Government of
Northwest Territories

OUR ENERGY AND CLIMATE FUTURE IN A CHANGING WORLD

Five-Year Review of the 2030 Energy Strategy and the Climate Change Strategic Framework's Goal #1

Arctic Expo – June 14, 2023

PRESENTATION OVERVIEW

- GNWT Current Approach to Energy and Climate
- NWT Energy Systems
- GHG Emissions by Sector and Trend
- 5-Year Review: Energy Strategy & CCSF
- Low-Carbon Pathways Modeling
- Key Discussion Questions
- How you Can Get Involved

2030 ENERGY STRATEGY

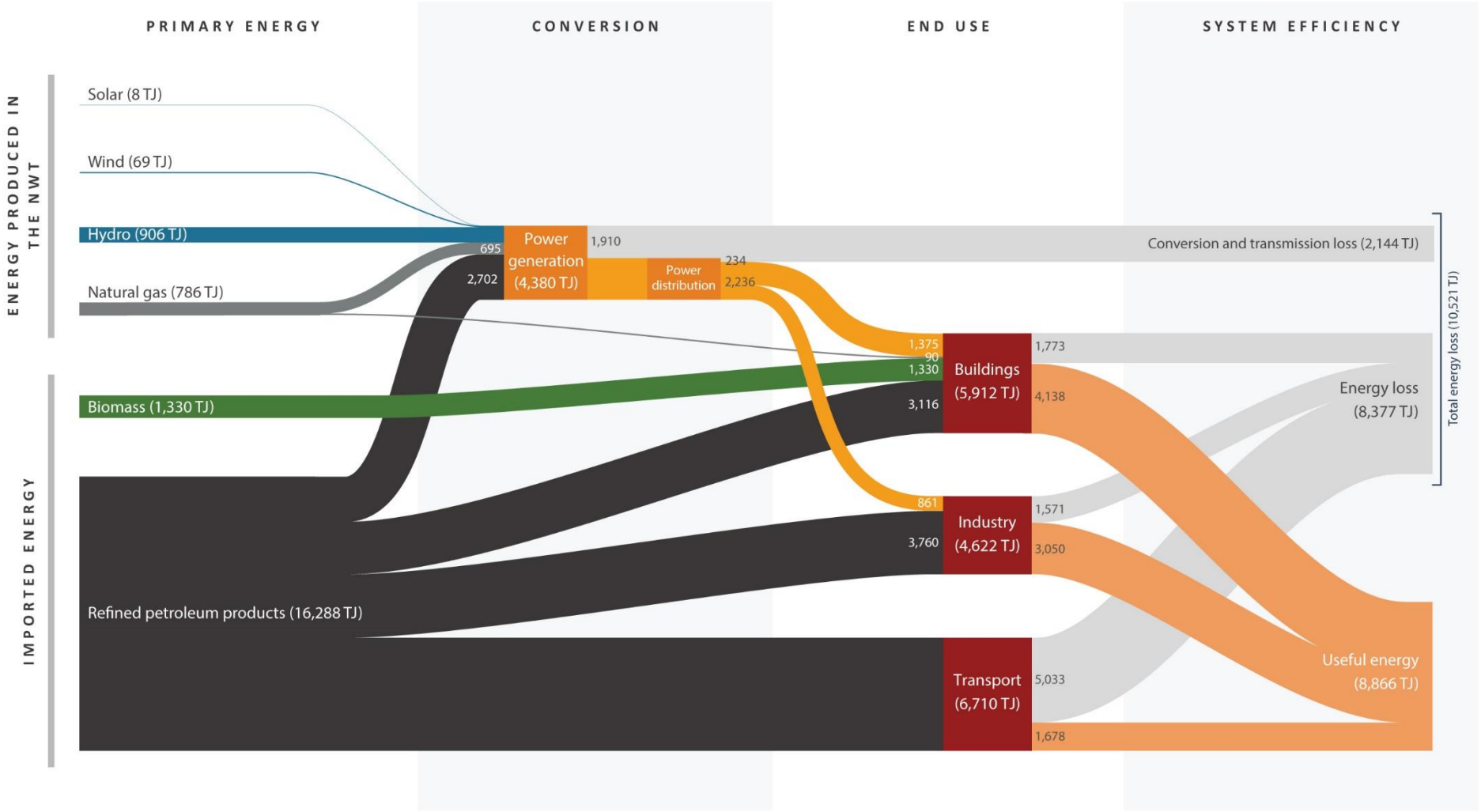
- In 2018, the GNWT released its *2030 Energy Strategy* as NWT's main mechanism to advance towards the 2030 GHG target (30% below 2005 levels, or 1,094 kt).
- The Energy Strategy has six sectoral strategic objectives to reduce GHG emissions.

