Comprehensive Climate Action Plan

Update to the Water and Environment Subcommittee

May 8th 2024

SSG

New Reach Community Consulting
designed engagement for social impact

MIAMI VALLEY
Regional Planning Commission

Contents

Housekeeping

Use the Zoom chat at any time ask questions or make comments.

Raise hand to speak during feedback period.

CCAP
Engagement Plan

SSG

Engagement Plan

Summary of Objectives

Objective 1: Increase the awareness among interested and affected parties about CCAP processes, activities, and outcomes.

Objective 2: Build partnerships and align with the broader goals of Miami Valley communities, with respect for the level of priority and readiness for climate action, particularly for members of equity-denied communities and advocacy organizations.

Engagement Plan

Summary of Objectives

Objective 3: Provide decision-making opportunities to influence key inflection points in climate action planning and implementation.

Objective 4: Deliberately reach communities through tailored outreach, messaging, and omnichannel communications based on their preferred ways to engage in the CCAP.

Engagement Activities at a Glance

Phase 1: Understanding Emissions and Climate April - August 2024
• WESC Meetings • Working Group Online Meeting 1 • Questionnaire • Place-based Outreach and Engagement • MVRPC Board Interim Update • Working Group Online Meeting 2

Engagement Activities at a Glance

Phase 2: Action Planning September 2024
• Working Group and WESC Workshop • Sector Focus Groups • Focus Group on Equitable Climate Action

Engagement Activities at a Glance

Phase 3: Final Draft CCAP January - June 2025
• Summary of Findings • Presentation of Final Plan to Working Group • Presentation of Final Plan to Miami Valley Community (Virtual and In-person) • Presentation of Final Plan to MVRPC Board

Community Working Group

Key Activities:

- **Providing feedback and comments at key points** in the development of the technical analysis to support the development of the CCAP.
- **Providing insights and supporting the engagement process** where appropriate
- **Engaging their organization's networks** in the process as relevant.

Community Working Group

Stakeholder Groups:

- Boards and Commissions
- Business Groups and Associations
- Civic Groups
- Educational Institutions
- Nonprofits
- Policy and Advocacy Organizations
- Public Sector Agencies

Opportunities for WESC

- Ongoing updates and briefings during WESC meetings
- Sign up for updates on the microsite
- Share information with and through your organizations and us
- Dedicated WESC Online Workshop (September 2024, tentatively)
- Presentation of Draft Plan (May 2025, tentatively)

Pause for Feedback

What questions or comments do you have?

How would you like to be involved?

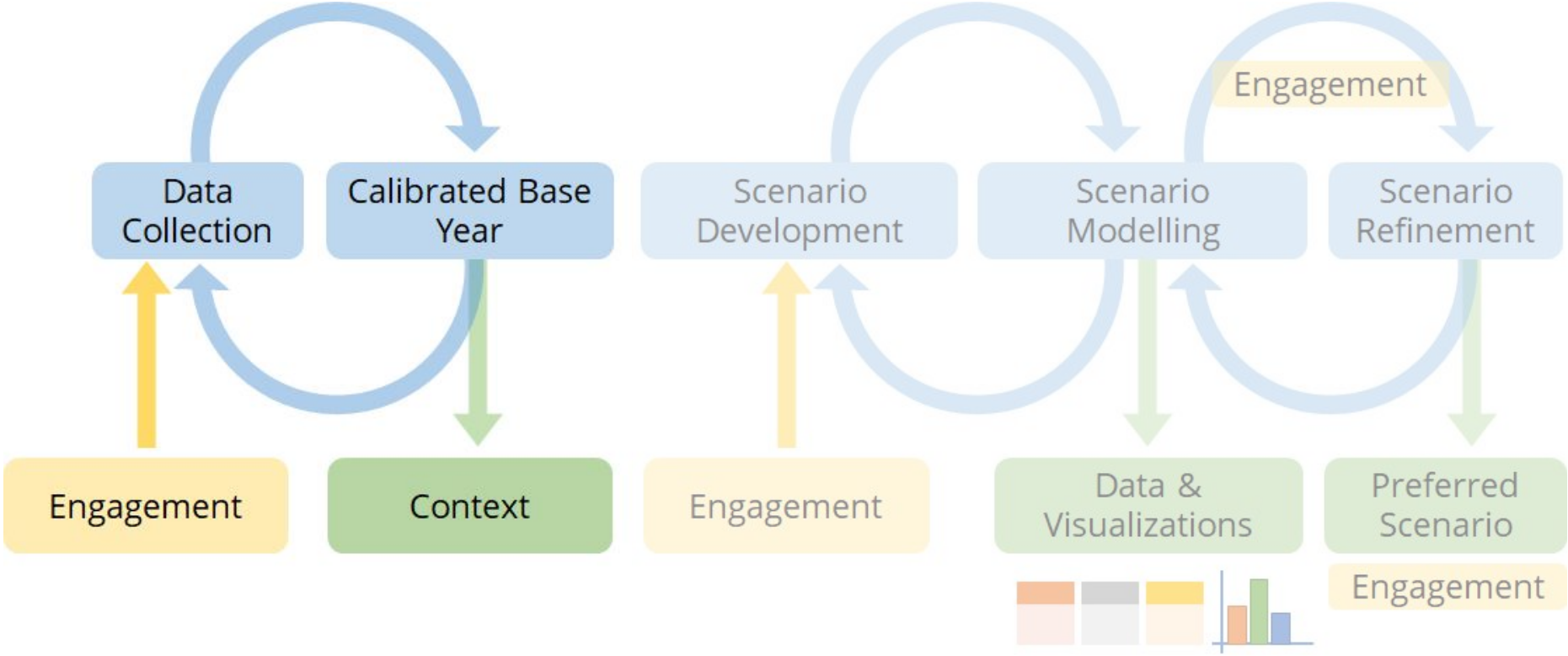
- Use the Zoom chat.
- Raise your hand to speak.

