JOINT WORK SESSION MEETING
AGENDA
CITY OF CREVE COEUR
CITY COUNCIL AND ENERGY & ENVIRONMENT COMMITTEE
300 NORTH NEW BALLAS RD
JUNE 24, 2024
6:00 PM

CALL TO ORDER

ROLL CALL

DISCUSSION ITEMS

1. **FY25 Priorities of the Energy and Environment Committee**
   Summary: The Energy and Environment Committee aims to revisit and refocus the city's environmental efforts by developing the Phase 3 Climate Action Plan and discussing the draft document with the City Council and staff. The Committee would like to discuss the city's existing sustainability goals and strategies listed within the Climate Action Plan, as well as receive feedback on the proposed action items for FY25.

ADJOURNMENT

Pursuant to Section 610.022 RSMo., the City Council could, at any time during the meeting, vote to close the public meeting and move to closed session to discuss matters relating to litigation, legal actions and/or communications from the City Attorney as provided under Section 610.021(1) RSMo. and/or personnel matters under Section 610.021(13) RSMo. And/or employee matters under Section 610.021(3) RSMo. and/or real estate matters under Section 610.021(2) or other matters as permitted by Chapter 610.

Posted by: _____

Date/Time posted: _____

If you need special accommodations to attend a meeting, services may be arranged by contacting the Office of the City Administrator in advance.

city of CREVE COEUR

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MEMO TO THE CITY COUNCIL

Meeting Date: June 24, 2024 – Joint Work Session

Subject: Energy & Environment Committee: Climate Action Plan Phase 3

Memo Prepared by: Melissa Bradford, Public Information Officer & Management Analyst

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Phase 3 Climate Action Plan
To reinvigorate the city's efforts to achieve its emission reduction goals, the Creve Coeur Energy and Environment Committee has drafted a Phase 3 Climate Action Plan that builds on the previously approved phases.

History
In 2010, the City adopted the initial Climate Action Plan (CAP). A CAP is a detailed and strategic framework for measuring, planning, and reducing greenhouse gas (GHG) emissions and related impacts from climate change. The 2010 CAP envisioned a three-phase program, starting with easily achieved strategies focused on government operations, then gradually expanding to include more ambitious strategies that involved the community at large. The Phase 2 CAP was approved in 2016. As the plan enters its third phase, the plan looks to implement more ambitious initiatives that involve more significant changes to achieve a 20% reduction in GHG emission by 2035, and a 50% reduction in GHG emission by 2050 (compared to a 2005 baseline).

Goals & Strategies
To support this above emissions reduction target, the Climate Action Plan identifies five goals and strategies to achieve each goal:

1. **Energy Efficiency and Conservation:** Increase energy efficiency and support conservation of energy in the community as a whole and in government operations.
2. **Renewable Energy:** Increase the use of renewable energy in the community as a whole and in government operations
3. **Alternative Transportation:** Increase the use of alternative transportation in the community as a whole and in government operations.
4. **Waste:** Reduce waste in the community as a whole and in government operations.
5. **Natural Environment and Adaptation:** Protect the natural environment and encourage the development of plans and strategies to create a resilient community to cope with and adapt to the changes that will occur as a results of climate change.

Actions
The Energy and Environment Committee has drafted a Phase 3 CAP to address the City's emission reduction goals. The document builds upon the Phase 2 CAP by providing updated strategies for each of the five goals above, as well as a list of action items to focus over the next fiscal year.