- The Energy Strategy's goal is to guide the long-term development secure, affordable and sustainable energy for transportation, heat and electricity.

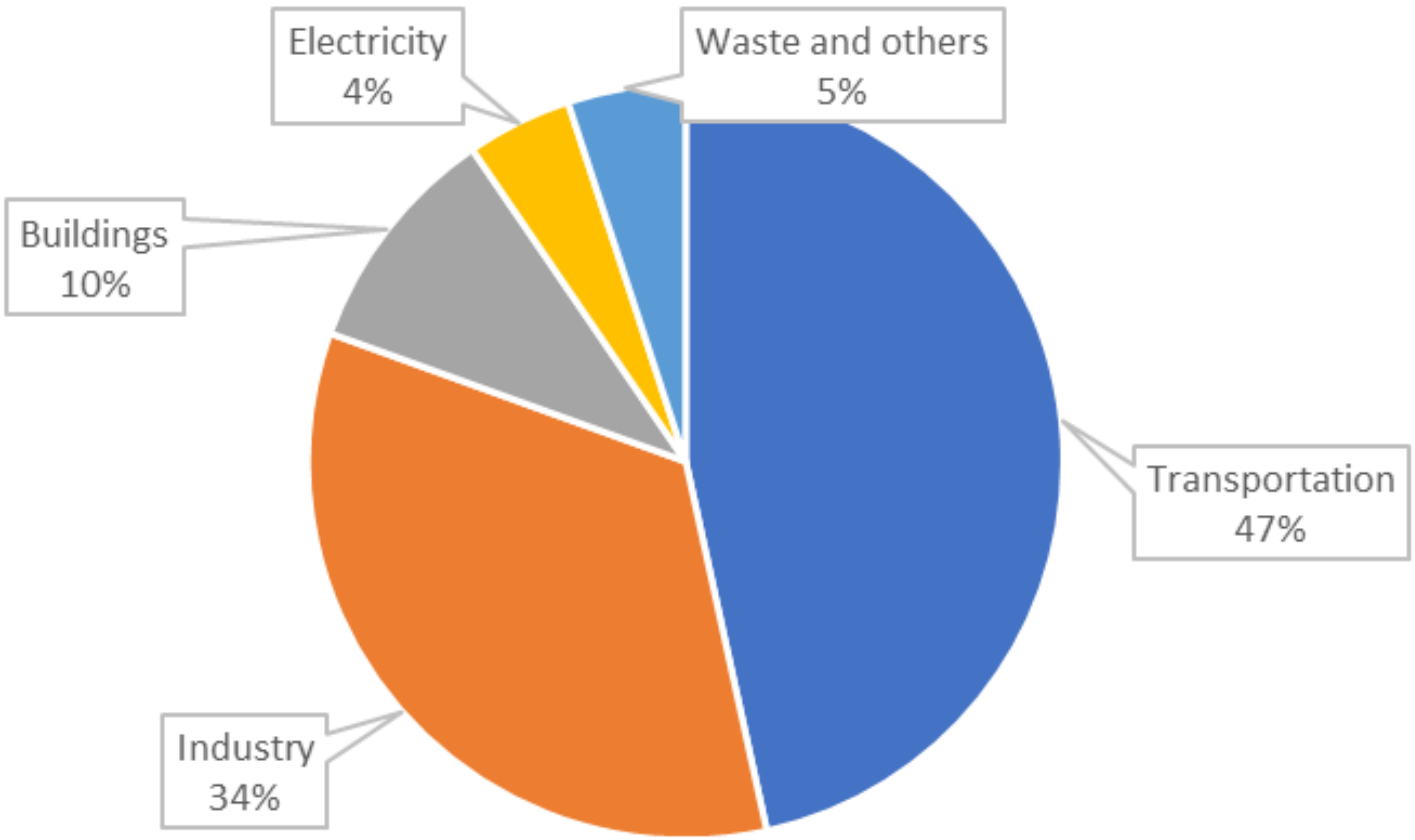
By 2030, the NWT will enjoy a strong, healthy economy that is less dependent on fossil fuels (compared to 2005) and will have developed the knowledge, tools and measures needed to increase resilience and adapt to the changing northern climate.