CCAP

Scenario Planning

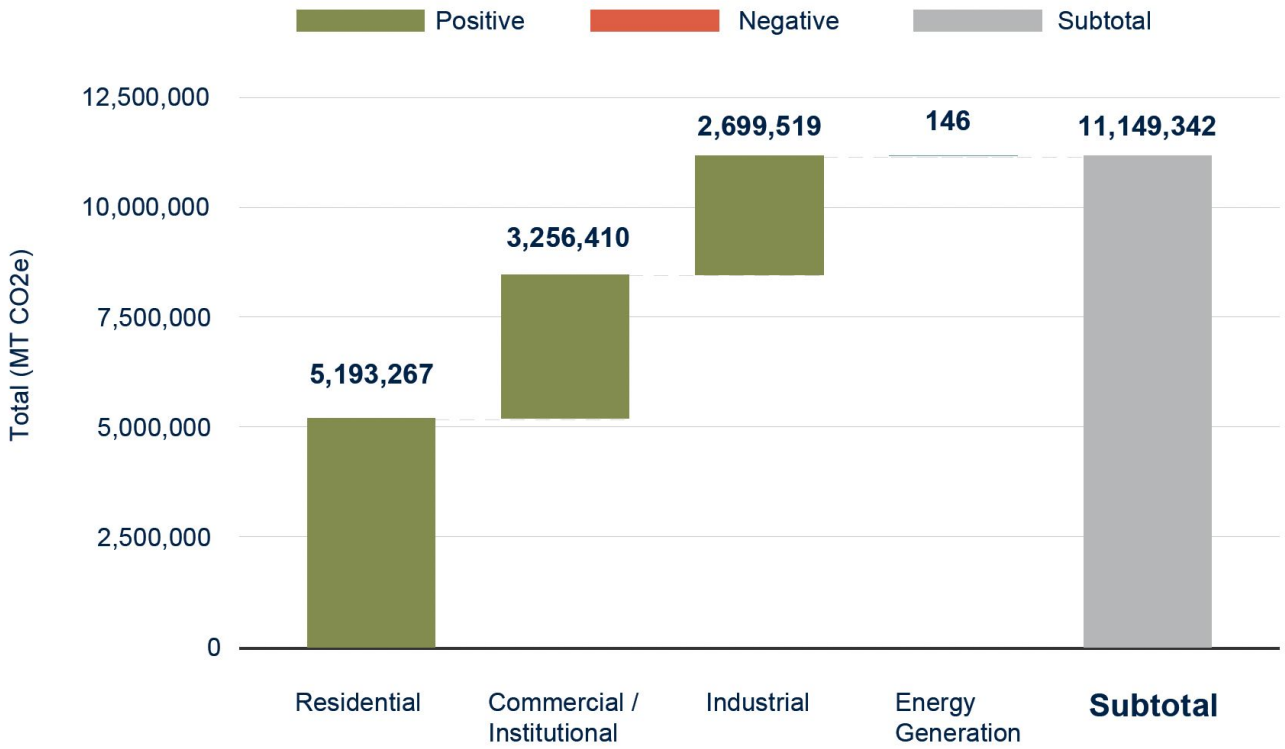
SSG

Project overview



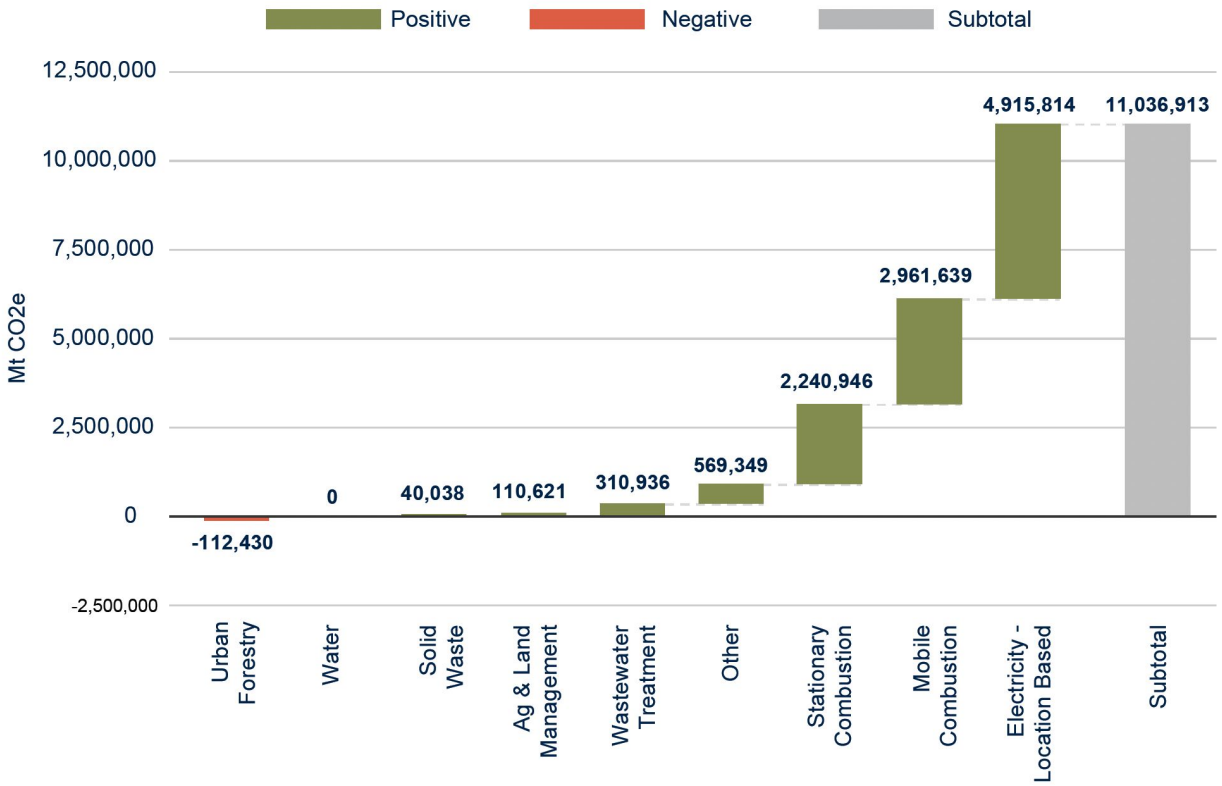
MV Context

