

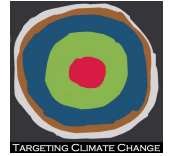
Civic Engagement in the Climate Crisis: Urgently Needed!

Ward 5 Civic Engagement Committee
June 13, 2024

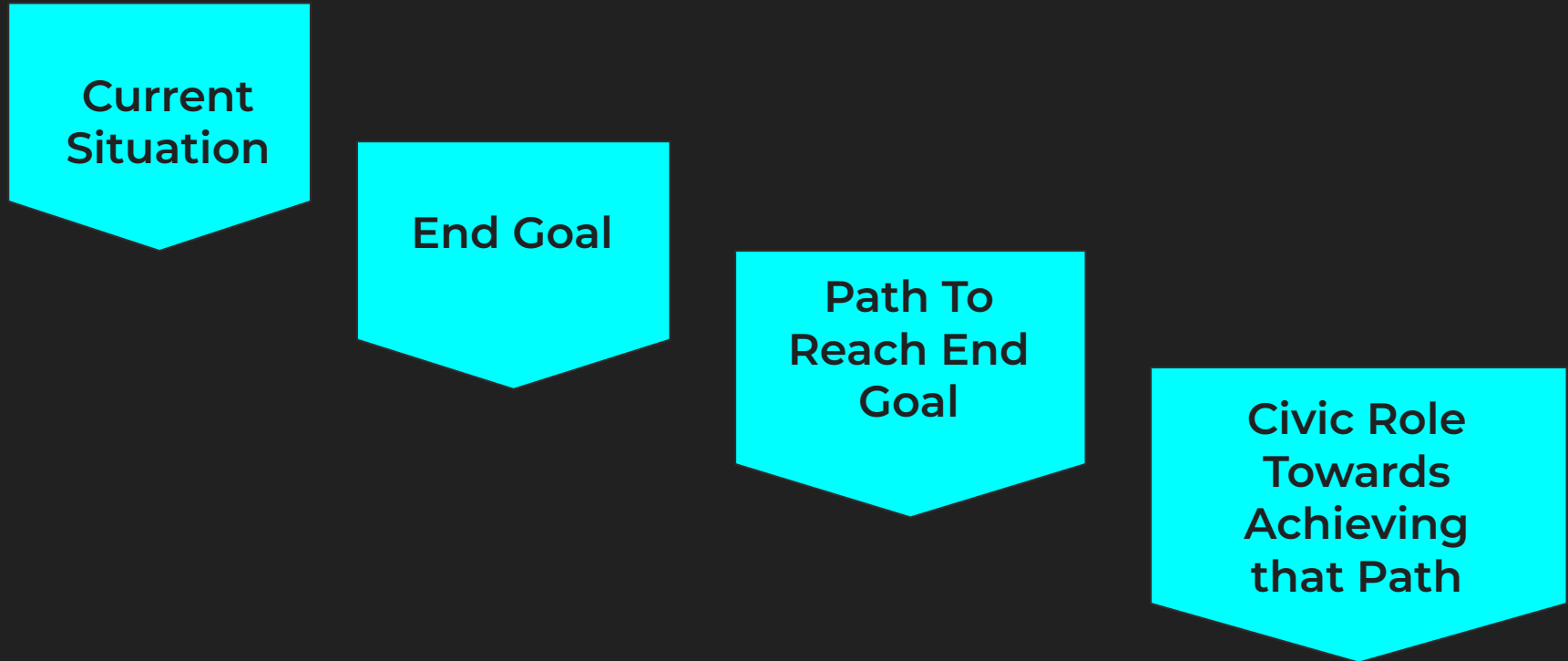
Esther Collier
Climate Action Richmond Hill

Climate Action Richmond Hill

- Amalgamation of
 - Drawdown RH
 - Neighbours for the Planet
 - Target Climate
- Part of Coalition of Climate Action York Region
- Includes Carrie Tai, Márta Ecsedi, Esther Collier
 - Volunteers not experts
 - Informed on global warming
 - Calling for an informed response to the climate crisis



Success Criteria - We have a clear understanding of the...



