



Climate Transition Plans

ESP Conference

October 2023

Amber Greaney, MPA, LEED GA, ENV SP

Livable City Solutions Manager





Amber Greaney, MPA, LEED GA, ENV SP

Livable City Solutions Manager & Sustainability Analyst

Ms. Greaney has worked on various sustainability projects with various partners such as cities, universities, municipal corporations, non-profits, and private clients. She has led numerous technical projects, including SBTi development and adoption, climate action plan strategy, transit-oriented development, vehicle technology analyses, and benchmarking policies, in addition to utilizing a variety of sustainability reporting frameworks.





Sustainability

Economic

Tax

Anti-Corruption

Markets

Indirect Economic Impacts

Environmental

Energy and GHG

Water

Waste

Biodiversity

Social

DEI

Health & Safety

Human Rights

Labor Relations



Sustainability

Economic

Environmental

Social

Tax

Anti-Corruption

Energy and GHG

Water

DEI

Health & Safety

Markets

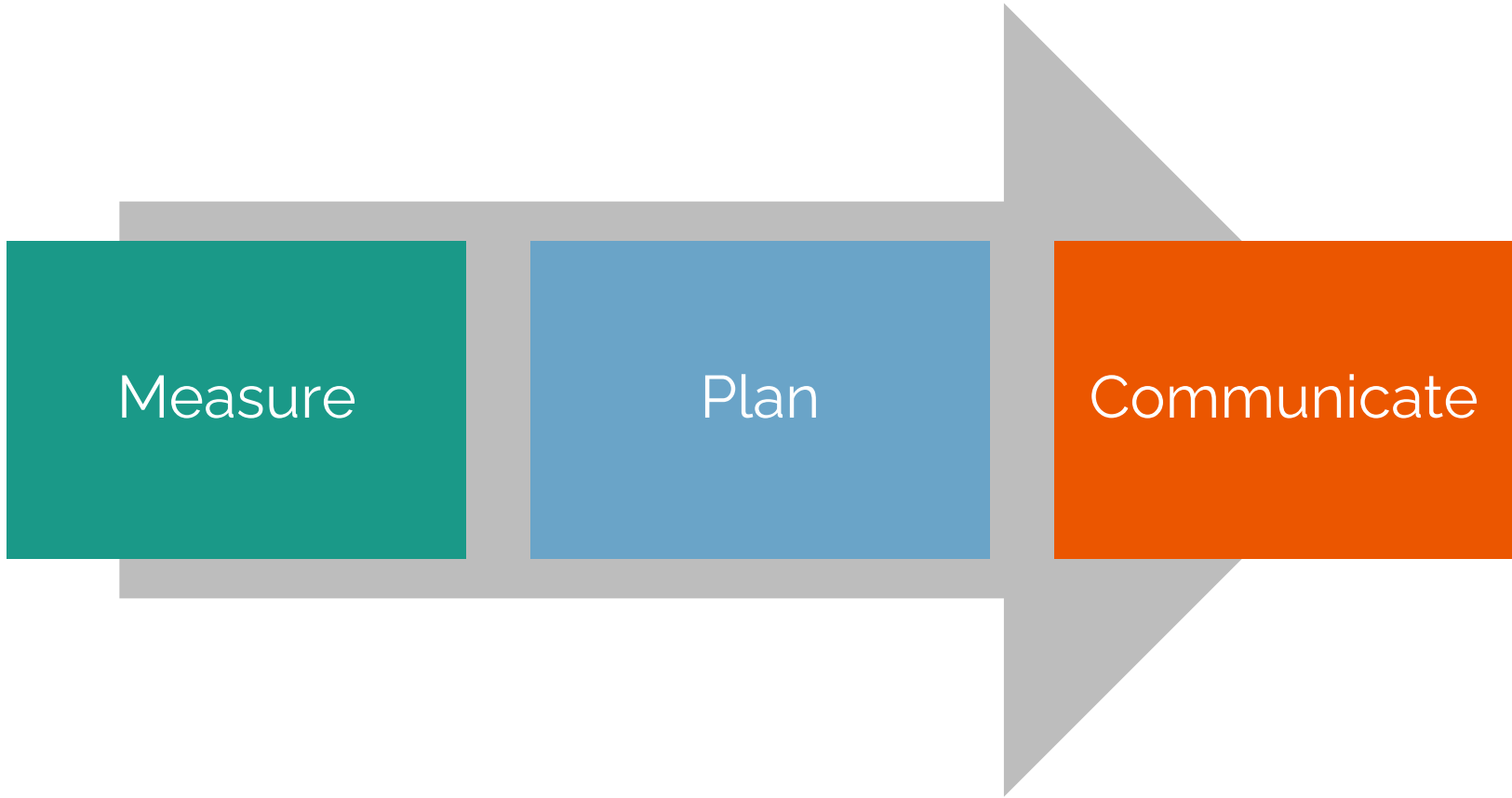
Indirect Economic Impacts

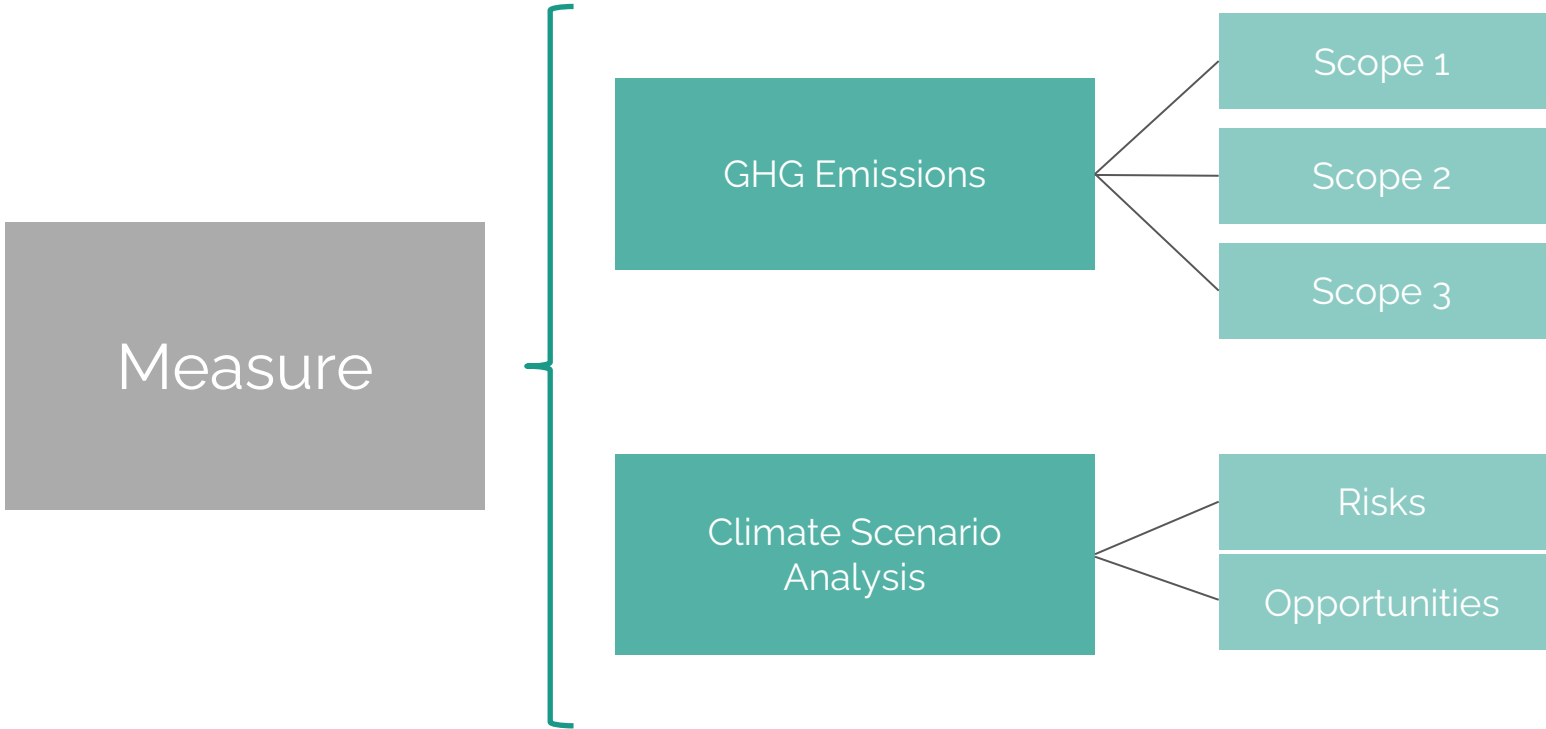
Waste

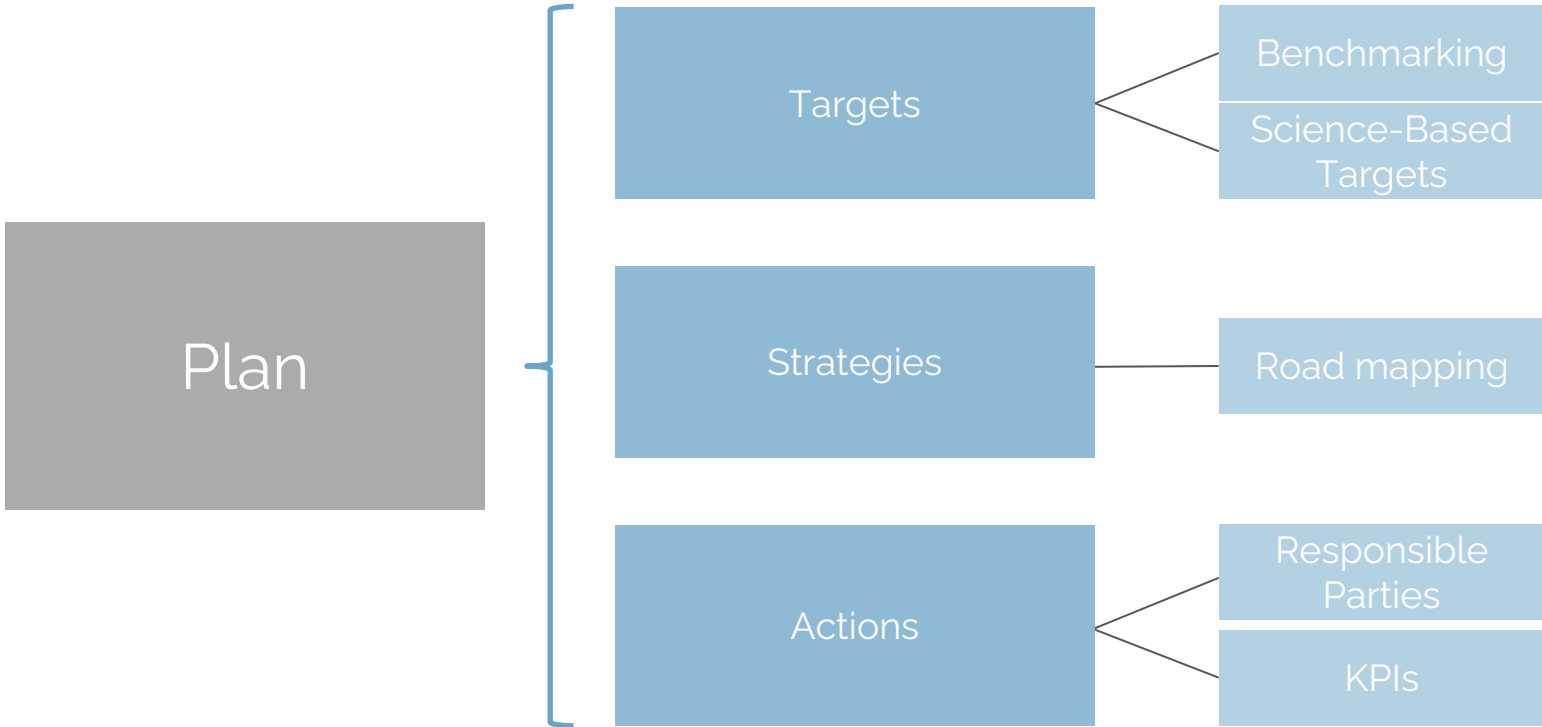
Biodiversity

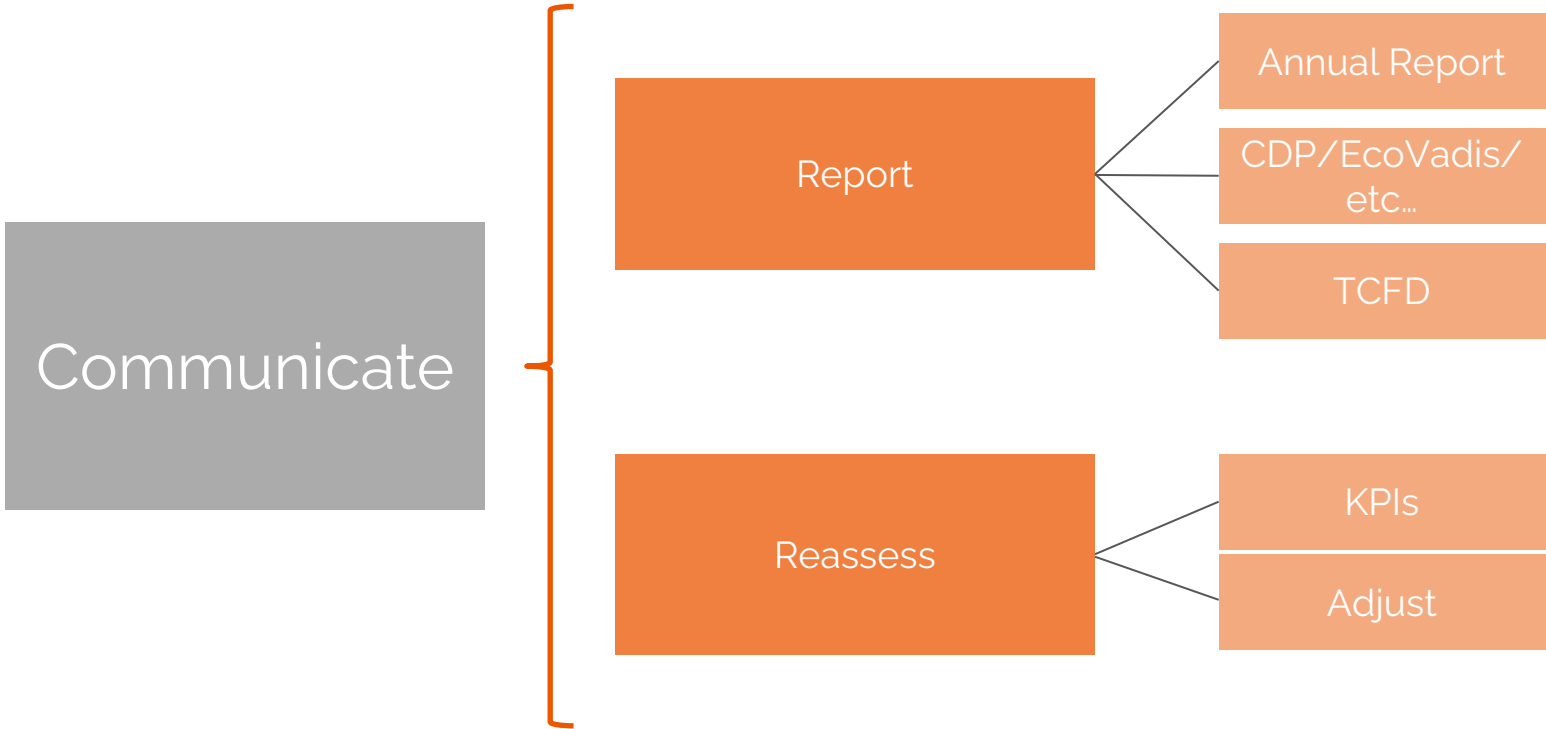
Human Rights

Labor Relations











Municipal Climate Transition Planning

Our Approach



Community Wide or Municipal GHG Inventory

GHG Emissions Source (By Sector & Sub-Sector)	Scope 1	Scope 2	Scope 3
Stationary Energy			
Residential buildings	✓	✓	
Commercial and institutional buildings and facilities	✓	✓	
Manufacturing industries and construction			
Energy Industries			
Agriculture, forestry and fishing activities	✓		
Non-specified sources			
Fugitive emissions from mining, processing, storage and transportation of coal			
Fugitive emissions from oil and natural gas systems			
Transportation			
On-road transportation	✓		
Railways	✓		
Waterborne navigation			
Aviation			
Off-road transportation	✓		
Waste			
Solid waste disposal	✓		
Biological treatment of waste	✓		
Incineration and open burning			
Wastewater treatment and discharge	✓		
Industrial Processes and Product Use (IPPU)			
Industrial processes			
Product use			
Agriculture, Forestry & Other Land Use (AFOLU)			
Livestock			
Land			
Aggregate sources and non-CO2 emission sources on land			

