



Measure GO Update

Board Study Session – November 12, 2022

Gary Nellesen, Executive Director, Facilities Planning and Management



Presentation Topics

- Measure RR and GO Financial Summary
- Major Capital Projects Update
- Minor Capital Projects Update
- Scheduled Maintenance Projects Update
- Accessibility Improvements
- Questions

Measure RR and GO Funding Summary

	Measure RR	Measure GO
Total Authorization	\$353,000,000	\$750,000,000
Remaining Issuance	\$0	\$189,600,085
Total Expenditures (As of 9/30/2022)	\$365,340,521	\$333,627,555
Current Commitments (As of 9/30/2022)	\$34,712,764	\$73,473,723
Unallocated to Projects	\$1,386,878	\$19,317,632

- Measure RR Figures that exceed \$353,000,000 are due to a Bond Anticipation Note payoff which allowed use of the full Measure RR Series
- Measure GO Expenditures of \$333,627,555 = 60% of Measure GO Bonds Issued which totaled \$529,450,360 per the 2021 Fiscal Audit

Measure RR and GO Expenditures as of 9/30/2022

PROJECT	DESCRIPTION	CONTRACT COMMITMENTS	EXPENDITURES THRU 9/30/22	PERCENTAGE OF FUNDS USED
A + A2	Student Center + Library Learning Resources	\$101,947,517	\$64,753,115	63%
D	Athletics Projects <i>Gymnasium, Heritage Hall, Sand Volleyball Courts, Scoreboard, Aquatics Center, and Athletics Complex</i>	\$206,606,259	\$163,875,473	79%
E	Technology and Health Replacement	\$5,928,690	\$4,277,893	72%
J	Parking and Traffic Improvements	\$79,929,182	\$76,676,158	96%
K	Scheduled Maintenance	\$16,712,054	\$16,346,345	98%
L1	Infrastructure	\$83,216,058	\$67,954,362	82%
L2	Measure RR BAN Payoff	\$56,199,915	\$56,199,915	100%
L3	Temporary Space	\$30,893,053	\$26,902,123	87%
L7	Campus Wide Improvement Projects	\$70,691,437	\$69,499,989	98%
M	Campus Store/Instruction Offices	\$4,221,455	\$3,032,067	72%
N	Student Services North (Temporary Space Modulares)	\$495,510	\$116,940	24%
O	Science Building South	\$187,000	\$187,000	100%
P	School of Continuing Education and Instructional Village	\$4,236,722	\$1,167,006	26%
Q	Building 6 Reconstruction (Planning Efforts)	\$316,589	\$263,942	83%
L8	Construction Support	\$44,994,658	\$44,407,489	99%
Total		\$707,080,852	\$595,659,817	84%

Major Capital Project Update

PROJECT	STATUS	PLANNED OCCUPANCY
Heritage Hall	Construction 98% Complete	Spring 2022
Gymnasium/Wellness/Aquatics	Construction 85% Complete	Spring 2023
Student Center	Construction 80% Complete	Spring - Summer 2023
Lot W/Sand Volleyball/Wildlife Sanctuary	Construction 15% Complete	Summer 2023
Campus Store and Instruction Offices	Bid and Award	Spring 2025
Brackett Field	Programming Complete	TBD
School of Continuing Education	Schematic Design Complete	Fall 2026
Technology and Health	Agency Approval	Fall 2026