GOALS

THE SCALE AND NATURE OF THE ISSUE



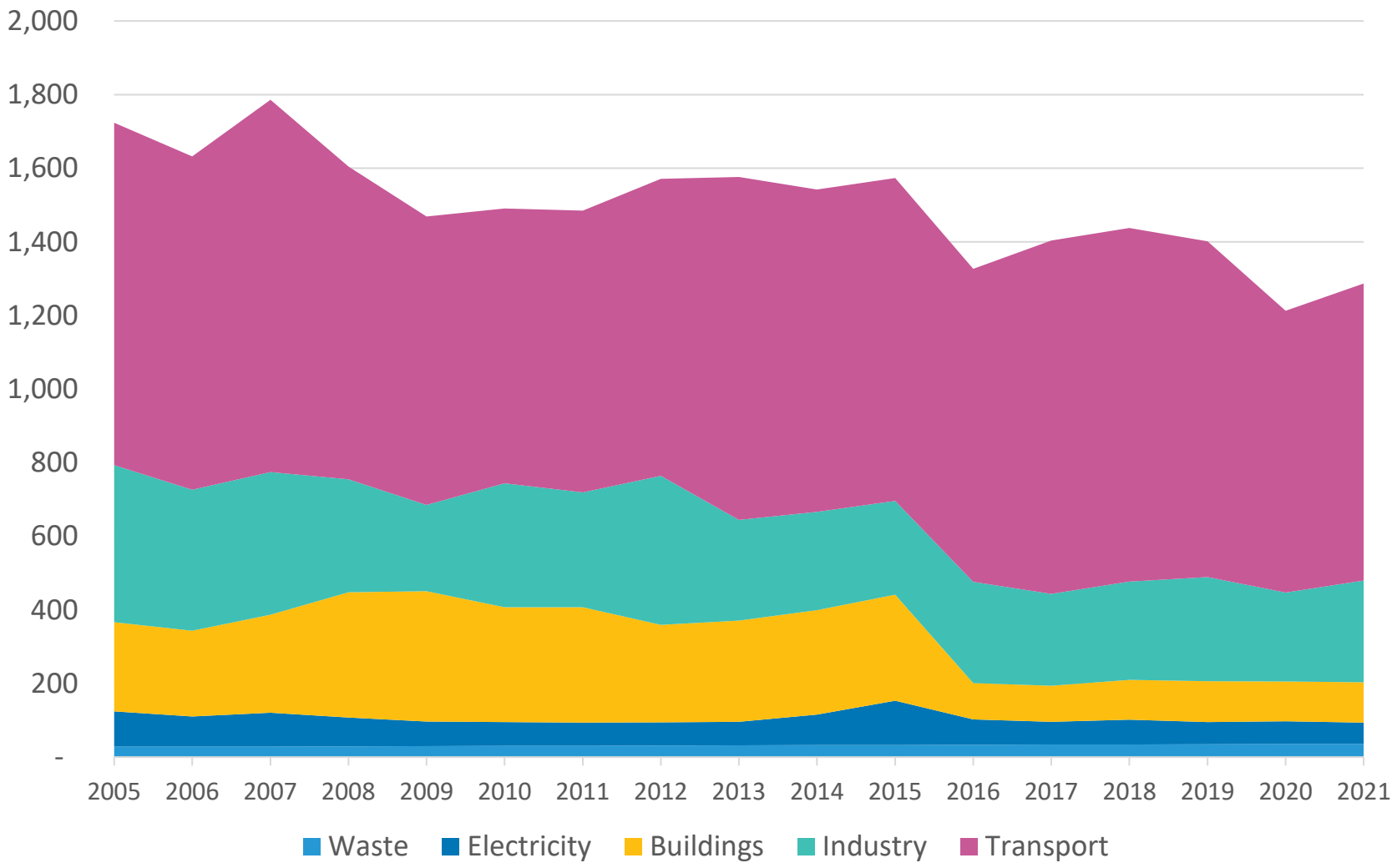
2021 GHG EMISSION SECTOR



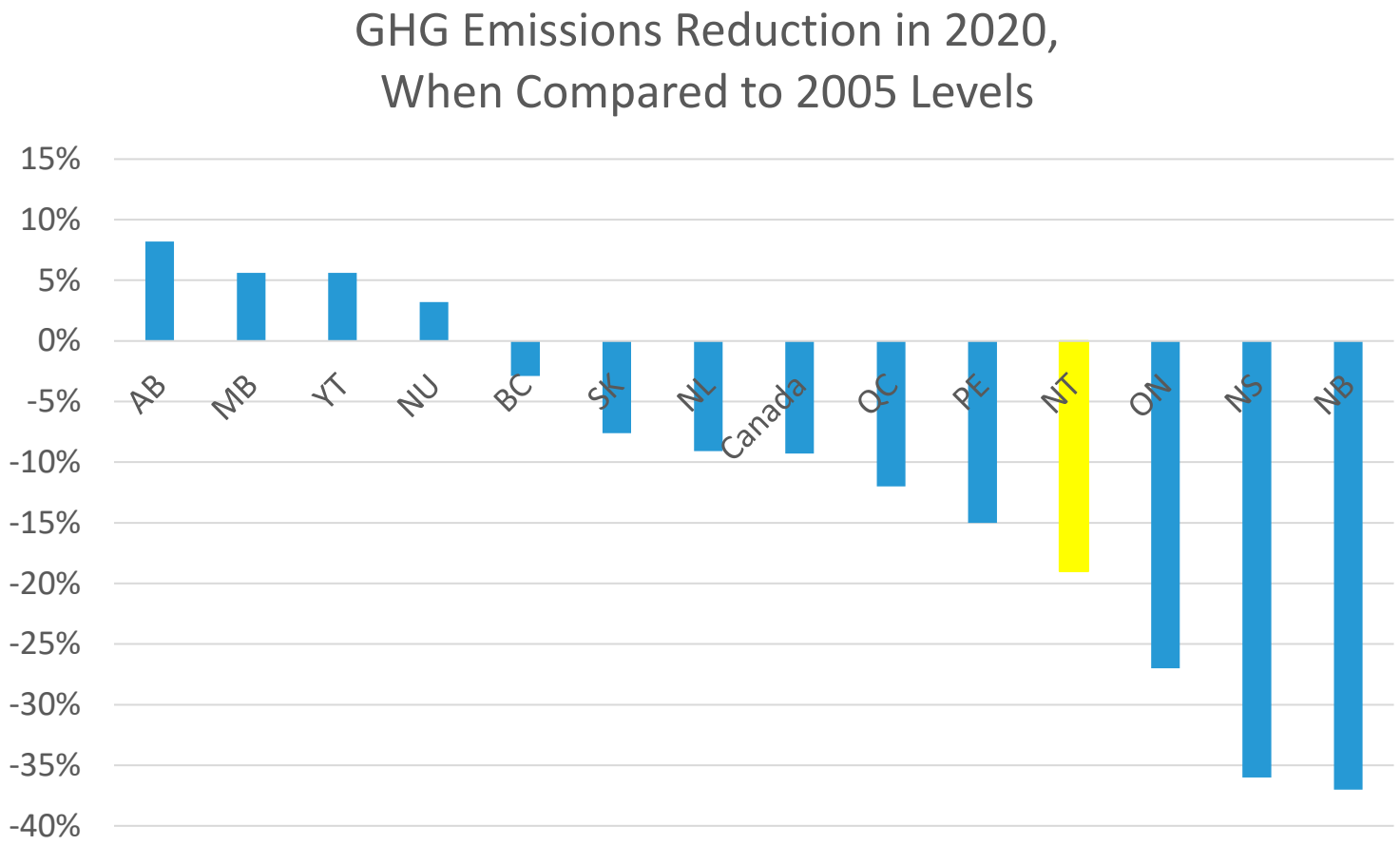
1,287 kilotonnes of CO2e in 2021

95% of NWT emissions are energy related

GHG EMISSION TREND BY SECTOR



WHERE WE STAND



5-YEAR ENERGY STRATEGY REVIEW: A DIFFERENT WORLD AND CANADA

Many things make Canada and the world a different place today from five years ago:

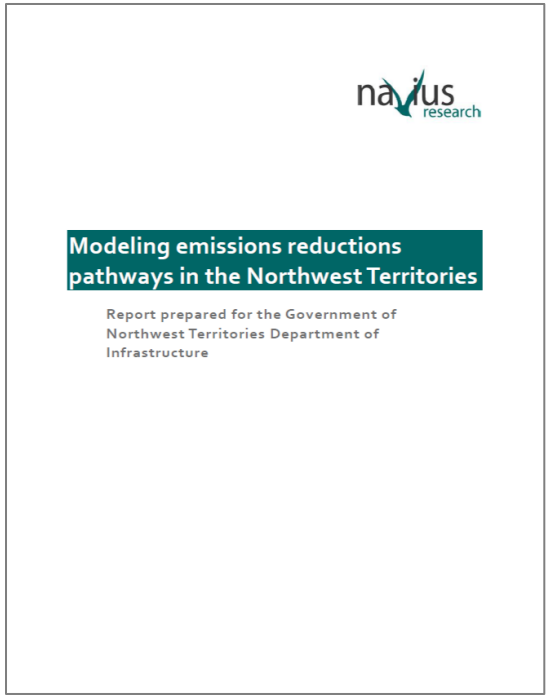
- A national net zero emissions targets for 2050
- Increased volatility in energy price and security
- National and international trends in energy and climate policy
- Commitment to advance partnerships with Indigenous governments and Indigenous organizations
- Role of critical minerals in achieving emissions reduction goals
- Increasing importance of ESG in business decisions

These new forces need to be considered when it comes to planning for the longer-term energy security, affordability and economic prosperity of the NWT.

