

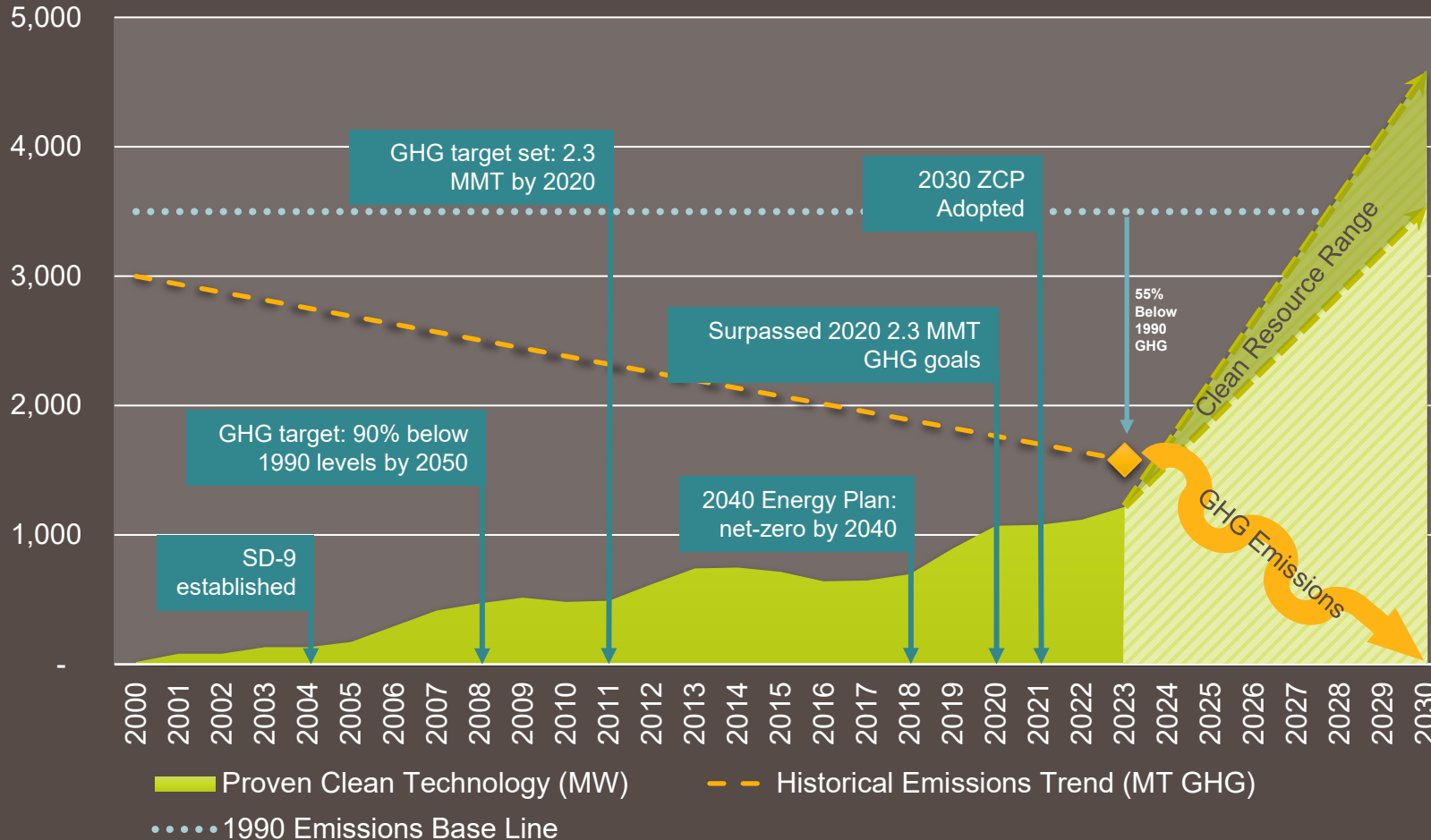
# Exhibit to Agenda Item #3

Discuss the monitoring report for **Strategic Direction SD-9, Resource Planning.**

Board Policy Committee and Special SMUD Board of Directors Meeting  
Wednesday, September 11, 2024, scheduled to begin at 6:00 p.m.  
SMUD Headquarters Building, Auditorium

