

Portfolio Decarbonization Planning Los Angeles Existing Municipal Building Decarbonization Workplan Report and Year 1 Workbook Package

Presentation to the:
Municipal Facilities Committee



GLUMAC
March 2026



City of Los Angeles
Existing Municipal Building
Decarbonization Workplan
November 2024



ENGINEERING
CITY OF LOS ANGELES

Prepared by Glumac, a Tetra Tech Company

1



City of Los Angeles
Existing Municipal Building
Decarbonization Workplan
Year 1 Project Workbook – FY 2024-2025
November 2024



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City of Los Angeles

Existing Municipal Building
Decarbonization Workplan

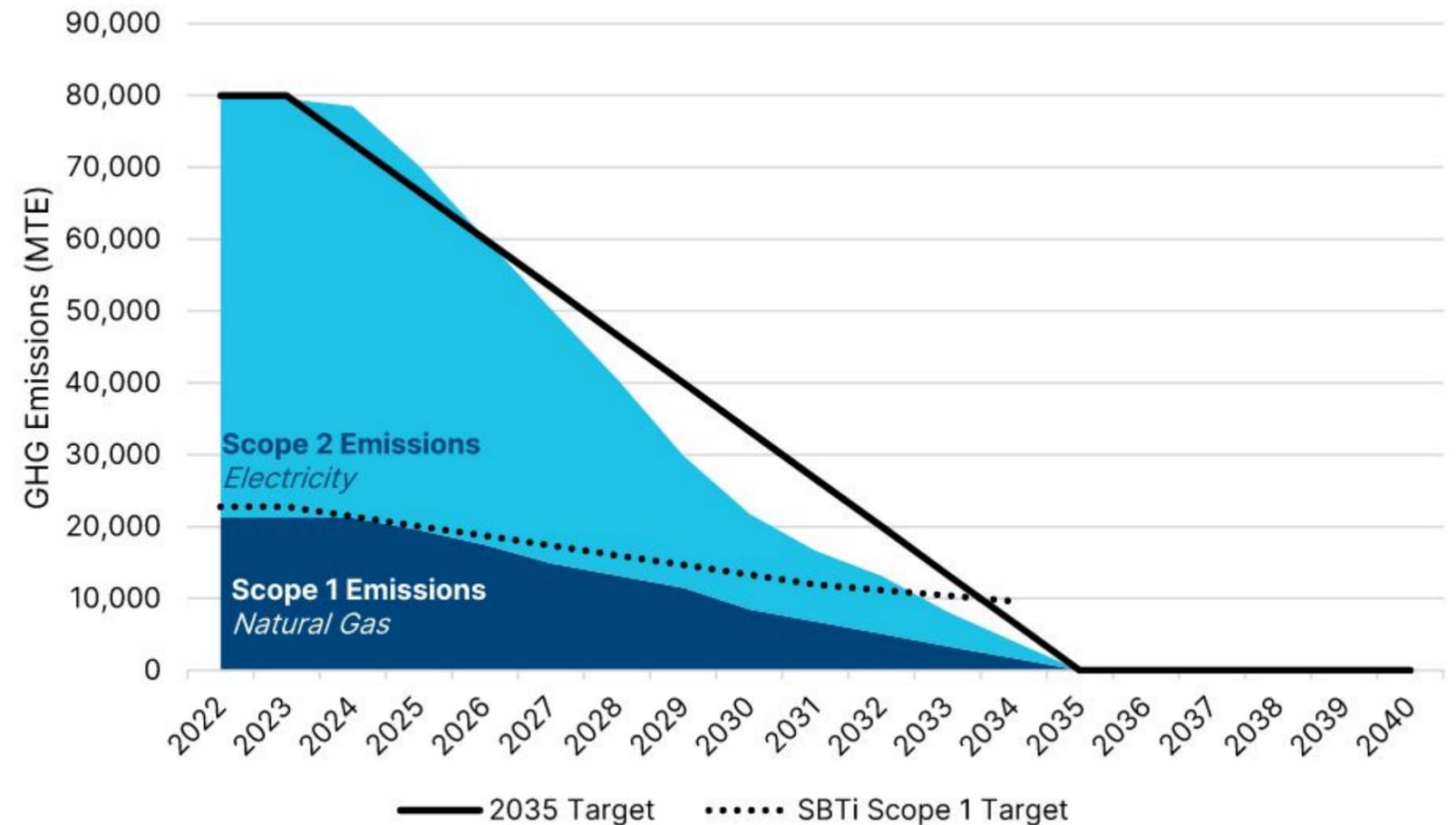
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Municipal Buildings GHG Emissions Forecasts

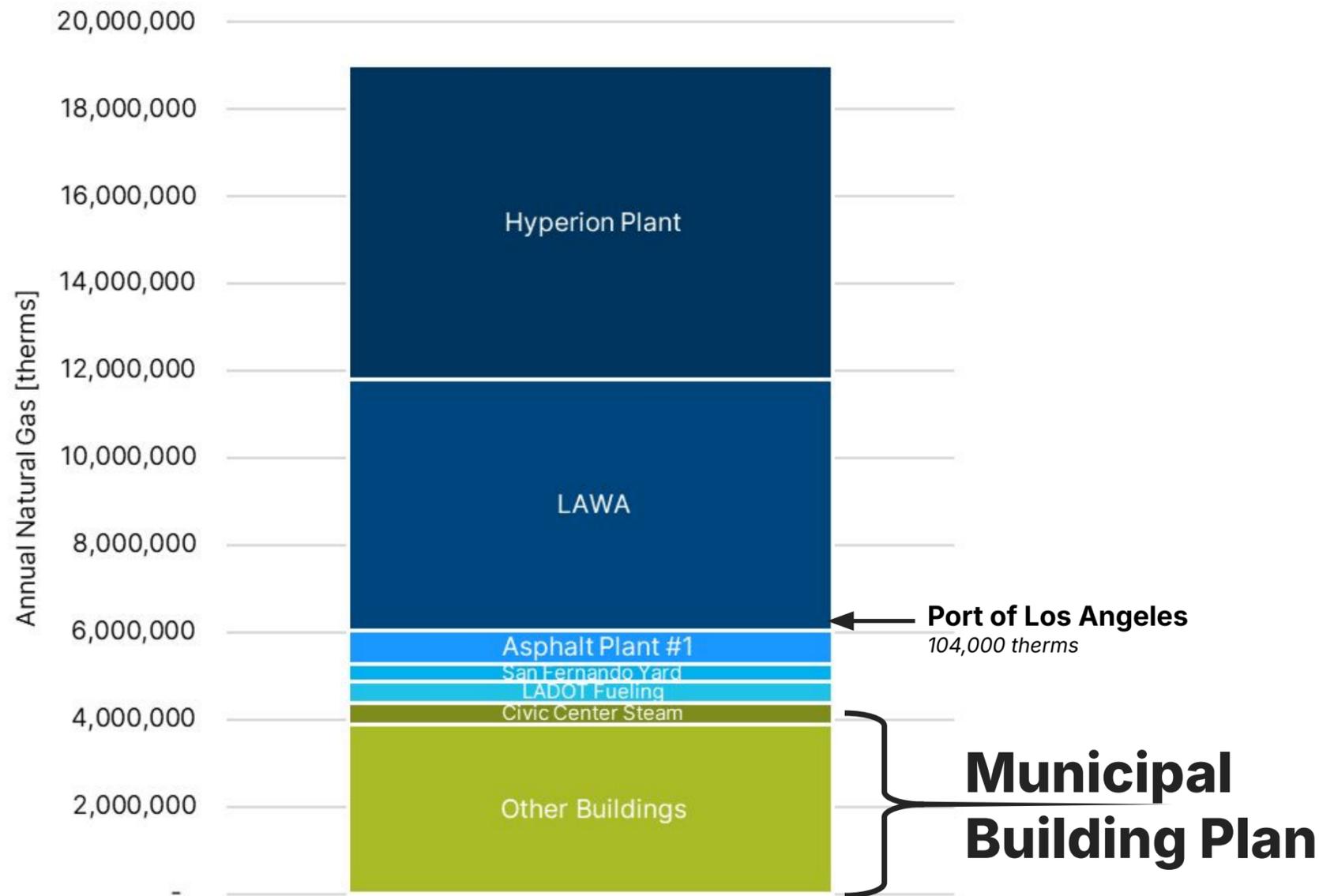
Pathway for the City of Los Angeles to decarbonize municipal building operations by 2035.



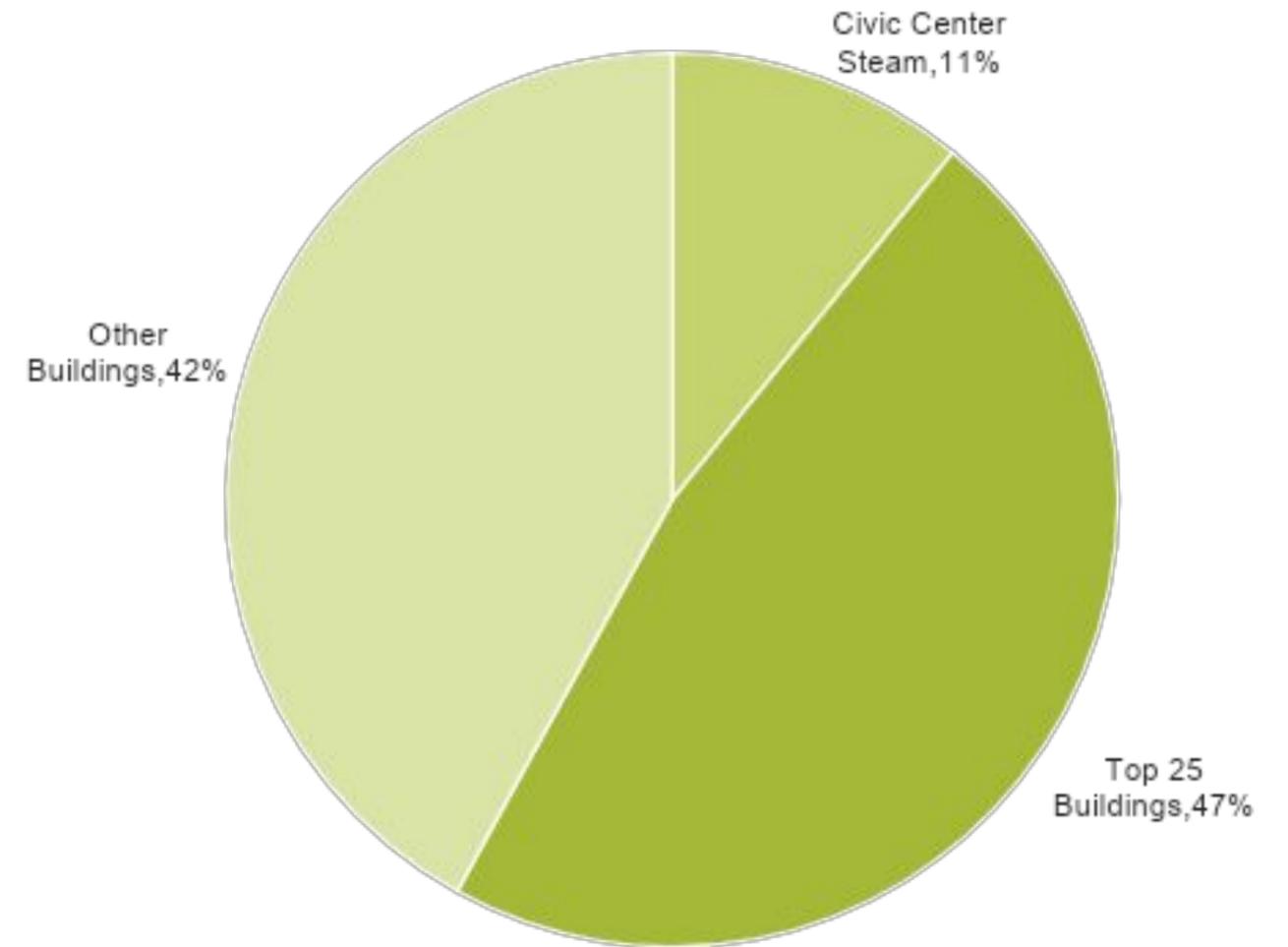
1. Emissions forecast is based on projects outlined in the Existing Building Decarbonization Workplan.
2. Municipal buildings includes all City owned facilities in non-proprietary departments. Excludes process operations including asphalt plants, wastewater treatment and CNG fueling.
3. Electricity emission factors based on LADWP's to provide 100% clean power by 2035 under LA1000. .