Emissions by Sector

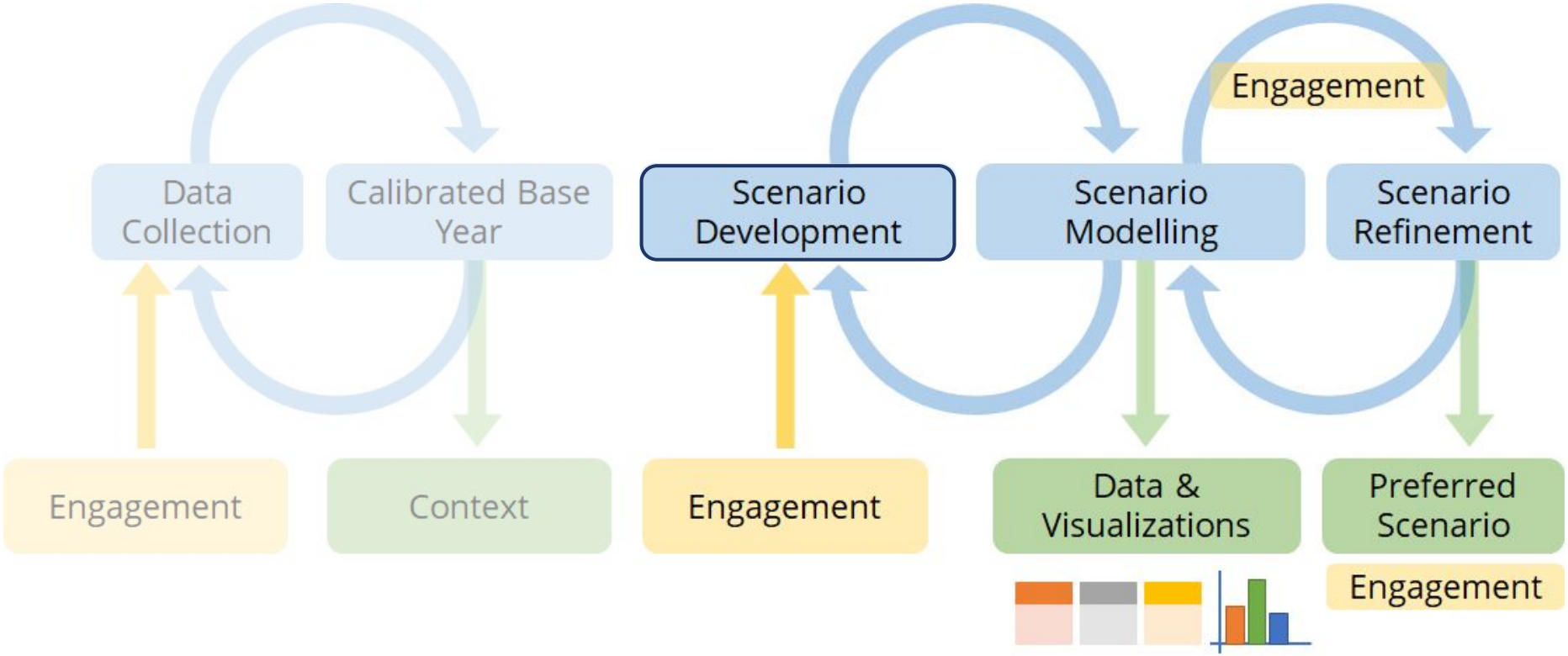


MV Context

Emissions by Subsector



Project overview



About scenarios

What are they?

