



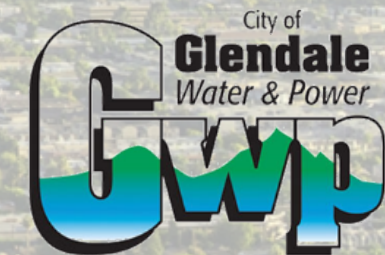
ENERGY BRIEFING

Glendale Water & Power Commission

March 6, 2023

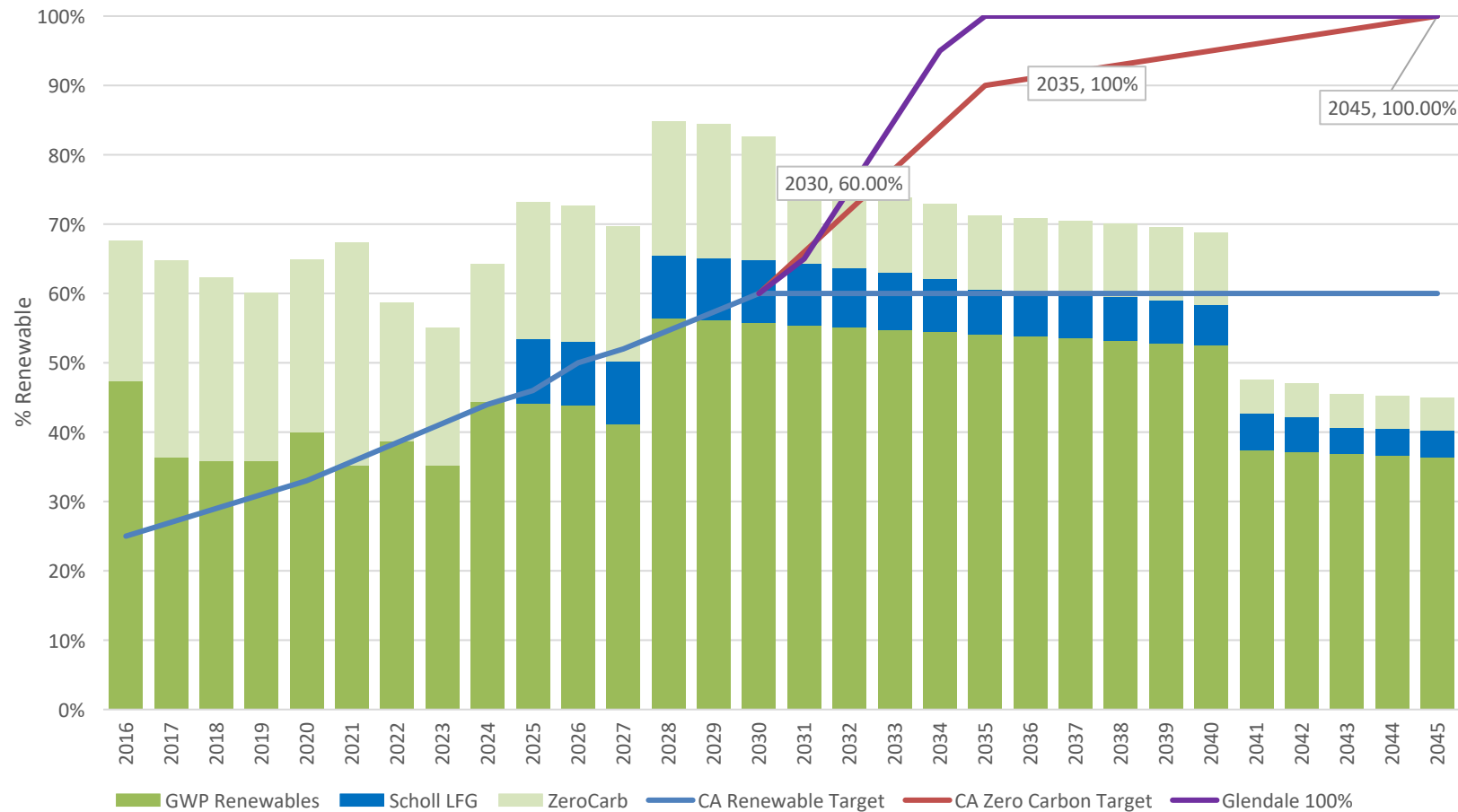
**Scott Mellon, Assistant General Manager – Power
Management**

