



Roadmap to Decarbonization

Sustainability Programs Manager

May 31st 2023

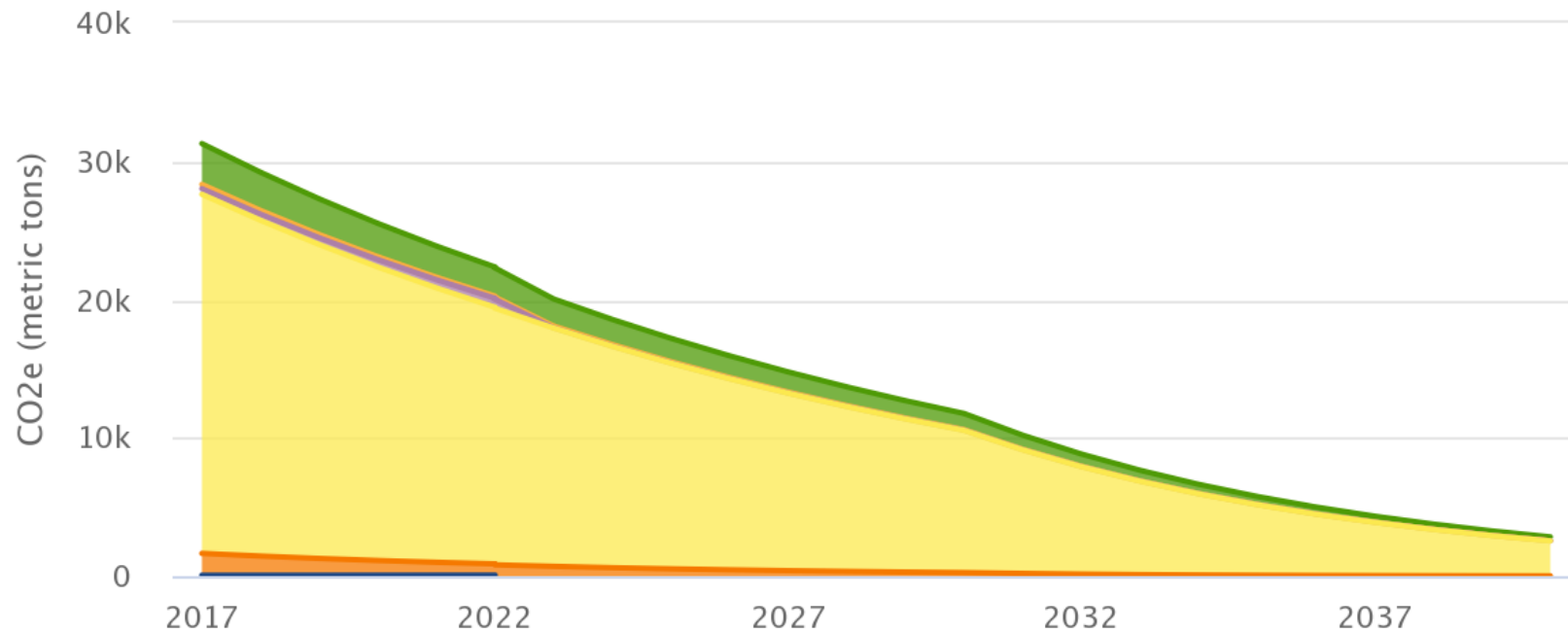
Emissions Reduction Goals



- **At its Sept. 8th, 2020, meeting, the Lake County Board approved a resolution committing Lake County government operations to the goal of attaining net zero greenhouse gas emissions from its 2014-2017 baseline.**
- **The resolution commits Lake County to the following:**
 - **By the year 2030, reducing greenhouse gas emissions from its operations by 50%, and achieving at least a 60% diversion rate of recyclables and organics from its own waste stream**
 - **By the year 2040, procuring 100% renewable energy, reducing greenhouse gas emissions by 90% or more, and achieving at least a 90% diversion rate of recyclables and organics**
 - **Ensuring that all new County facilities constructed after 2020 be evaluated for their potential for net zero certification**
 - **Publicly reporting progress toward these goals on an annual basis**
 - **Inviting and encouraging municipalities and townships throughout the county to join in the effort to reduce the environmental impact of the operations required to provide public service to the residents and businesses of Lake County**