The Existing Building Decarbonization Workplan covers all non-proprietary buildings which use roughly 4 million therms of natural gas annually.

LASAN 2022 GHG Inventory



Municipal Existing Building Decarbonization Plan



The Municipal Building Decarbonization Workplan does not cover proprietary city departments including LAWA, POLA and LADWP. Natural gas for those departments are included above. Consumption for the Port of Los Angeles is ~100,000 Therms annually.

Municipal Existing Building Decarbonization Workplan Key Findings

1

Los Angeles has a pathway to achieve carbon-neutral municipal building operations by 2035.*

- Prioritize building electrification and cost-effective energy efficiency and solar projects.
- Target buildings with the largest natural gas use – 25 sites account for 50% of annual use.
- Establish science-based reduction targets, with interim reduction commitments.

2

Achieving the 2035 commitment requires significantly scaling and accelerating implementation

- Requires electrifying 80 buildings annually starting in FY24-25, every year the City waits annual requirement increases by 10%.
- Decarbonization workplan will require additional staff, resources and funding, and new project delivery methods.
- Workplan recommends establishing a dedicated BOE Building Decarbonization Program Team.
- Success will still require significant coordinate and collaboration between multiple City departments.

3

A financially sustainable program aligns with existing buildings needs and can leverage external source.

- Align decarbonization projects with deferred maintenance and infrastructure needs, avoid early equipment retirement.
- Pursue all available grants, leverage new financing mechanisms and consider building decarbonization/resilience bond.
- Implement Energy Savings Performance Contracts (ESPC) projects – CAO to determine financing approach.

4

Municipal building decarbonization will provide important community benefits.

- Enhanced resilience of community cooling centers, emergency services and other critical operations.
- Lead the way and spur investment in the private sector.
- Create new local jobs in the green economy.



*The Building Decarbonization Workplan assumes a 12-year funding duration with 2035 being the last funding cycle. During the Year-1 Workbook revision, Bureau of Engineering will revise the target Workplan implementation date, as stated in recommendation number 3.

City of Los Angeles Building Portfolio

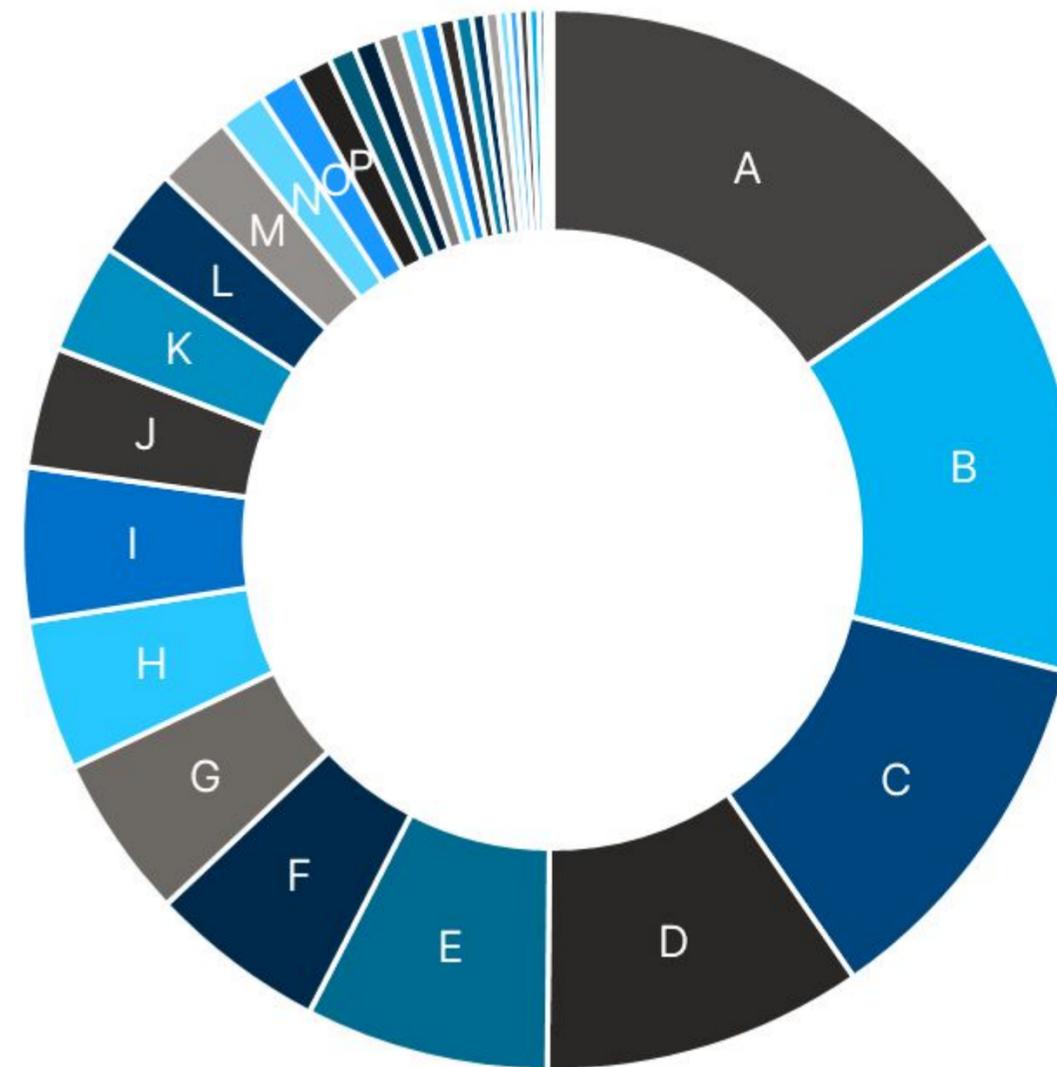
980
Buildings

21M
Square Feet

\$68M
Annual Utility Cost

Key Takeaways

1. City operates a **diverse portfolio of existing buildings** providing various critical services.
2. Buildings account for **34% of municipal emissions** - 100,000 MTE in 2022.
3. Electrification is critical – LADWP to provide **100% clean power by 2035**.
4. **25 sites use 50% of natural gas** use for all municipal buildings.
5. Scope 1 emissions reduction targets in line with **science-based target**

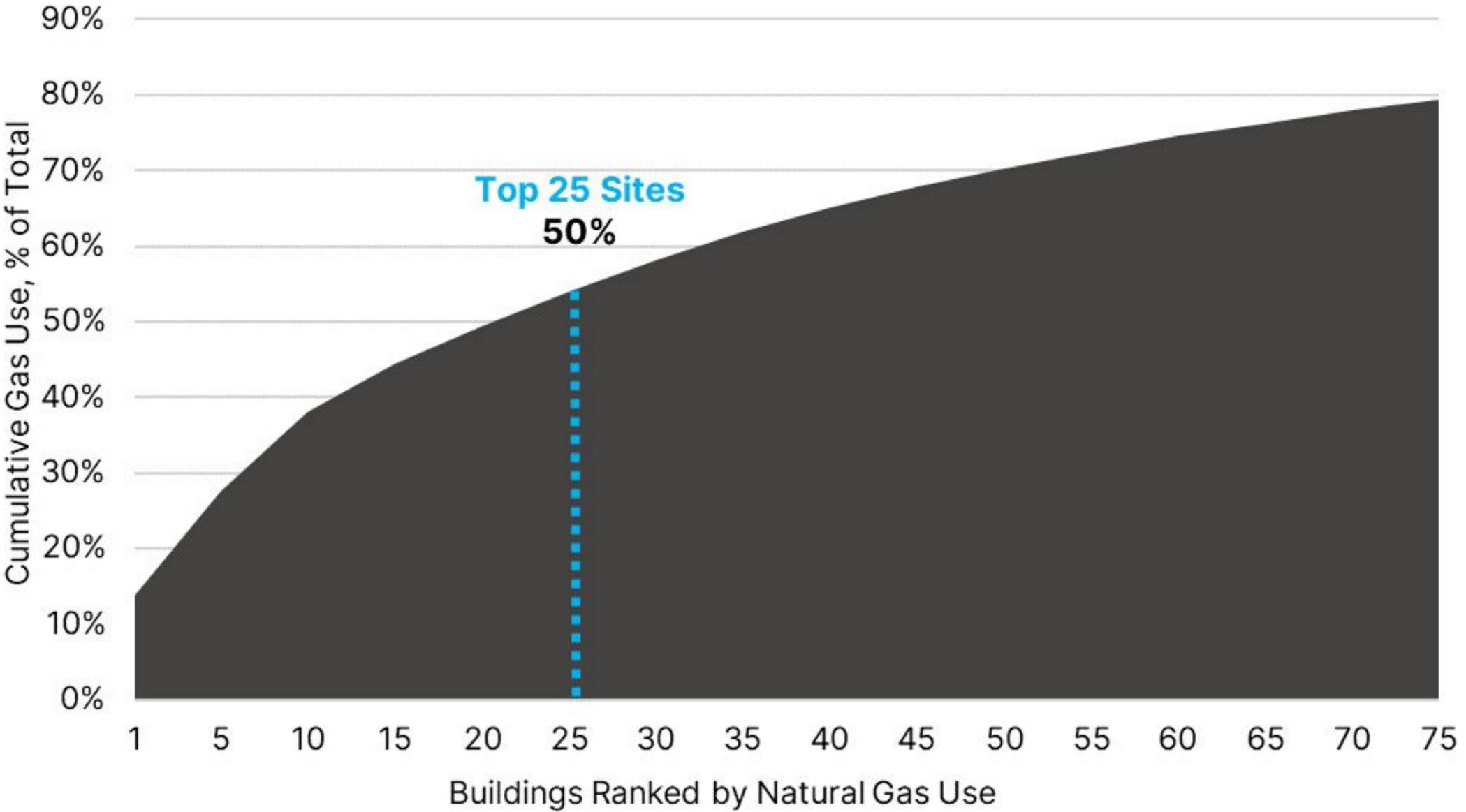


- A - RECREATION CENTER, 152
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- C - FIRE STATION, 112
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- CC - RESTAURANT, 3
- DD - AQUARIUM, 2
- EE - CHURCH, 1
- FF - DETENTION, 1

Existing Building Portfolio by Building Type

WORKPLAN REFERENCE: PAGE 7 & 32

Los Angeles will prioritize decarbonizing the top 25 sites which account for over 50% of annual natural gas use from all municipal buildings.