# SD-9 Progress

2030 Zero Carbon Goal – Eliminate Greenhouse Gas (GHG) Emissions from SMUD’s Energy Supply by 2030



## 2023 Highlights

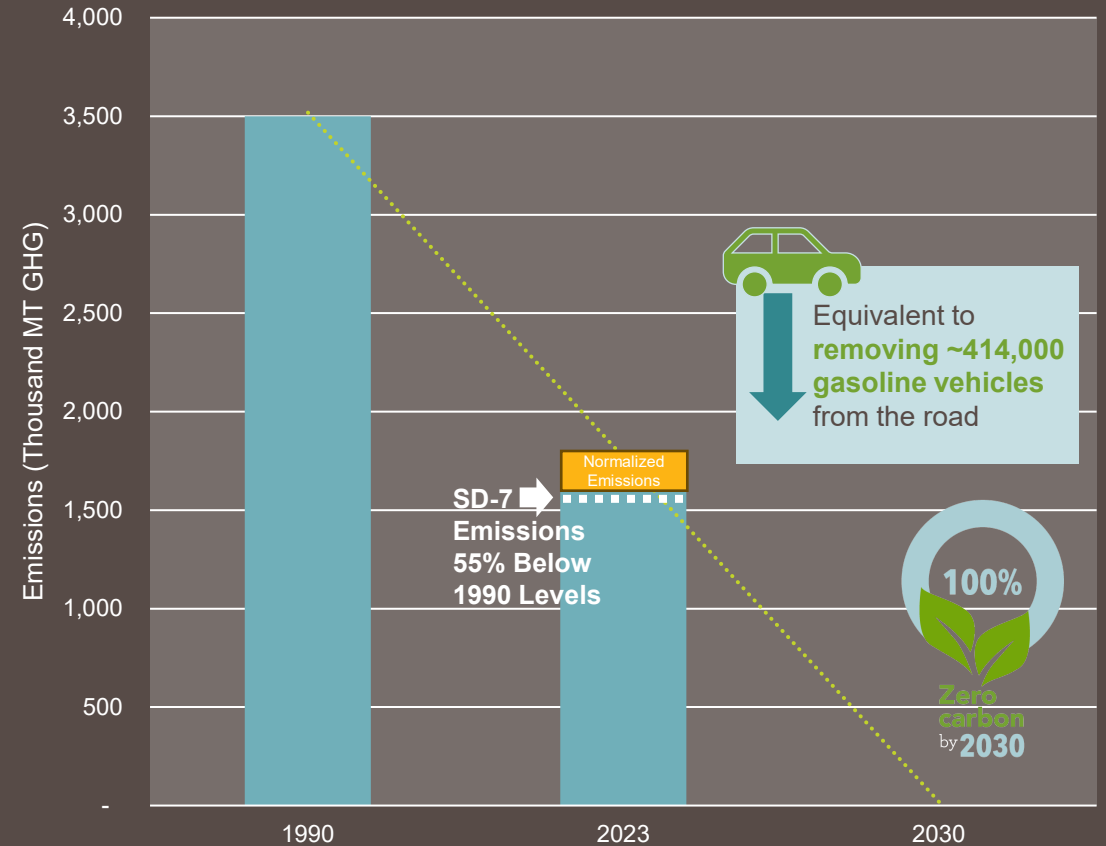
- 24% decrease in greenhouse gas (GHG) emissions from 2022
- Improved hydro generation
- Added new renewables and on-track to meet renewable goals
- Customer solar/storage grew by 38 MW
- 250k MT GHG reduced from electrification
- Equity focus through our Community Impact Plan
- Progress with emerging technology and new programs

Ensure Affordable, Reliable and Equitable Service

# 2023 Greenhouse Gas (GHG) Emissions

2023 GHG Emissions and Goals	
Source	Emissions (Thousand MT GHG)
<b>Net SMUD Emissions<sup>1</sup></b> (SD-7 Non-Normalized Emissions)	<b>1,579</b>
Adjustment for Expected Load <small>SMUD load was 3% lower than expected</small>	+83
Adjustment for Expected Hydro <small>SMUD hydro generation was 32% higher than expected</small>	+170
Adjustment for Expected Wind <small>SMUD wind generation was 7% lower than expected</small>	-27
<b>SMUD Normalized Emissions</b>	<b>1,805</b>
<b>2030 Goal</b>	<b>0</b>

1. Net of wholesale sales. This includes thermal power plant emissions which have been independently verified. Emissions by individual thermal asset can be found in the 2023 SD-7 Report.



