSTOMER CONTACT LIST

Program staff will keep your organization updated as development of new renewable energy facilities are constructed. Please note points of contact that are interested in staying informed on program updates, wind/solar facility development progress, and receive enrollment announcements below.

	Name	Title	Email	Phone Number
1				
2				
3				
4				
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9				
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11				
12				
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14				
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16				
17				
18				
19				
20				

If you have more points of contact to note than this form allows, request an excel copy of this form by emailing: RenewableProgram@ConsumersEnergy.com.