Excludes sites with process gas use including Asphalt Plant #1 (776,083 therms), LADOT CNG Fueling (493,303 therms), San Fernando Street Maintenance (393,986 therms) and Southwestern District Steet Maintenance (187,957 therms).

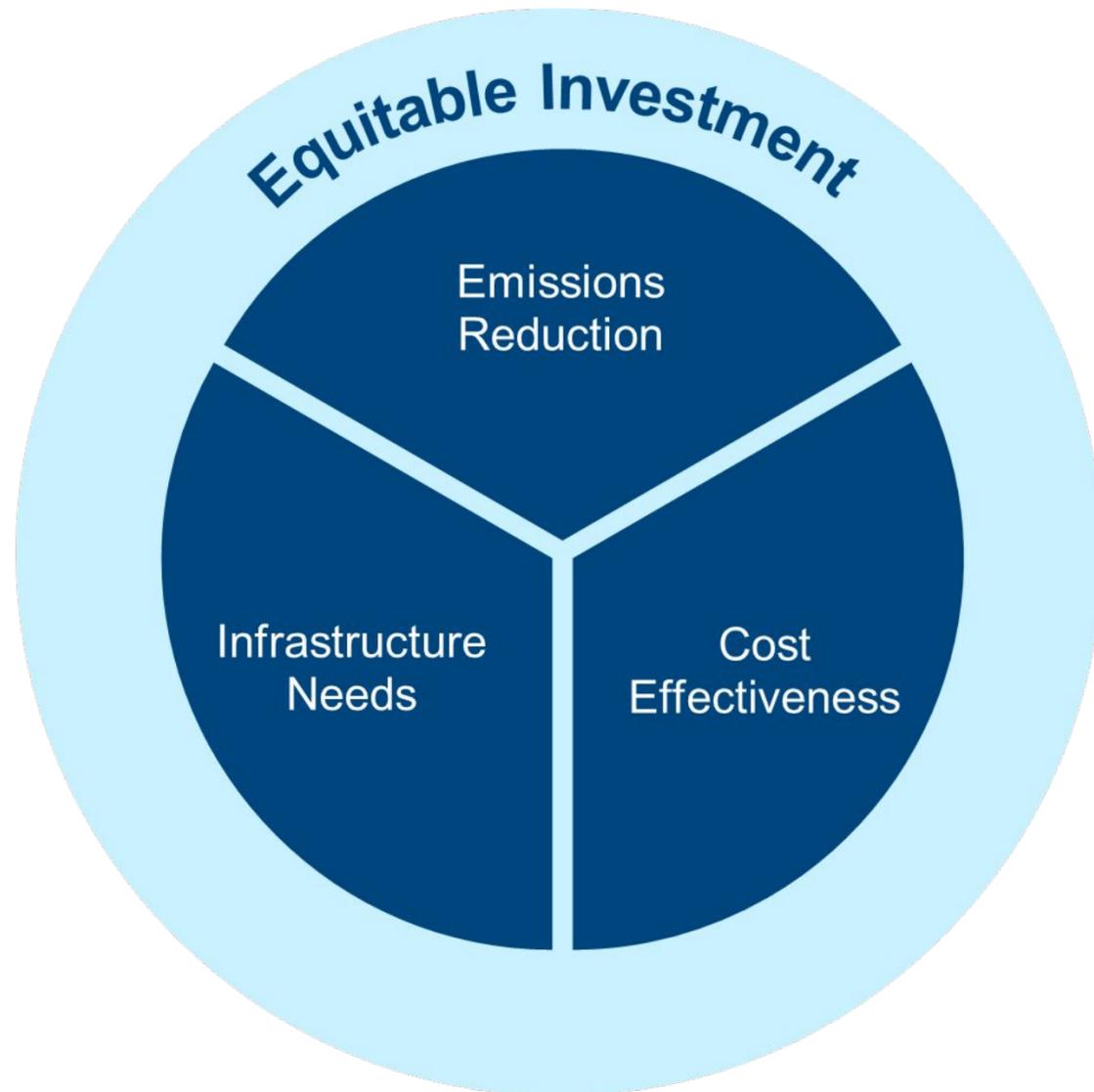


A.7. TOP 25 SITES BY NATURAL GAS

Table 28: City of Los Angeles - Top 25 Sites by Natural Gas Use

#	Site Name	Council District	Primary Department	Building Maintenance	Infrastructure Priority	Target Funding Year	ROM Cost (2023) ¹	Funding Requirements ²	2022 Gas Usage (Therms)
1	CIVIC CENTER STEAM PLANT – PH. 1 (CITY HALL / METRO DETENTION CENTER)	14	GSD	GSD	High	FY 25-26	\$30,000,000	\$45,000,000	491,100
	CIVIC CENTER STEAM PLANT – PH. 2 (CITY HALL EAST / CITY HALL SOUTH)³	14	GSD	GSD	High	FY 28-29	\$35,000,000	\$70,000,000	
2	POLICE ADMINISTRATION BUILDING (PAB)	14	LAPD	GSD	Medium	FY 30-31	\$12,873,965	\$30,000,000	181,700
3	HYPERION TREATMENT PLANT BUILDINGS	11	LASAN	LASAN		FY 27-28	\$9,000,000	\$17,000,000	153,500
4	EXPO CENTER	09	RAP	RAP		FY 25-26	\$8,686,894	\$15,000,000	140,700
5	LOS ANGELES ZOO	04	ZOO	ZOO		FY 27-28	\$5,000,000	\$10,000,000	84,900
6	VAN NUYS SHERMAN OAKS PARK AND POOL	04	RAP	RAP	Low	FY 31-32	\$1,933,930	\$4,500,000	81,400
7	CENTRAL LIBRARY	14	LAPL	GSD	Low	FY 32-33	\$31,737,276	\$75,000,000	81,300
8	NORTH HOLLYWOOD FLEET SERVICE REPAIR FACILITY	02	GSD	GSD	High	FY 27-28	\$3,200,000	\$6,500,000	78,300
9	C ERWIN PIPER TECHNICAL CENTER (PIPER TECH)	14	GSD	GSD	High	FY 26-27	\$49,000,000	\$90,000,000	72,300
10	EAST VALLEY SOLID WASTE RESOURCES FACILITY	06	GSD	GSD	Low	FY 33-34	\$4,500,000	\$12,000,000	71,900
11	VAN NUYS COMMUNITY POLICE STATION	06	LAPD	GSD	High	FY 25-26	\$4,500,000	\$8,000,000	68,900
12	LOS ANGELES CONVENTION CENTER	09	LACC	Vendor	Medium	FY 29-30	\$30,000,000	\$65,000,000	63,900
13	7TH ST CONSOLIDATED FACILITY	14	GSD	GSD	High	FY 25-26	\$5,700,000	\$10,000,000	55,200
14	ECHO PARK DEEP POOL	14	RAP	RAP	Medium	FY 31-32	\$4,567,341	\$10,500,000	52,300
15	GLASSELL PARK AND POOL	15	RAP	RAP	Medium	FY 30-31	\$1,511,816	\$5,000,000	51,900
16	AHMANSON RECRUIT TRAINING CENTER (ARTC)	11	LAPD	GSD	High	FY 27-28	\$13,713,439	\$26,000,000	46,000
17	LINCOLN PARK AND POOL	14	RAP	RAP	Medium	FY 28-29	\$4,605,644	\$10,500,000	41,800
18	VAN NESS REC CENTER	18	RAP	RAP		FY 31-32	\$2,038,950	\$5,000,000	39,500
19	WEST VALLEY SOLID RESOURCES COLLECTION YARD	12	GSD	GSD		FY 31-32	\$2,000,000	\$5,000,000	38,600
20	YOSEMITE POOL AND REC CENTER	14	RAP	RAP	High	FY 26-27	\$1,450,750	\$3,000,000	38,500
21	CENTRAL REFUSE EQUIPMENT REPAIR YARD	14	GSD	GSD	High	FY 25-26	\$2,000,000	\$3,500,000	37,600
22	ROOSEVELT POOL	14	RAP	RAP	High	FY 24-25	\$1,395,540	\$2,000,000	37,000
23	ELYSIAN PARK POLICE ACADEMY (LAPD POLICE ACADEMY)	01	LAPD	GSD ⁴		FY 31-32	\$4,905,339	\$11,500,000	36,800
24	WESTWOOD PARK AND POOL	05	RAP	RAP		FY 30-31	\$12,173,784	\$26,000,000	36,000
25	CAMP SEELY	04	RAP	RAP	High	FY 33-34	\$2,000,000	\$5,000,000	35,100
Total							\$280,000,000	\$565,000,000	2,165,886

Prioritization framework will support decision making to develop impactful annual project portfolios.