Visualizing 60% and 90% Reduction

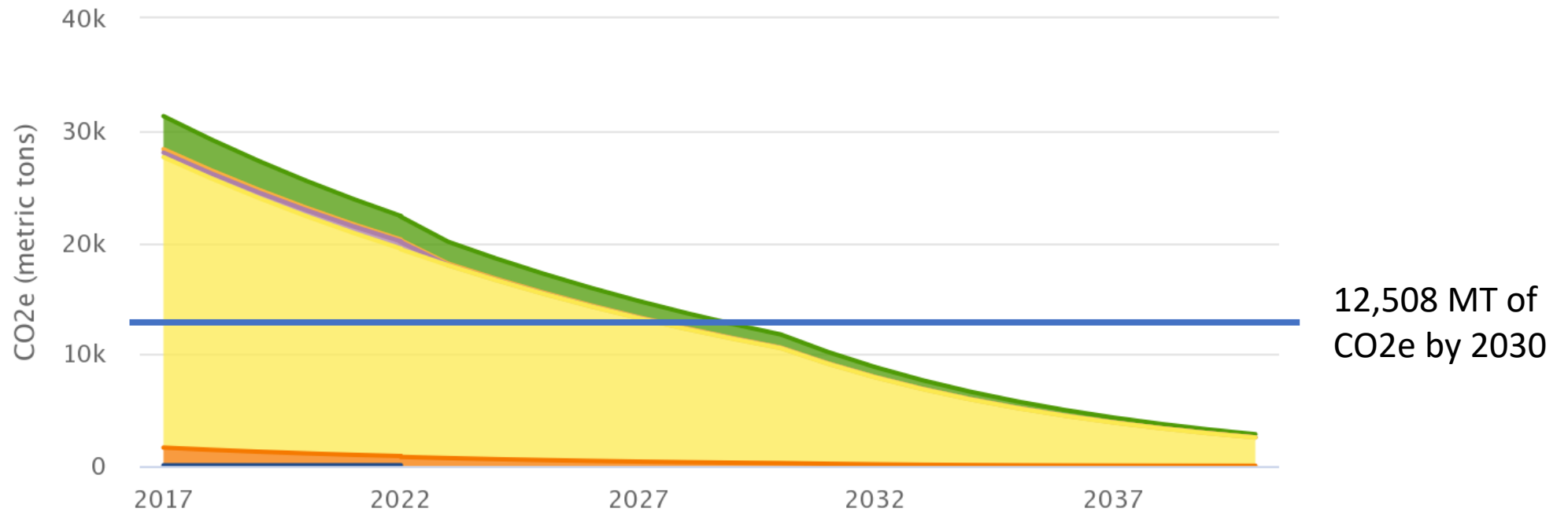
Projected CO2e Values



- Employee Commute
- Water & Wastewater Treatment Facilities
- Vehicle Fleet
- Street Lights & Traffic Signals
- Buildings & Facilities
- Solid Waste Facilities