Zero carbon by 2030

# Renewable Resources & Emerging Technologies

Project Name	Technology	Online Year	Status	Size (MW)	Equivalent Homes Powered	Emissions Avoided (MT GHG/year)
Hedge	Battery (local)	2022	Online	4	800	N/A
NTUA	Solar	2022	Online	100	33,498	70,476
Calpine Geysers	Geothermal	2023	Online	100	91,980	193,513
ESS	Emerging Tech Long Duration Energy Storage (local)	2024 - 2026	Partially Online	4	800	N/A
Solano 4	Wind	2024	Online	86	33,660	70,816
Slough House	Solar (local)	2025	Under Construction	50	13,780	48,369
Coyote Creek	Solar (local)	2026	Development (Delayed)	200	55,234	193,870
	Battery (local)			100	20,000	N/A
Country Acres	Solar (local)	2026	Development	344	70,756	248,352
	Battery (local)			172	34,400	N/A
McClellan	Battery (local)	2027	Planning	75	15,000	N/A
Grace	Solar	2027	Planning	70	22,511	47,359
Calpine Sutter	Emerging Tech Carbon Capture & Sequestration	2027	Board Review in 2025	TBD	TBD	TBD
Solano 2 Repower	Wind	2029	Planning	108	36,333	76,440
Calpine Geysers II	Geothermal	2028 - 2030	Planning	100	46,233	97,269

On-track to meet current California renewable requirements: 44% by 2024.

Meet or exceed RPS; explore, develop, and demonstrate emerging technologies

# Distributed Energy and Load Flex Program Growth

Customer Solar and Storage Installations						
Technology Type	Residential		Commercial		Total	
	Installed Systems	MW	Installed Systems	MW	Installed Systems	MW
Solar	5,430	25.8	161	9.0	5,591	34.8
Storage	427	3.0	1	0.1	428	3.1

Customer Flexible Demand Programs		
Program	Enrollment	MWs*
My Energy Optimizer Partner	23,802 devices	18.6
My Energy Optimizer Partner +	80 customer batteries	0.4
Peak Conserve	1,338 devices	1.3
PowerDirect®	54 customers	21.2