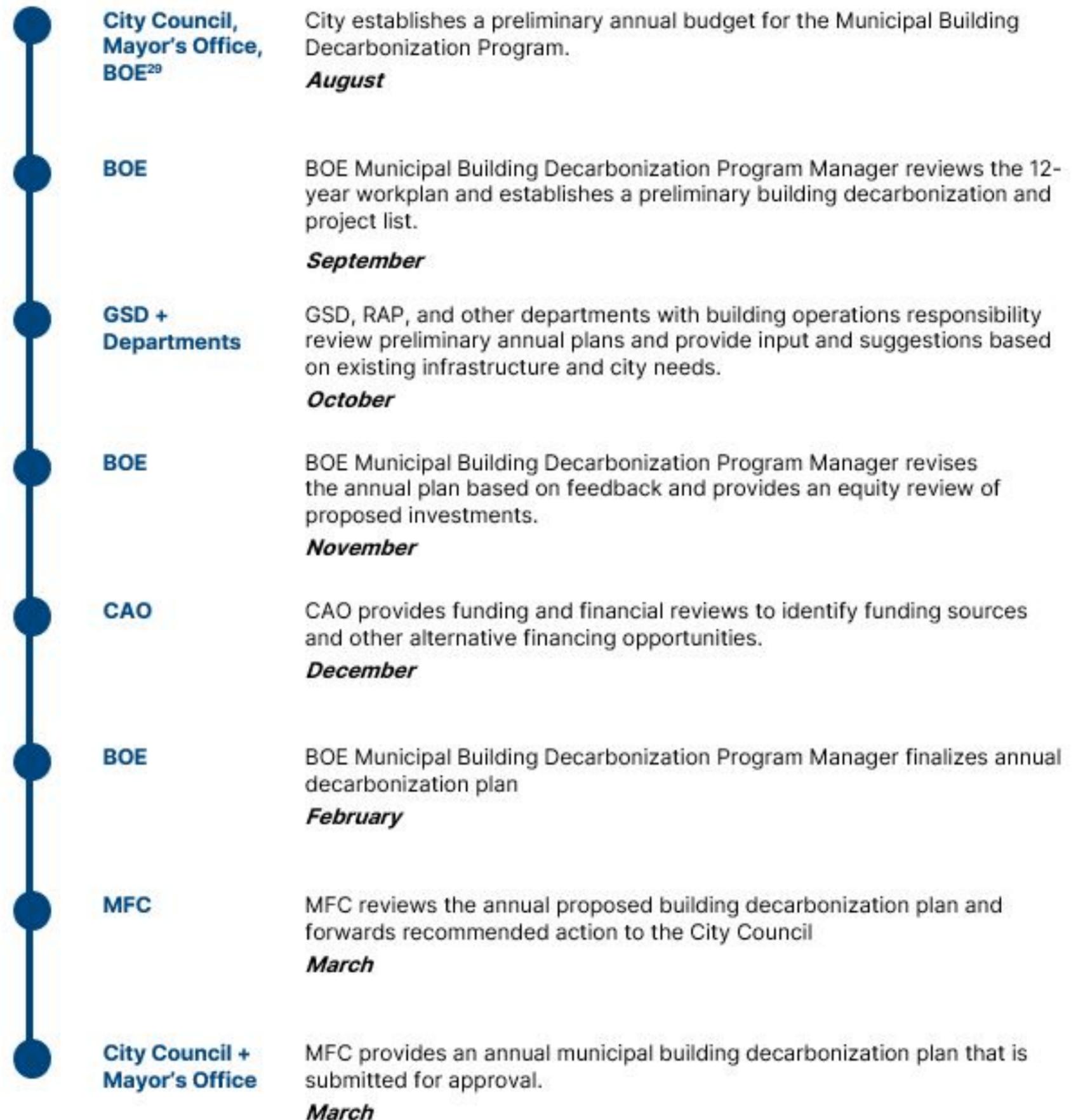
Prioritization Criteria	Outcomes & Impact	Tactics
<p>Emissions Reduction Prioritize projects with largest GHG emissions reduction potential.</p>	<p><i>Carbon neutrality municipal building operations by 2035. Leading by example for the private sector.</i></p>	<p>A. Electrify all buildings B. Complete LED lighting retrofits C. Pursue cost-effective energy and solar D. Procure 100% carbon free electricity</p>
<p>Infrastructure Needs Prioritize buildings with the greatest building infrastructure issues and deferred maintenance.</p>	<p><i>Improved reliability of public services and emergency operations. Greater community resilience.</i></p>	<p>A. Prioritize based on existing infrastructure B. Invest in cooling centers C. Create microgrids at and critical facilities</p>
<p>Cost Effectiveness Prioritize cost effective decarbonization projects, leverage external funding & financing, and reinvest savings.</p>	<p><i>Reduced operational costs for municipal building utilities and maintenance.</i></p>	<p>A. Pursue available incentives, rebates, credits B. Leverage alternative funding and financing C. Submit projects for federal and state grants</p>
<p>Equitable Investment Equitably invest across Los Angeles, prioritizing buildings serving disadvantaged communities.</p>	<p><i>Investment in facilities that support disadvantaged communities. Economic support for local green jobs.</i></p>	<p>A. Invest in disadvantaged communities – City's Equity Mapping and Justice 40 B. Program transparency</p>

The Existing Building Decarbonization Workplan will leverage multiple project delivery methods to scale implementation efforts. All electrification project delivery methods assume equipment replacement at the end of their useful life.

1 Capital Improvement	2 End of Life Equipment (RAP-GSD)	3 Portfolio Design-Build Energy Projects	4 Portfolio Solar Procurement
<p>Complex engineering projects that require planning and engineering design.</p> <ul style="list-style-type: none"> • Boilers • Steam • Pool Heating • Large Water Heaters <p>Delivery Approach: BOE led projects run through existing capital improvement projects processes.</p>	<p>Replacement of smaller natural gas equipment that has reached the end of life.</p> <ul style="list-style-type: none"> • Rooftop Units • Small Water Heaters • Gas Dryers • Ovens & Ranges <p>Delivery Approach: GSD/RAP led project with technical support from BOE. Vendor provides</p>	<p>Full building upgrades at simpler facilities (fire station, library, rec center, etc).</p> <ul style="list-style-type: none"> • HVAC Systems • Water Heaters • LED Lighting <p>Delivery Approach: ESPC¹s are a type of design-building projects with guaranteed savings. BOE managed projects.</p>	<p>Combine solar PV projects across multiple sites for more competitive pricing.</p> <ul style="list-style-type: none"> • Rooftop Solar • Carport Solar <p>Delivery Approach: Design-build project delivery leveraging existing on-call solar contractors list.</p>

¹ Energy Savings Performance Contracts (ESPC) is a design-build energy project delivery method that is discussed in the Workplan as a potential project delivery method.

Proposed Process for Approval of Annual Workbook - CTIEP process



**Engineering projects currently pursuing the
Business Offerings for Sustainable Solutions (BOSS) & Zero By Design (ZBD) - Project List**

Project Name	Active Phase	Incentive Program		Pre-Verification Completion Date	Application Status	Electrified Equipment	Est. DWP Rebate/Incentive
		HVAC	WATER HEATER				
Silver Lake Branch Library Decarb. (E)	Construction	YES	YES	12/04/2025	Awaiting post installation verification by LADWP	(1) Heat Pump HVAC 25 Tons (1) Heat Pump HVAC 15 Tons (1) Heat Pump HVAC 12.5 Tons (1) Heat Pump Water Heater 80 gal	\$14,029.62
Fire Station 39 Phase 3 Decarb. (E)	Construction	YES	YES	1/22/2025	Awaiting post installation verification by LADWP	(1) Heat Pump HVAC 10 Tons (1) Heat Pump HVAC 12 Tons (1) Heat Pump HVAC 5 Tons (2) Heat Pump Water Heater 80 gal	\$24,165.30
Benjamin Franklin Library Renovations (E)	Construction	NO	YES	pending	in progress, awaiting LADWP pre-verification	(1) Heat Pump Water Heater 65 gal	\$2,200.00
Ziegler Estate Phase II (E)	Design	YES	YES	pending	in progress, awaiting LADWP pre-verification	(1) Heat Pump HVAC 4 Tons (1) Heat Pump HVAC 5 Tons (2) Heat Pump HVAC 3.5 Tons	\$473.62

Custom building decarbonization tracking tool will allow the City to monitor progress towards carbon neutrality.



- Building Database
- Project Database
- Equity Matrix
- Facility Tracking
- Portfolio Tracking
- Scenario Planning

Facility Overview and Tracking

Facility Name
ALPINE RECREATION CENTER

Key Performance Indicators

1,840

Annual Natural Gas Savings (Therms)

35,890

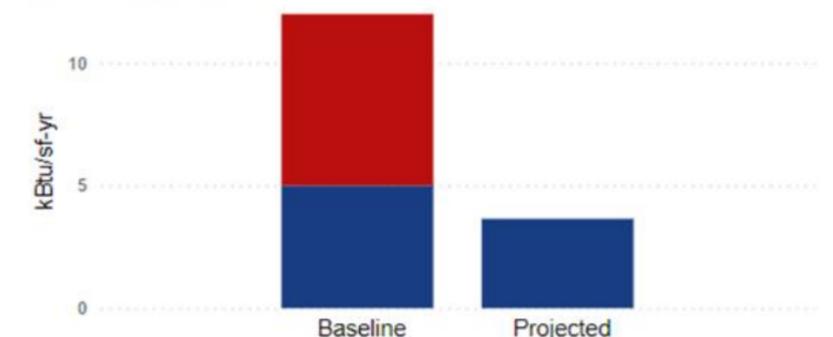
Annual Electricity Savings (kWh)

19.6

Annual Emissions Reduc

Baseline and Project Energy Use Intensity (EUI)

● Electricity ● Natural Gas



Project ID	Target Year	Project Name	Status	LADWP Incentive	Project Cost
000001786		Alpine Recreation Center - LED Retrofit	NOT-STARTED	\$9,160	\$158,000
000001787		Alpine Recreation Center - Retro-commissioning	NOT-STARTED		\$26,000
000001785		Alpine Recreation Center - RTU Electrification	NOT-STARTED	\$3,870	\$1,069,000
000001788		Alpine Recreation Center - Water Heating Electrification	NOT-STARTED	\$2,830	\$22,000
Total				\$15,860	\$1,275,000

Scenario Analysis

Facility
ALISO-PICO RECREATION CENTER

Project
All

Electricity Rate (\$/kWh)

0.00

Natural Gas Rate (\$/therm)