Sand Volleyball Courts



Wildlife Sanctuary Entrance



Soccer Fields Entrance



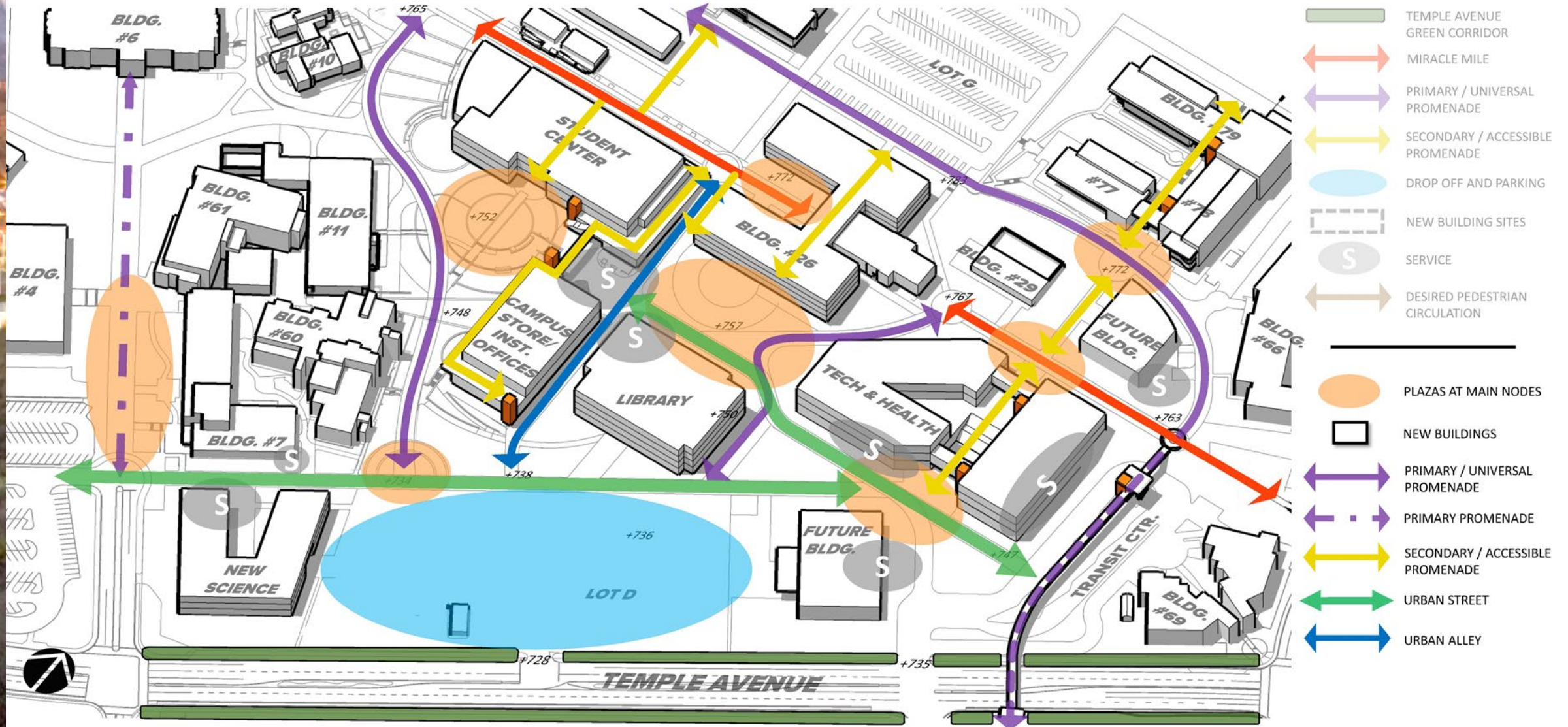
Current Construction – Lot W

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Current Construction – Lot W

Accessibility Improvements



Minor Capital Project Update

PROJECT	STATUS	PLANNED OCCUPANCY
Campuswide Restroom Improvements	Planning	2024 – 2026
Gymnasium Demolition	Planning	Fall 2023
Humanities Division Office Remodel	Planning	Fall 2024
Student Services Modular Offices	Planning	Spring 2024
Writing Center Remodel	Planning	Fall 2024
Animal Care Facilities	Bid + Award	Fall 2023
El Centro Program Space	Construction	Fall 2023
Building 66 Language Center Facilities Renewal	Construction	Summer 2023
Professional and Organizational Development (POD) Loft Remodel	Construction	Spring 2023
Recycling and Re-Use Center	Construction	Spring 2023
Student Services Facility Renewal	Construction	Winter 2022
STEM Center	Complete	Summer 2022