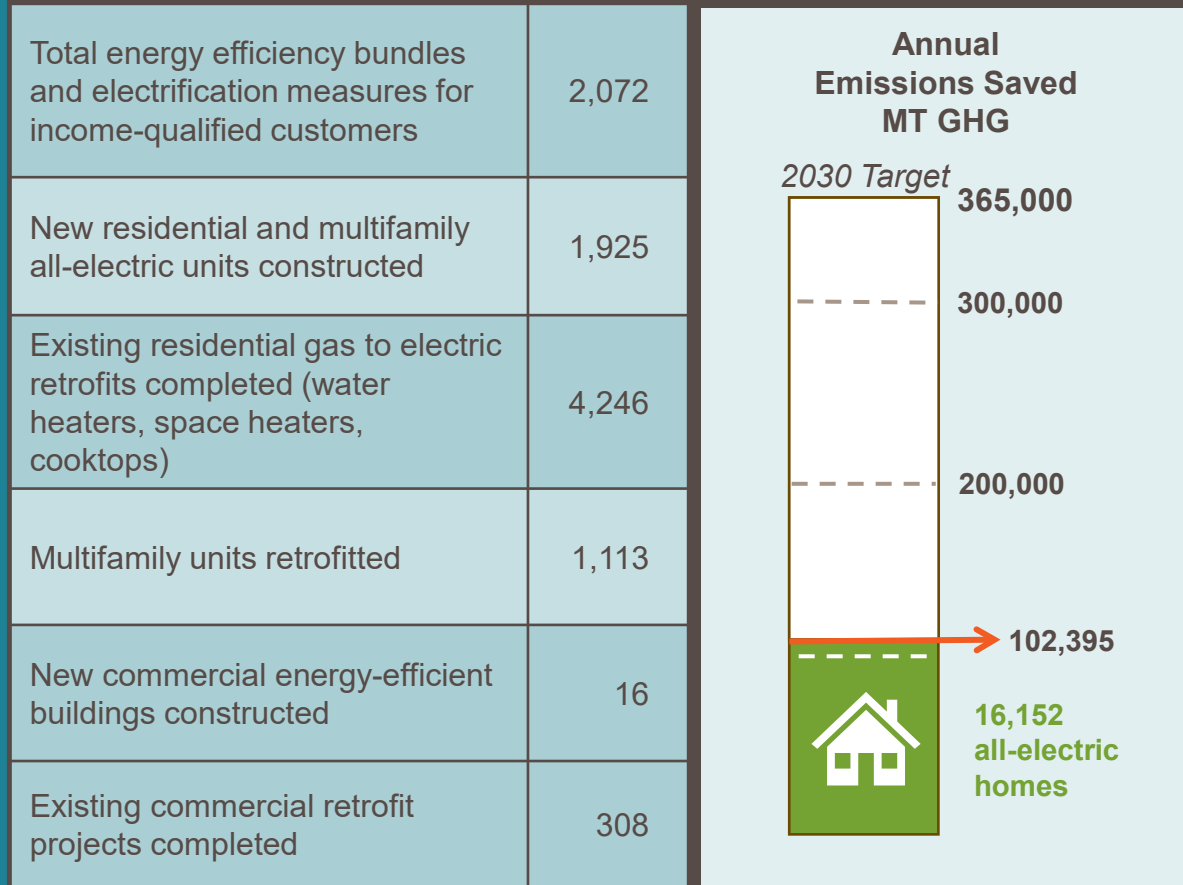
\*Peak Load Reduction Potential



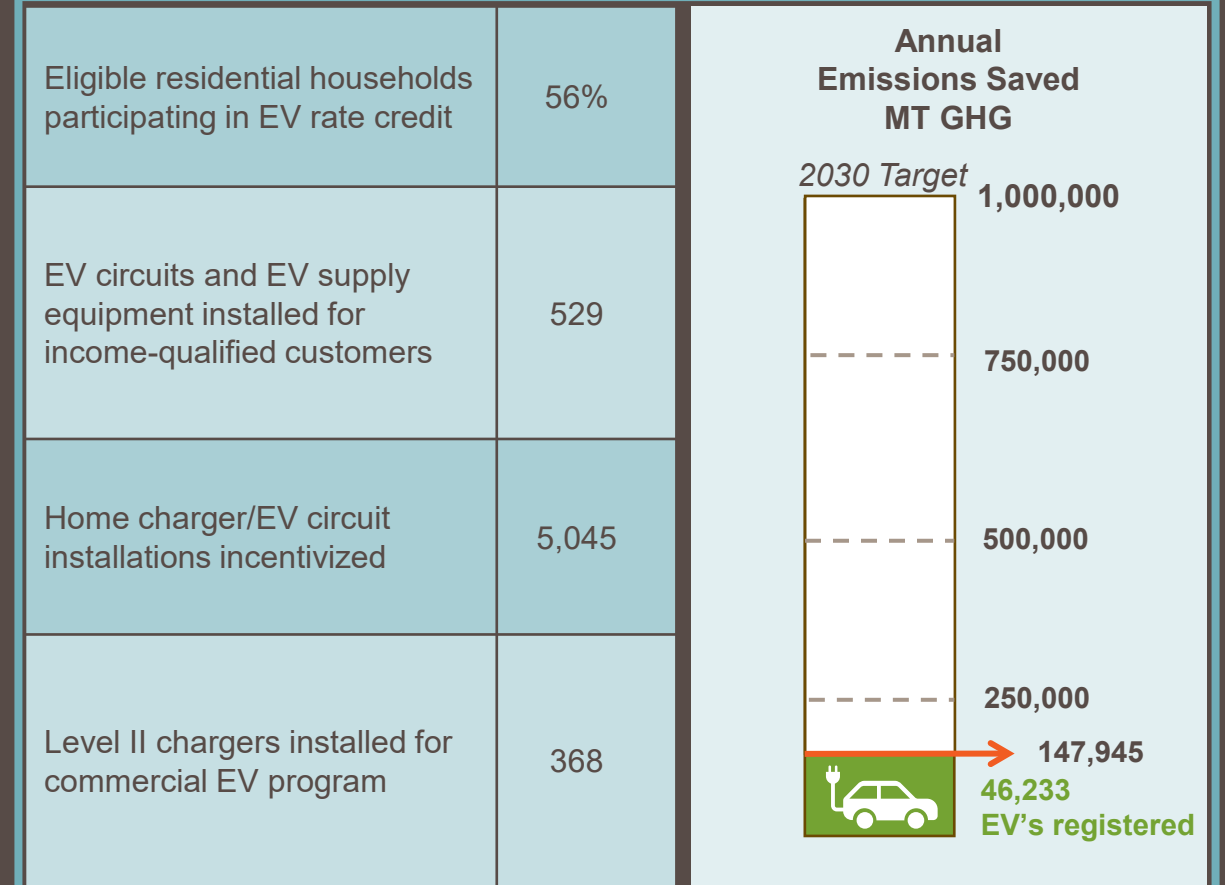
Promote cost effective, clean distributed generation through SMUD programs.