5-YEAR ENERGY STRATEGY REVIEW: WHAT WE ARE DOING

- Between June and July 2023, the GNWT is engaging with NWT based partners, stakeholders, and the public to discuss its approach to energy and climate change mitigation in the NWT.
- Engagement activities:
  - **June-July 2023** – Submission period for Indigenous governments, Indigenous organizations, key stakeholders, industry, and the public to submit input.
  - **July 5-7, 2023** – A three-day, by-invitation gathering in Yellowknife for in-person multi-lateral dialogue between the GNWT, Indigenous governments, Indigenous organizations, key stakeholders, industry.
- What we hear throughout the engagement will inform the five-year review of the 2030 Energy Strategy and the CCSF, and therefore will possibly be used to revise both strategies.
- The engagement will be supported by two documents.

LOW-CARBON PATHWAYS MODELLING

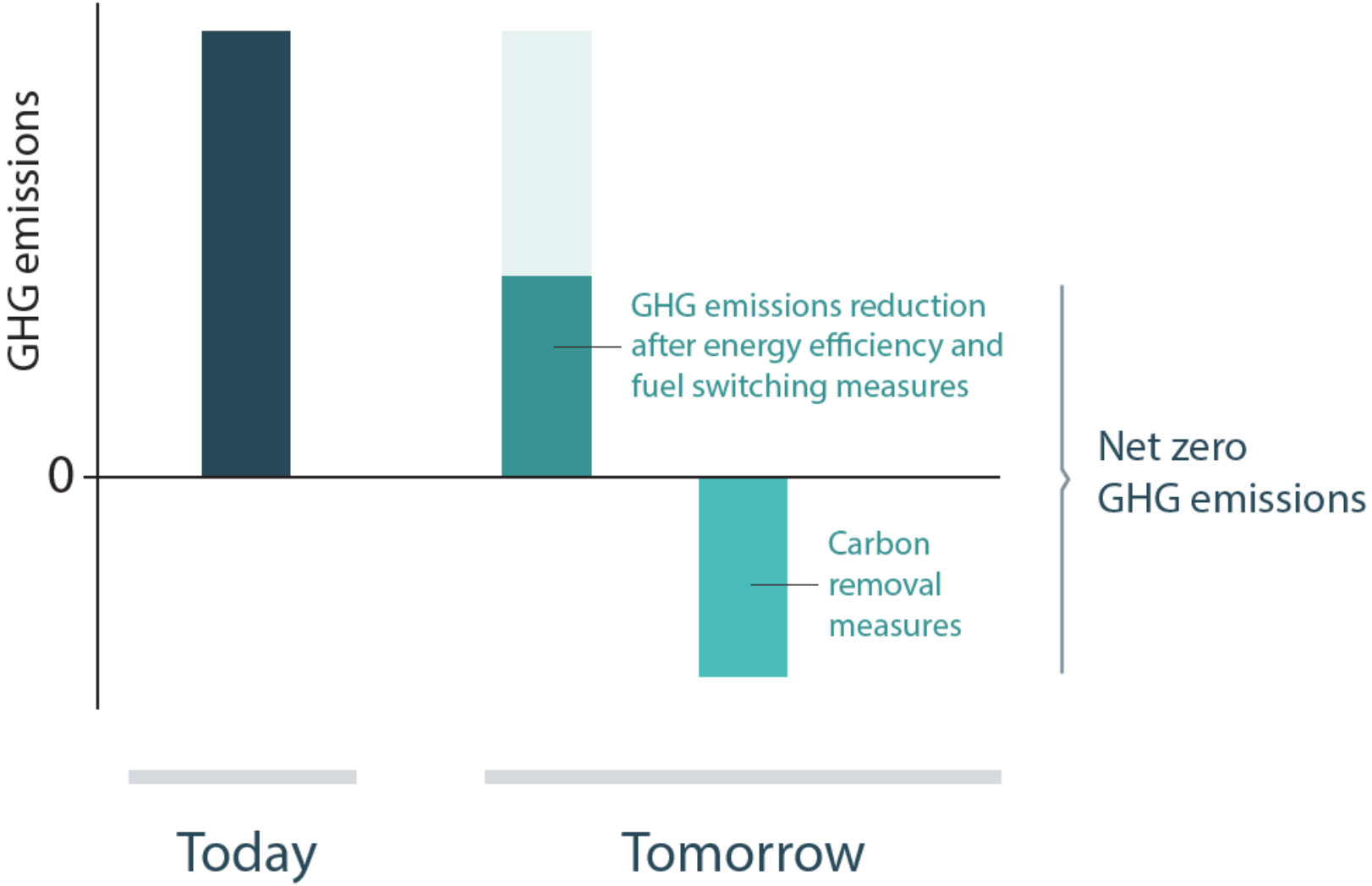

navius research

Modeling emissions reductions pathways in the Northwest Territories

Report prepared for the Government of Northwest Territories Department of Infrastructure

- **Business-as-usual scenario** – Describes how the NWT's energy system is likely to evolve in the absence of new policies and in response to baseline assumptions
- **NWT 30% target and net-zero by 2050** – modeled as an economy-wide emissions cap at 1,094 kt CO2e in 2030, declining to net zero in 2050
