

Climate Pollution Reduction Grant Update

January 21, 2025 – Executive Advisory Committee

Overview of Grant

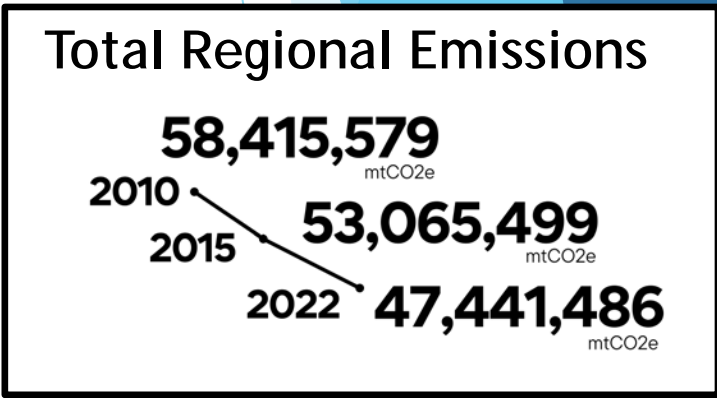
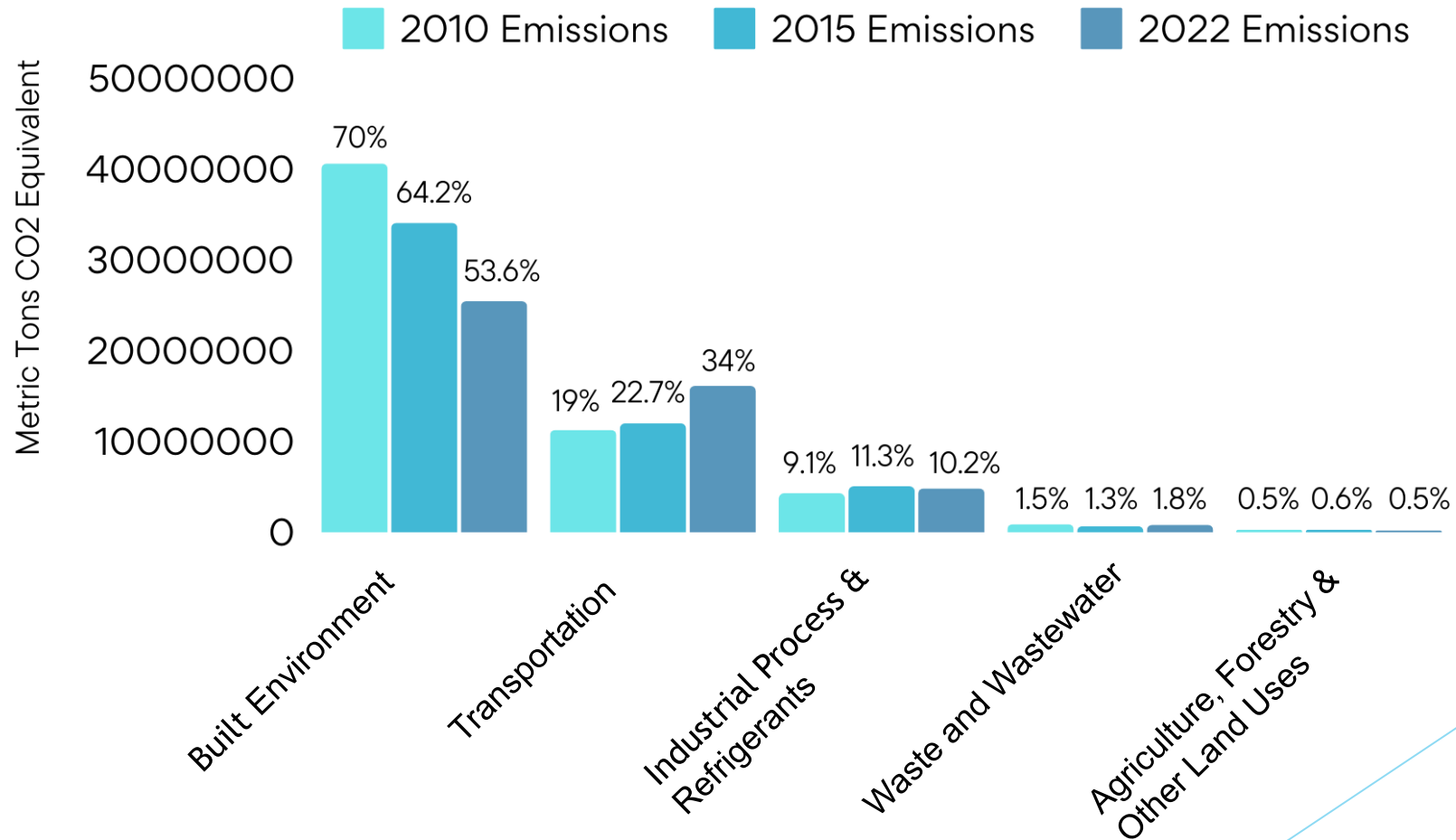
- ▶ Funding for Planning and Implementation
 - ▶ MO, IL, St. Louis, Kansas City and Chicago received planning grants
 - ▶ State of IL received an implementation grant
- ▶ Current deliverable is a “Comprehensive Climate Action Plan” (CCAP)
- ▶ Grant program objective is to reduce pollution
- ▶ What we want to achieve
 - ▶ Identify impactful projects and practices
 - ▶ Improve public health
 - ▶ Maximize cost savings
 - ▶ Grow the job market
 - ▶ Increase our resiliency
 - ▶ Do foundational research to save cities time and money