Scheduled Maintenance Project Summary 2021-22

PROJECT	TYPE	TOTAL FUNDS
Asphalt Roadway Repair Phase	Infrastructure	\$150,000
Chiller and TES Tank Removal	Infrastructure	\$150,000
AV Systems Replacement	Interior/Equipment	\$1,071,530
Liebert Replacement Building 23	Utility	\$200,000
Elevator Addition Building 61	Architecture Barrier Removal	\$2,800,000
Exterior Finishes and Building Envelope Repairs	Exterior	\$200,000
Fencing Replacements	Infrastructure	\$300,000
Flooring Replacements	Interior	\$320,000
HVAC Equipment Replacement Over 15 Years Phase I	Mechanical	\$250,000
Lighting Fixture Upgrades and Replacements Phase I	Utility	\$600,000
Lighting Controls System Replacement Phase I	Utility	\$300,000
Hydronic Piping System Update	Mechanical	\$436,000
PM01 Water Main Replacement Phase I	Utility	\$1,339,166
Zinsco Electric Panels Replacement	Utility	\$93,500
Roof Replacement Building 1A	Roof	\$270,400
Window Replacements Building 1C	Exterior	\$150,000
Storefronts Replacement Building 6	Exterior	\$150,000

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Scheduled Maintenance Project Summary 2021-22

PROJECT	TYPE	TOTAL FUNDS
Roof/Soffit and Exterior Lighting Building 2M/T	Roof	\$1,550,000
Irrigation Piping Replacement	Infrastructure	\$400,000
Building 66 Flooring and Interior Finishes Replacement	Interior	\$500,000
Phoenix Server Control Upgrades Buildings 7, 11, 80	Mechanical	\$43,470
Roof Repair Building 60	Roof	\$200,000
Refrigerant Monitoring System Replacement Building 29	Mechanical	\$100,000
Elevator Entrance Deck Improvements Building 78	Exterior	\$100,000
Fire Alarm Repairs Campus Wide	Utility	\$125,000
Phoenix Actuator Controls Upgrade Building 60	Mechanical	\$624,000
Roof Replacement Building 61	Roof	\$600,000
Athletics Roof Replacement	Roof	\$260,000
Total		\$13,283,066

Scheduled Maintenance Project Summary 2022-23

PROJECT	TYPE	TOTAL FUNDS
Central Plant Upgrades	Utility	\$1,000,000
Energy Management Controls Upgrades	Utility	\$500,000
Utility Metering Upgrades	Utility	\$350,000
Lighting Fixture Upgrades and Replacements	Utility	\$1,400,000
AV System Replacements	Interior/Equipment	\$2,000,000
Elevator Addition Building 61 Phase II	Architecture Barrier Removal	\$900,000
Roof Replacement Building 60	Roof	\$1,000,000
Stormwater Control Upgrades	Exterior	\$500,000
Indoor Air Quality System Upgrades	Mechanical	\$500,000
Fencing Requirements	Infrastructure	\$400,000
Electrical System Upgrades	Utility	\$450,000
HVAC Equipment Replacement Over 15 Years	Utility	\$500,000
Plumbing System Upgrades	Utility	\$500,000
Total		\$10,000,000



Questions?

Gary Nellesen, Executive Director, Facilities Planning and Management



Sustainability Updates

Board Study Session – November 12, 2022

Eera Babtiwale, Special Projects Director, Sustainability

Overview

Sustainability:
People, Planet + Prosperity

What We Are Doing:
Climate Action Plan
Decarbonization Plan

Case Study:
Renewable Energy at Mt. SAC
Solar Photovoltaic (PV)