1.00

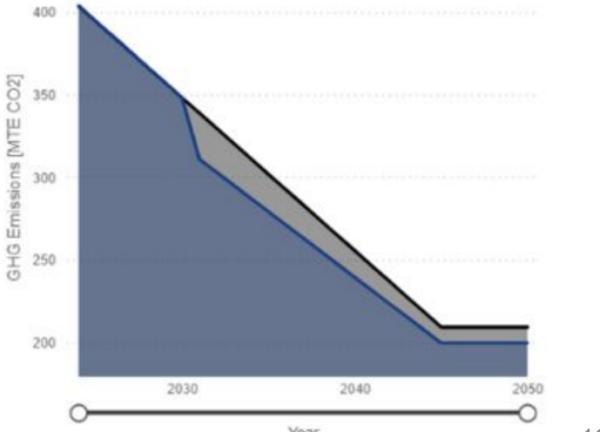
Operational Period

2

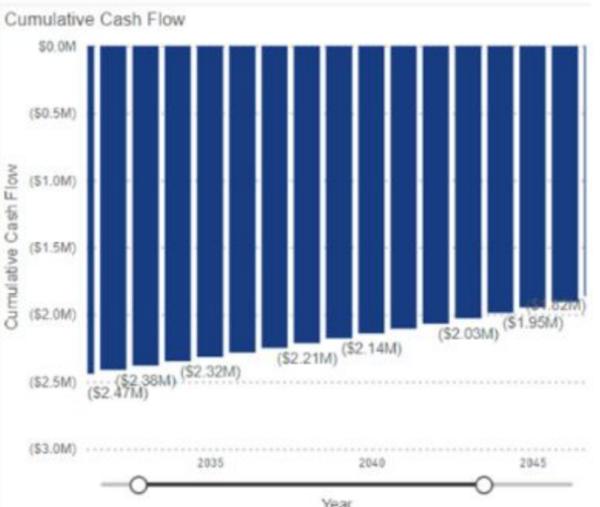
Implementation Year

2030

— Baseline Emissions — Proposed Emissions



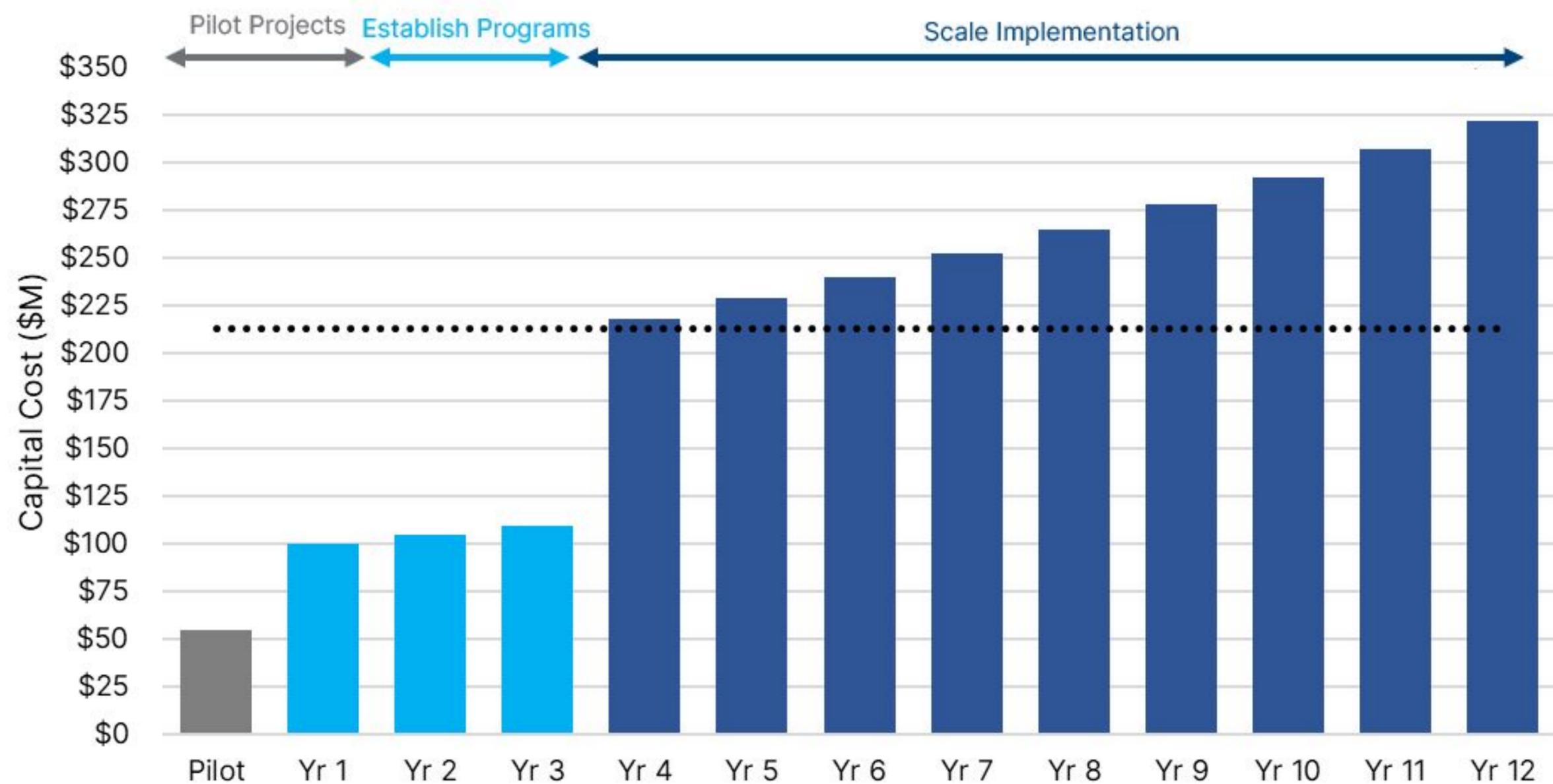
Cumulative Cash Flow





- Building Database
- Project Database
- Equity Matrix
- Facility Tracking
- Portfolio Tracking
- Scenario Planning

Phased decarbonization program will provide a scalable implementation framework for the City to accelerate investments through 2035.



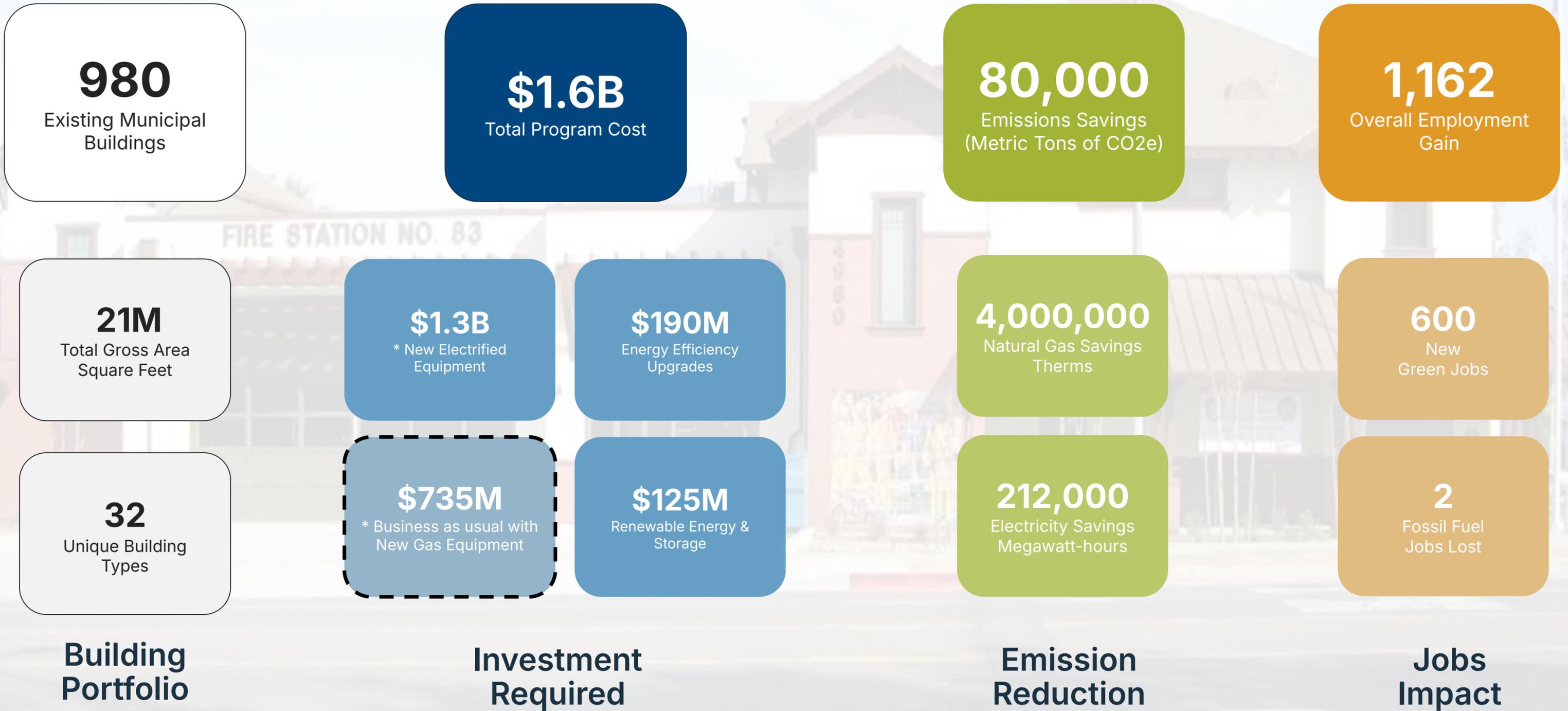
Building Decarbonization Workplan Estimated Annual Funding (Revised for 2026 Present value)

Present Value cost data in this slide was revised for this presentation based on FY 26-27 start year. Full program costs include 12-year implementation timeline with 5% annual escalation. Cost data in the Workplan show escalation.

WORKPLAN REFERENCE: PAGE 16 & 72

- \$1.6B**
 Total Program Cost Present Value
- \$1.3B**
 * New Electrified Equipment Present Value
- \$190M**
 Energy Efficiency Upgrades Present Value
- \$125M**
 Renewable Energy & Storage Present Value
- \$735M**
 * Business as usual with New Gas Equipment

10-Year Existing Municipal Building Decarbonization Program Summary



Present Value cost data in this slide is based on FY 26-27 start year. Full program costs include 12-year implementation timeline with 5% annual escalation. Cost data in the Workplan show escalation.

Year 1 Workbook Package Preliminary



Griffith Park Pool

City of Los Angeles

Existing Municipal Building
Decarbonization Workplan
Year 1 Project Workbook – FY 2024-2025

November 2024

Prepared by Glumac, a Tetra Tech Company



ENGINEERING



Note: The Year-1 Workbook projects and analysis are recommended to be revised. All analysis shown here onward are reflective of November 2024 analysis.

Year 1 Workbook Package

Workbook also prioritizes projects to replace equipment at end of useful life.

1. **Capital Improvement:** 3 sites + city hall (planning)
2. **Equipment Replacement:** Pilot 7 sites
3. **Portfolio Design Build:** Pilot 36 sites
4. **Portfolio Solar PV:** Pilot 9 sites

Budget Breakdown

\$61.1 M Total Year 1 City Project Budget over 1.5-4 yrs

\$16.5 M Solar Construction Cost

\$44.6 M Equipment Electrification Cost

\$26.3 M Business as Usual New Natural Gas (non-electric) Equipment³

\$18.3M Additional to Electrify⁴

Year 1 Workbook End-of-Life Recommended Projects

Facility	Council District	Building Area (SF)	City Budget (\$)	Business as Usual ³ (\$)	Annual Natural Gas Savings (Therm)
1. Capital Improvement Projects (\$13.0M) (Scope: Electrification + LED Lighting upgrade; Duration: 2-3 years)					
Civic Center Steam Plant - Planning & Design*	14		\$1,500,000	-	-
West Valley Police Station Pilot Phase 2	3	32,670	\$5,500,000	\$4,000,000	16,589
Griffith Park Pool	4	4,400	\$3,000,000	\$350,000	377
Roosevelt Pool*	14	4,418	\$3,000,000	\$350,000	37,032
2. RAP/GSD Equipment Replacement Projects (\$4.15M) (Scope: Electrification; Project Duration 1-1.5 yrs)					
3x RAP Facilities	Multiple	34,000	\$1,750,000	\$1,400,000	4,424
4x GSD Facilities	Multiple	65,500	\$2,400,000	\$2,000,000	7,250
3. Portfolio Design-Build Energy Projects¹ (\$24.5M) (Scope: Electrification + Potential LED Lighting; Project Duration: 4 yrs)					
11x Libraries	Multiple	96,000	\$5,550,000	\$4,150,000	6,628
7x Fire Stations	Multiple	80,700	\$4,250,000	\$3,200,000	22,269
11x Community/Office Buildings	Multiple	249,950	\$8,150,000	\$6,000,000	31,612
7x Rec Centers/Senior Centers	Multiple	92,540	\$6,550,000	\$4,800,000	7,940
Sub-total Electrification Budget			\$41,650,000	\$26,250,000	134,121
4. Solar Projects² (\$16.5M) (Scope: Solar PV; Project Duration: 1-1.5 yrs)					
9x Solar Projects	Multiple		\$16,500,000	-	-
Sub-total Solar Budget			\$16,500,000		
PROGRAM CONTINGENCY 5%			\$2,900,000	\$1,300,000	-
TOTAL YEAR 1 WORKBOOK BUDGET			\$61,050,000	\$27,550,000	

1. Portfolio Design-Build Energy Projects can be delivered through the Energy Savings Performance Contract (ESPC) delivery method or another internally managed project delivery method. ESPC can leverage private funding.

