

EAC Subcommittee Recommendations  
Emissions Reduction &  
Carbon Neutrality

Feb.6, 2020



# History & Timeline

- Laramie Greenhouse Gas Emissions Inventory 2018 report is published (Jul.2019)
- EAC asked by Laramie City Council to provide emissions reduction recommendations, creates subcommittee (Dec.2019)
- Subcommittee presents recommendations to EAC (Feb.2020)
- Approved recommendations reviewed by Laramie's City Manager for budget consideration
- Approved recommendations reviewed by Laramie City Council



# Objectives & Approach

- Reduce greenhouse gas emissions (GHGe) and achieve “net zero” emissions by 2050
- Net zero: to make the *net* greenhouse gas emissions—including efforts from reduction, capture, and offset—as close to zero as is possible
- Recommendations cover municipal operations and city community
- Where possible, recommendations reduce emissions and provide a financial return on investment



# Recommendation Report

## Environmental Advisory Committee Subcommittee Recommendations

EAC Subcommittee on Emission Reduction and Carbon Neutrality for the City of Laramie  
February 2020

### INTRODUCTION

In this document, we provide recommendations for municipal operations and community efforts to achieve a net zero emissions goal for the City of Laramie. The overall goal of "net zero" means that the city and the community will work to reduce current greenhouse gas emissions as much as reasonably possible, while also working to implement measures and changes to offset the remaining emissions that cannot be completely eliminated. These recommendations will work to make the net greenhouse gas emissions—including efforts from reduction, capture, and offset—as close to zero as is possible and feasible. Throughout this document, "emissions" refers to the emissions of the greenhouse gases (GHGs), including carbon dioxide, methane, and nitrous oxide.

To realize that attaining a goal of net zero emissions is a complex process that will require working that are both broad and specific, goals that will require large changes in municipal "emissions" and goals that can be accomplished in the near- and long-term. To achieve this, we recommend the following actions: (1) developing a comprehensive emissions reduction plan, (2) drafting a comprehensive emissions reduction plan, (3) providing trainings, and (4) implementing outreach. We then outline more specific, Targeted emissions reductions in the short term.

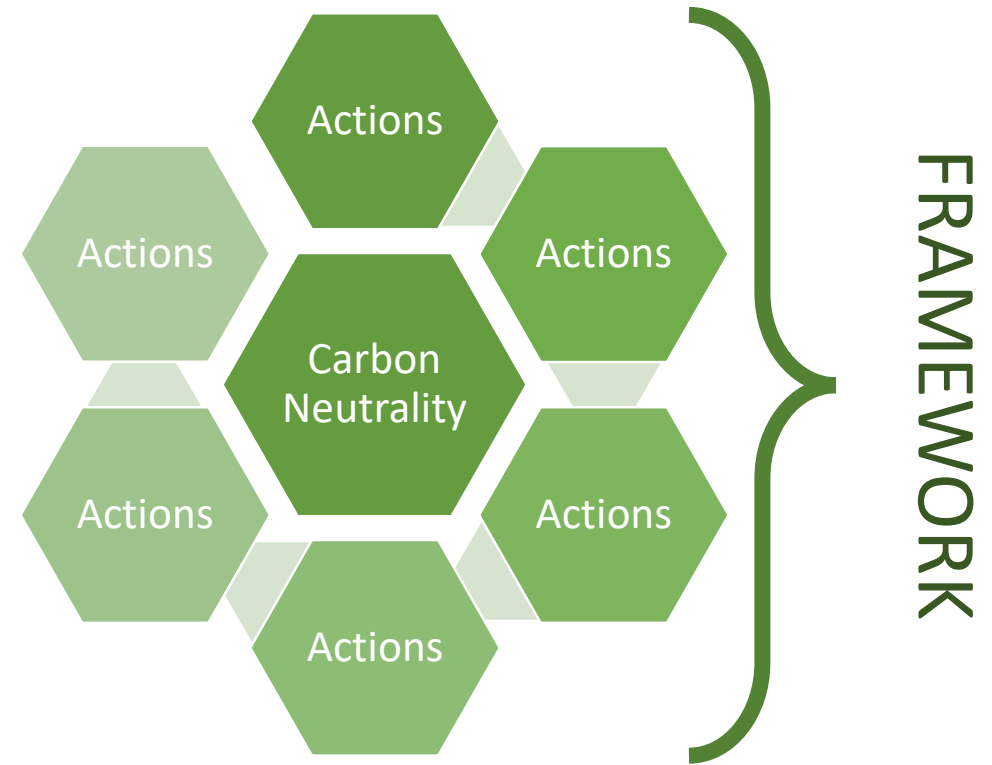
- 1.2. The surrounding community reduce emissions from those established in the forthcoming community-wide GHG survey according to the following timeline: 30% reduction by 2030, 70% reduction by 2040, and achieving net zero by 2050.
2. **DRAFT COMPREHENSIVE PLAN:** We recommend developing a comprehensive municipal operations emissions reduction plan, followed by a separate community plan. The plan should include scope, objectives, specific goals, baselines, timelines and metrics, strategies and solutions. Cities across the U.S., including Austin,<sup>2</sup> Fresno,<sup>3</sup> and Salt Lake City,<sup>4</sup> have conducted similar comprehensive plans and serve as excellent examples. To accomplish this goal, we recommend building on current inventories, audits, and assessments already completed in Laramie and Albany County to develop an effective action plan (e.g., Honeywell audit). We further recommend that this comprehensive plan include potential avenues for reducing emissions, developing renewable energy sources, and enhancing carbon sequestration opportunities.
3. **PERFORM REGULAR EMISSION ASSESSMENTS:** We recommend reviewing and officially approving the baseline emissions inventory conducted for FY 2018. Following this baseline inventory, we recommend performing GHG inventories on an annual or biennial basis to compare progress against the baseline inventory, demonstrate impact of policies and solutions, and adjust actions based on feedback. We recommend developing and implementing a standardized process to regularly collect data. To ensure that the emissions assessments are broadly known throughout municipal employees and citizens of Laramie, we recommend publishing the findings from the assessment within already existing and appropriate municipal reports, as well as making the assessment reports available and in an easy-to-understand format on the municipal website.
4. **IMPLEMENT OUTREACH:** We recommend that the City of Laramie "Emissions Reduction Community Network" to provide insight into the status of municipal emissions, and steps the city can take to reduce emissions. We recommend that the city create a landing page by citizens and businesses regarding the status of municipal emissions, and steps the city can take to reduce emissions. We recommend that the city create a landing page by citizens and businesses regarding the status of municipal emissions, and steps the city can take to reduce emissions.