People, Planet + Prosperity



Sustainability at Mt. SAC: People, Planet + Prosperity



Mt. SAC Climate Action Plan 2023



Climate Action Plan (CAP) 2023

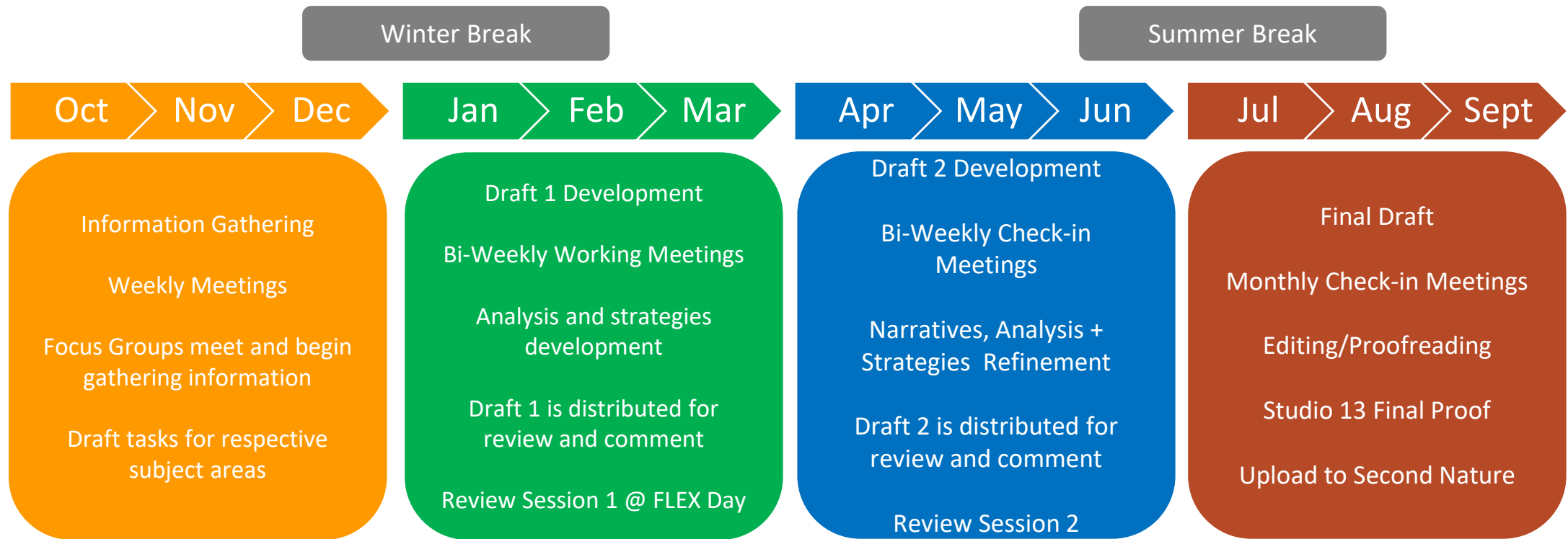
- Part of our Carbon Commitment with Second Nature
- Update to the 2018 CAP
- Kickoff occurred in September 2022
- CAP will guide the path to climate neutrality by 2050
- 12-month effort
- In-house, multi-disciplinary
- Supports Goal #5 of Mt. SAC Strategic Goals
- Guided by 2030 Sustainability Goals



Second
Nature



Climate Action Plan (CAP) 2023 – Timeline

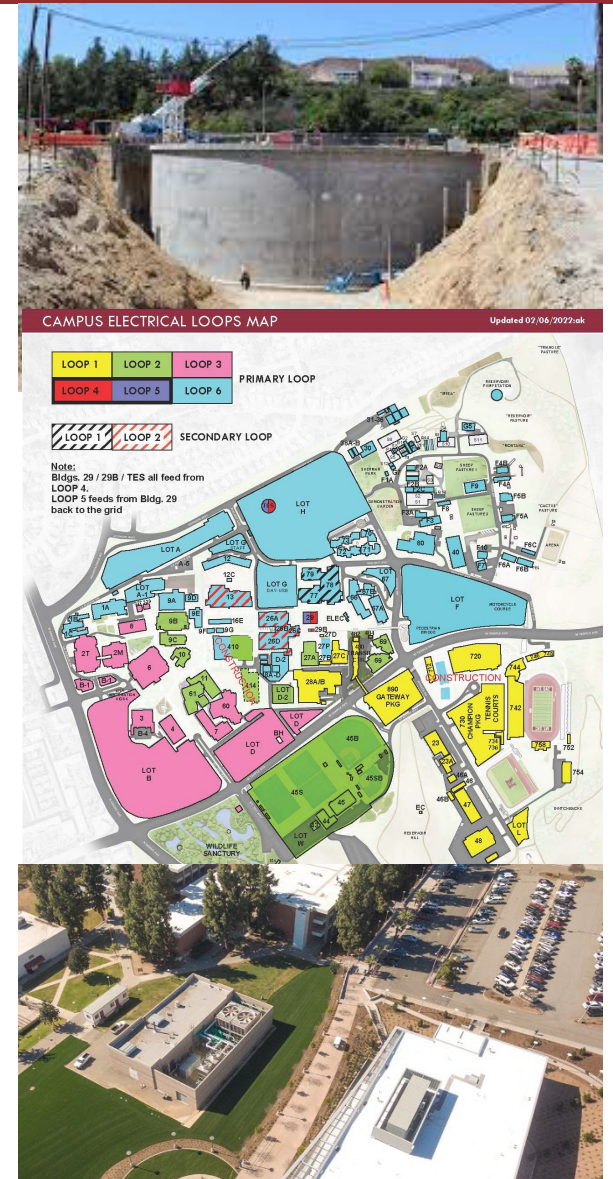


Decarbonization Plan (Dplan)