The Energy & Environment Committee suggests the following action items for FY25:

1. Publish Phase 3 of the Climate Action Plan
2. Develop and activate a Creve Coeur Energy & Environment working group to build a coalition of motivated citizens, businesses, and city/county leaders in Creve Coeur.
3. Develop a Solar Energy education campaign and review streamlining the solar installation process.
4. Work with the city of Creve Coeur to plan for an electric vehicle in the municipal fleet and public electric vehicle charging.
5. Implement smart lighting practices that promote lower kelvin, shielded lighting where needed to improve safety.
6. Continue work on the 39 North Greenway

Conclusion

The Energy and Environment Committee aims to revisit and refocus the city's environmental efforts by developing the Phase 3 CAP and discussing the draft document with the City Council and staff. The Committee would like to discuss the city's existing sustainability goals and strategies listed within the CAP, as well as receive feedback on the proposed action items for FY25.

More information about the city's history of sustainability efforts, as well as copies of the Phase 1 and Phase 2 CAPs, are available at: www.crevecoeurmo.gov/Sustainability

Attachments:

Draft Phase 3 Climate Action Plan (Drafted by the Energy & Environment Committee)

City of Creve Coeur

Climate Action Plan

Phase III: 2025-2050

ACKNOWLEDGEMENTS

The Energy & Environment Committee would like to acknowledge the following individuals for their support in developing the phase III climate action plan.

Document prepared by the Energy & Environment Committee

- Andrew Lowenthal, Committee Chair
- Donna Spence, Committee Vice Chair
- Greg Campbell, Committee Member
- Walker Gaffney, Committee Member
- Joseph Gaied, Committee Member
- Sheerie Green, Committee Member
- Saranya Konala, Committee Member
- Paige Recker, Committee Member

CLIMATE ACTION PLAN

PHASE III

INTRODUCTION

The city of Creve Coeur recognizes the importance of being a sustainable and environmentally conscious community and has initiated many efforts over the years in support of these values. In 2010, the city adopted the initial Climate Action Plan (CAP). A CAP is a detailed and strategic framework for measuring, planning, and reducing greenhouse gas (GHG) emissions and related impacts from climate change. The 2010 CAP envisioned a three phase program, starting with easily achieved strategies focused on government operations, then gradually expanding to include more ambitious strategies that involved the community at large. As the plan enters its third phase, the plan looks to implement more ambitious initiatives that involve more significant changes in both the community as a whole to achieve a 50% reduction in GHG emission by 2050 (compared to a 2005 baseline).

The city of Creve Coeur was a Green Power Community as designated by the U.S. Environmental Protection Agency (EPA) from June 2013 to 2019.

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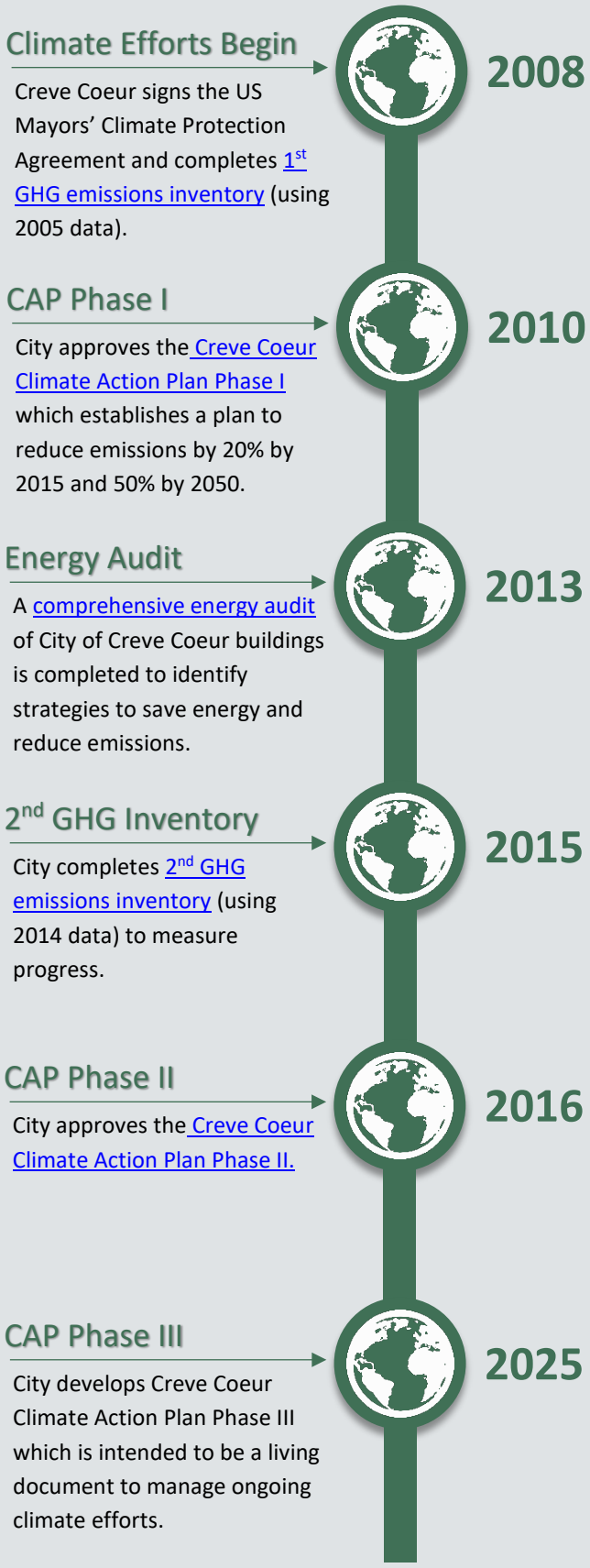
HISTORY