# Electrification & Energy Efficiency

## Building Energy Efficiency and Electrification



## Transportation Electrification



Reduce 1.365 million metric tons of GHG through electrification and energy efficiency.

# Leave No Community Behind

## Community Impact Plan

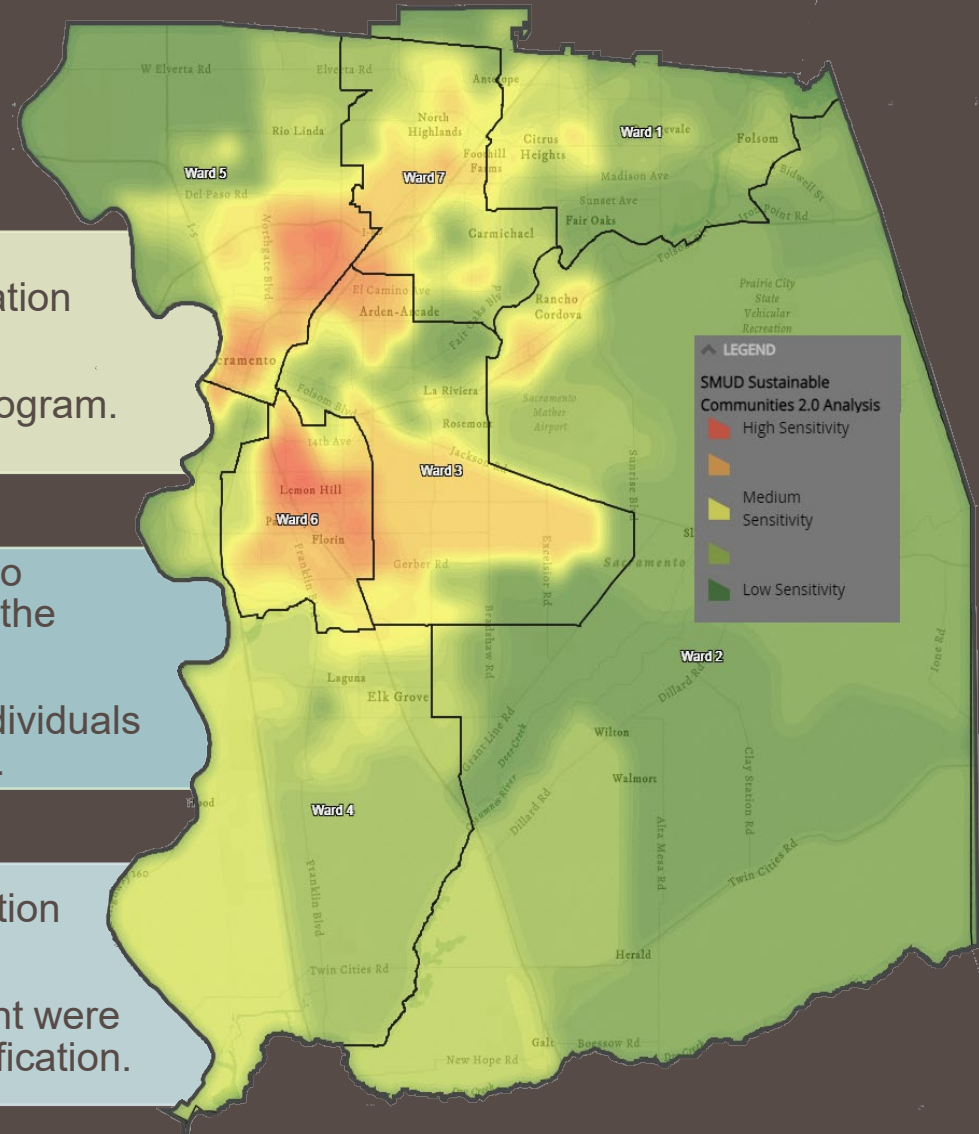
- Installed **187** energy efficiency and electrification measures for income-qualified residents.
- Launched Business District Electrification Program.