City of Glendale Water & Power

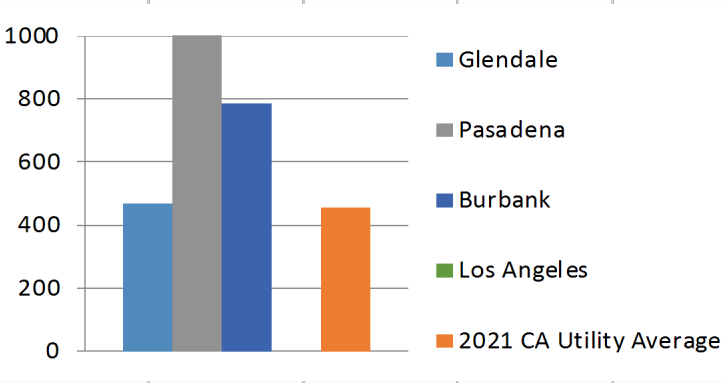


Your Trusted Community Utility

RENEWABLE PORTFOLIO STANDARDS (RPS) STATUS

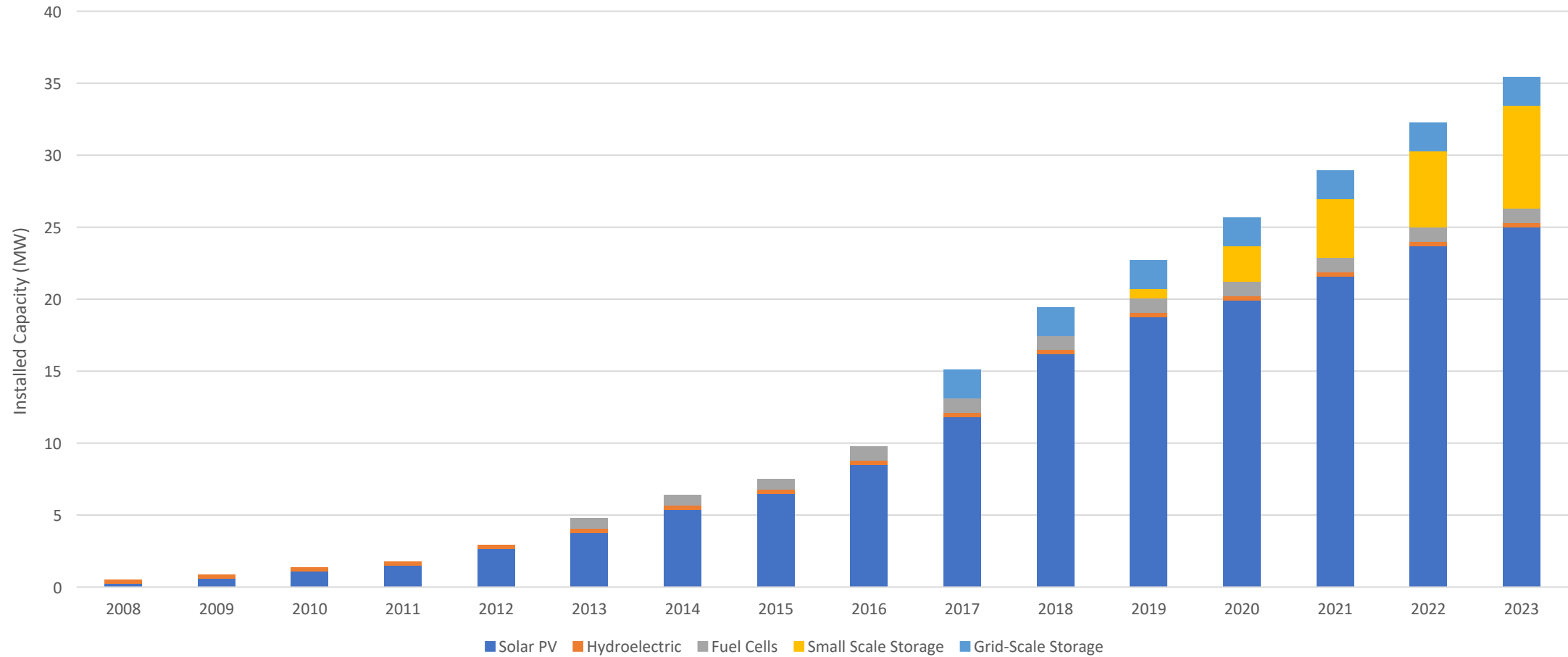


2021 POWER CONTENT LABEL MUNICIPAL COMPARISON

2021 POWER CONTENT LABEL										
Municipal Comparison										
Greenhouse Gas Emissions Intensity (lbs CO ₂ e/MWh)					Energy Resources	Glendale	Pasadena	Burbank	Los Angeles	2021 CA Power Mix
Glendale	Pasadena	Burbank	Los Angeles	2021CA Utility Average	Eligible Renewable¹ Biomass & Biowaste Geothermal Eligible Hydroelectric Solar Wind Coal Large Hydroelectric Natural Gas Nuclear Other Unspecified Power² TOTAL	35.3%	33.2%	36.8%	35.2%	33.6%
471	1031	787	609	456		14.1%	9.3%	3.7%	0.1%	2.3%
						3.6%	1.9%	2.1%	9.7%	4.8%
						8.3%	0.0%	2.9%	0.5%	1.0%
						0.0%	6.6%	16.7%	14.3%	14.2%
						9.2%	15.4%	11.4%	10.6%	11.4%
						3.5%	47.6%	25.5%	18.6%	3.0%
						21.4%	4.8%	2.0%	6.6%	9.2%
						31.3%	5.9%	27.2%	25.9%	37.9%
						8.4%	8.5%	8.5%	13.7%	9.3%
0.0%	0.0%	0.0%	0.0%	0.2%						
0.0%	0.0%	0.0%	0.0%	6.8%						
					100.0%	100.0%	100.0%	100.0%	100.0%	
Percentage of Retail Sales Covered by Retired Unbundled RECs ³ :					0%	6%	4%	0%		
<p>¹The eligible renewable percentage above does not reflect RPS compliance, which is determined using a different methodology.</p> <p>²Unspecified power is electricity that has been purchased through open market transactions and is not traceable to a specific generation source.</p> <p>³Renewable energy credits (RECs) are tracking instruments issued for renewable generation. Unbundled renewable energy credits (RECs) represent renewable generation that was not delivered to serve retail sales. Unbundled RECs are not reflected in the power mix or GHG emissions intensities above.</p>										



DISTRIBUTED ENERGY RESOURCES



SOLAR ON CITY-OWNED SITES

City Council to approve a Request for Proposal to Engineer, Procure and construct solar on 8 City sites (March 7, 2023):

1. Brand Landfill Ground Mount Solar: 1.39 MW
2. Sports Complex Parking lot: 916 KW
3. Montrose Parking lot 3: 807 KW
4. Central Library Rooftop: 402 KW
5. Utility Operations Center Parking lot: 305 KW
6. Fire Station 21 Rooftop: 237 KW
7. Dunsmore Park Parking lot: 221 KW
8. GWP Perkins Building Rooftop: 155 KW