2. Solar PV project budget is the net cost assuming the City is able to meet the requirements of the ITC. ITC can provide up to 50% can be paid out after installation. Solar projects can leverage private financing.

3. Cost for like-for-like replacements with new gas equipment.

4. Cost difference for building electrification.

5. \$38M Max. Potential 3rd party investment

Year 1 Electrification Decarbonization Projects

LIBRARIES - 11

- NORTHRIDGE BRANCH LIBRARY (PILOT PH. II) (CD12)
- CAHUENGA BRANCH LIBRARY (CD13)
- LINCOLN HEIGHTS BRANCH LIBRARY (CD1)
- JEFFERSON - VASSIE D WRIGHT MEMORIAL BRANCH LIBRARY (CD10)
- FELIPE DE NEVE BRANCH LIBRARY (CD10)
- MALABAR BRANCH LIBRARY (CD14)
- ROBERT LOUIS STEVENSON BRANCH LIBRARY (CD14)
- WILSHIRE BRANCH LIBRARY (CD13)
- JOHN C FREMONT BRANCH LIBRARY (CD5)
- ANGELES MESA BRANCH LIBRARY (CD8)
- ASCOT BRANCH LIBRARY (CD9)

MUNICIPAL/OFFICE BUILDINGS - 14

- YUCCA COMMUNITY CENTER (CD13)
- WILMINGTON MUNICIPAL BUILDING (CD15)
- EAGLE ROCK CITY HALL (CD14)
- CD 9 FIELD OFFICE (OLD JUNIPERO SERRA LIBRARY) (CD9)
- BOYLE HEIGHTS NEIGHBORHOOD CITY HALL (CD14)
- SAN PEDRO MUNICIPAL BUILDING (CD15)
- VAN NUYS MUNICIPAL BUILDING (CD6)
- CANOGA-OWENSMOUTH COMMUNITY CENTER (CD3)
- SOLEDAD ENRICHMENT CENTER AND COUNCIL DISTRICT (CD14)
- WATTS MUNICIPAL BUILDING (CD15)
- WEST VALLEY MUNICIPAL BUILDING (PILOT PH. II) (CD3)
- **YOUTH ARTS CENTER- OLD PAC BELL BLDG**
- **BOYLE HEIGHTS YOUTH TECH (CD14)**
- **CIVIC CENTER STEAM PLANT- PLANNING & DESIGN (CD14)**

MAINTENANCE & OPERATIONS - 2

- **FLEET HEADQUARTERS**
- **STREET LIGHTING FIELD OPERATIONS**

FIRE STATIONS - 7

- FIRE STATION #79 (CD15)
- FIRE STATION #01 (CD1)
- FIRE STATION #21 (CD9)
- FIRE STATION #63 (CD11)
- FIRE STATION #37 (CD5)
- FIRE STATION #71 (CD5)
- FIRE STATION #38 (CD15)

POLICE - 1

- **WEST VALLEY POLICE STATION (PILOT PH. II) (CD3)**

AQUATICS CENTERS - 2

- **GRIFFITH PARK POOL (CD4)**
- **ROOSEVELT POOL (CD14)**

RECREATION CENTERS - 10

- RITCHIE VALENS RECREATION CENTER (PILOT PH. II) (CD7)
- EVERGREEN RECREATION CENTER (PILOT PH. II) (CD14)
- LAKE VIEW TERRACE RECREATION CENTER (CD7)
- STONEHURST RECREATION CENTER (CD7)
- MONTECITO HEIGHTS RECREATION CENTER (CD1)
- VAN NUYS SHERMAN OAKS RECREATION CENTER (CD4)
- VAN NUYS SHERMAN OAKS SENIOR CENTER (CD4)
- **RAMONA RECREATION CENTER**
- **HUBERT HUMPHREY RECREATION CENTER**
- **SUNLAND SENIOR CITIZEN CENTER**

Delivery Method (47)

- **Capital Improvement (4)**
- **GSD RAP End of Life (7)**
- Portfolio Design Build (36)

Year 1 Building Solar Projects

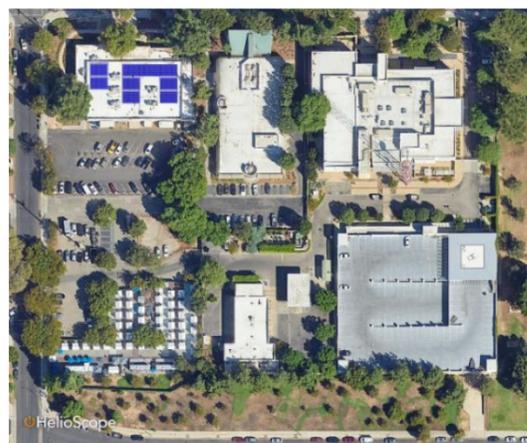
Site Name	Site Address	Building Type	LA Database Site Consumption (kWh)	System Size Modeled (kW DC)	Yearly Solar Generation (kWh)	Energy Use Offset
West Valley Library / Police Station / Municipal Building	19036 Vanowen St, Reseda, CA 91335	Multiple	1,791,989	804.7	1,400,500	78%
Emergency Operations Center / Fire Station #04	500 E Temple St, Los Angeles, CA 90012	Multiple	4,438,839	231.6	393,900	9%
Van Nuys Civic Center	6262 Van Nuys Blvd, Van Nuys, CA 91401	Office	2,265,284	224.4	395,500	17%
Topanga Community Police Station	21501 Schoenborn St, Canoga Park, CA 91304	Police	999,022	526.9	922,900	92%
7th St Facility	2310 E 7th St, Los Angeles, CA 90023	Warehouse	410,661	223.3	382,200	93%
Wilshire Community Police Station	4861 Venice Blvd., Los Angeles, CA 90019	Police	820,098	148.5	257,400	31%
Personnel Department	700 E Temple St, Los Angeles, CA 90012	Office	773,641	333.3	567,400	73%
Hollywood Community Police Station	1358 Wilcox Ave, Los Angeles, CA 90028	Police	742,386	141.9	249,000	34%
Balboa Sports Center	17017 Burbank Blvd, Encino, CA 91316	Recreation Center	365,880	114.4	202,000	55%
Total			9,725,301	2,749.0	4,770,800	49%

Portfolio Solar Procurement

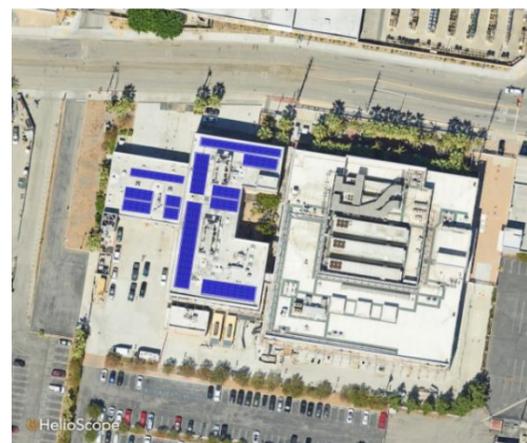
- 2.75 MW of solar PV across nine locations
- Variety of building types
- Annual solar generation of 4.7 MWh (49% offset)
- \$7.3M cumulative savings over 20 years



West Valley Library (CD 3)



West Valley Municipal Building (CD 3)



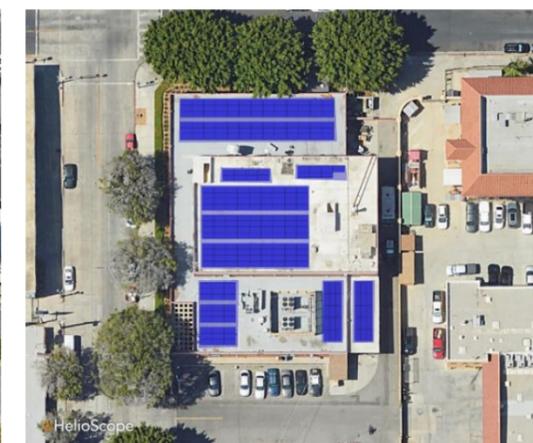
Fire Station #04 (CD 14)



Topanga Police Station (CD3)



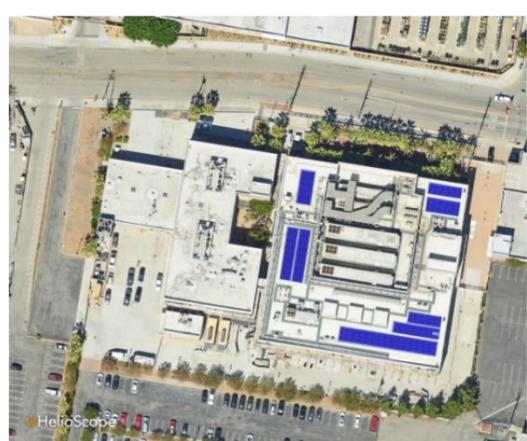
Wilshire Police Station (CD10)



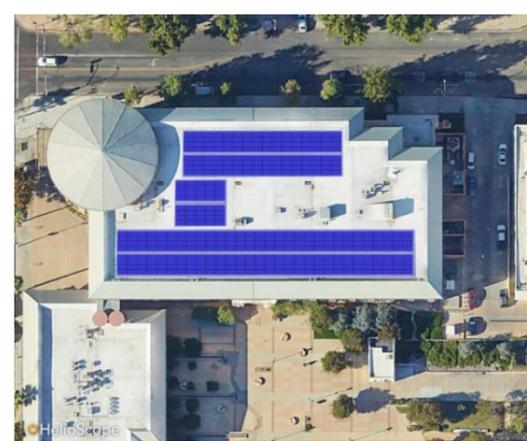
Hollywood Wilcox Police Station (CD6)



West Valley Police Station (CD 3)



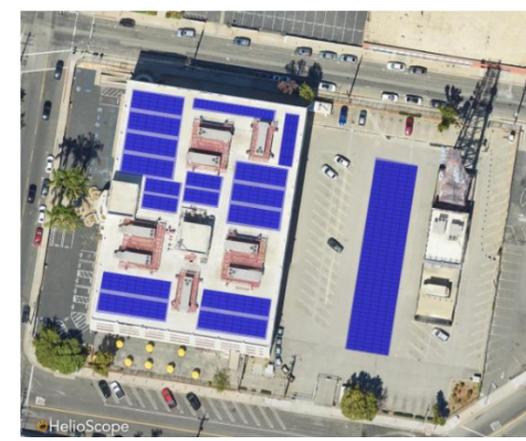
Emergency Operations Center (CD14)



Van Nuys Civic Center (CD 6)



7th St Maintenance Facility (CD 14)



