



HAMILTON'S CLIMATE CHANGE ACTION STRATEGY

General Issues Committee

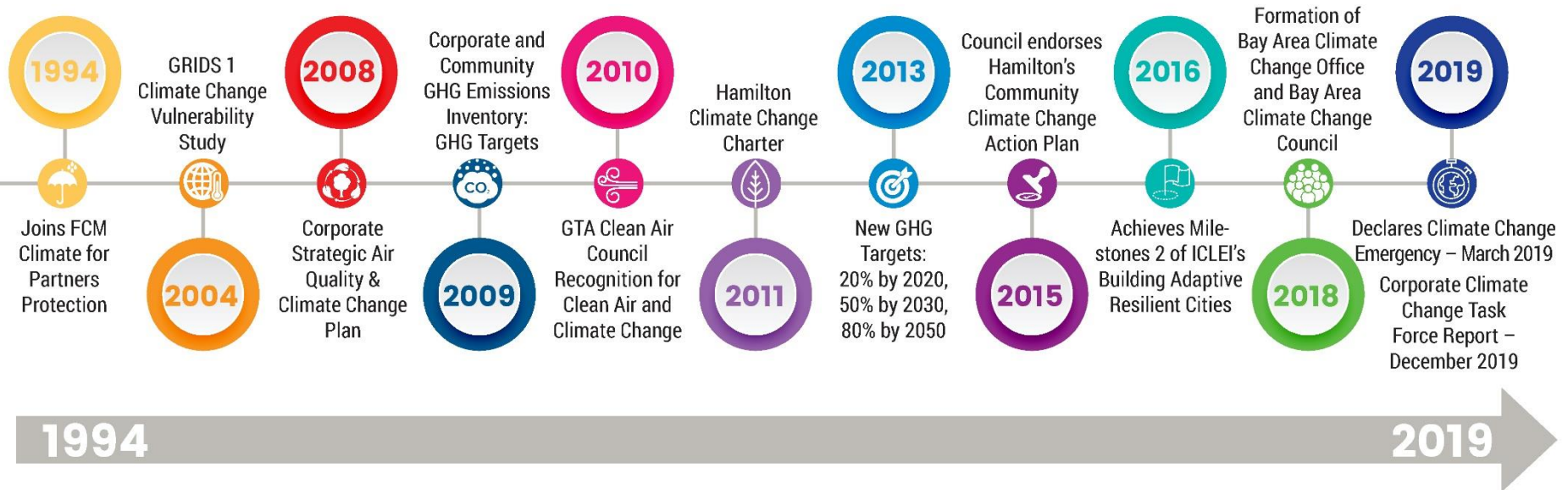
June 1st, 2022



Presentation Order

1. History, Context and Introduction (Trevor Imhoff, COH)
2. ReCharge Hamilton: Hamilton's Community Energy and Emissions Plan (Spencer Skidmore, COH; Kyra Bell-Pasht, SSG)
3. Hamilton's Climate Change Impact Adaptation Plan (Andrea McDowell, COH)
4. Timelines and Next Steps (Trevor Imhoff, COH)

History of Hamilton's Climate Change Actions



Snap-Shot of City Climate Change Achievements since 2019

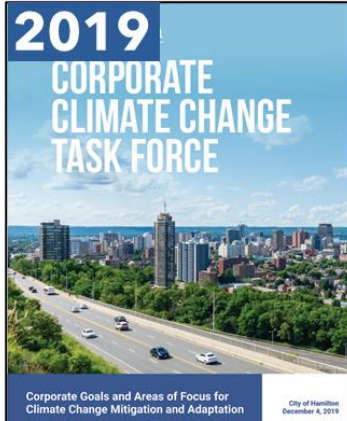
- **Investments of ~\$57.3M in climate positive** actions such as bicycling infrastructure, tree planting, electrification of vehicles and equipment, stormwater flooding mitigation etc.
- City's 2019 corporate **GHG emissions down ~43%** since 2005 baseline and **Corporate Energy and Sustainability Policy** (formerly Corporate Energy Policy) aligning with net-zero GHG emissions by 2050 target.
- **Green Fleet Strategy and \$2.5M** additional capital investments to convert 89 internal combustion vehicles **to battery all-electric**.
- **Approval and \$160K** funding from Federation of Canadian Municipalities to develop municipal Home Energy Retrofit Opportunity (HERO) program.