- **Matching federal targets** – 45% reduction by 2030, declining to net zero in 2050
- **NWT target and net-zero (excluding industry)** – NWT's target at net-zero by 2050, excluding mining and oil & gas industry's emissions.

WHAT NET-ZERO MEANS



LOW-CARBON PATHWAYS MODELLING: RESULTS

The NWT is projected to meet its 2030 target. Emissions decline to 1,072 kt in 2030 in the current policy forecast (below the target of 1,094 kt).

This outcome is sensitive to the level of mining activity (which is assumed to decline through 2030).

LOW-CARBON PATHWAYS MODELLING: RESULTS

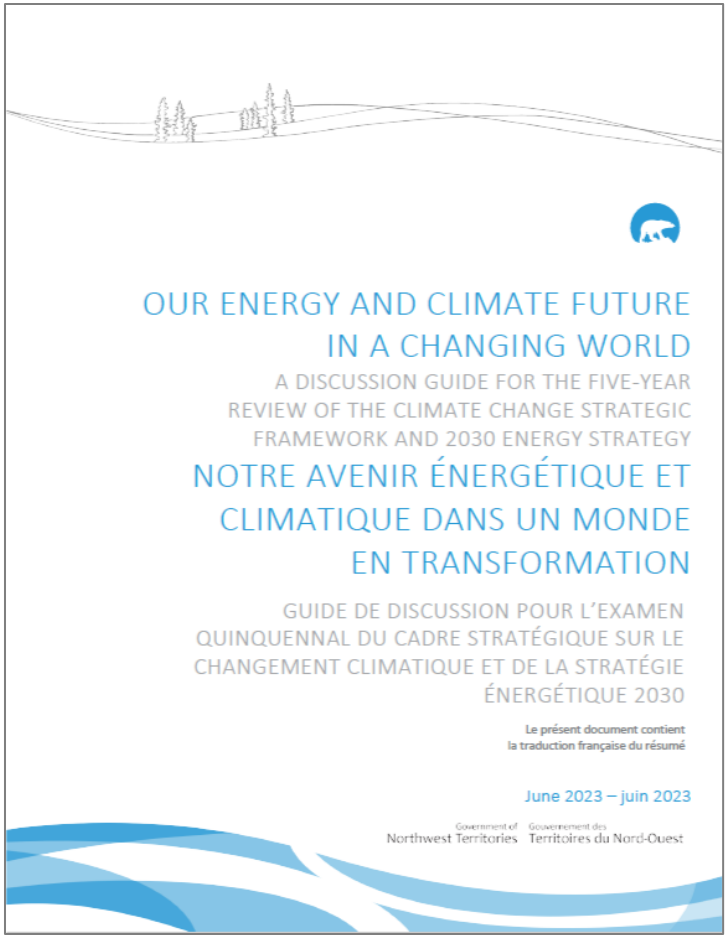
Five technology pathways will help the NWT achieve drastic emissions reductions:

1. Electrifying vehicles for transport and heating in buildings
2. Developing renewable electricity supply
3. Replacing diesel/propane consumed for heating in buildings with biomass
4. Replace diesel with biofuels (renewable diesel) for transport, heat and electricity

5. Residual GHG emissions can be addressed through carbon dioxide removal (CDR) solutions

DISCUSSION GUIDE

- Objective – Provide context, outline key issues and propose prompts to start the conversation.
- The Discussion Guide will help partners, stakeholders and the public develop and share submissions on our engagement portal.