Stories about how the world will or may change at some future time

Creative tool rather than predictive/forecasting

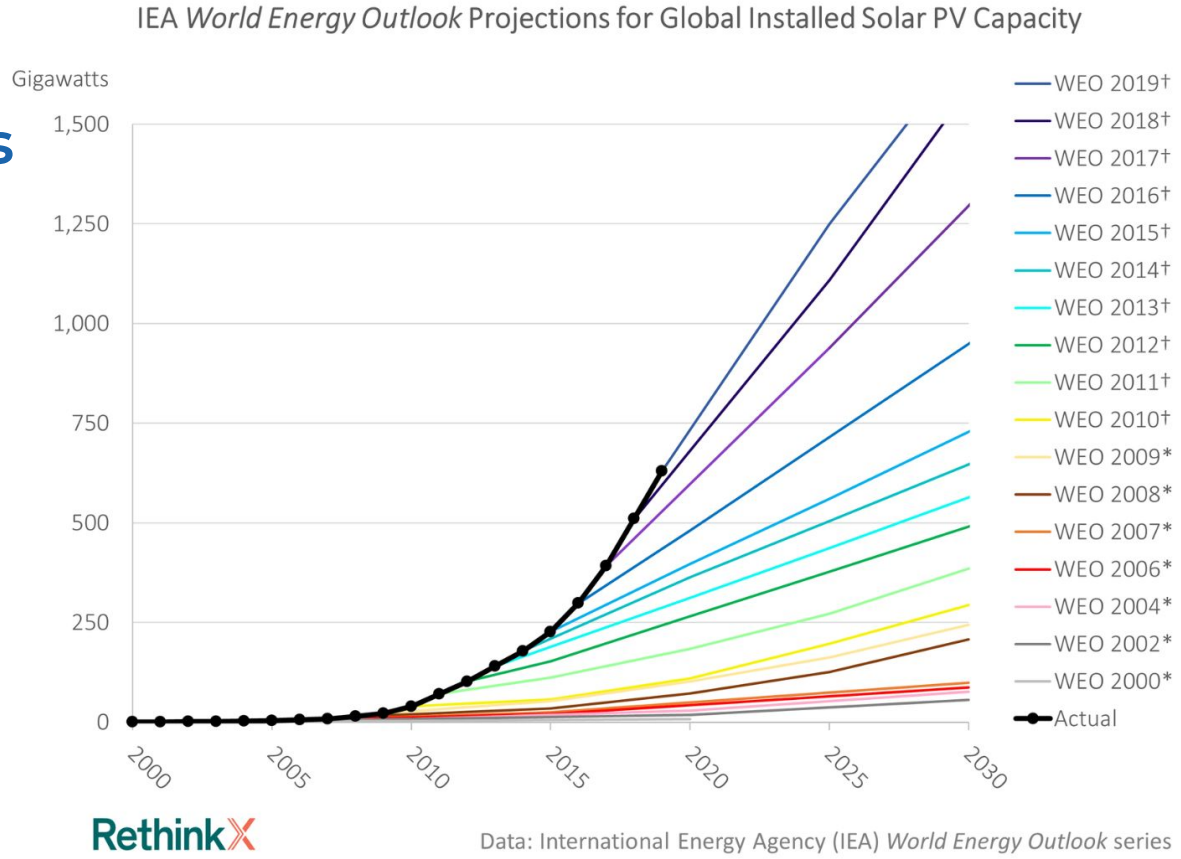
Allows comparison between the status quo and alternative futures