Hamilton's Climate Change Action Strategy

Hamilton City Council Declares Climate Change Emergency

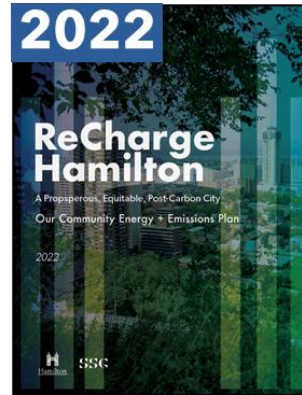


2019



Corporate Goals and Areas of Focus for Climate Mitigation and Adaptation (2019)

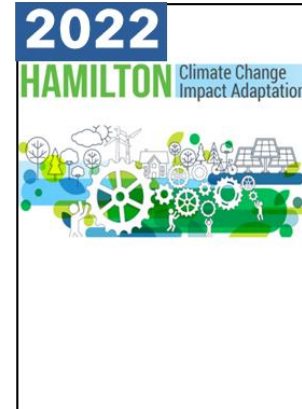
2022



CHAPTER 1 : Climate Mitigation

ReCharge Hamilton: Community Energy & Emissions Plan (2022)

2022



CHAPTER 2: Climate Adaptation

Hamilton's Climate Change Impact Adaptation Plan (2022)



Hamilton

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Hamilton's Community Energy + Emissions Plan

(CEEP)

whatIf?

Vision and Principles

Vision

“ReCharge Hamilton identifies a pathway to net zero GHG emissions by 2050 that increases the resilience of the energy system and improves economic prosperity for all. Drawing on a history of work, policies and initiatives in this area, ReCharge Hamilton builds on Hamilton’s historic and current strength as an industrial leader in the midst of a rich natural environment, and as a caring community.”

Principles

- Supports an **equitable** energy transition;
- Helps improve the City’s **resilience** to climate change;
- Is **community-led**;
- Involves a **public education** campaign;
- Promotes the development and use of **clean energy**;
- Protects and supports **biodiversity**;
- Encourages **local economic development**; and
- Promotes **practical** climate mitigation and adaptation actions.