CCAP process summarized:

1. Calculate emissions
2. Define scenarios
3. Gather project ideas
4. Estimate reductions
5. Estimate cost and benefits
6. Look for funding

1. Calculate emissions

ST. LOUIS REGIONAL GREENHOUSE GAS INVENTORIES



2. Define scenarios

Step 1: Refine the base year (2022)

Step 2: **Business-as-Usual** (BAU) scenario

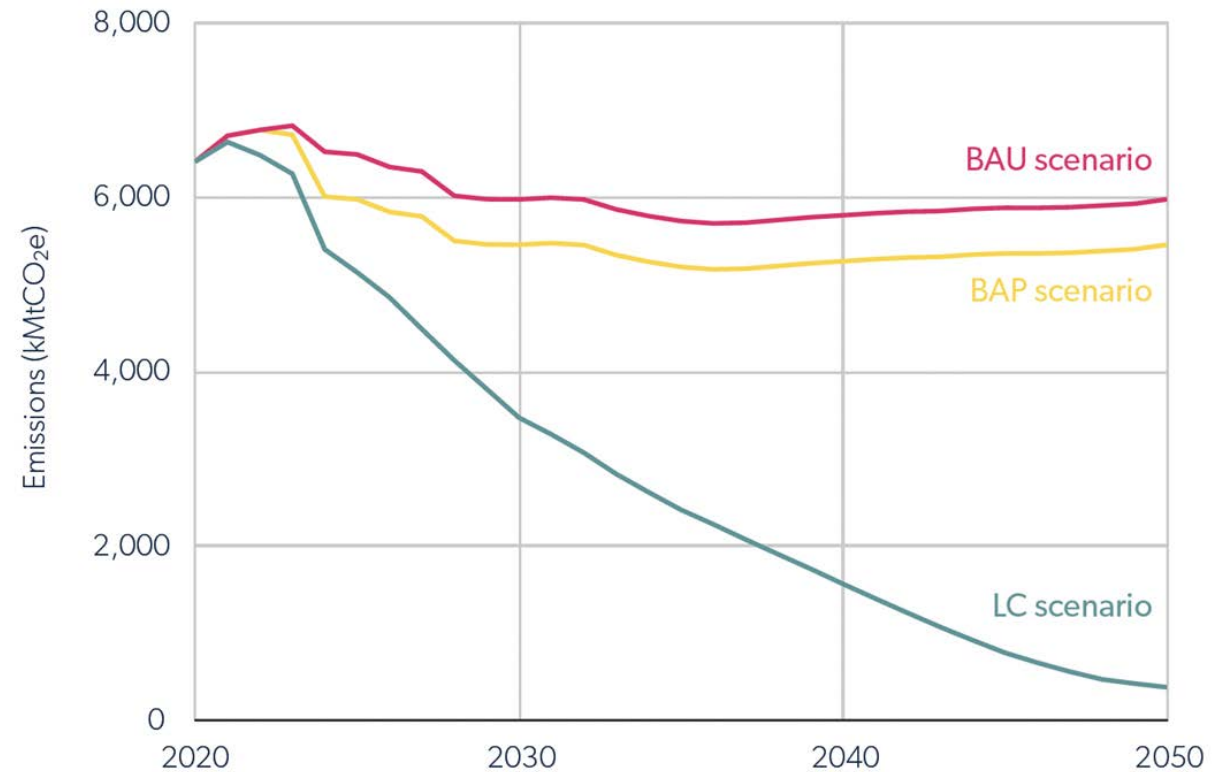
- 2024-2050
- No change in current policies and additional actions than the ones we have done already