Our Approach



Science Based Target Setting

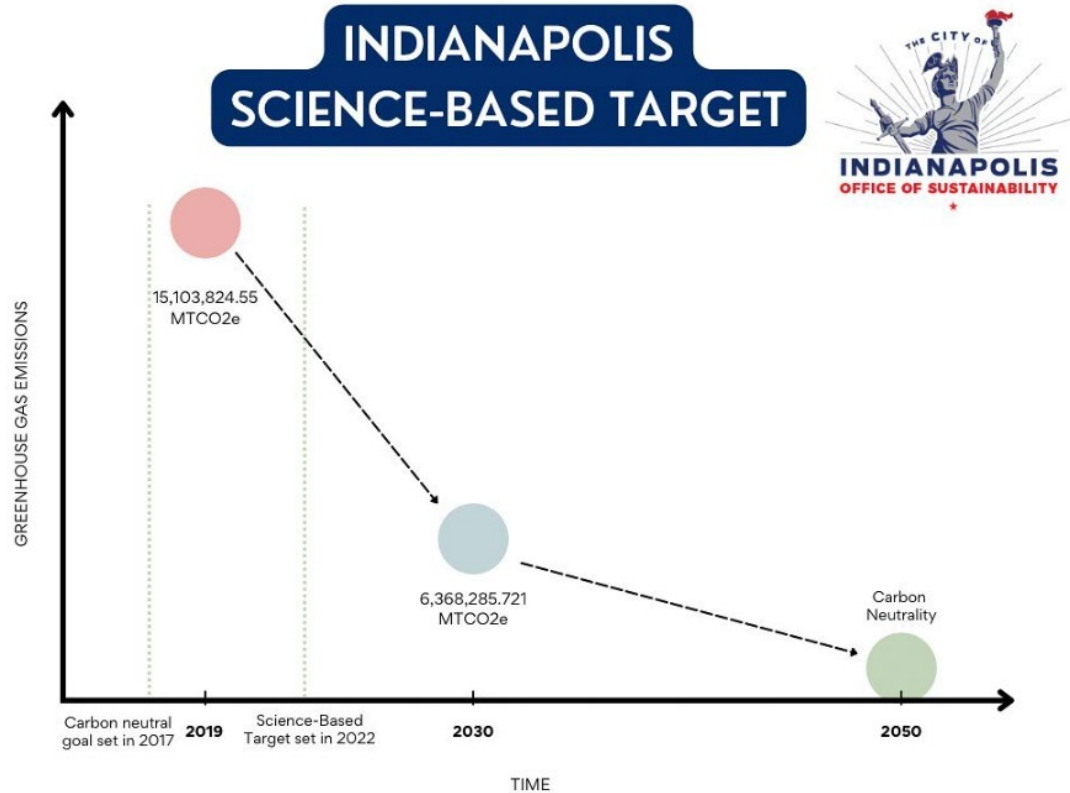


Image credit: Indianapolis Office of Sustainability

Our Approach

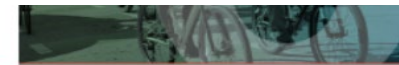


Strategy

- Literature Review
- Benchmarking
- Gap Analysis

Per Capita GHG Emissions

Plan	Heat	Flood	Storm-water	Open Space & Recreation	Waterfront Access	Ecological Preservation	Environmental Justice	Education & Engagement	Development Plans	Zoning	Energy Policies	Municipal Capacity
CRB Workshop (2022)	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue
Industrial Waterfront Land Use Plan (2022)	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue
Harbor Loop and SoNo Wharf Plan (2022)	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue
WestCOG MJHMP (2021)	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue
Water St Coastal Resiliency & Greenway Plan (2019)	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue
Norwalk Citywide Plan (2019)	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue
SoNo ROAR Map Portfolio (2019)	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue
Wall Street-West Avenue Neighborhood Plan (2019)	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue
CT Historic & Cultural Resources Resiliency (2018)	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue
SoNo TOD Redevelopment Plan (2016)	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue
Sustainable Design Guidelines (2011)	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue
Tree Management Plan (2019)	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue
Harbor Management Plan (2009)	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue
Norwalk Heat Study (2022)	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue



30/31

MID-AMERICA REGIONAL COUNCIL • CLIMATE ACTION/HC

Our Approach



Community Engagement



Our Approach

Feasibility Study

- Surveys
- Interviews
- Focus Groups

FULL Kent Climate Action Plan - Feasibility Survey

Thank you for your insight on the proposed mitigation initiatives for the City of Kent's Climate Action Plan. Please answer the following questions to the best of your ability.

Page 2 of 7 - Stationary Energy

29%

Stationary Energy Initiatives

Energy Efficiency Initiatives

See Slide 7

Energy Efficiency Feasibility

	Very Attainable	Somewhat Attainable	Somewhat Difficult	Very Difficult
Project Timeline	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Time Spent	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Resources Required	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Staffing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cost	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Community Support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How could the feasibility of energy efficiency initiatives be improved?

Our Approach



Actions

- GHG Reduction Roadmap

Phase 1 - Benchmarking
 Benchmarking is the process of establishing a baseline and tracking performance over time. In this case, the focus is on electricity consumption in large buildings. Benchmarking can provide year-one savings of 1.5% due to increased attention to building energy performance.

Phase 2 - Transparency
 Once building data is shared with the City, it can be made publicly accessible through a digital dashboard. Transparent building energy use data provides a more complete picture of the real estate market, leading to market evolution across segments and local geographies.

Phase 3 - Reduction
 Encouraging large building owners to submit reduction goals and publish progress will reduce energy consumption and therefore reduce GHG emissions from the stationary energy sector without municipal capital input. Building owners will benefit from reduced utility expenses and improved facility value.