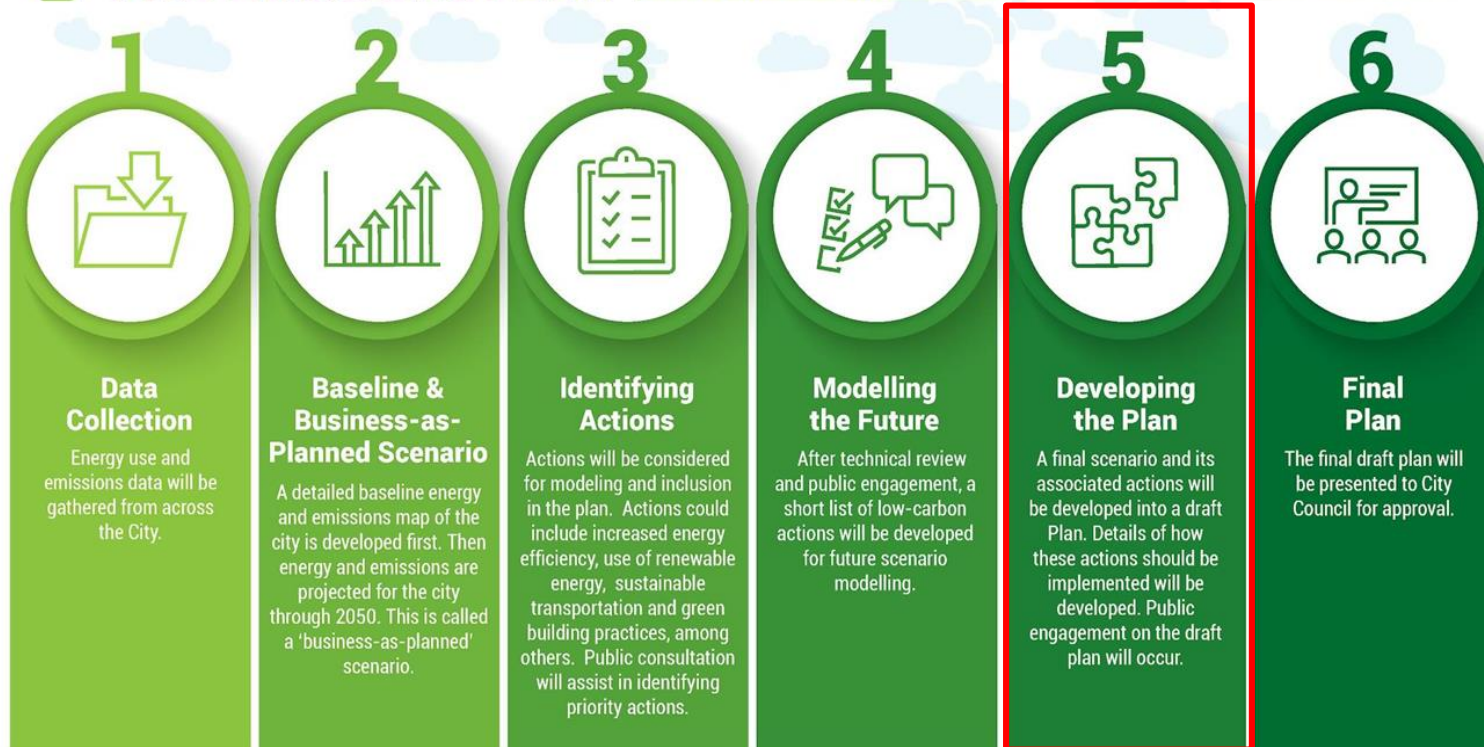
Overview: How is the Plan Developed?



HAMILTON'S

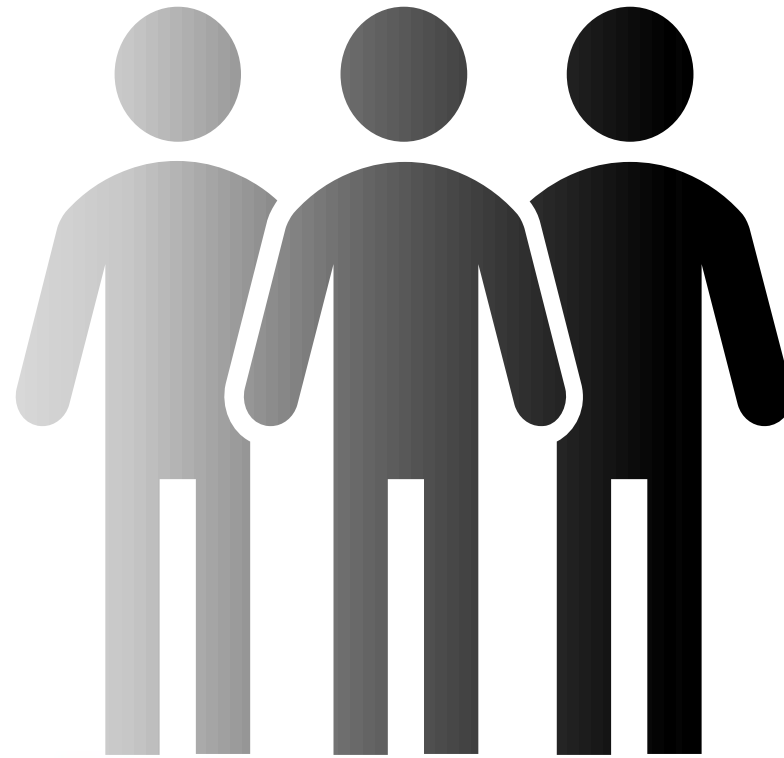
COMMUNITY ENERGY AND EMISSIONS PLAN

HOW THE PLAN WILL BE DEVELOPED



Community Engagement

- Stakeholder Advisory Committee
- Inter-Departmental City project team
- 1-on-1 interviews
- Public surveys
- Virtual Public Information Sessions
- Engage HQ virtual engagement
- internal/external committee presentations
- **41** total consultations