Step 3: **Business-as-Planned** (BAP) scenario

- 2024-2050
- Current policies and plans *implemented*

Step 4: **Low-Carbon** scenario

- Identify steps to maximize emissions reduction



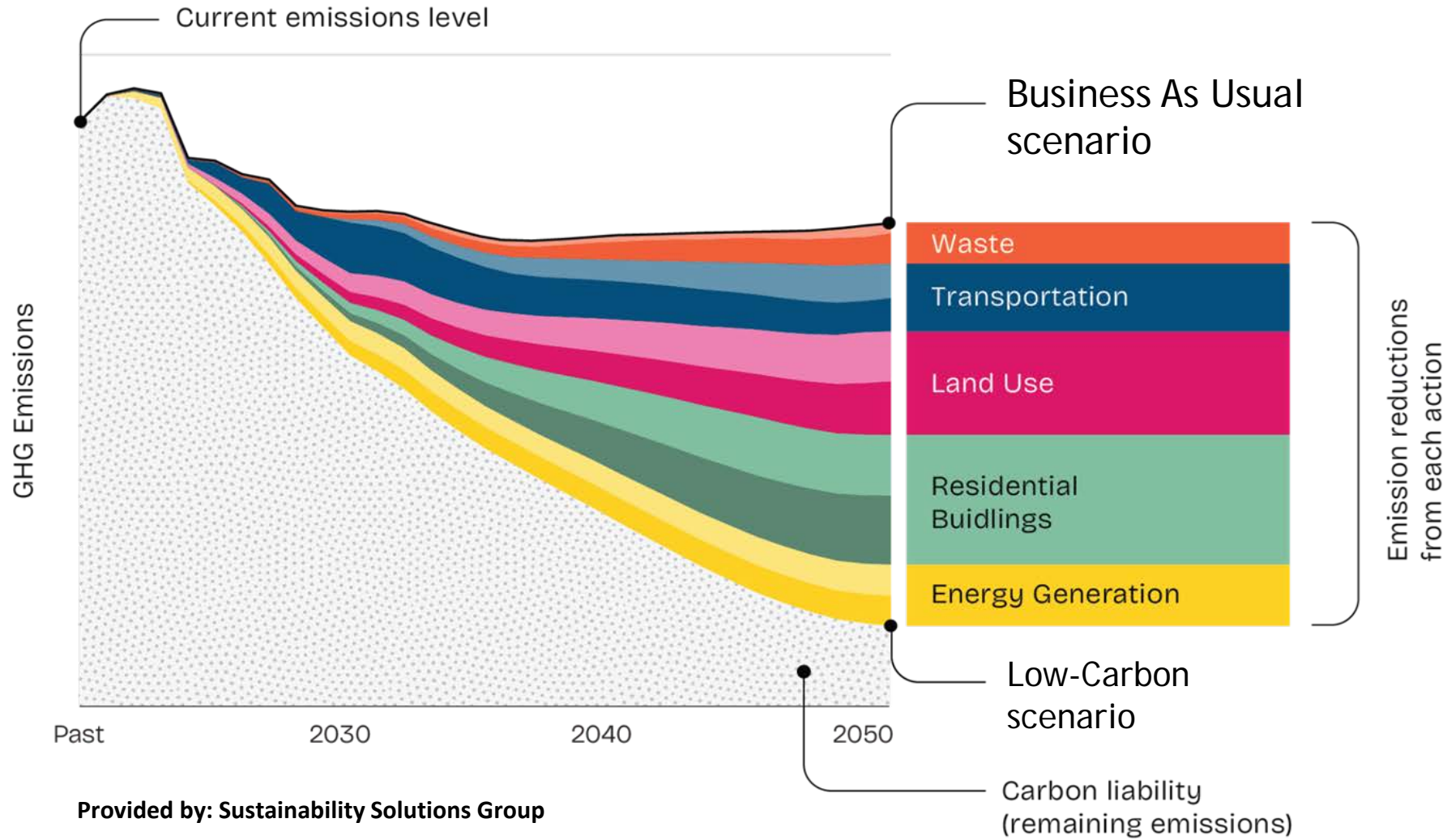
Provided by: Sustainability Solutions Group