Objective

Generation of plausible futures

Scenario planning in Miami Valley

Other scenarios



Scenario Planning Process

Identifying trends for the Miami Valley Region

Examine internal and external influences and leverage points

Explore uncertainty for key factors

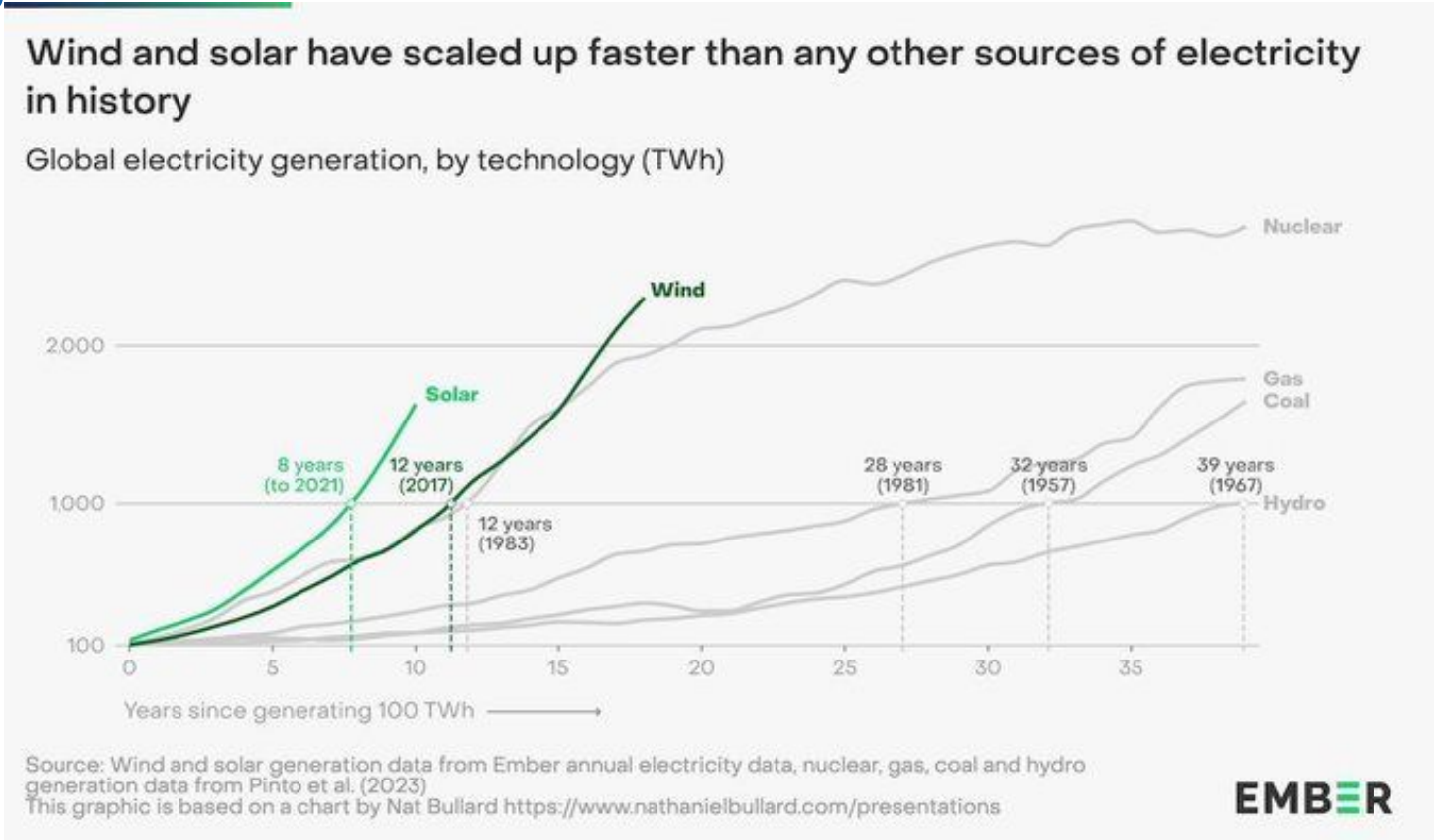
Explore and define possible futures

Model scenarios

Identifying preferred scenario

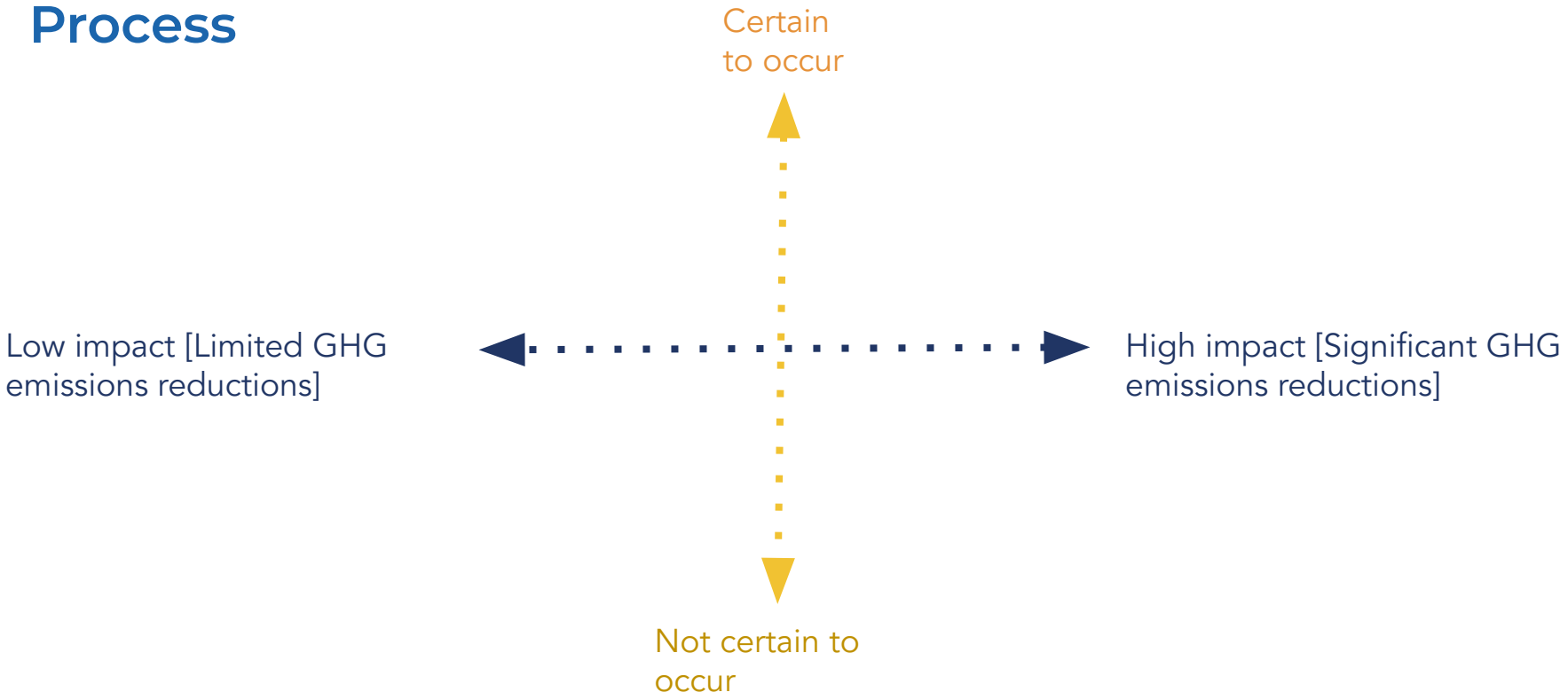
Scenario Planning Process

Identify trends



Scenario Planning Process

Explore uncertainty for key factors

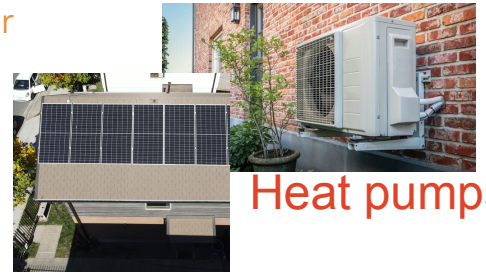


Scenario Planning Process

Explore uncertainty for key factors

Urban forests

Certain to occur



Heat pumps

Solar panels

Low impact [Limited GHG emissions reductions]

High impact [Significant GHG emissions reductions]

Nuclear

Coal and gas CCS

Not certain to occur

Scenario Planning Process

Explore and define plausible futures

NAME	 ORCA	 MOUNTAIN CARIBOU	 ATLANTIC SALMON	 PEREGRINE FALCON
DESCRIPTION	GGS (reference scenario)	Rapid decarbonization	Capital constrained	TechTransform
WHAT HAPPENS IF...	We keep going the way we are	We speed up	We don't have much money	Technology advances rapidly

Scenario Planning Process

Example: Transportation sector

Scenario Parameters

1. the **number** of trips;
2. the **length** of trips;
3. the **number of people** per vehicle
4. the **energy efficiency** of the vehicle
5. the **emission factors of the fuels** (or electricity) consumed.