Visualizing 60% and 90% Reduction

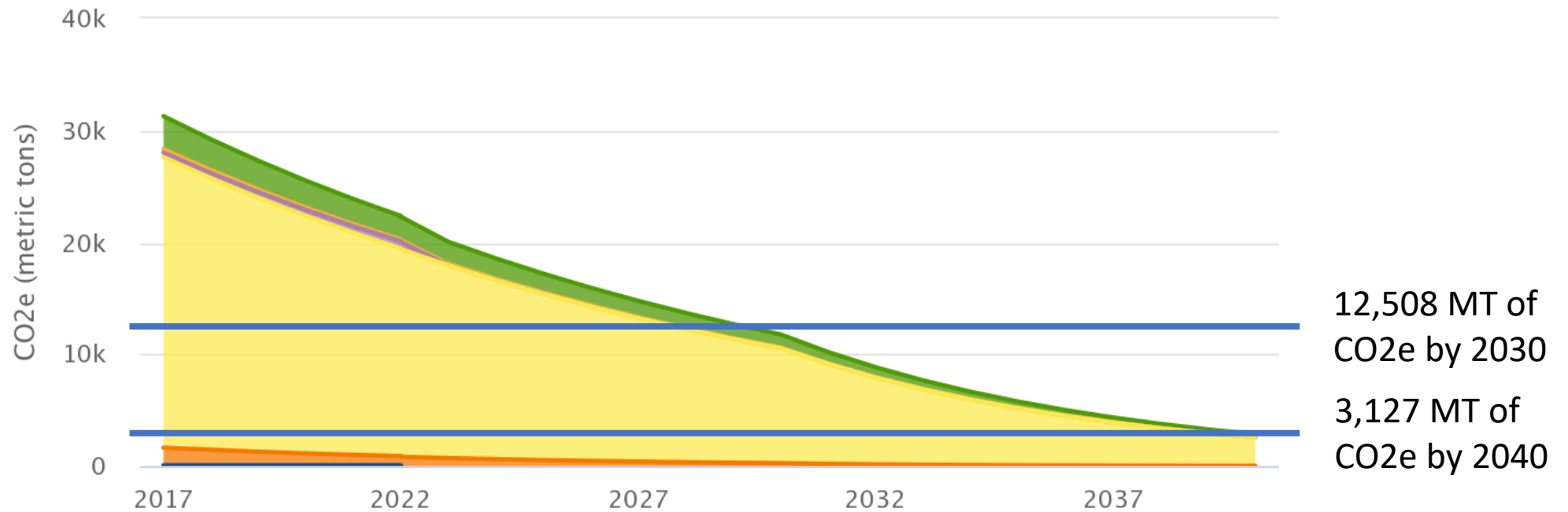
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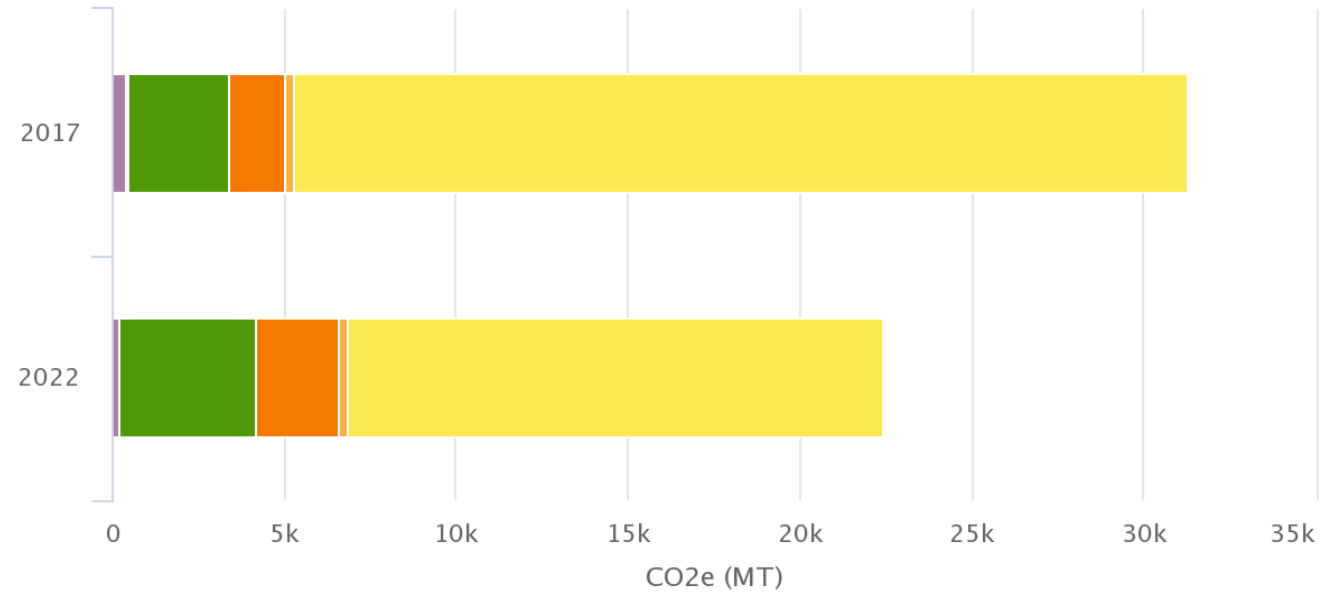
Visualizing 60% and 90% Reduction