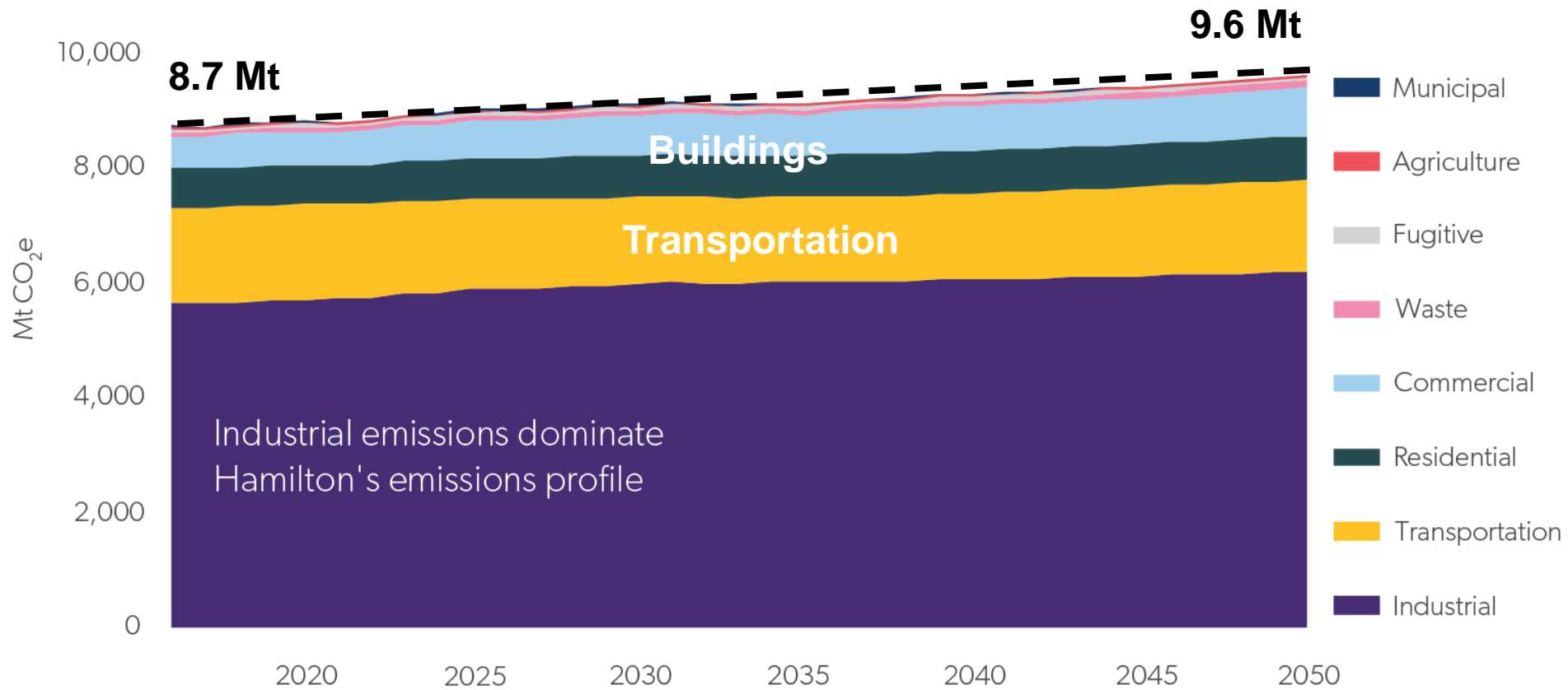
Modelling the Pathway to Net-Zero

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Hamilton's Business-As-Planned