3. Gather project ideas

Engagement will Determine Mix of Measures for the Low-Carbon Scenario

- ▶ Municipal Workshops
 - ▶ Green Cities Challenge participants (IL and MO)
 - ▶ City of St. Louis Climate Action Plan coordination
 - ▶ 24:1
- ▶ Focus Groups
- ▶ On-line feedback mechanisms
- ▶ Open Houses

4. Estimate reductions



5. Estimate costs and benefits

Additional Analyses

- ▶ Other pollutants reduced
- ▶ Potential benefits directed to low-income communities
- ▶ Jobs analysis
 - ▶ What's needed to implement/install the projects
 - ▶ What training is needed to fill the gaps

5. Estimate costs and benefits

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Regional, State, and County-Level Emissions Changes

Energy Impacts Inputs:

Distributed (rooftop) solar PV total capacity: 1 MW

Annual Emissions Changes • Power Sector Only

Midwest Region

	Original	Post Change	Change
Generation (MWh)	465,908,150	465,906,390	-1,760
Total Emissions from Fossil Generation Fleet			
SO ₂ (lb)	468,139,270	468,137,400	-1,860
NO _x (lb)	380,922,710	380,921,110	-1,600
Ozone season NO _x (lb) ⁱ	162,987,920	162,987,150	-770
CO ₂ (tons)	364,671,150	364,669,720	-1,430
PM _{2.5} (lb)	51,524,550	51,524,370	-190
VOCs (lb)	11,567,710	11,567,660	-50
NH ₃ (lb)	12,614,150	12,614,090	-60
AVERT-derived Emission Rates:			
	Average Fossil		Marginal Fossil
SO ₂ (lb/MWh)	1.005		1.058
NO _x (lb/MWh)	0.818		0.905
Ozone season NO _x (lb/MWh) ⁱ	0.744		0.932
CO ₂ (tons/MWh)	0.783		0.809
PM _{2.5} (lb/MWh)	0.111		0.107
VOCs (lb/MWh)	0.025		0.029
NH ₃ (lb/MWh)	0.027		0.035

5. Estimate costs and benefits

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Image source: vitalcommunities.org