Projected CO2e Values



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Comparison – 28% Reduction



- Water & Wastewater Treatment Facilities
- Employee Commute
- Vehicle Fleet
- Street Lights & Traffic Signals
- Solid Waste Facilities
- Buildings & Facilities

Roadmap Formatting

- Category – Buildings and Facilities, Vehicle Fleet, Employee Commute, Streetlights, Wastewater Treatment, Solid Waste
- Goal
- Strategy
- Advanced Strategy

 GOAL		OBJECTIVE
		STRATEGY
		+ ADVANCED STRATEGY


Roadmap Formatting

- Checklist
- Cost Estimate
- Impact Metrics
- Resource Links

Already achieved	
In Progress	
Planned for next 6 months	
Planned for next 12-18 months	
Not planned	
Cost Estimate	
Impact Metric	
Link to Resource	

Example – Employee Commute



 GOAL	OBJECTIVE	Already achieved In Progress Planned for next 6 months Planned for next 12-18 months Not planned	Cost Estimate	Impact Metric	Link to Resource
	STRATEGY				
	+ ADVANCED STRATEGY				
<i>Increase EV adoption and utilization at facilities</i>	EC13 Introduce Plug in Hybrid and EV inscentives for employees				
	EC14+ Increase public EV charging availability to 10% of spaces by 2030.		\$4,000/space	-200MT CO2e	Y
	EC15+ Inscrease public EV charging availability to 33% of spaces by 2040.	X			
	EC16 Have all new parking spaces built EV Ready	X			Y
	EC17+ Any leased county cars be plug in hybrid or EV by 2027	X			Y

Example – Buildings and Facilities

★ GOAL		OBJECTIVE							
		STRATEGY							
		+ ADVANCED STRATEGY	Already achieved	In Progress	Planned for next 6 months	Planned for next 12-18 months	Not planned	Cost Estimate	Impact Metric Link to Resource
<i>Pursue 100% renewable energy by 2040</i>	BF1+	Contract 5 MW of Solar on Lake County properties by 2030			X				
	BF2+	Have 80% of eligible accounts subscribed to community solar by 2030			X			-\$80,000/yr	Dollars saved to be reallocated towards RECs Y
	BF3	Retire RECs produced in Lake County annually							
	BF4+	Annually budget for affordable national RECs		X				\$80,000/yr (Variable)	-10,000MT CO2e
	BF5+	Lease available lands to solar developers	X					-\$100,000/yr	Y

Goal and Strategy Development



- **External resources**
 - **Local Governments for Sustainability Planning Module**
 - **Greenest Region Compact**
 - **Local sustainability plans**
- **Internal resources**
 - **Strategic Plan**
 - **Lake County Green Team**
 - **Planning, Building, Zoning, and Environment Committee members**
 - **Department heads**

Goal and Strategy Development



- **Collect and sort recommended strategies**
 - **Categorize as normal or advanced strategy**
 - **Research approximate costs and savings for strategies**
 - **Research metrics for impact on emissions**
 - **Dollars saved**
 - **MT CO2e reduced**
- **Review by external and internal stakeholders**
 - **ICLEI technical assistance**
 - **Lake County Green Team**
 - **Planning, Building, Zoning, and Environment Committee members**
 - **Department heads**

Utilization of Roadmap



- **Lake County must pick and choose which combination of strategies to put into effect before the deadline.**
 - **No single method of reaching goals.**
 - **Cost, timeline, availability are all considerations for which strategies will be selected.**
 - **Advanced strategies will have greater impact on emissions reductions and will therefore more likely to be chosen.**
- **The Roadmap to Decarbonization is designed as a living document and tool able to be updated over time.**
 - **Designed to compliment a greenhouse gas inventory tool and forecasting module.**
 - **Will be an important budget and new program tool county-wide.**