Current Situation Basics

The Basics of Global Warming

SITUATION: atmospheric molecules that let in light, but do not let out heat



Photo by Mark Stebnicki

NOT: molecules in the water and carbon cycle



Photo by Liza Summer

BUT: carbon in oil, coal, and gas that has been buried for 300 000 000 years
- when we burn it.



Photo by Jan Zakelj



TARGETING CLIMATE CHANGE

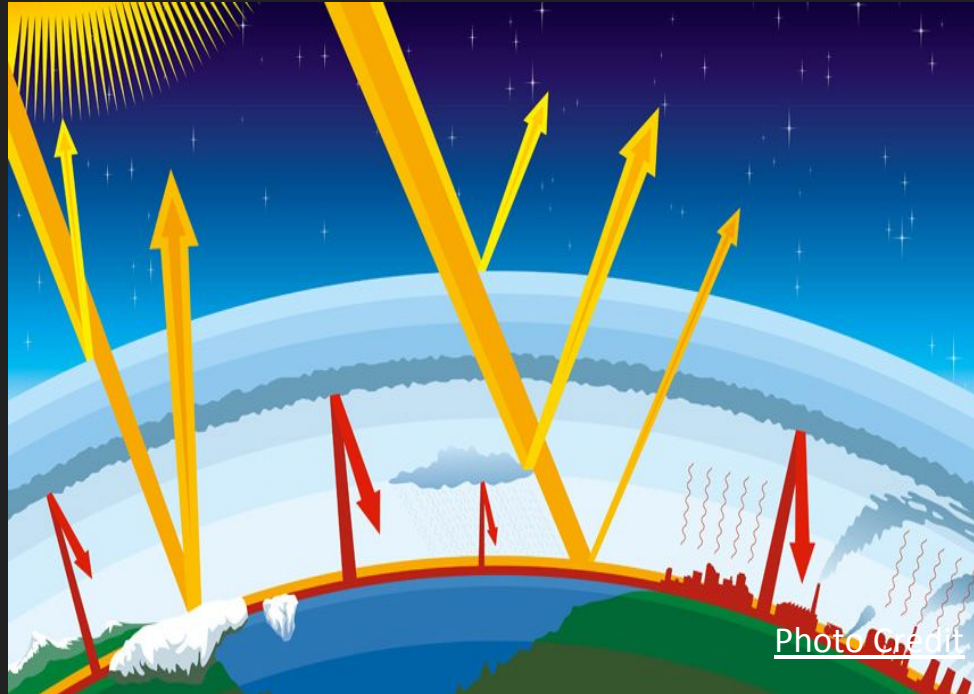
The Greenhouse Effect

Yellow arrows:
light energy from
the sun

Red arrows: heat
energy leaving the
earth

Light energy is
stronger than heat -
so it gets through
the barrier.

Darker blue band:
greenhouse gases



**More energy in
atmosphere:**

- melting ice-caps,
- sea-level rise,
- more violent storms,
- more storms,
- changing patterns in ocean and atmospheric currents,
- changing agriculture
- more moisture in air/less in ground.

**People displaced
from homelands.**

Three Categories of Actions

1. Keep the light as light.

Link:
<https://www.treehugger.com/urban-design/la-painting-streets-white-reduce-urban-warming.html>

LA painting streets white to reduce urban warming



Sami Grover [@samigrover](#)