In 2010, the city adopted the first phase of a Climate Action Plan to reduce greenhouse gas emissions community-wide 20 percent by 2015 in comparison to 2005 baseline levels. The following projects have been implemented by the city of Creve Coeur as part of the reduction goal:

- Decorative LED lighting on Olive Boulevard from Cross Creek to Mason (70% energy reduction and maintenance free for approximately 10 years)
- New boiler and hot water system at the Government Center has resulted in up to 75% reduction in energy usage
- Retrofit all lighting at municipal facilities with energy efficient fixtures
- Reflective white coating on Government Center and Public Works facility roofs has dropped the surface temperature by at least 30 degrees in the summer
- Radiant heating at the Public Works facility has reduced winter gas bills by nearly 75%

In December 2011, the City Council adopted a resolution to initiate the Environmental Protection Agency (EPA) Green Power Community Challenge in Creve Coeur to support the purchase of renewable energy. The city became a Green Power Community in June 2013. In December 2013, the city received a Sustainable Business Advantage Award from the St. Louis Regional Chamber and in 2014, the city took the 25x20 Energy Benchmarking Pledge to reduce municipal building energy consumption in the St. Louis regional by 25% by the year 2020. In July 2016, the City Council adopted the second phase of the plan.

In 2020, Creve Coeur, along with many municipalities worldwide, faced the challenges of the Covid-19 pandemic which slowed down progress on sustainability work. The third phase of the CAP is intended to reinvigorate this important work and provide a pathway to achieve emissions reduction goals.