Figure 3 - Proposed Implementation Schedule

	2024	2025	2026	2027	2028
Buildings > 10,000 SF	Voluntary benchmarking	Phase 1 - Benchmarking	Phase 2 - Transparency	Phase 3 - Reduction, goal setting	Phase 3 - Reduction, goal reporting
Buildings > 5,000 SF	Voluntary benchmarking	Voluntary benchmarking	Phase 1 - Benchmarking	Phase 2 - Transparency	Phase 3 - Reduction, goal setting

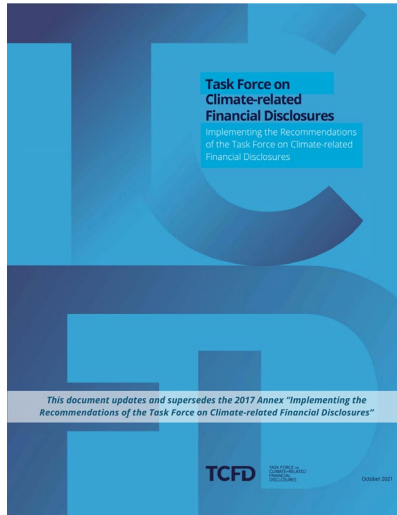


Corporate Climate Transition Planning

Climate Transition Plans

Where they fit with TCFD

In October 2021, the TCFD provided new guidance on developing transition plans. They became a specified requirement of TCFD aligned disclosures.



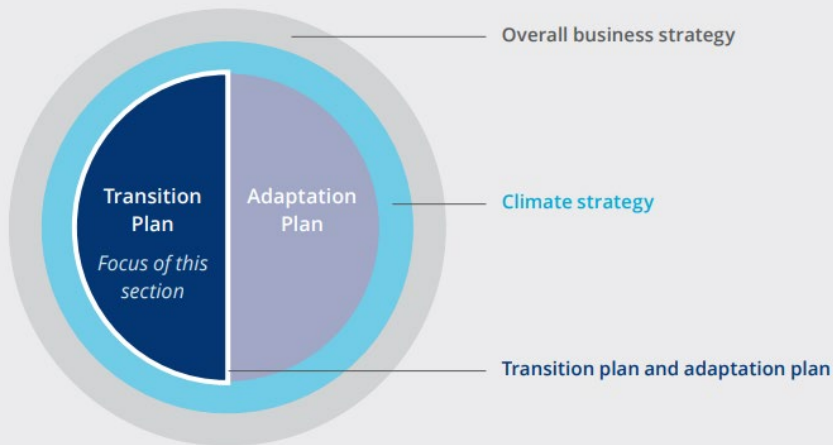
- Describes developments on climate-related metrics, targets, and transition plans since 2017
- Highlights key metrics, targets, and transition plan information users identified as important for decision-making
- Provides guidance and disclosure examples to support companies' implementation efforts

Transition Plans

Climate Transition Plan (or Climate Action Plan) –

is a strategy and means by which a company or city can achieve its emissions reduction target.

Figure E1
Relationship between Business Strategy,
Climate Strategy, and Transition Plan



⁷⁷ An adaptation plan lays out how an organization aims to minimize risks and capture opportunities associated with physical climate changes. Though guidance on adaptation planning is not included in this document, the Task Force encourages other frameworks and standard setters to consider developing guidance on designing and disclosing adaptation plans.

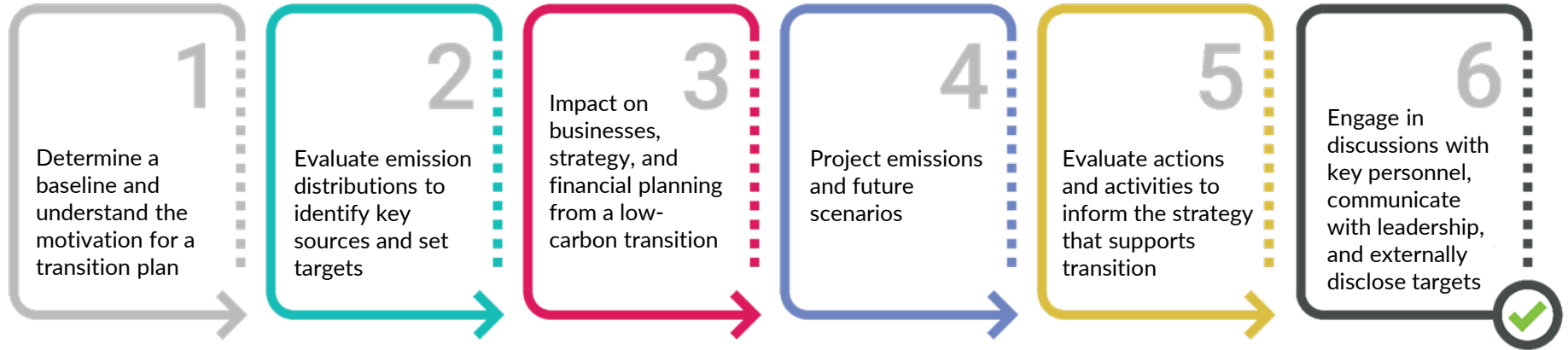
⁷⁸ The Energy & Climate Intelligence Unit and Oxford Net Zero, *Taking Stock: A global assessment of net zero targets*, March 2021.

⁷⁹ Ibid.

⁸⁰ TCFD, *Proposed Guidance on Metrics, Targets, and Transition Plans Consultation: Summary of Responses*, October 14, 2021.

How to Create a Climate Transition Plan

6 Steps



Climate Transition Plan

Step 1.1

What is the Motivation?