OUR ENERGY AND CLIMATE FUTURE IN A CHANGING WORLD

A DISCUSSION GUIDE FOR THE FIVE-YEAR REVIEW OF THE CLIMATE CHANGE STRATEGIC FRAMEWORK AND 2030 ENERGY STRATEGY

NOTRE AVENIR ÉNERGÉTIQUE ET CLIMATIQUE DANS UN MONDE EN TRANSFORMATION

GUIDE DE DISCUSSION POUR L'EXAMEN QUINQUENNAL DU CADRE STRATÉGIQUE SUR LE CHANGEMENT CLIMATIQUE ET DE LA STRATÉGIE ÉNERGÉTIQUE 2030

Le présent document contient la traduction française du résumé

June 2023 – juin 2023

Government of Northwest Territories | Gouvernement des Territoires du Nord-Ouest

DISCUSSION GUIDE: KEY QUESTIONS

1. What role should Indigenous Governments, Indigenous organizations, and community governments play in advancing climate and energy action?
2. Should regional and community energy planning efforts be linked to the territorial energy strategy? If so, how?
3. What role should the GNWT play in achieving greater climate ambition?
4. How do we balance climate action against the need for affordable energy and address energy poverty?
5. Should NWT policy be developed to accelerate GHG emissions reductions? If so, what policies would be most useful?