## Workforce Development

- Partnered with **48** community organizations to expand workforce development programs in the region.
- Education and training provided for **3,199** individuals and helped employ or upskill **856** individuals.

## Income-Qualified Programs

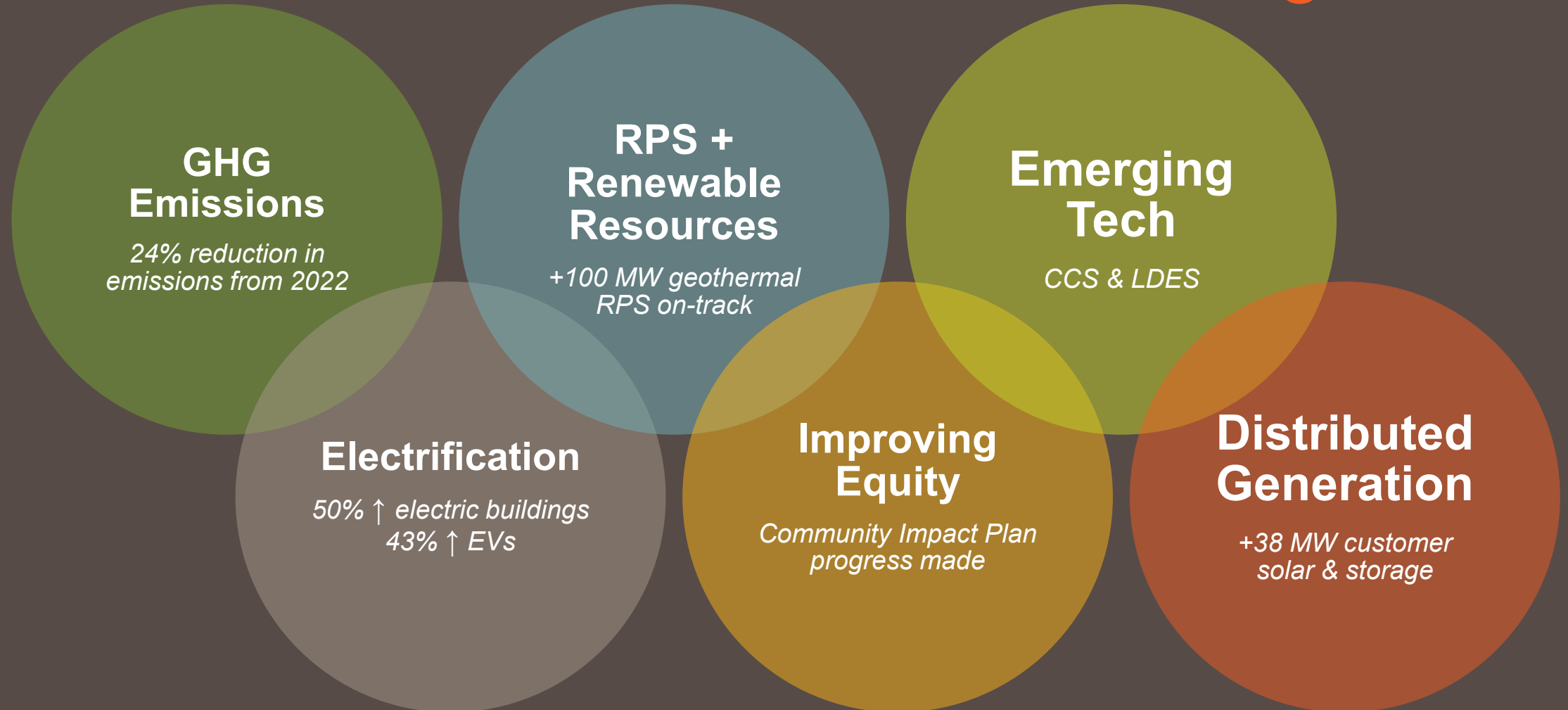
- Over **2,000** efficiency bundles and electrification measures were completed.
- **384** EV circuits and **145** EV supply equipment were installed to prepare homes for vehicle electrification.



Emphasize local and regional benefits; improve equity in under-resourced communities



# In 2023 we met or exceeded SD-9 goals



Request the Board accept the 2023 SD-9 monitoring report