Avoid trips
Teleworking

Shorter trips
Accessible destinations

Enhance transit
Routes and frequency

Efficient vehicles
Bike vs bus vs car vs truck

Zero carbon fuels
Gasoline vs electric

Scenario Planning Process

Scenario Parameters

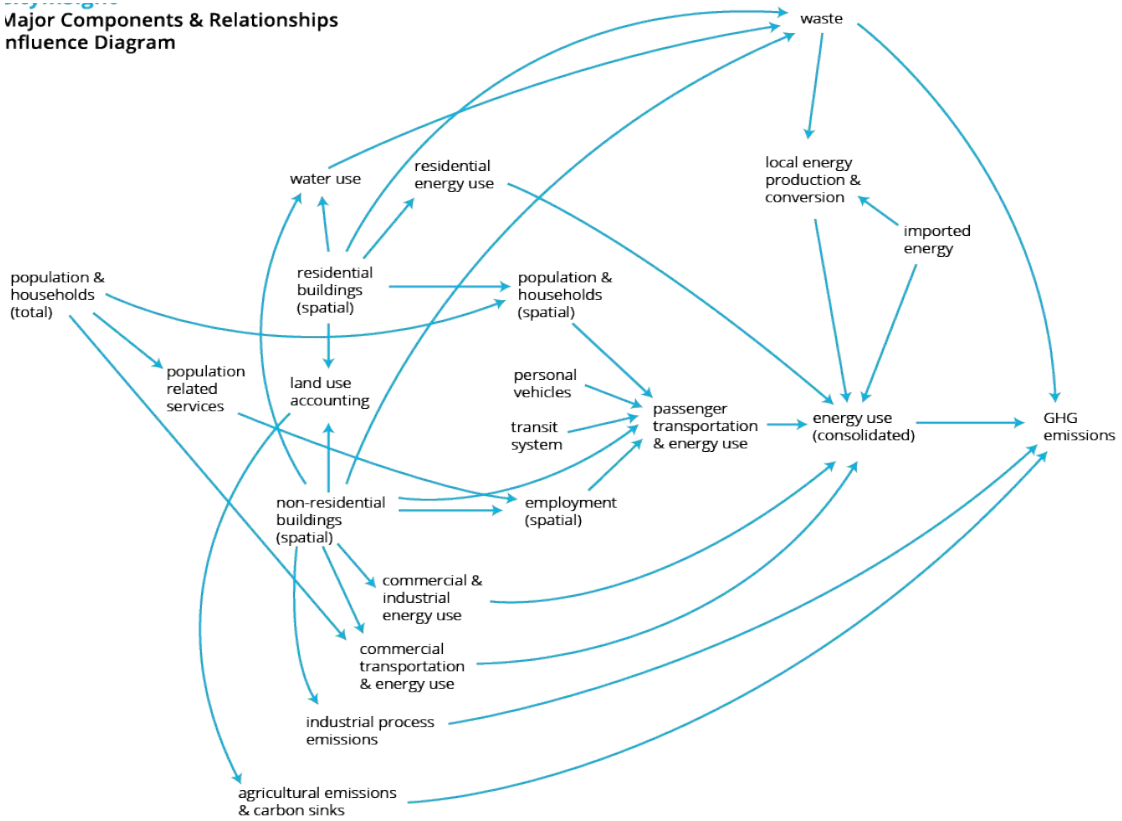
Example of scenario parameters

		LOW CARBON #1	LOW CARBON #2	LOW CARBON #2	LOW CARBON #4
			WITHOUT LAND USE	*WITH LAND USE*	
SCENARIOS	**Name**	***80x50***		***Carbon neutral 2050***	***Carbon neutral 2040***
	Target	80% reduction by 2050 from 2016 baseline > no offsets	Carbon neutral by 2050 > min. 85x50, ie. limiting offsets to 15 in 2050% > interim 60x30 & 75x40	same as LC#2 without LU	Carbon neutral by 2040 > follow as close to a 1.5C/2C pathway to 2050 + start offsetting in 2040
	Difference in scenarios	-	More ambitious with min. of 85x50, and interim targets that bend the reduction curve earlier. Offsets start in 2050 to get to neutral.	Same technical scenario, except that alternate land use [that foucses on densification] is applied first	Most ambitious, following 1.5C pathway. Offsets start in 2040.
	Notes	Aligns with many Canadian & international cities targets, including Toronto, Vancouver (also incl. 100% renewable), Ottawa, Montreal, Victoria BC, Calgary, Portland OR, NYC, LA, Chicago, Houston (baseline years differ by city)	Aligns with "net-zero" target from HRM council through climate emergency declaration. Barcelona, Boston, Berlin, Washington DC, Seattle, London (UK), San Francisco, Sydney, Oslo, Moncton NB, Markham ON		More agressive targets from only a few cities. Targetting carbon neutral, but earlier than 2050. Copenhagen & Adelaide by 2025, Helsinki by 2035, Stockholm by 2040.
		Baseline years differ by city	Baseline years N/A for target (absolute target)	Baseline years N/A for target (absolute target)	Baseline years N/A for target (absolute target)
		Scopes (per GPC or other accounting framework) vary across all cities.			
	DEMOGRAPHICS				
	Population & employment				
	Population & employment	Population & employment projections unchanged/held constant.	Population & employment projections unchanged/held constant.	Population & employment projections unchanged/held constant.	Population & employment projections unchanged/held constant.
	LAND USE				
	Spatial distribution	No change from BAU [which is based on Centre Plan: 45% regional centre, 45% suburbs, 10% rural]	No change from BAU [which is based on Centre Plan: 45% regional centre, 45% suburbs, 10% rural]	Intensification scenario: 75% regional centre 20% suburbs 5 rural ask Bas re BAU employment - how did we allocate?	SAME LU projection as LC#2 WITH LAND USE Intensification scenario: 75% regional centre 25% suburbs 5 rural
	BUILDINGS				
	New buildings energy performance (building codes & standards)				
	New single-family residential homes				
	Efficiency	**Standard:**	**Standard:**	same as LC#2 without LU	**Standard:**