August 29, 2017



Three Categories of Actions

2. Stop putting greenhouse gases (GHGs) into the atmosphere.

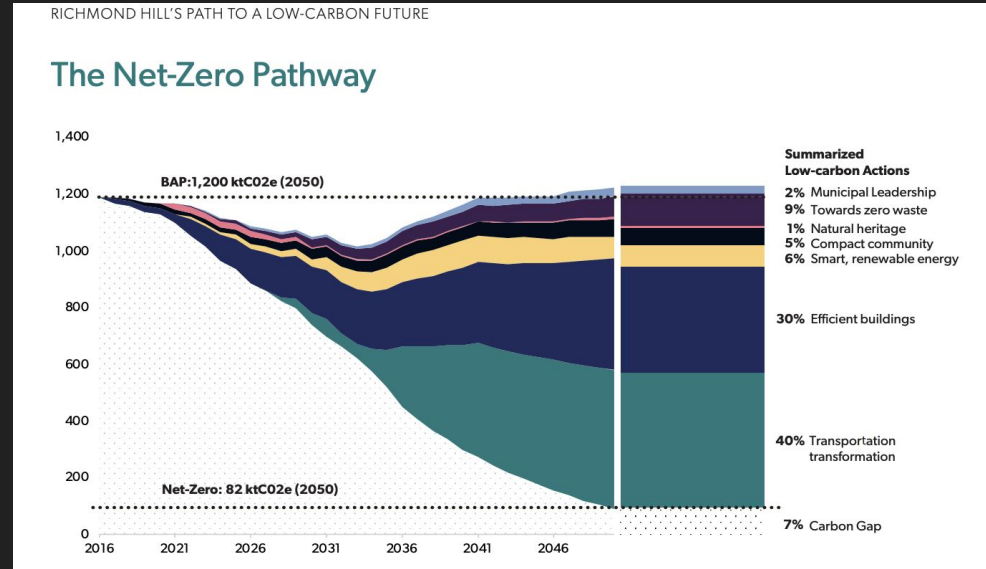


Photo Credit

Three Categories of Actions

3. Remove
GHGs from
atmosphere -
plant trees.



[Photo Credit](#)

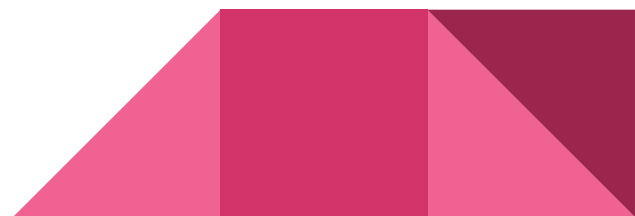
In the News

**COP = Conference of
the Parties**



**IPCC =
Intergovernmental
Panel on Climate
Change**

ipcc



Decision Making: Be evidence-based



Total organic carbon measurements reveal major gaps in petrochemical emissions reporting



COP 28

UN Climate Conference in Dubai Nov. 30 - Dec. 13, 2023

Countries agreed to

- Set up a loss and damage fund to help vulnerable countries respond to climate change impacts
- Transition away from fossil fuels



The Intergovernmental Panel on Climate Change

SPECIAL AND METHODOLOGY REPORTS

Methodology Report on Short-lived Climate Forcers

Global Warming of 1.5°C

Climate Change and Land

2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories

The Ocean and Cryosphere in a Changing Climate

SIXTH ASSESSMENT REPORT

AR6 Synthesis Report: Climate Change 2023

AR6 Climate Change 2022: Impacts, Adaptation and Vulnerability

AR6 Climate Change 2022: Mitigation of Climate Change

AR6 Climate Change 2021: The Physical Science Basis

FIFTH ASSESSMENT REPORT

AR5 Synthesis Report: Climate Change 2014

AR5 Climate Change 2013: The Physical Science Basis

AR5 Climate Change 2014: Impacts, Adaptation, and Vulnerability

AR5 Climate Change 2014: Mitigation of Climate Change

The Intergovernmental Panel on Climate Change (IPCC)

The Synthesis Report is based on the content of the three Working Groups Assessment Reports: *WGI – The Physical Science Basis*, *WGII – Impacts, Adaptation and Vulnerability*, *WGIII – Mitigation of Climate Change*, and the three Special Reports: *Global Warming of 1.5°C*, *Climate Change and Land*, *The Ocean and Cryosphere in a Changing Climate*.

AR6 Synthesis Report (SYR)

Disclaimer: The approved Summary for Policy copy editing and layout.

[Read the report here](#)

Worth reading

- [Summary for Policymakers](#)
- [Longer Report](#)
- [Headline statements](#)
- [Figures](#)
- [Presentation made during the press conference](#)
- [Press release](#)



End Goals

End Goal

Special Report on Global Warming of 1.5 °C
- October 8, 2018

Keep the global temperature rise to an average of 1.5°C above pre-industrial levels.