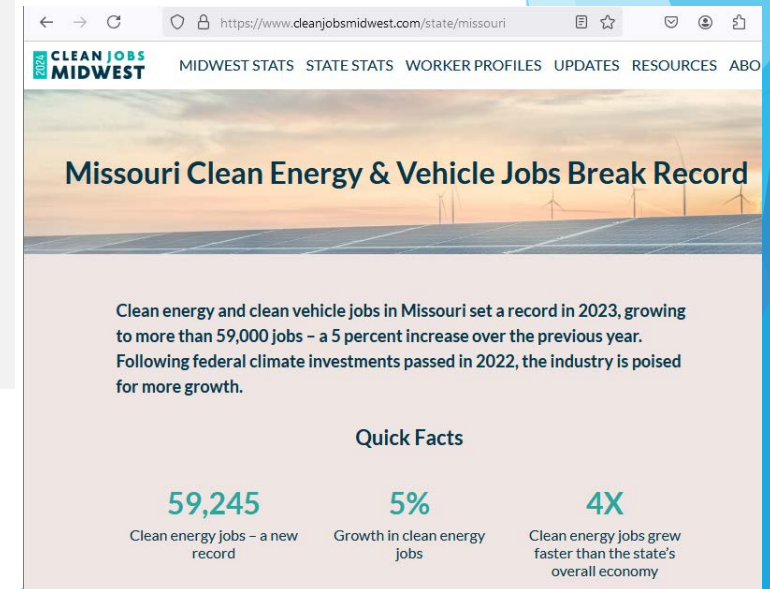
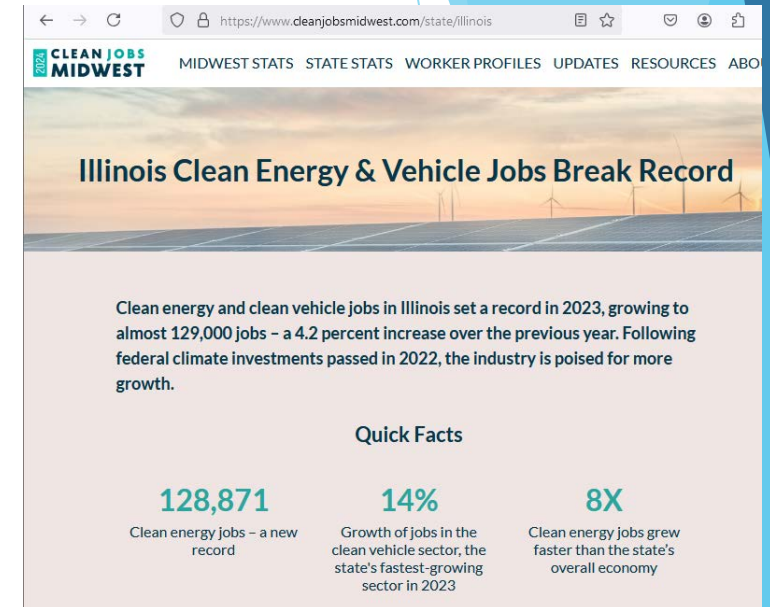
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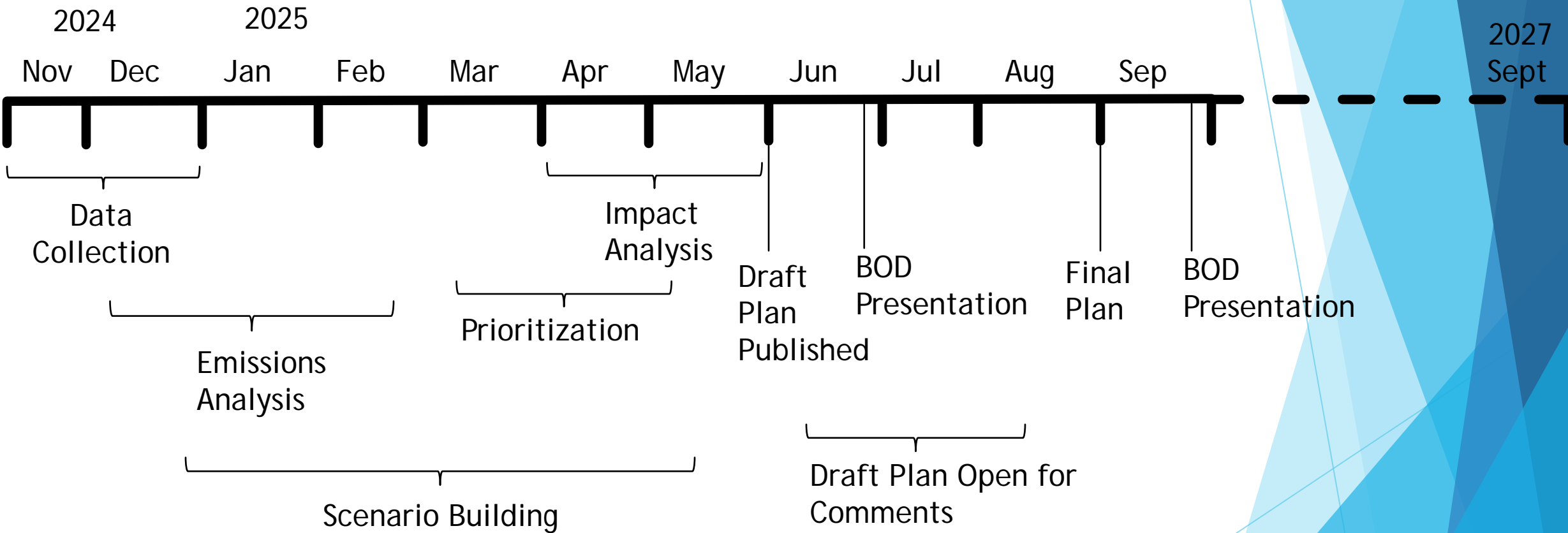
WHAT ARE CLEAN ENERGY JOBS?

Clean energy jobs include jobs in both traditional and emerging sectors like renewable energy generation, energy efficiency, clean vehicles, grid and storage, and clean fuels.



Project Timeline

6. Look for funding



Questions