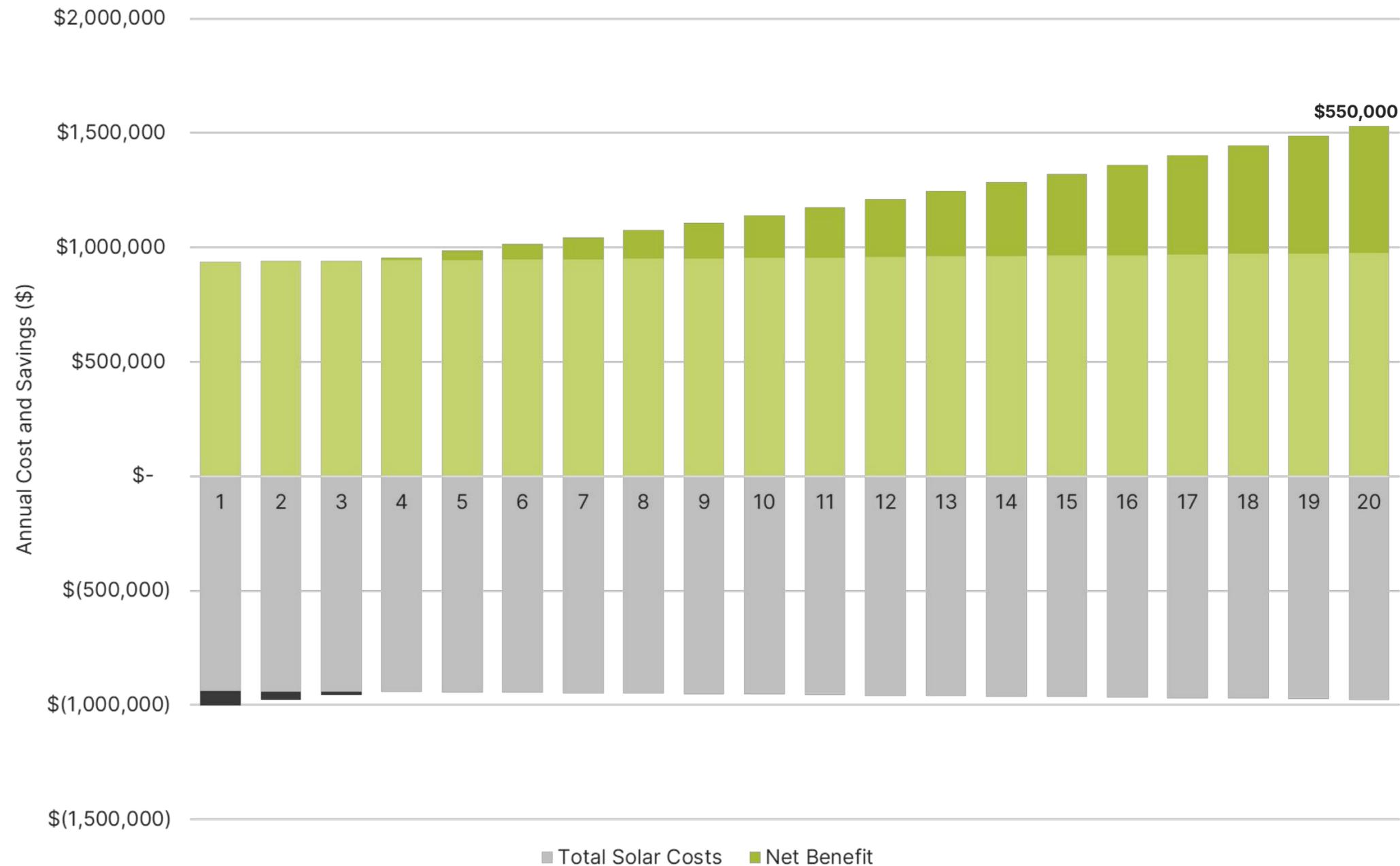
Personnel Department (CD14)



Balboa Sports Center (CD 6)

Year 1 Building Solar Projects **Recommended**

Cash Flow of Recommended Solar Projects with External Financing



\$4.3M
20-Year
Cost Savings

Portfolio Solar Procurement

- 2.75 MW of solar PV across nine locations
- Variety of building types
- Annual solar generation of 4.7 MWh (49% offset)
- \$4.3M cumulative savings over 20 years

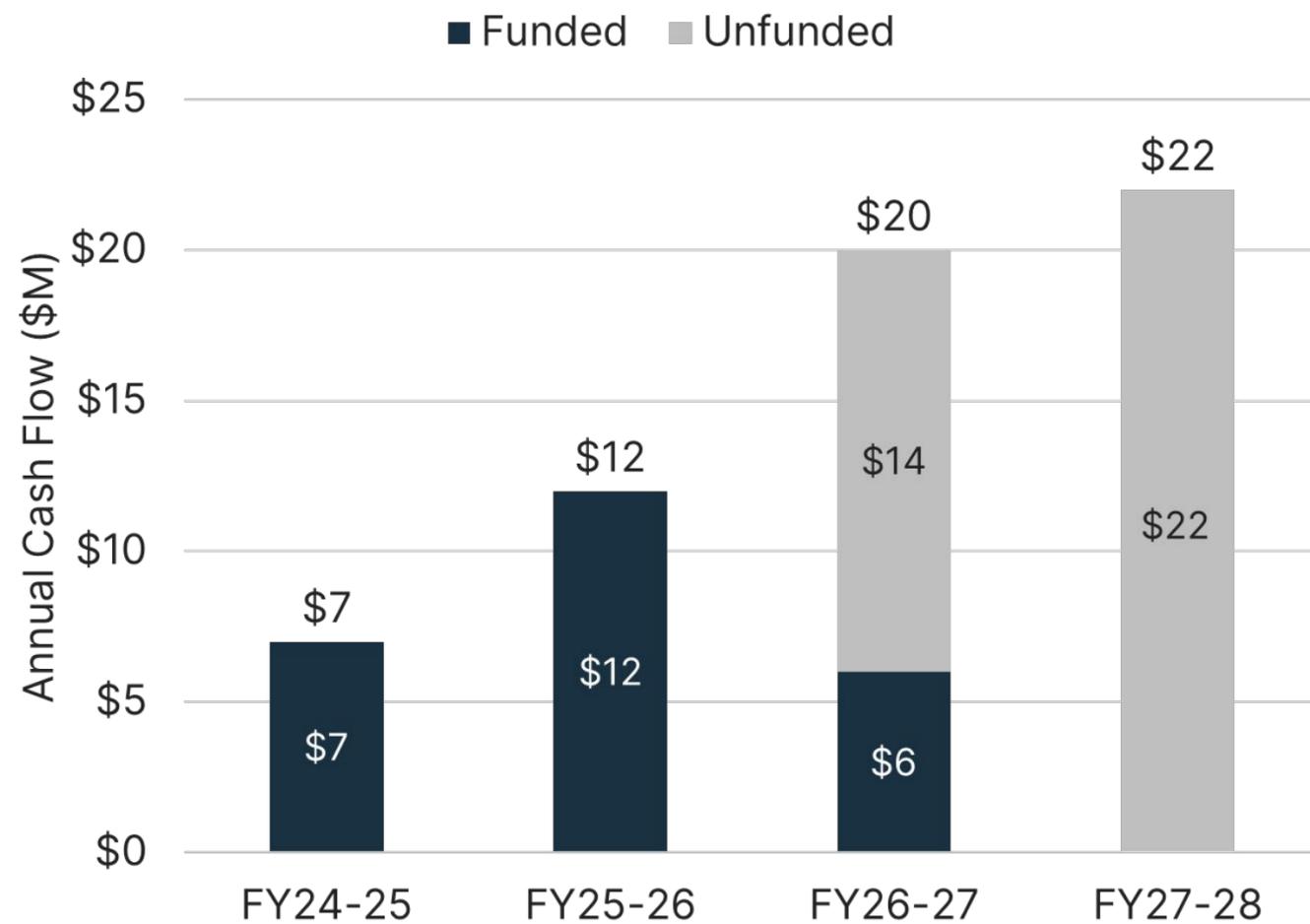
Financial Model Assumptions

- \$6,000/kW system cost
- 30% Investment Tax Credit (ITC)
- 20-Year Financing Period at 4.5% Interest
- 3.5% utility escalation
- \$18.5/kW maintenance with 3.5% escalation
- 0.5% Annual Solar Degradation

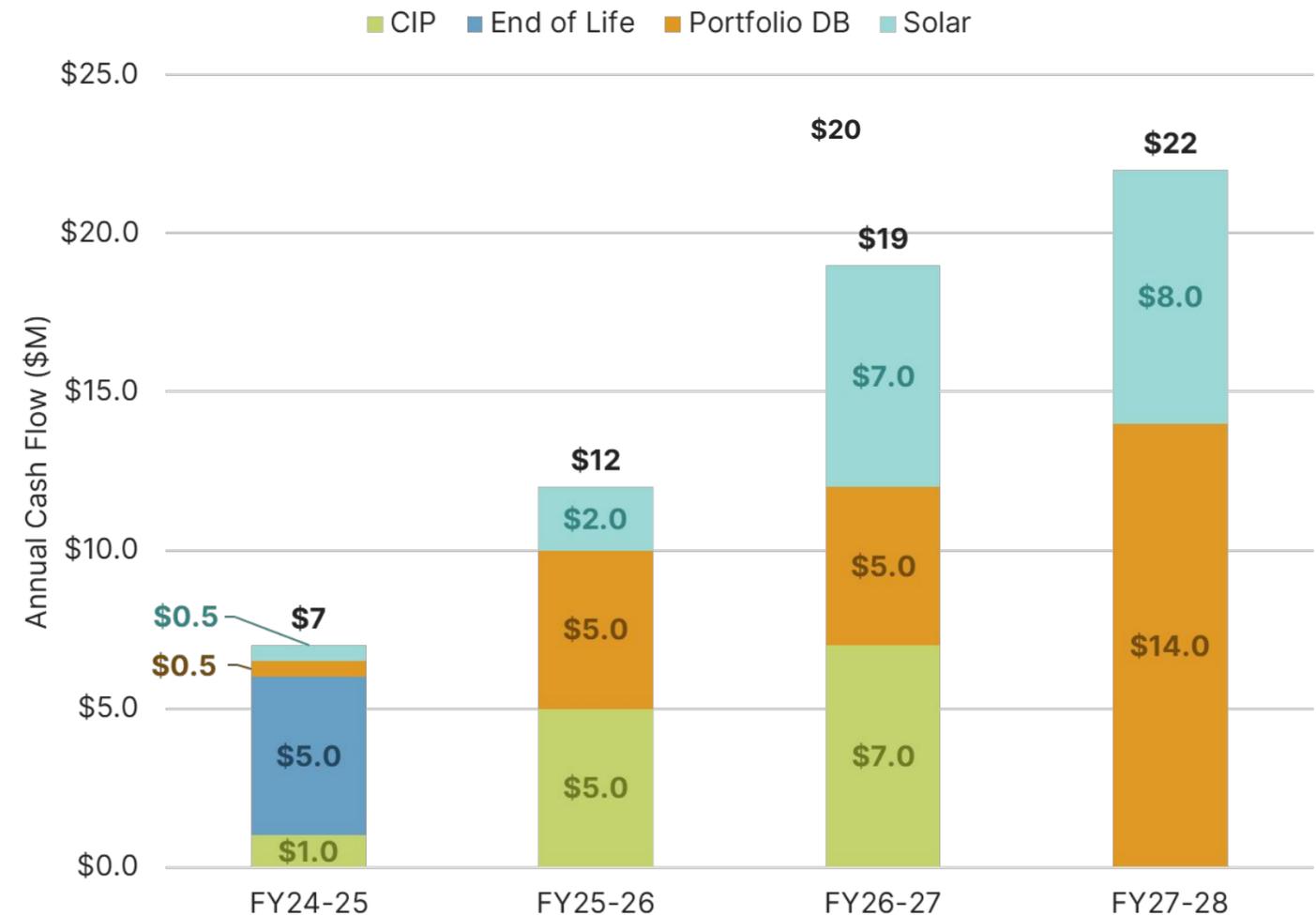
Total Available Funding- \$25M

Previously allocated From Phase II Pilot Projects: \$22.6M

Energy Conservation Block Grant (Pending final award): \$2.4M



Year 1 Workbook Expenditure Plan



Expenditure Plan for Each Project Delivery Method

Year 1 Workbook Package Summary

Workbook prioritizes projects to electrify gas equipment at end of useful life that will require investment for continued operation and will pilot new portfolio scale project delivery methods.