Reduce emissions
by 45% by 2030 ...

be Net Zero by 2050

Richmond Hill's End Goal - May 6, 2021

- Environment and Sustainability
- Climate Change
- Climate Champions Program
- Community Gardens
- Community Tree Planting and Stewardship Events
- Corporate Sustainability
- Flain Mills Greenway



Climate Change

Community Energy and Emissions Plan (CEEP)

The goal of the Community Energy and Emissions Plan (CEEP), titled *Richmond Hill's Path to a Low Carbon Future*, is to

reach net-zero emissions by 2050 – by greatly reducing our GHG

emissions and not emitting more than we offset.

[Read the Community Energy and Emissions Plan](#)

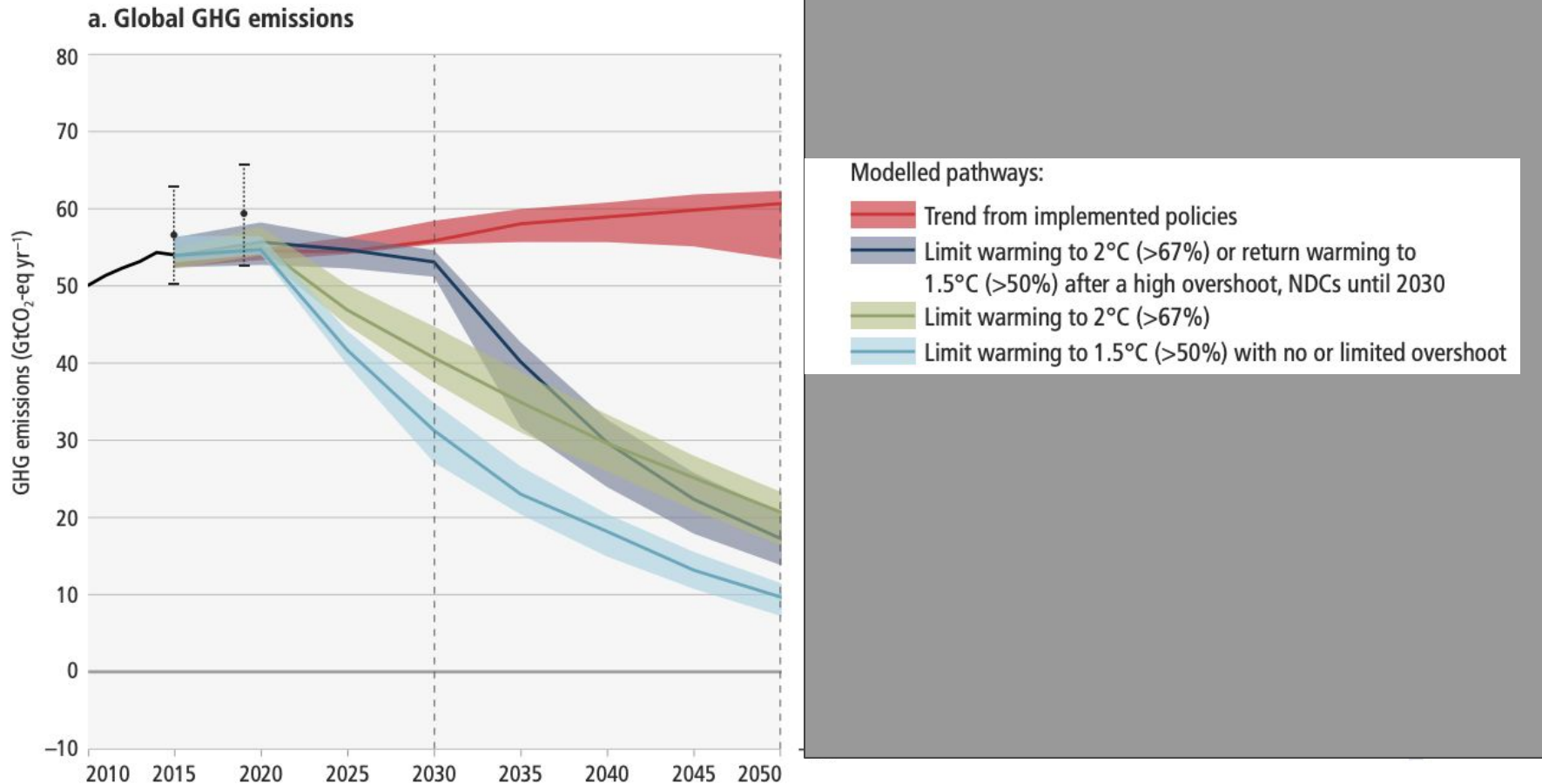


Current Situation Again

Globally

- If we do what we committed to do it is likely that warming will exceed 1.5°C during the 21st century.
- If we want to stay below 2°C we would have to work really really hard (“rapid acceleration of mitigation efforts”) after 2030.
- It is very likely that we won’t actually do what we said we would do - so expect worse.
(high confidence)

Projected global GHG emissions from NDCs announced prior to COP26 would make it *likely* that warming will exceed 1.5°C and also make it harder after 2030 to limit warming to below 2°C.



We are not making it globally.

The world has just had over a year of an average global temperature of 1.5° C above pre-industrial levels.

First time world exceeds 1.5C warming limit over 12-month period

EU monitors report comes as NASA launches climate satellite to survey oceans and atmosphere in never-before-seen detail.