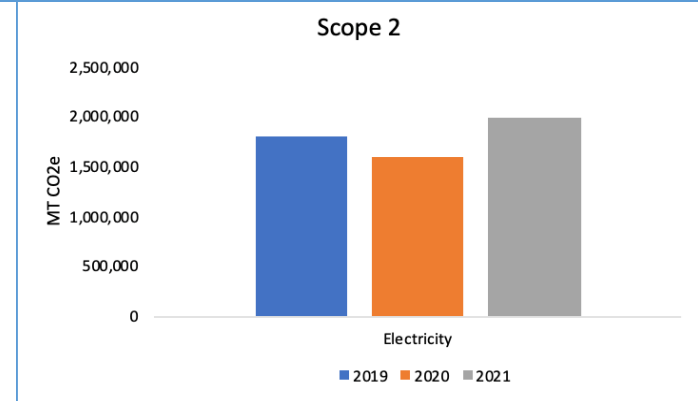
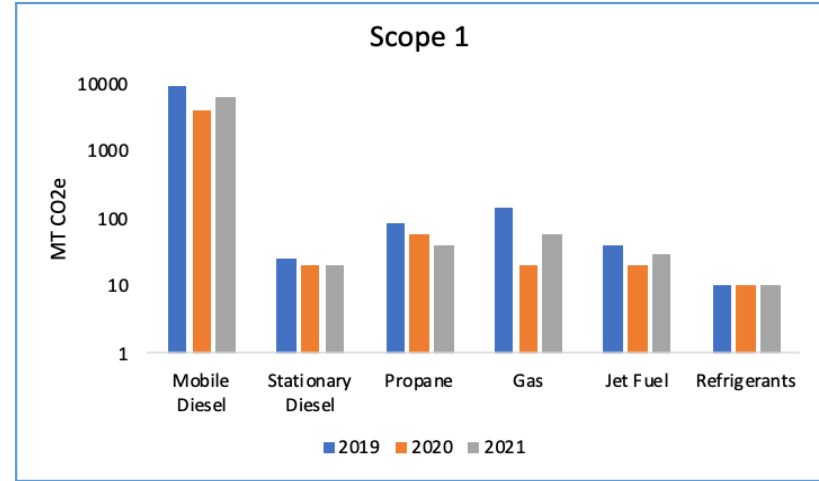
- Tailor plan around motivation
 - Contract/supply chain requirements
 - Executive leadership requests
 - Investor requirements
- Check on any requirements throughout the plan development



Climate Transition Plan

Step 1.2 Determine a Baseline

- Evaluate GHG emissions inventories for several years
- Compare distributions

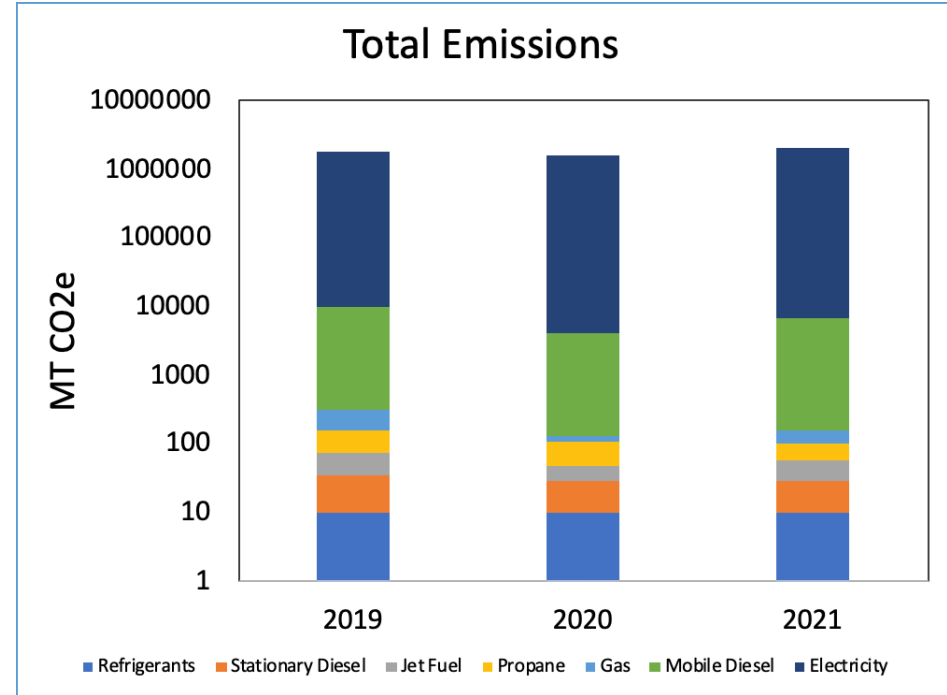


Climate Transition Plan

Step 2.1

Evaluate Emission Distributions & Reduction Strategies

- Compare distributions
- Understand critical sources



Climate Transition Plan

Step 2.2 Set a Target

Intensity

vs

Absolute

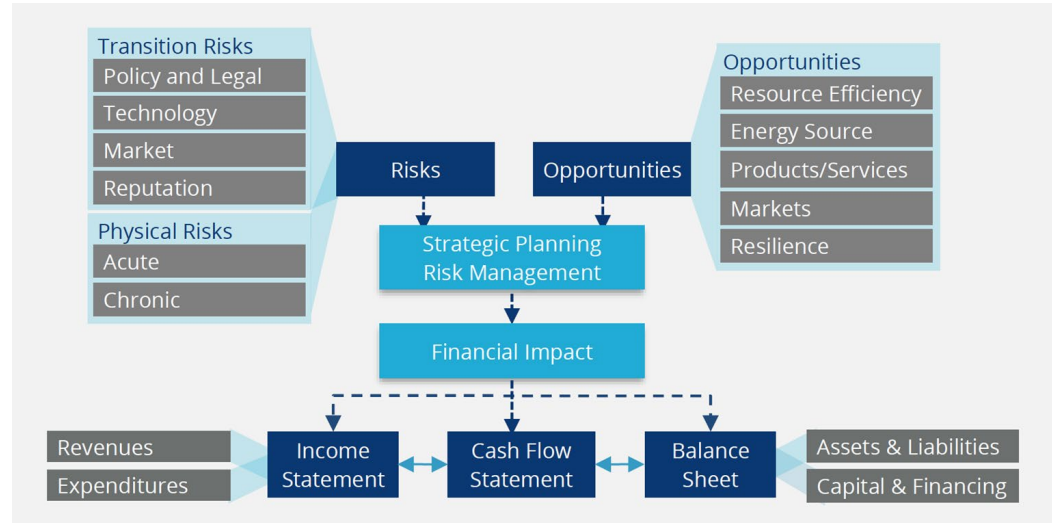


SCIENCE
BASED
TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Climate Transition Plan