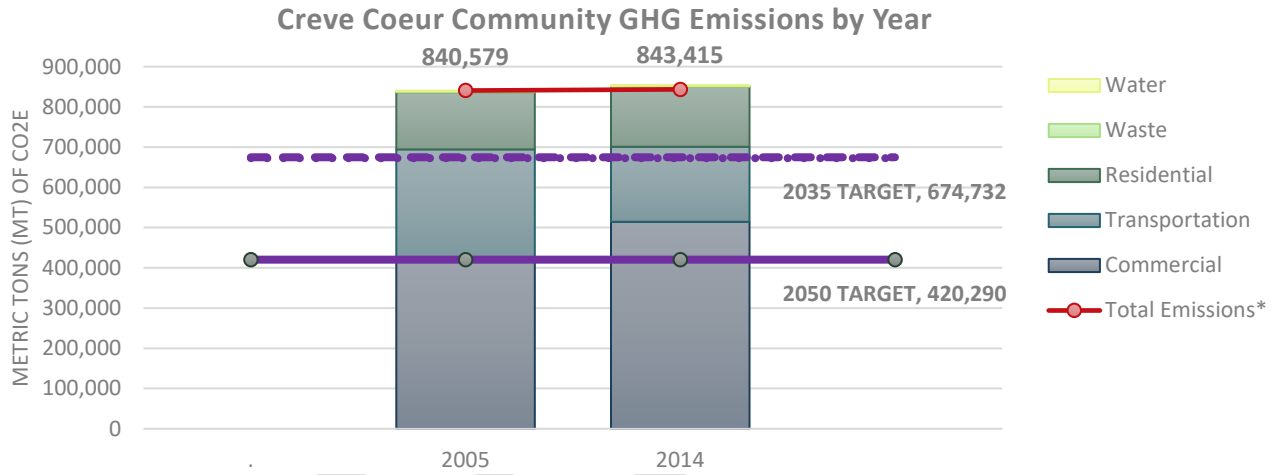


CREVE COEUR EMISSIONS

The Phase I CAP set ambitious goals of reducing GHG emissions by 20% by 2015 and by 50% by 2050. After evaluating progress in 2014, the Phase II CAP made a new recommendation that Creve Coeur adopt an interim goal of reducing GHG emissions by 20% by 2035 from 2014 emissions.

COMMUNITY EMISSIONS

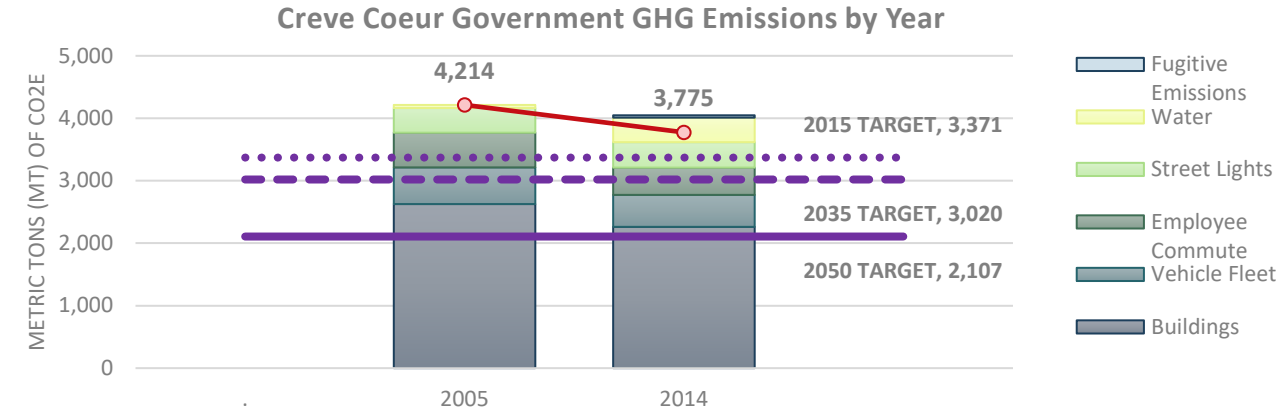
In the community at large, GHG emissions increased by 2,836 metric tons (mt) of CO2e from 2005 to 2014. However, a per capita emissions decrease was seen from 49.7 mtCO2e in 2005 to 47.2 mtCO2e in 2014. The overall GHG emissions increase was due to construction which added two million square feet of commercial space under roof during that time. Community emissions are allocated to five different sectors: commercial, transportation, residential, waste, and water. The graph below shows how community emissions are trending.