[Study documents slowing of Atlantic currents](#)

While scientists have observed oceans heating up for decades and theorized that their rising temperatures weaken global currents,...

1 month ago



[Climate change threatens the North Atlantic's currents, ecosystems and stability \(analysis\)](#)


If the AMOC goes amok, the overall flow of the Gulf Stream would remain largely unaffected. Nonetheless, the disruption of the AMOC would create...

Nov 7, 2023



We are not making it. We need a different

We are not making it in Richmond Hill.

- Discussions with the Sustainability Section - January 2023
 - Pandemic and funding reassignment - slowed plan uptake
 - Observations
 - Lack of information in municipal communications
 - Local residents do not know of investment opportunities or CEEP targets
- 

Current Societal Situation Toward Climate

- Climate concern is high (70-90% as shown by several surveys).
- Understanding is low (Most get 50% or less on tests)
- Youth anxiety eased by action plan

Civic engagement is needed to:

- Activate human resources
 - Investment
 - Innovation
 - Local solutions
 - Hands-on tasks

As kids battle dread over climate change, she's helping them navigate 'healthy responses to a troubled world'

CAMH's Swelen Andari is working to roll out programs through Youth Wellness Hubs Ontario that use evidence-based measures to address climate anxiety in young people, and connect them to potential solutions.