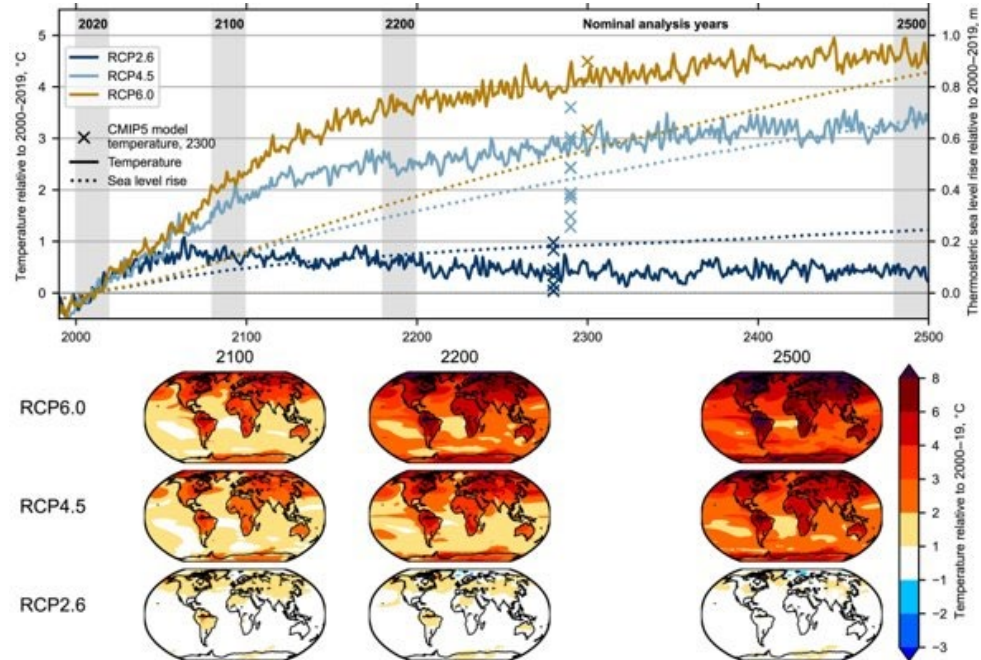
Step 3 Impact on Business, Strategy, and Financial Planning



Climate Transition Plan

Step 4 Project Emissions & Future Scenarios

- Account for growth rates in “BAU”
- Determine integration schedule of strategies based on understanding of business practices
- This information is all obtained from subject matter expert (SME) interviews and business evaluation

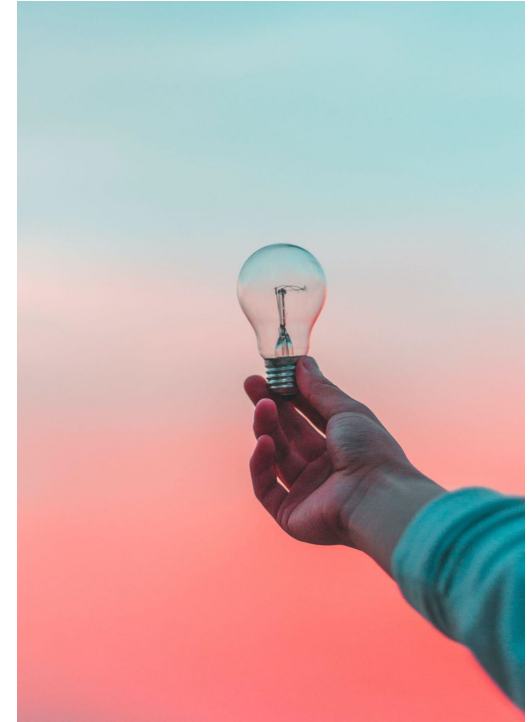


Climate Transition Plan

Step 5 Evaluate Actions & Strategies

Are the strategies feasible? What to consider for goals:

- Cost Implications
- Duration
- Feasibility

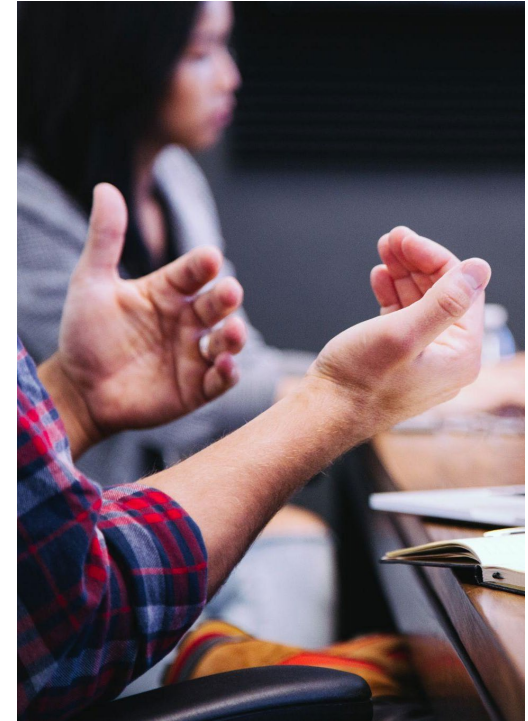


Climate Transition Plan

Step 6

Engage in Discussions, Communicate with Leadership, & Disclose

- Engage in discussions with key personnel who will oversee the implementation
 - At facilities level:
 - Those responsible for maintaining and tracking performance of strategies
 - More engaged in the details
 - At executive level:
 - Those responsible for approving strategies
 - More engaged in the results and cost
- Appropriately disclose