1



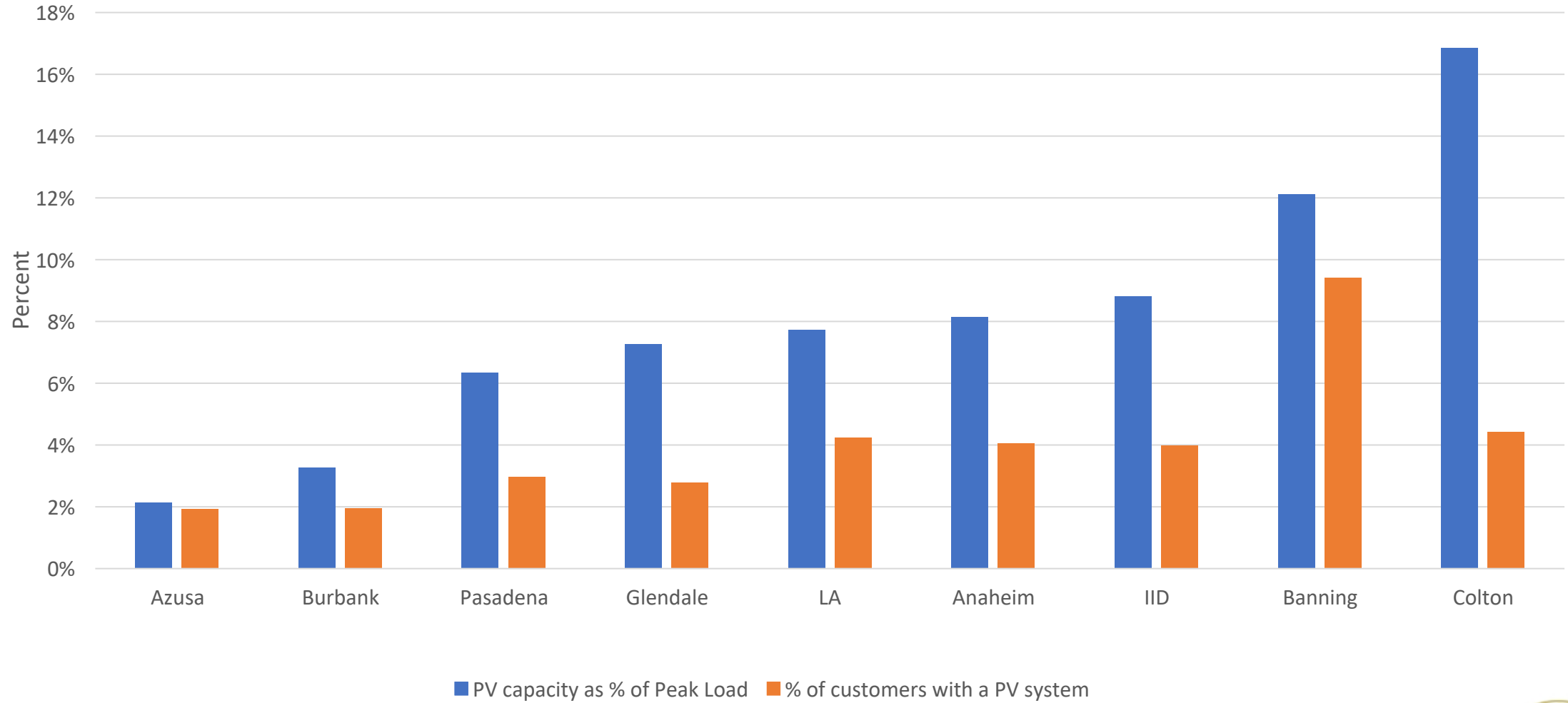
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3



HOW GLENDALE COMPARES



PEAK SAVINGS PROGRAM FRANKLIN DEMAND RESPONSE

PROGRAM TOTALS	2021	2022	2023	2024	Total Guaranteed MW
MW Under Control – Goal	3.1	2.5	2.3	2.0	10.0
MW Under Control – Actual	1.2	1.3	-	-	2.5
% of Annual Goal	38%	53%	-	-	26%

Averages for 11 DR Events in 2022

Customer Type	Enrolled	Enrolled MW	Number of Participants	Delivered MW	Participation Rate	Delivery Rate
Residential	1,746	1.6	1,566	1.3	90%	81%
Commercial	22	0.5	22	0.3	100%	60%
TOTALS	1,768	2.1	1,588	1.6	90%	76%