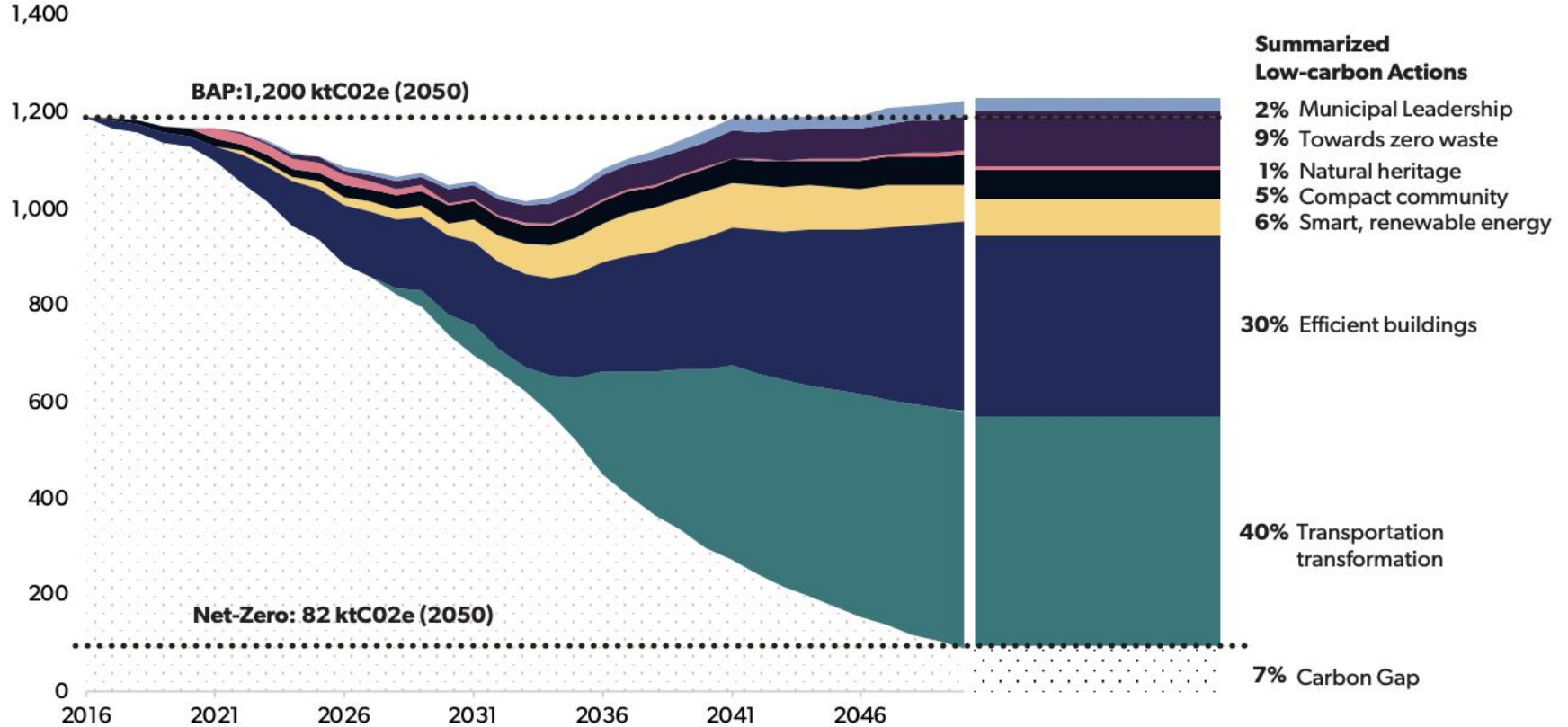
By [Kate Allen](#) Climate Change Reporter

Thursday, February 22, 2024 | 4 min to read

Article was updated Feb 22, 2024

**Path to Reach
End Goal**

The Net-Zero Pathway



IPCC - 6th Assessment Report - 2022-2023

Working Group 3, Mitigation of Climate Change

- 18 countries have sustained emission reductions for longer than 10 years due to:
 - policy changes
 - changes in economic structure

IPCC - 6th Assessment Report - 2022-2023

Working Group 3, Mitigation of Climate Change

Reductions were linked to:

- Use of electricity (only 10% carbon-based in Ontario) instead of gas
- Use of products that need less energy to do the same job
- Changes in consumer habits to use less energy

Energy Supply Decarbonisation

Richmond Hill targets in CEEP:

Rooftop solar is incorporated on 50% of buildings by 2050.

100% of new vehicle sales are EVs by 2040.

80% of buildings switch to electric heat pumps and electric water heating.

Investments required in renewable energy technology

- By residents
- By businesses
- By the City

Profits gained by residents,
businesses, and the city!

Energy Efficiency Gains

Richmond Hill target in CEEP:

80% of buildings are retrofit for energy efficiency.

100% of new vehicle sales are EVs by 2040.

Investments required in efficient technology

- By residents
- By businesses
- By the City

Profits gained by residents,
businesses, and the city!

Energy Demand Reduction

Richmond Hill targets in CEEP:

Majority of trips within the city are done by transit, walking, and cycling

95% of organic waste is sent to an anaerobic digester

Lifestyle changes required by

- By residents
- By businesses
- By the City

Profits gained by residents, businesses, and the city!

IPCC - 6th Assessment Report - 2022-2023

Working Group 3, Mitigation of Climate Change

System Transformations to Limit Global Warming - C4


- Reducing emissions means we have to change our lives
- The continued installation of unabated fossil fuel infrastructure will 'lock-in' GHG emissions.