- **Capital Improvement:** 3 sites + city hall (planning)
- **Equipment Replacement:** Pilot 11 sites
- **Portfolio Design Build:** Pilot 46 sites
- **Portfolio Solar PV:** Pilot 9 sites

Funds Available

\$25M Total Fund Available

\$22.6M From Pilot Project Phase II

\$2.4M Energy Efficiency & Conservation Block Grant (EECBG)

Budget Breakdown

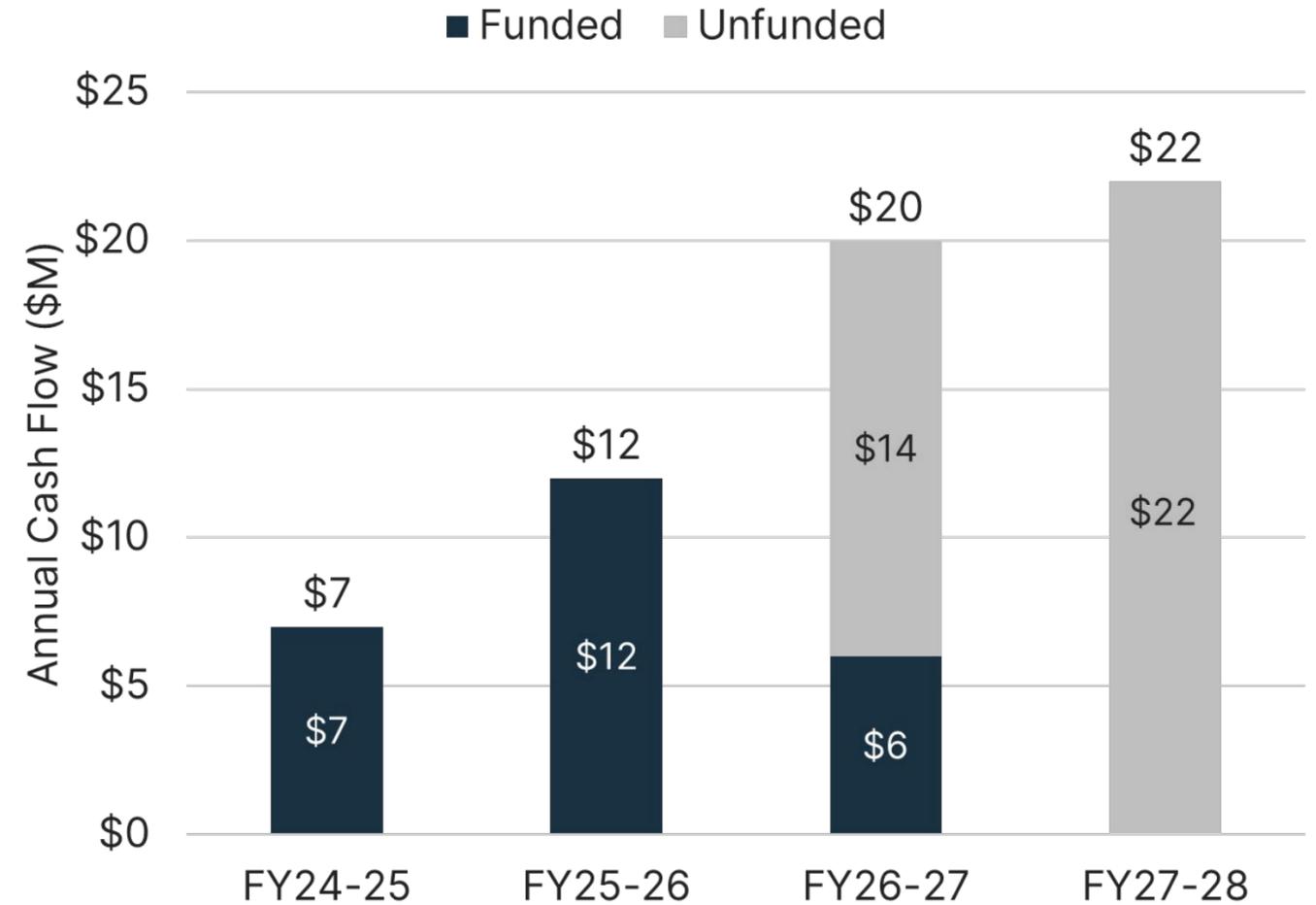
\$61.1 M Total Year 1 City Project Budget over 1.5-4 yrs

\$16.5 M Solar Construction Cost

\$44.6 M Equipment Electrification Cost

\$26.3 M Business as Usual New Natural Gas (non-electric) Equipment³

\$18.3M Additional to Electrify⁴



Year 1 Workbook Expenditure Plan

Year-1 Workbook Package Program Summary

POTENTIAL SAVINGS AND REBATES

REBATES

\$1-1.5M

Estimated
LADWP Rebates
From Completed
Year-1 Projects

\$5M

Estimated IRA Direct
Pay Rebates
From Completed
Year-1 Projects

SAVINGS

\$1.0M

Annual
Utility Cost Savings
From Completed
Year-1 Projects

3%

Portfolio
Natural Gas Savings
From Year-1 project
completion



Note, this rebate calculation is based on November 2024 available incentives.

Year 1 Workbook Detailed Cost Estimate

Project Work Description	Unit Price/ Multiplier	Quantity/ Amount	Units/ Mult. Desc.	Land Acquisition	Design Services	Construction Costs	Construction Services	Total Line Cost	
LAND ACQUISITION									
L1 Land Purchase Amount (Priced at 1.0 Acres)	\$0	0	sf (Site)	\$0	-	-	-	\$0	
L2 Relocation [1]	0.00%	\$0	Land Acq.	\$0	-	-	-	\$0	
Subtotal Land Acquisition				\$0				\$0	
DESIGN SERVICES									
D1 Design Services	12.00%	\$37,220,000	Project Cost	-	\$4,466,400	-	-	\$4,466,400	
D2 Program / Project Management [2]	2.00%	\$37,220,000	Project Cost	-	\$744,400	-	-	\$744,400	
D3 Design Support Services [3]	1.00%	\$37,220,000	Project Cost	-	\$372,200	-	-	\$372,200	
D4 Client & Other City Departments [4]	1.00%	\$37,220,000	Project Cost	-	\$372,200	-	-	\$372,200	
D5 Permits & Fees	4.00%	\$37,220,000	Project Cost	-	\$1,488,800	-	-	\$1,488,800	
Subtotal Design Services					\$7,444,000			\$7,444,000	
CONSTRUCTION COST									
C1 Capital Improvement Projects		\$8,253,826	Project Cost	-	-	\$8,253,826	-	\$8,253,826	
C2 RAP/GSD Equipment Replacement Projects		\$2,634,875	Project Cost			\$2,634,875		\$2,634,875	
C3 Portfolio Design-Build Energy Projects		\$15,555,288	Project Cost			\$15,555,288		\$15,555,288	
C4 Solar Projects		\$10,476,010	Project Cost			\$10,776,010		\$10,776,010	
Subtotal Construction Cost				Project Cost		\$37,220,000		\$37,220,000	
FIXED FURNITURE AND COMMUNICATIONS									
O1 Communications [5]	0.00%	\$37,220,000	Const Cost	-	-	\$0	-	\$0	
O2 Fixed Furniture	\$0.00	0	sf Bldg Area	-	-	\$0	-	\$0	
Subtotal Fixed Furniture and Communications						\$0		\$0	
INSPECTION/CONSTRUCTION SERVICES									
S1 Construction Inspection [6]	5.00%	\$37,220,000	Project Cost	-	-	-	\$1,861,000	\$1,861,000	
S2 Construction Management [7]	5.00%	\$37,220,000	Project Cost	-	-	-	\$1,861,000	\$1,861,000	
S3 Program / Project Management [2]	4.00%	\$37,220,000	Project Cost	-	-	-	\$1,488,800	\$1,488,800	
S4 Construction Support Services [3]	0.00%	\$37,220,000	Project Cost	-	-	-	\$0	\$0	
S5 Client & Other City Dept's [4]	2.00%	\$37,220,000	Project Cost	-	-	-	\$744,400	\$744,400	
S6 Phasing / Relocation Costs	0.00%	0	\$/SF per month	-	-	-	\$0	\$0	
Subtotal Inspection/Construction Services							\$5,955,200	\$5,955,200	
SUBTOTAL					\$0	\$7,444,000	\$37,220,000	\$5,955,200	\$50,619,200
CONTINGENCIES (Project Contingency, Art Allowance) [8 & 10]		6.00%			\$0	\$446,640	\$2,233,200	\$357,312	\$3,037,152
SUBTOTAL - October 2024 TOTAL COST					\$0	\$7,890,640	\$39,453,200	\$6,312,512	\$53,656,352
ESCALATION									
E1 Number of Years of Escalation (from Cost Base)		1/1/2024	Cost Base	0	1	2	3		
E2 Annual Escalation Percentage				0.00%	3.00%	8.00%	3.00%		
E3 Total Compounded Escalation Percentage				0.00%	3.00%	16.64%	9.27%		
E4 Total Escalation Amount				\$0	\$236,719	\$6,565,012	\$585,170	\$7,386,902	
PROJECTED TOTAL COST					\$0	\$8,127,359	\$46,018,212	\$6,897,682	\$61,043,254

Questions?



24

Vision Theatre



Obama Sports Complex-



Hollywood Master Plan



Greek Theatre Renovations



Taylor Yard Pedestrian Bridge



Slauson Connect Recreation Center-



LA Zoo: Various Scope of Work



Pacoima Neighborhood City



Lincoln Pool



South Park Renovations



Sepulveda Basin Master Plan



Cabrillo Beach Lifeguard Tower



Vineland Interim Housing



North Hollywood Sanitation Yard



LADOT Bus Maintenance Facility- LEED Platinum



Chandler Bridge Tiny Home Village



Midvale Tiny Homes



Las Palmas Senior Center Renovation & Decarbonization



Hollyhock House Restoration World Heritage Site



LAPD MTD Solar



Central Ave Constituent Service Center



Hollywood Sanitation Yard- Net-Zero LEED



Studio City Recreation Center- Net-Zero Energy & LEED Platinum

End of Slides