COMPATIBLE THERMOSTATS



ecobee



Honeywell

ENERGATE



GWP ENERGY EFFICIENCY PROGRAMS

- Financial incentives offered since 2000
- Investments through June 2022:
 - **\$48.6** million in energy efficiency (EE) programs
 - **\$18.5** million in local solar projects
- Since 2001, GWP EE programs have averaged close to **13,000 MWh** in first year savings



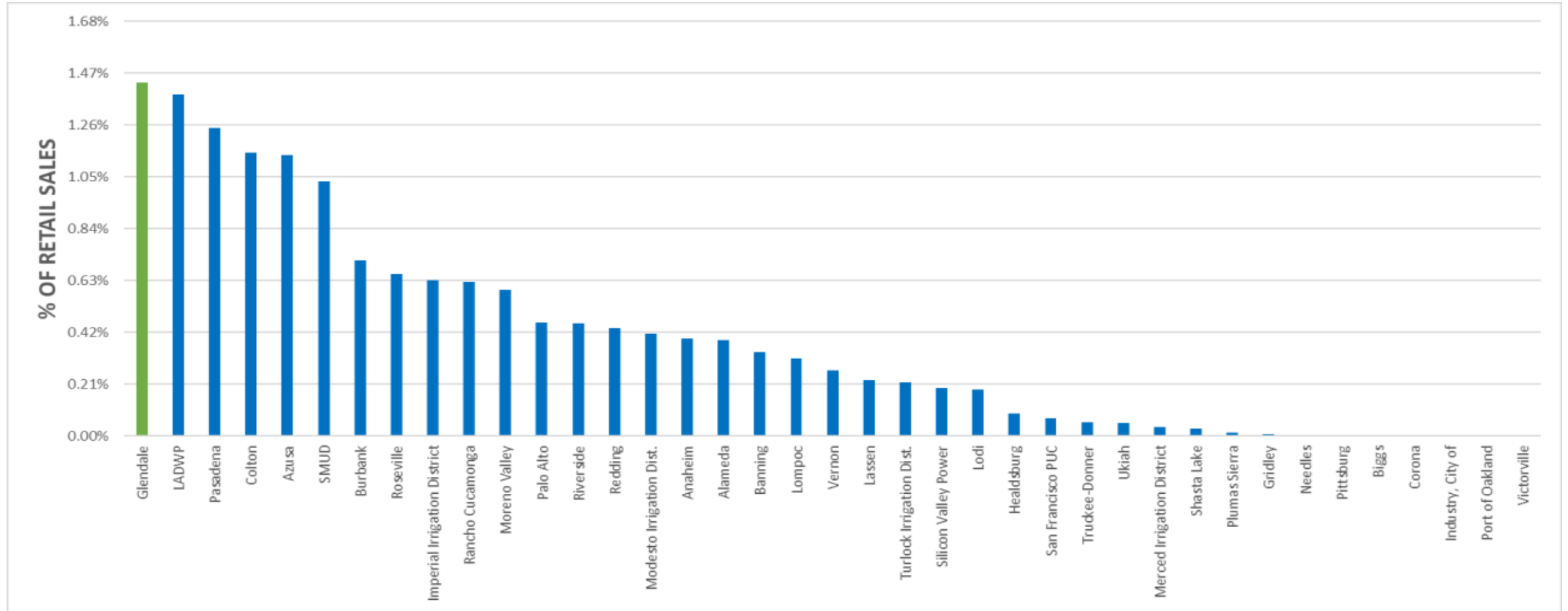
BUSINESS ENERGY UPGRADE PROGRAM WILLDAN ENERGY EFFICIENCY PROGRAM

Program Year	PY1	PY2 (in progress)	PY3	PY4	PY5	PY6	PY7
Incremental Energy Savings Goal MWh	1,300	2,600	7,100	7,100	7,700	5,900	4,800
Actual MWh	1,423	5,312	-	-	-	-	-
% of Annual Goal	109%	204%	-	-	-	-	-
# of Completed Projects	212	440	-	-	-	-	-