***Notes: 2014 total emissions include 10979 mtCO2e reduced due to the purchase of pure power renewable energy credits. Additionally, the 2035 target remains the same as the 2015 target due to target re-evaluation in the phase II CAP.**

GOVERNMENT EMISSIONS

When looking at government operations, emissions were reduced by 439 mtCO2e from 2005 to 2014. Government emissions are allocated to six different areas: buildings, vehicle fleet, employee commute, street lights, water, and fugitive. 2014 fugitive emissions are from leaked coolant used at the Dielmann Recreation Complex's Ice Arena. The graph below shows how government emissions are trending



***Note: 2014 total emissions include 273 renewable energy credits purchased by the city of Creve Coeur as part of the Ameren Pure Power program.**

LOOKING FORWARD

As the CAP enters phase III, the plan looks to implement ambitious initiatives that involve more significant changes community-wide to achieve a 50% reduction in GHG emissions by 2050 (compared to a 2005 baseline). While previous efforts focused on municipal operations, future efforts will need to improve involvement from the business community and local residents. Types of actions need to create broader community buy-in include:

- **Educating and engaging** the community on strategies to reduce energy consumption and GHG emissions
- **Incentivizing** emissions reduction activities (e.g. group-buy programs, public infrastructure such as charging stations, state and federal credits and grants)
- **Streamlining** municipal processes through updated environmentally-friendly ordinances
- **Tracking and monitoring** community emissions to provide ongoing feedback

GOALS

Creve Coeur has identified five goals to help support the community in achieving GHG emissions reduction targets. These goals are an update and expansion of the goals set forth in the original Climate Action Plan.

ENERGY EFFICIENCY AND CONSERVATION

Increase energy efficiency and support conservation of energy in the community as a whole and in government operations.

WASTE

Reduce waste in the community as a whole and in government operations.

RENEWABLE ENERGY

Increase the use of renewable energy in the community as a whole and in government operations.

NATURAL ENVIRONMENT AND ADAPTATION

Protect the natural environment and encourage the development of plans and strategies to create a resilient community to cope with and adapt to the changes that will occur as a result of climate change.

ALTERNATIVE TRANSPORTATION

Increase the use of alternative transportation in the community as a whole and in government operations.

STRATEGIES

For each goal listed above, a one-page description of strategies is provided in this next section of the CAP. Strategies describe how the city of Creve Coeur plans to reach the above goals and achieve the objective to achieve an objective of a 50% reduction in GHG emissions by 2050.

ENERGY EFFICIENCY AND CONSERVATION

Increase energy efficiency and support conversation of energy in the community as a whole and in government operations.

Reducing energy use through energy efficiency and energy conservation have a similar goal to reduce energy use. Energy conservation relies on cutting back on activities that consume energy—by turning off lights or using appliances less often. Energy efficiency harnesses technology to help avoid or reduce energy waste so that you can still turn on the lights, drive, or wash your clothes but use less energy doing so. Many products, homes, and buildings use more energy than they actually need, through inefficiencies and energy waste. Energy efficiency is one of the easiest ways to eliminate energy waste and lower energy costs. It is also one of the most cost-effective ways to combat climate change, clean the air we breathe, help families meet their budgets, and help businesses improve their bottom lines.

Lighting at all municipal facilites has been retrofit with energy efficient fixtures.

STRATEGIES

- Encourage participation in building benchmarking. Benchmarking allows building energy consumption to be tracked over time and compared to the energy consumption of other similar buildings around the country.
- Encourage commercial building upgrades & retrofits.
- Develop a program to encourage energy audits in small commercial and residential building to identify sources of energy waste.
- Develop and identify financial incentives for energy efficiency (fee reductions, zoning incentives, federal tax credits, trade-in programs).
- Review and adopt updates to the International Energy Conservation Code (IECC) on a regular basis.
- Explore requiring “Green” certification of new municipal buildings.
- Educate residents and business owners on energy efficiency and conservation tips including but not limited to:
    - Lighting
    - Insulation and weather-stripping
    - Efficient appliances and HVAC
    - Landscaping

RENEWABLE ENERGY

Increase the use of renewable energy in the community as a whole and in government operations.