Scenario Planning Process

Scenario development parameters fed into the CityInsight model

Model Scenarios

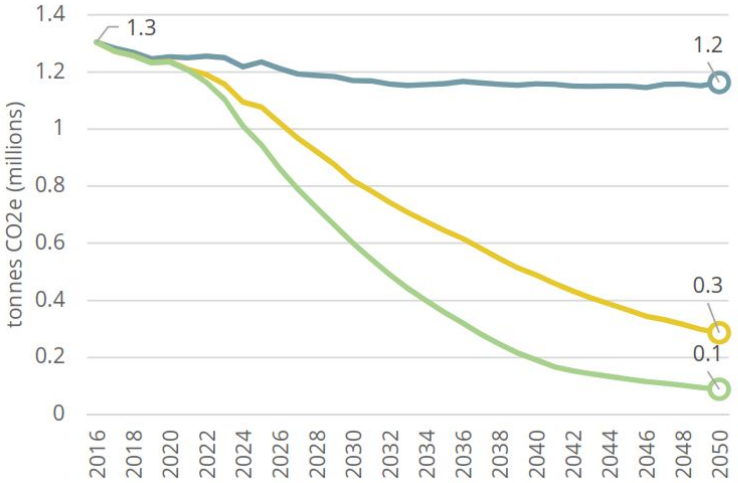


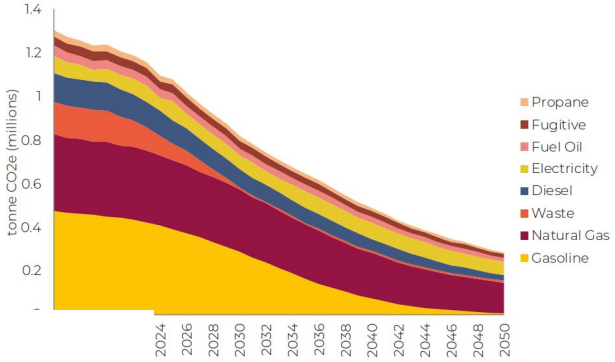
Scenario Planning Process

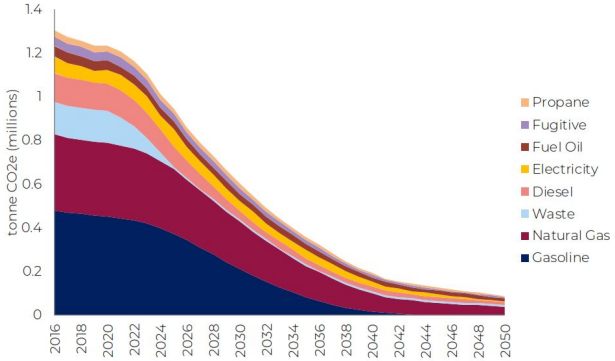
Model Scenarios

Outputs of scenario modelling:

- Total GHG emissions, per household, per capita
- Energy consumption by sector
- Capital and operating costs
- Others