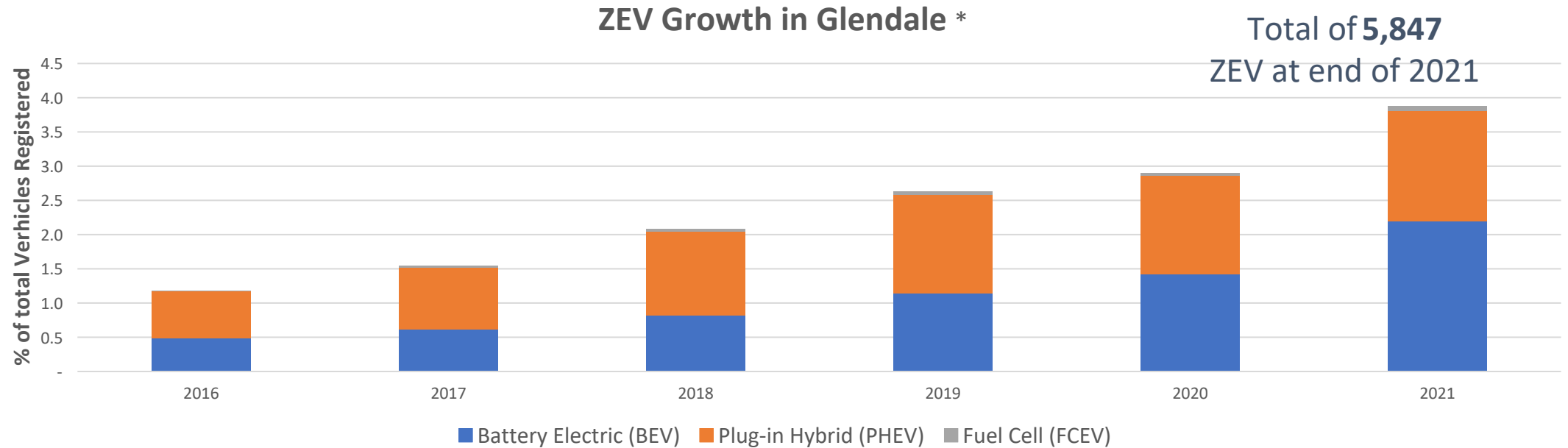
- \$17.9 Million Energy Efficiency Program targeting all business customers
- Energy savings would ramp up to 36,500 MWh per year by year seven
- Measures primarily include lighting, HVAC measures, refrigeration EC motors, heat pump water heaters
- Savings are projected to last 12.5 years



GWP ENERGY EFFICIENCY COMPARISON TO CALIFORNIA UTILITIES



TRANSPORTATION ELECTRIFICATION



GWP EV Charging Station Rebate Program Statistics							
	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	TOTAL
Incentivized Chargers	33	44	56	43	38	53	267
Total Rebate Amounts	\$16,000	\$25,387	\$30,796	\$50,609	\$49,043	\$78,184	\$250,022



CITY OWNED EV CHARGING INFRASTRUCTURE

GWP is expanding its EV charging station infrastructure throughout the City. The goal is to make public charging more accessible and promote EV adoption among Glendale residents and visitor.



Glendale-owned EV Charging Stations			
Currently Installed	Under Construction	Additional Stations Expected by June 2023	TOTAL
47	18	30	95

Glendale-owned Charging Ports Stats as of February 2023 *	
Level 2 ports	45
DCFC ports	2
Total Sessions	39,321
Total kWh used	443,932

OFF-PEAK EV CHARGING REBATE PROGRAM

- Encourages EV drivers to charge their vehicles overnight on weekdays between 9 p.m. and 12 p.m. the next day and any time on the weekend in exchange for a monthly incentive of \$8.
- All battery electric or plug-in hybrid vehicles are eligible to participate in this program, and customers can enroll multiple EVs to their account.
- Over 450 customers are currently enrolled.