Access to renewable energy sources, such as wind, solar, and geothermal power is key to creating a sustainable and carbon neutral society. While energy efficiency is the most cost effective strategy for reducing GHG emissions, it will not be possible for Creve Coeur to achieve the deep reductions in GHG emissions that are needed without access to renewable energy. Renewable energy has fewer harmful environmental impacts than conventional energy does and can reduce the impacts of climate change.

Rooftop solar array on home in Creve Coeur

STRATEGIES

- Purchase renewable energy credits.
- Educate community on solar and geothermal installation process, financing, and on benefits of renewable energy.
- Support rollout of the grow solar program.
- Review and streamline the solar installation process.
- Research participation in the Sol Smart, which provides no-cost technical assistance to help local governments follow national best practices to expand solar energy use in their jurisdictions.
- Establish a larger community solar installation, often called a "solar garden," which would sell some or all of its power to Creve Coeur residents.

ALTERNATIVE TRANSPORTATION

Increase the use of alternative transportation in the community as a whole and in government operations.

Burning fossil fuels. like gasoline and diesel, releases carbon dioxide into the atmosphere. Emissions from vehicles account for 22% of Creve Coeur's greenhouse gas emissions. Strategies that encourage alternative modes of transportation (walking, bicycling, transit, and carpooling) would not only reduce GHG emissions, they would bring other benefits to the citizens of Creve Coeur, such as safer roads, increased air quality and better health. Efficient vehicles, such as hybrids and electric, can improve fuel economy, lower fuel costs, and reduce local emissions.

A rendering of the 39 North Greenway project, which when completed will connect to the regional Centennial Greeway

STRATEGIES

- Enhance street infrastructure to facilitate multimodal mobility.
    - Improve pedestrian connectivity.
    - Develop a bikeway plan.
    - Enhance bus stops.
    - Explore adoption of a complete streets policy.
- Encourage rideshare, walking, biking and other modes of micromobility
    - Develop a carpooling program for businesses in Creve Coeur routes to all schools.
- Promote zero- and low-emissions vehicles.
    - Research electric vehicle (EV) charging and EV readiness ordinances
    - Convert municipal fleet (police and other city vehicles) to zero- and low-emissions vehicles
    - Explore federal grants for public EV charging facilities.
- Run an anti-idling campaign.

WASTE

Reduce waste in the community as a whole and in government operations.

While greenhouse gas emissions from waste and associated activities contributed little to overall emissions in Creve Coeur, promoting waste reduction is an essential element of sustainable communities. Solid waste creates GHG emissions in two ways. Greenhouse gasses are initially released from the vehicles used in collecting and transporting the waste. Secondly, greenhouse gasses are emitted from the decomposition or incineration of the solid waste. Reducing, reusing, and recycling materials can reduce GHG emissions by reducing emissions from manufacturing new products. The city of Creve Coeur currently boasts a recycling diversion rate of 26.3% (2023).

2023 electronics recycling event.

STRATEGIES

- Research opportunities for residential composting and community gardens.
- Distribute reminders on residential recycling.
- Explore potential of bins at City Hall for hard to recycle items such as batteries, bags and ink cartridges and continue the city yearly electronics recycling event.
- Create an avenue to share tips on reducing use of hard to recycle items and reusing items.

The Energy & Environment Committee set up a recycling education booth at the city's 2023 Arbor Day event.

Arbor Day Event: Tips from community members on reducing use of hard to recycle items

- Use dryer balls instead of fabric softener
- Buy and use rechargeable batteries
- Freeze fresh food that would go bad before you use it
- Use powder detergent instead of liquid
- Use biodegradable toothbrushes
- Use only reusable bags when shopping
- Buy and use bar soap and eliminate ongoing purchase and use of plastic bottles
- Fix or refurbish rather than throw out and buy new
- Make your own coffee and use reusable cups

NATURAL ENVIRONMENT AND ADAPTATION

Protect the natural environment and encourage the development of plans and strategies to create a resilient community to cope with and adapt to climate change.