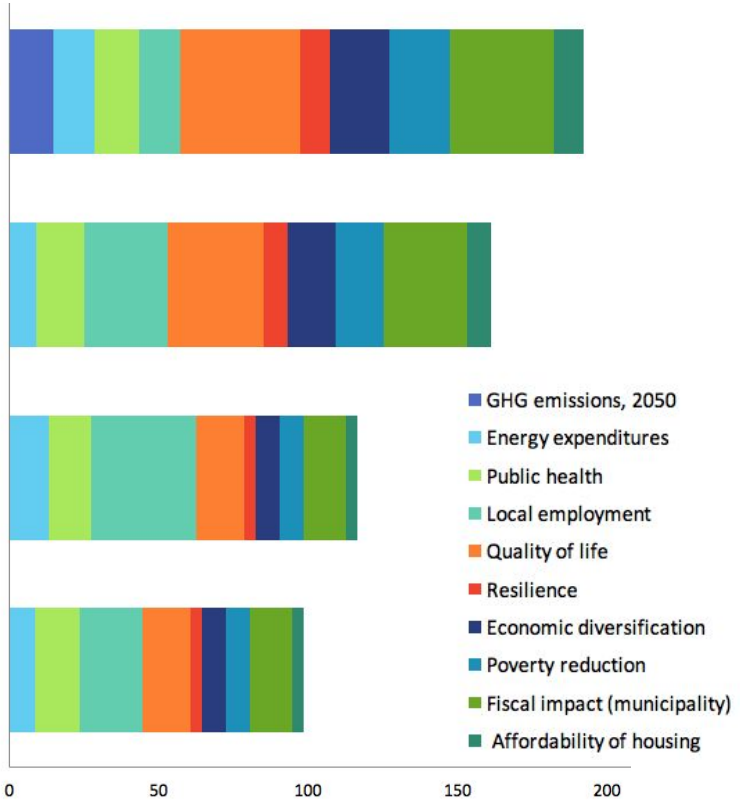




Scenario Planning Process

Identifying the Preferred Scenario

There are multiple tools to prioritize scenarios



Scenario Development Activity

Develop alternative scenarios

- ➔ Think about the scenarios
- ➔ Describe them qualitatively
- ➔ Think about desirable and plausible scenarios… And undesirable too!
- ➔ Try to think about the region as a system in terms of its elements:
- ➔ Think about potential targets and time horizons

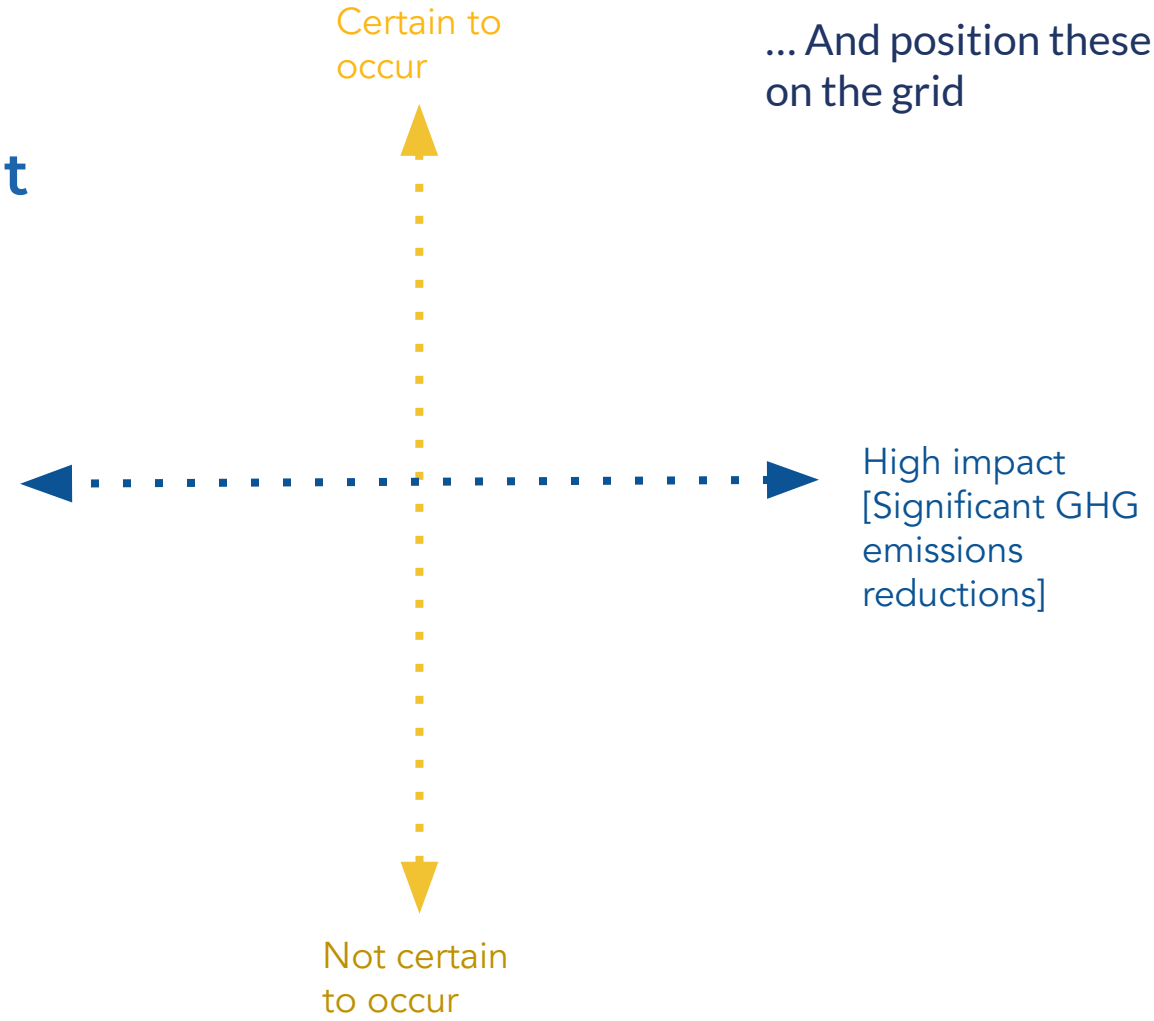
Scenario Development activity

Think of scenarios answering this question:

You travel to the future and come back to 2024, how would you describe Miami Valley to be to your grandchildren?

Scenario Development activity

… And position these scenarios on the grid



CCAP

Next steps

SSG

Next steps

1. Review scenarios inputs
2. Develop a scenario table
3. Revise the scenarios
4. Evaluate the scenarios
5. Present the draft results
6. Revise according to feedback

Pause for Feedback

What questions or comments do you have?

- Use the Zoom chat.
- Raise your hand to speak.

THANK YOU

Vist www.mvrpc.org for more information and to submit comments.

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