GRAYSON REPOWER PROJECT

- Tesla EPC contract negotiation terminated
- Council directs staff to include BESS in BOS EPC RFP - 12/13/22
- Demolition and Site Improvement proposals evaluated
- Award recommendation to be made to City Council - 03/21/23
- Unit 9 Separation work is ongoing and on schedule for completion - June 2023



SCHOLL CANYON LFG PROJECT

Nov 30, 2021

- Final EIR **CERTIFIED**
- Conditional Use Permit and Special Recreation Review **APPROVED**

Jan 24, 2023 – PROJECT APPROVED

- Western Energy Systems (WES) to provide 4 Jenbacher engines
- ACCO Engineered Systems (ACCO) to Engineer, Procure and Construct (EPC) the project.

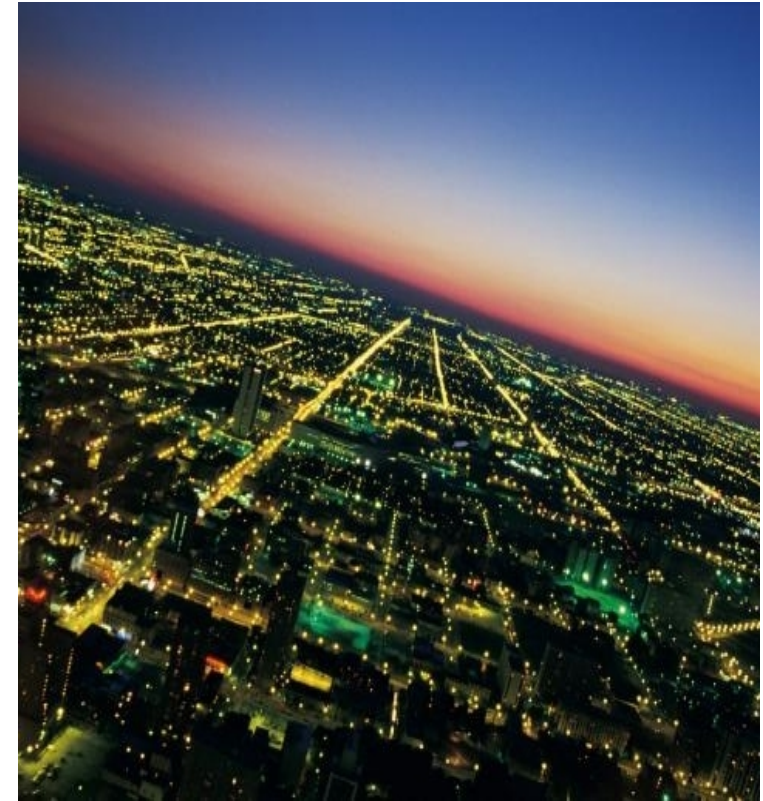
- Project Timeline/Milestones

Full Notice to Proceed to WES	March 2023
Execute the EPC contract and Full Notice to Proceed to ACCO	March 2023
SCAQMD Permit	May/June 2023
Mobilize to Site	June 2023
Project Substantial Completion	December 2024
Project Final Completion	Early 2025



2024 INTEGRATED RESOURCE PLAN

- Planning Horizon 2024 through 2045
- Full IRP Process
 - Stakeholders Input
 - Reliability, Affordability, Sustainability/Equity
- Request for Proposal issued 2/1/2023
 - Develop and analyze various portfolios
 - Resource Adequacy Evaluation
 - Facilitate stakeholder engagement
 - Preparation of report
 - Final IRP Draft: October 2023
- Due to CEC in January 2024



ENERGY SUPPLY CHALLENGES/OPPORTUNITIES

- Star Peak Geothermal – Finally reached COD last September 2022
- Eland 1 Solar and Storage – delayed; developer seeking waiver on daily delay damages
- Grayson Repower Replacement Energy – Summer will be a challenge!
- Other projects currently being considered
 - 20-year Geothermal Project delivered at IPP (2027)
 - 30-year Solar Project delivered at IPP (2026)
 - Off-system Battery Storage
 - Local Commercial PV Solar (PPA)
- Carbon Allowances – \$8.9M in November 2022 Auction



QUESTIONS





#MyGlendale