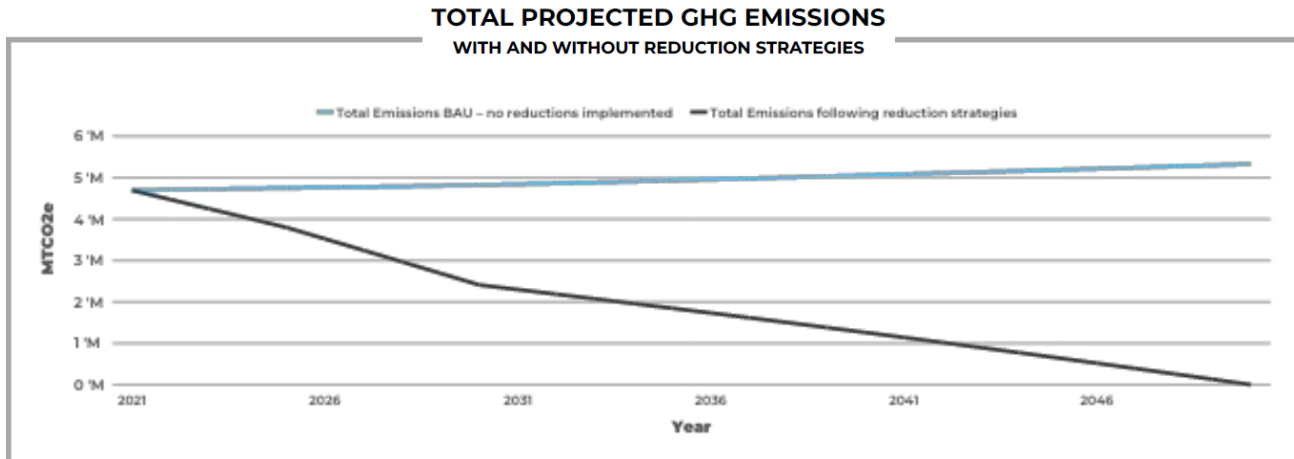
Steel Producer Example

OUR ROADMAP TO CARBON NEUTRAL

Through our various carbon reduction initiatives, we will become Carbon Neutral by 2050.

(Future aluminum mill is not included.)

Adoption of our Scope 1 & 2 reduction strategies is expected to decrease our GHG emissions as shown below.



Steel Producer Example

SUMMARY OF LOW CARBON INITIATIVES



1. Implementation of New Technologies

- Low Carbon Fuel Source
- Low Carbon Raw Materials



2. Renewable Energy Sources

- Scope 1 Renewable Energy Sources
- Scope 2 Renewable Energy Sources



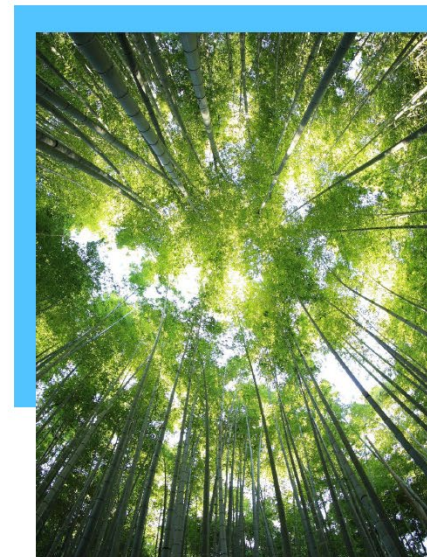
3. New Technologies for Renewable Energy

- Hydrogen Fuel Cells



4. Electrification of Fleet

- Transition from Diesel to Electric



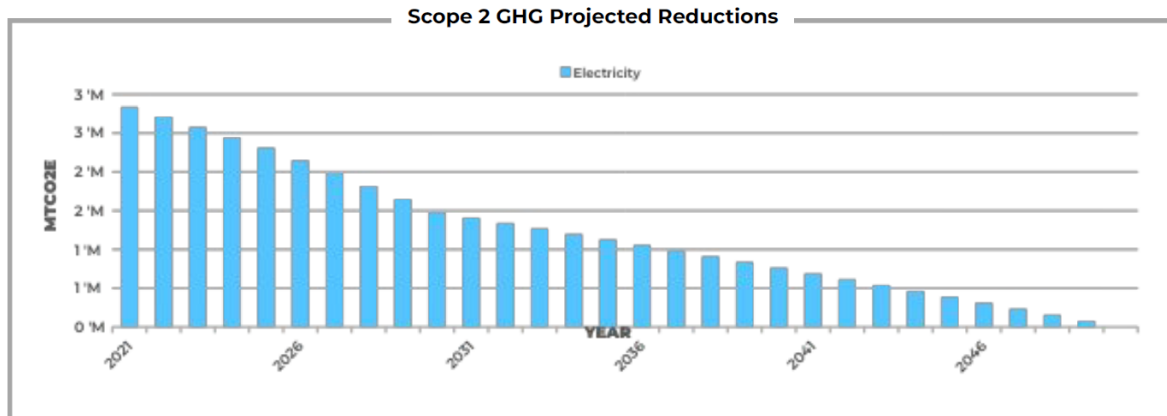
Steel Producer Example

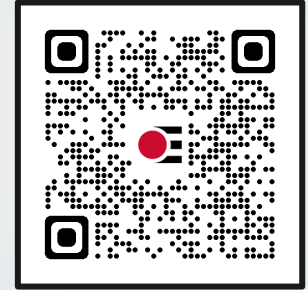


LOW CARBON INITIATIVES



Due to the implementation of PPAs/RECs/Solar installation, we see Scope 2 reductions of 20% and 50% by 2025 and 2030 with the eventual goal of net zero being met by 2050.





SCAN TO
LEARN MORE

Thank you!

Do you have any questions?

agreaney@keramida.com | (800) 508-8034

www.keramida.com