Costs go up as we wait until a point of no return.

IPCC - 6th Assessment Report - 2022-2023

Working Group 3, Mitigation of Climate Change

System Transformations to Limit Global Warming - C8


- Demand-side options and low-GHG emissions technologies can reduce **transport sector** emissions in developed countries and limit emissions growth in developing countries (high confidence).
 - Many mitigation strategies in the transport sector would have various **co-benefits**, including air quality improvements, health benefits, equitable access to transportation services, reduced congestion, and reduced material demand (high confidence)
- 

**Civic Role
Towards
Achieving that
Path**

IPCC - 6th Assessment Report - 2022-2023

Working Group 3, Mitigation of Climate Change

System Transformations to Limit Global Warming - C10

- Demand-side mitigation encompasses changes in infrastructure use, end-use technology adoption, and **socio-cultural and behavioural change.**
 - Demand-side measures and new ways of end-use service provision can reduce global GHG emissions in end-use sectors by 40–70% by 2050 compared to baseline scenarios, while some regions and socioeconomic groups require additional energy and resources.
 - Demand-side mitigation response options are consistent with improving basic well-being for all. (high confidence)
- 

IPCC - 6th Assessment Report - 2022-2023

Working Group 3, Mitigation of Climate Change

System Transformations to Limit Global Warming - C10.2

- With policy support, socio-cultural options and behavioural change can reduce global GHG emissions of end-use sectors by at least 5% rapidly, with most of the potential in developed countries, and more until 2050, if combined with improved infrastructure design and access.
- Individuals with high socio-economic status contribute disproportionately to emissions and have the highest potential for emissions reductions, e.g., as citizens, investors, consumers, role models, and professionals.



IPCC - 6th Assessment Report - 2022-2023

Working Group 3, Mitigation of Climate Change

System Transformations to Limit Global Warming - C10.4

- Addressing inequality and many forms of status consumption and focusing on wellbeing supports climate change mitigation efforts (high confidence).



IPCC - 6th Assessment Report - 2022-2023

Working Group 3, Mitigation of Climate Change

E. Strengthening the Response

- What aspects of society are either blocking or enabling action?
 - Economic factors, physical, technological AND
 - **Especially** lack of engagement of institutions and **socio-cultural factors**
- Acting now makes it easier later



IPCC - 6th Assessment Report - 2022-2023

Working Group 3, Mitigation of Climate Change

E. Strengthening the Response - E3


- **Climate governance**, acting through laws, strategies and institutions, based on national circumstances, supports mitigation by providing frameworks through which diverse actors interact, and a basis for policy development and implementation (medium confidence).
- **Climate governance** is most effective when it integrates across multiple policy domains, helps realise synergies and minimise trade-offs, and connects national and sub-national policymaking levels (high confidence).
- **Effective and equitable climate governance builds on engagement with civil society actors, political actors, businesses, youth, labour, media, Indigenous Peoples and local communities** (medium confidence).



IPCC - 6th Assessment Report - 2022-2023

Working Group 3, Mitigation of Climate Change

E. Strengthening the Response - E5.4

- The **private sector** has money to invest but needs the clear signalling from the government that it will support that risk.
 - The return on investment for action is very good - better than most banks.
- 

What Does Civic Engagement Look Like

Everyone knows the City's Climate Plan exists and offers for our:

- Economy
- Health
- Environment

It is easy for people to find their part in the climate plan.

People are acting and helping each other act.

Policies change to match people's knowledge.



How Does Civic Engagement Happen

The Story of the Ants:

- Leadership tells us what to do
- Tasks are broken down into achievable bits
- Successes are evident
- Actors share the rewards

We need people to:

- gather the information
- to make it clear and informative
- to promote it in their spheres
- to celebrate gains

And
leaders!



How Does Civic Engagement Happen

Climate Action RH is working towards it:

- We have met with Mayor and Councillors
- Accepted volunteer help to make flyers
- Attended events to share promotion
- Worked with the City to improve website
- Initiated a call for an information campaign

We are each also changing our own lives and speaking to our spheres of influence.





Join us to act for climate.