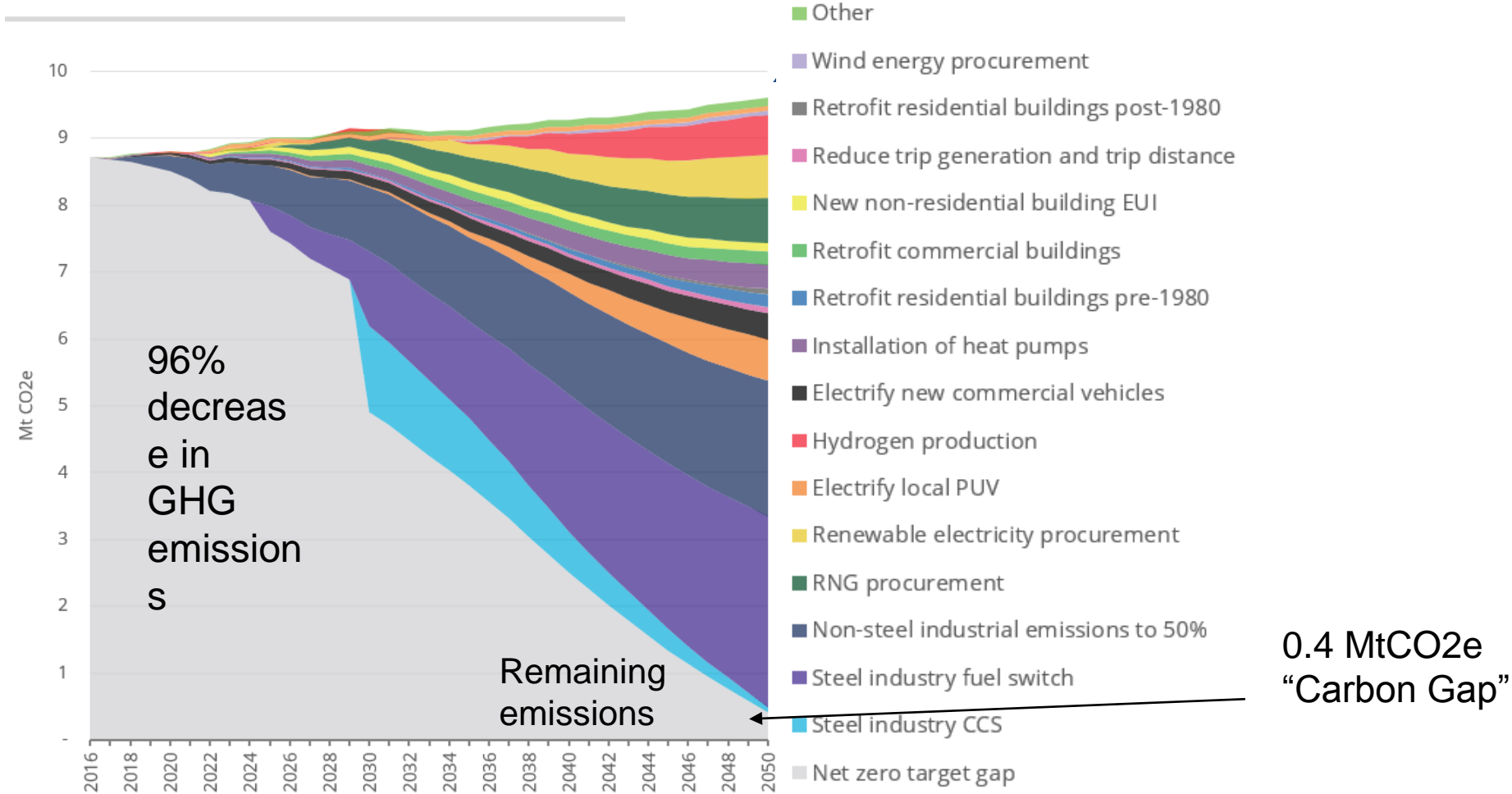


LOW-CARBON ACTIONS CATALOGUE

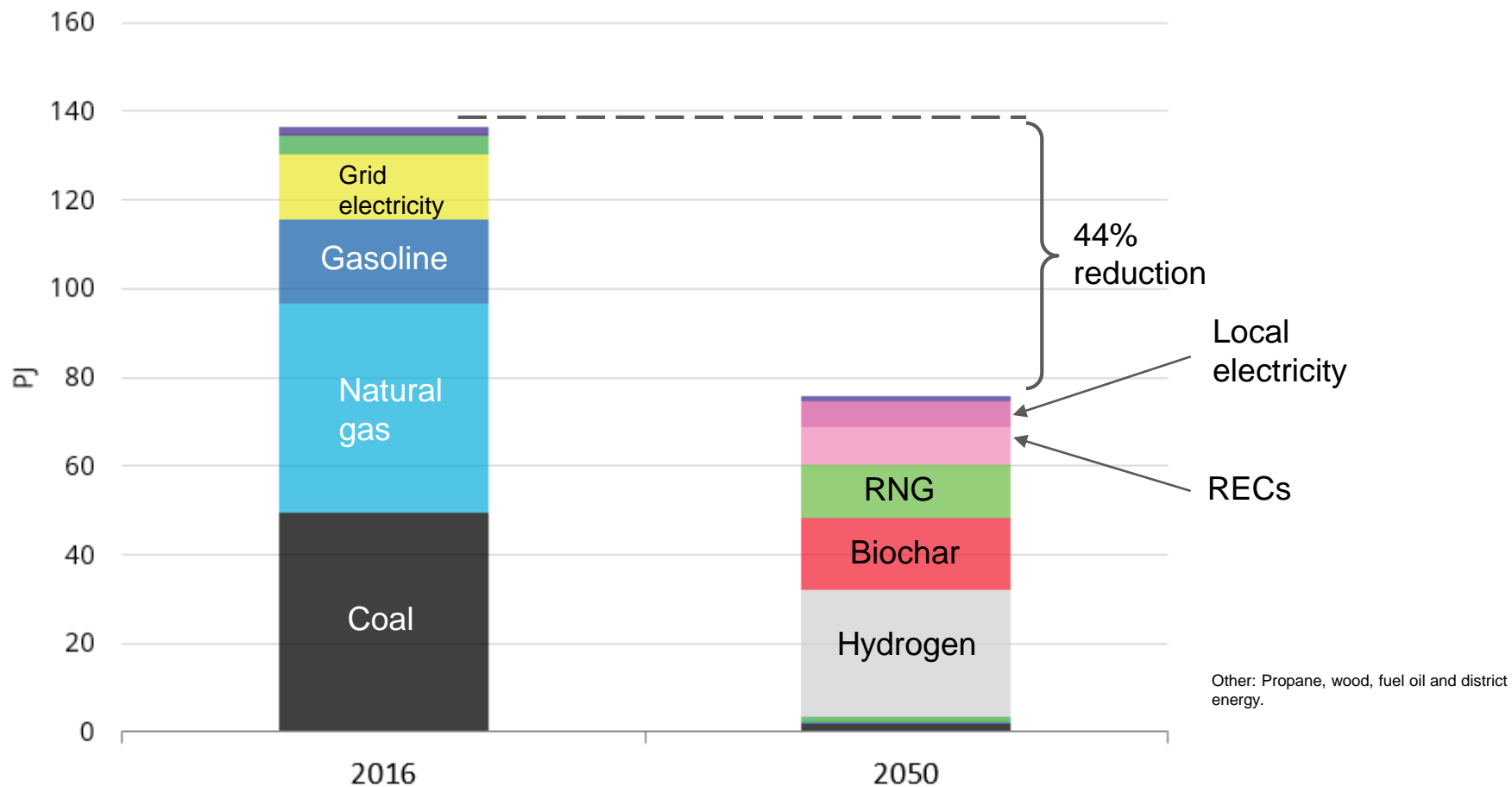
Identifying Targets

- Best Practices in other jurisdictions
- Consultant expert feedback and recommendations
- Public input via surveys and open house feedback
- Stakeholder Advisory Committee feedback
- City feedback
- **30 targets** modelled

How Do We Get to Net-Zero?