# Framework & Targeted Recommendations

Framework Recommendations provide a *guiding structure and strategy* for overall emission reduction, carbon neutrality, and sustainability.

Targeted Recommendations provide *specific actions* toward emission reduction and carbon neutrality.



# Establish Goals

- We recommend that Laramie publicly establish 10-year (2030), 20-year (2040), and 30-year (2050) goals for municipal operations and community emissions reduction.
- Municipal operation reduction from 2018 baseline: 50% by 2030, 90% by 2040, and achieving net zero by 2050.
- City community reduction from forthcoming community-wide GHGe survey: 30% reduction by 2030, 70% reduction by 2040, and achieving net zero by 2050.



# Draft Comprehensive Plan

- We recommend developing a comprehensive municipal operations emissions reduction plan, followed by a separate community plan.
- Should provide a detailed roadmap for actions and budget toward net zero emissions.
- Should include potential avenues for reducing emissions, developing renewable energy sources, and enhancing carbon sequestration opportunities.



# Perform Regular Emission Assessments

- We recommend officially approving emissions baselines and performing GHGe inventories on an annual or biennial basis to compare progress against the baseline inventory, demonstrate impact of policies and solutions, and adjust actions based on feedback.
- To provide transparency, findings should be made publicly available in easy to read reports.





# Implement Outreach

- We recommend that the City of Laramie initiate and support an “Emissions Reduction Community Network” to provide inspiration, guidance, and resources for emissions reduction efforts by citizens and businesses.
- This can include web-based resources, community engagement, and methods to connect interested parties.



# Provide Training

- We recommend providing energy efficiency and emissions reduction training to city personnel to help identify efficiency solutions and to build a culture of energy efficiency and emissions reduction.



# Explore Financing

- We recommend identifying extra-municipality sources of funding for city projects to help reduce emissions.
- This includes grants, partnerships, an emissions reduction initiative fund, and other mechanisms.



# Streamline Procedures

- We recommend reviewing and adjusting all relevant ordinances, policies, and permitting procedures so as to streamline renewable energy and energy efficiency projects for individuals and businesses.



# Upgrade/Replace Current Fleet Vehicles

- We recommend that the City of Laramie develop and implement a “Green Fleet” purchasing policy wherein purchases of new fleet vehicles are mandated to be the lowest emission vehicle possible, with special effort made to purchase electric vehicles.

\*This recommendation may provide significant return on investment.



# Replace Maintenance Equipment

- We recommend that the City of Laramie consider phasing out two-stroke engines for landscaping and other maintenance equipment (e.g., lawn mowers, leaf blowers, trimmers) in favor of cleaner electric or four-stroke engine options.



# Continue Improving Facility Energy Efficiency

- We recommend that the City of Laramie continue to seek opportunities for energy efficiency upgrades.
- Existing audits, power usage information from invoices, and additional monitoring devices could be used to identify areas where efforts should be targeted and inform efficiency decisions.



# Install Rooftop Solar on Municipal Facilities

- We recommend that the city invest in photovoltaic arrays installed on all eligible and feasible municipal building rooftops.
- Installation of photovoltaic systems can make a considerable difference in overall carbon emissions by the city, as well as work to offset at least part of the city's considerable energy costs.





# Facilitate Rooftop Solar Bulk Buy Program

- The City of Laramie should consider facilitating or co-facilitating a rooftop solar bulk buy program in order to encourage adoption of community solar energy.
- Bulk buy programs reduce costs for community members who wish to install photovoltaics by consolidating their purchasing power through a centralized point of contact.



# Reduce Solid Waste Management Emissions

- Since a large amount of the city's emissions are derived from solid waste management, we suggest multiple actions to reduce these overall associated emissions.
- Continue the current green waste program and expand it to include community composting solutions.
- Support increasing recycling opportunities.



# Increase Natural Carbon Capture

- When landscaping and reclaiming disturbed areas, we recommend choosing plant species strategically for carbon-storage capacity.
- Continue and expand opportunities for community gardens.



# Next Steps...

- Subcommittee presents recommendations to EAC
  - Approved recommendations reviewed by Laramie's City Manager for budget consideration
  - Approved recommendations reviewed by Laramie City Council
- 
- Community members can start implementing many of these recommendations on their own!