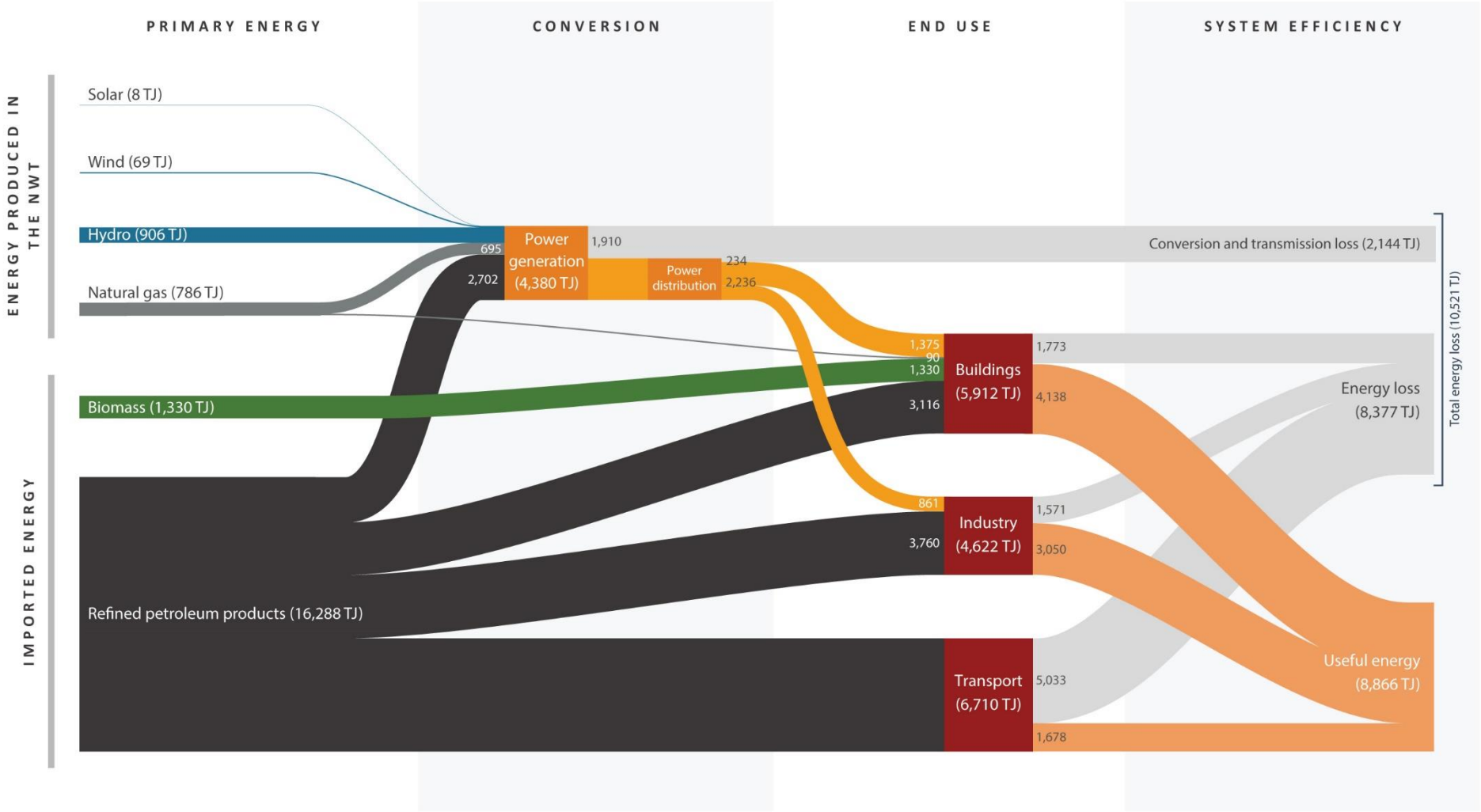
DISCUSSION GUIDE: KEY QUESTIONS

6. What federal/territorial incentives would facilitate community-public-private partnerships on clean energy projects?
7. How could the GNWT support increased Indigenous participation or leadership in clean energy projects as well as the resource extraction sector?
8. What role should the private sector play in advancing the energy transition? How could the GNWT best support this effort?

HOW YOU CAN GET INVOLVED

1. **Develop and share a submission using questions from the discussion guide** – Engagement portal will go live the week of June 19.
2. **Ensure that your organization is sending a representative to our three-day multilateral dialogue** – We have invited (at the director and working level) all Indigenous governments, Indigenous organizations, community governments as well as representatives from industry, academia, NGOs to participate.
   - 100+ participants from across the NWT registered
   - $200k in funding available to support travel/accommodation for participants from remote communities
3. **Request a bilateral meeting with the GNWT**

THE SCALE AND NATURE OF THE ISSUE



Questions?

WHAT NET ZERO MEANS

End Use Measures

NWT CARBON TAX

- The carbon tax starting at $20 per tonne in 2019, then increased by $10 every year between 2020 and 2022, when it reached $50 a tonne.
- April 1, 2023, the NWT Carbon for the 2023 to 2030 will gradually increase from $65/tonne to $170/tonne in 2030.
- $170 per tonne = 45.5 cents per L of diesel.
- The revised carbon tax now applies to all transportation (except aviation fuel) and heating fuels used in households, businesses, administration, and industry.
- The carbon tax does not apply to public electricity generation.

ENERGY STRATEGY INVESTMENTS TO DATE

STRATEGIC OBJECTIVE	2018-2019	2019-2020	2020-2021	2021-2022
1. Working Together	N/A	$103,000	$807,000	$585,000
2. Electricity		$12,444,000	$21,480,000	$36,287,000
3. Transportation		$421,000	$530,000	$823,000
4 & 5. Energy Efficiency and Space Heating		$9,379,000	$10,368,000	$12,480,000
6. Long Term Vision		$3,492,000	$4,872,000	$2,716,000
Total	**$21,000,000**	**$25,837,000**	**$38,007,000**	**$52,891,000**

ENERGY STRATEGY RESULTS

	2018 (Actual)	2019 (Actual)	2020 (Actual)	2021 (Actual)	2022 (Forecast)	2023 (Forecast)	2024 (Forecast)	2025 (Forecast)
Emissions Reduction (kt)	3.8	7.4	11.1	12.8	22.2	34.0	46.3	50.6
Fuel Savings (M of L)	1.4	2.7	4.1	4.7	8.2	12.6	17.1	18.7
Millions Saved (@$1.50/L)	$2.1	$4.1	$6.1	$7.1	$12.3	$18.8	$25.7	$28.0

- Funded initiatives under the Strategy will result in about 51 kt of GHG emissions reduction by 2025
- The represents annual fuel savings of 19 ML or about $28M (@$1.50/L) in 2025.
- This represents a cumulative $104M in fuel savings over 8 years
- We are also investing in NTPC capital plan resulting in about $120M in electricity rates savings by 2030

NEW ACTION PLAN FUNDING BY OBJECTIVE

Strategic Objective	Number of Initiatives	Funding ($1,000)			Total ($1,000)	GHG Reduction in 2025 (t CO_2e)
		2022-2023	2023-2024	2024-2025		
1. Working together	10	$3,185	$975	$2,150	$6,310	3,297
2. 25% Electricity	13	$14,060	$37,500	$93,600	$145,160	12,100
3. 10% Transport	11	$512	$1,502	$ 250	$2,264	525
4. & 5. 40% Heat & 15% Energy Efficiency	23	$8,380	$8,500	$7,375	$24,255	16,126
6. Long-term Vision and Industry	11	$6,325	$9,745	$ 250	$16,320	-
Total	68	$32,462	$58,222	$103,625	$194,309	32,048