An Energy Transformation



5 Key Transformations

To Hamilton's Low-Carbon Future

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Low-Carbon Transformation #1 - Innovating our Industry





- The steel industry is planning to decarbonize – there is momentum
- There is major potential for industrial process efficiencies across all industries.



Implementing Action	Lead
1. Establish a net-zero industrial working group and zero emissions industry program	
2. Establish and support a cleantech accelerator	
3. Industrial Training and Retraining Programs (Canadian Colleges for Resilient Recovery)	

Low-Carbon Transformation #2 - Transforming our Buildings









- Retrofits: will be extensive + will require market innovation - the challenge will be to scale up
- Improvements to new building standards are a small but important part of the Net-Zero pathway

Implementing Action	Lead
4. Develop new city-wide sustainable development guidelines for new development	
5. Design, plan and implement a mass deep energy building retrofit program	 
6. Sustainable Building Training and Retraining Programs (Canadian Colleges for Resilient Recovery)	













Low-Carbon Transformation #3 - Changing How We Move

- Transit & active transportation provide co-benefits & avoid the need for new electricity generation
- Decarbonizing personal and commercial vehicles is a key opportunity
- Priority should be given to reducing VKTs, then switching remaining VKTs to EV or other low-carbon vehicles

Implementing Action	Lead
7. Expand active transportation networks	 Hamilton
8. Decarbonize the transit fleet & corporate fleet (implement Green Fleet Strategy)	 Hamilton
9. Plan for and develop expanded urban and rural transit service and e-mobility services	 Hamilton
10. Develop then implement a city-wide EV Strategy	 Hamilton
11. Establish a Commercial Fleet Decarbonization Working Group	  Hamilton
12. EV mechanic training and retraining program (Canadian Colleges for Resilient Recovery)	
13. Limit Parking and Incentivize EVs	 Hamilton




Low-Carbon Transformation #4 - Revolutionizing Renewables

- An abundance of renewable energy is vital to decarbonizing
- Existing district energy systems present a valuable opportunity
- City experience in organics conversion to biogas and RNG should be leveraged
- Hydrogen (green) is key in decarbonizing the steel sector

Implementing Action	Lead
14. Advocate for next generation electrical grid	 
15. Encourage local, alternative renewable energy ownership structures (coops, etc.)	 
16. Identify lands suitable for strategic renewable solar energy installations	
17. Conduct technical feasibility of expanded anaerobic digestion facilities	
18. Technical analysis of green hydrogen potential and creation of a Hamilton 'hydrogen hub'	
19. Decarbonize and expand district energy systems	 
20. Conduct technical analysis of expanded organics collection and diversion	

Low-Carbon Transformation #5 - Growing Green

- GHG reductions through sequestration are small but increase over time (as trees grow)
- Offer important co-benefits
- Easily implemented and supported by the public

Implementing Action	Lead
21. Review + update Official Plan to address climate change and energy policies	
22. Integrate community energy/climate action policy directions into Secondary Plans	
23. Set a target of 50,000 trees planted per year within City boundaries	

Administration, Governance & Resourcing

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Proposed CEEP & CCIAP Administration

- Creation of a *City Climate Office*
- Creation of a *Multi-Departmental Climate Change Working Group*
- Public engagement program to support the implementation
- Creation of a *Community-led Climate Advisory Committee(s)*



CITY HALL



Potential Municipal Decision Making and Funding Mechanisms

- Dedicated staffing for Central Climate Office (leading overall climate change strategy implementation)
- Investigate the creation of a carbon accounting framework (City Carbon Budget) + Sustainable Procurement Policy
- Municipal Green Bonds
- Sustainable long-term Climate Change Reserve
- Corporate Energy Reserve (revolving fund) expansion
- Ongoing funding and support for Community Climate Advisory Committee



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THANK YOU