While it is of upmost importance to reduce the amount of greenhouse gases emitted into the atmosphere there is overwhelming consensus that we are beginning to see, and will for the foreseeable future continue to see, the effects of global climate change. For this reason, it is important for communities to implement strategies to protect the national environment and to mitigate climate change's effects. For the Midwest, and the St. Louis area in particular, the direct effects include hotter summer days, warmer winters, more severe and acute rain events that could lead to flooding, and longer dry periods between the rains.

Remnants of natural forest in Creve Coeur containing Carya (hickory) and Quercus (oak).

STRATEGIES

- Manage stormwater runoff through mitigation strategies (rainscaping, pervious surfaces, drainage systems, etc.).
- Develop a drought action plan and a heat emergency plan.
- Remind residents about night time bird migration and encourage them to shade any outdoor lighting, use window coverings indoors.
- Provide native planting habitats for pollinators.
- Support expansion of the tree canopy.

FISCAL YEAR 2025 ACTIONS

Each year the Energy and Environment Committee selects five top actions to advance the achievement of the Climate Action Plan goals. The actions are selected by the committee and are designed to highlight areas that may have the largest impact. For fiscal year 2025, the actions are:

	Action	Why?
1	Publish Phase III of the Climate Action Plan.	The city of Creve Coeur has made significant improvements in reducing municipal emissions while emissions in the community at large have not seen such gains. Furthermore, the Covid-19 pandemic reduced focus on climate action goals and thus this plan is designed to reactivate support and make progress on goals.
2	Develop and activate a Creve Coeur Energy & Environment working group to build a coalition of motivated citizens, businesses, and city/county leaders in Creve Coeur	As the city of Creve Coeur moves to reduce community emissions, it is important to have a coalition of individuals and businesses spreading the word on city efforts to reduce emissions. Messaging and Communications will be key thus upgrade website presence, newsletter E & E section, develop easy feedback channels, surveys, comment boards etc.
3	Develop a Solar Energy education campaign and review streamlining the solar installation process.	In anticipation of the Grow Solar group buy program, it is important to get residents and businesses thinking about the potential for solar on their homes and buildings. For this effort to be successful the program must be marketed and communities members should be educated on the process.
4	Work with the city of Creve Coeur to plan for an electric vehicle in the municipal fleet and public electric vehicle charging.	As electric vehicles expand nationwide, it's important for Creve Coeur to support their expansion at the municipal level. Furthermore, there are several federal grants available to public electric vehicle charging stations through the Bipartisan Infrastructure Law.
5	Implement smart lighting practices that promote lower kelvin, shielded lighting where needed to improve safety.	In alignment with the new residential street light program, it is important to educate residents on the benefits and costs of lighting.
6	Continue work on the 39 North Greenway	Greenways support biking and walking in communities. The 39 North greenway is currently in the design phase.

A key element of this new effort is to increase the presence of the Energy & Environment Committee in the Creve Coeur Newsletter. This section is a list of planned topics for the newsletter. *Note: there may not always be space each month for this section.*

Month	Topic	Assignee
October 2023	Electronic Recycling Event Thursday October 19	Saranya
November 2023	Impact of Solar + GrowSolar	Paige
December 2023	Christmas Trees	Paige
January 2024	None	
February 2024	Arbor Day Contest announcement	City
March 2024	Plastic Film	Greg
April 2024	None	
May 2024	Migratory path, Shades closed	Saranya
June 2024	None	
July 2024	Water Heaters	Saranya
August 2024	Gas vs Electric Lawncare	Walker
September 2024	Electronics Recycling Event September 19, 2024	Saranya

Future Topics

- Single Use Plastics
- EVs vs Hybrids