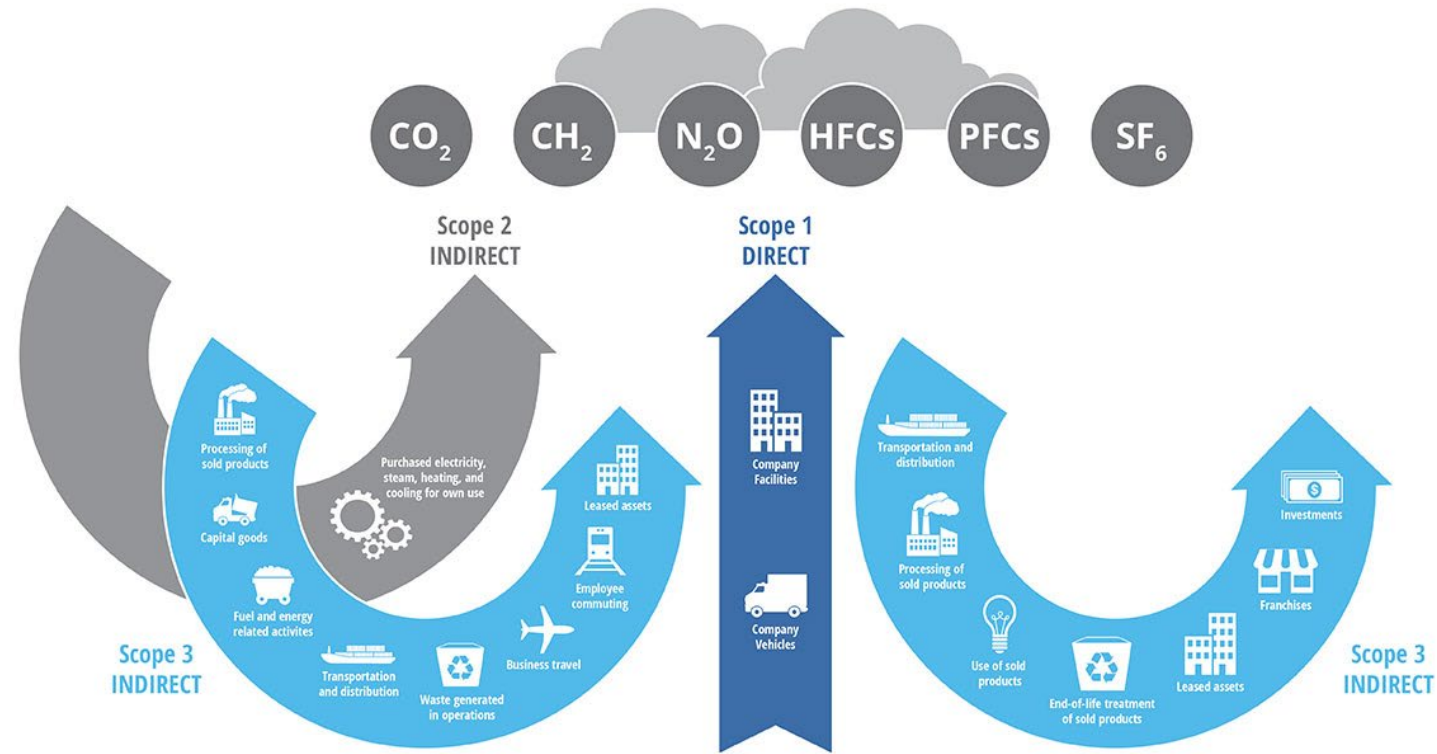


Decarbonization Plan (Dplan)

- Project Initiation occurred 10/24/22
- Dplan will provide:
 - Plan to phase off of natural gas
 - ASHRAE Level 2 Audit of Campus
 - Carbon Emissions Mitigation Strategies
 - Prioritization of strategy implementation
- Areas the Dplan will consider:
 - Central Plant
 - Campus Loops
 - Individual Buildings
 - Solar PV Options
 - Battery Storage Options



Decarbonization Plan (Dplan)- Greenhouse Gas Analysis

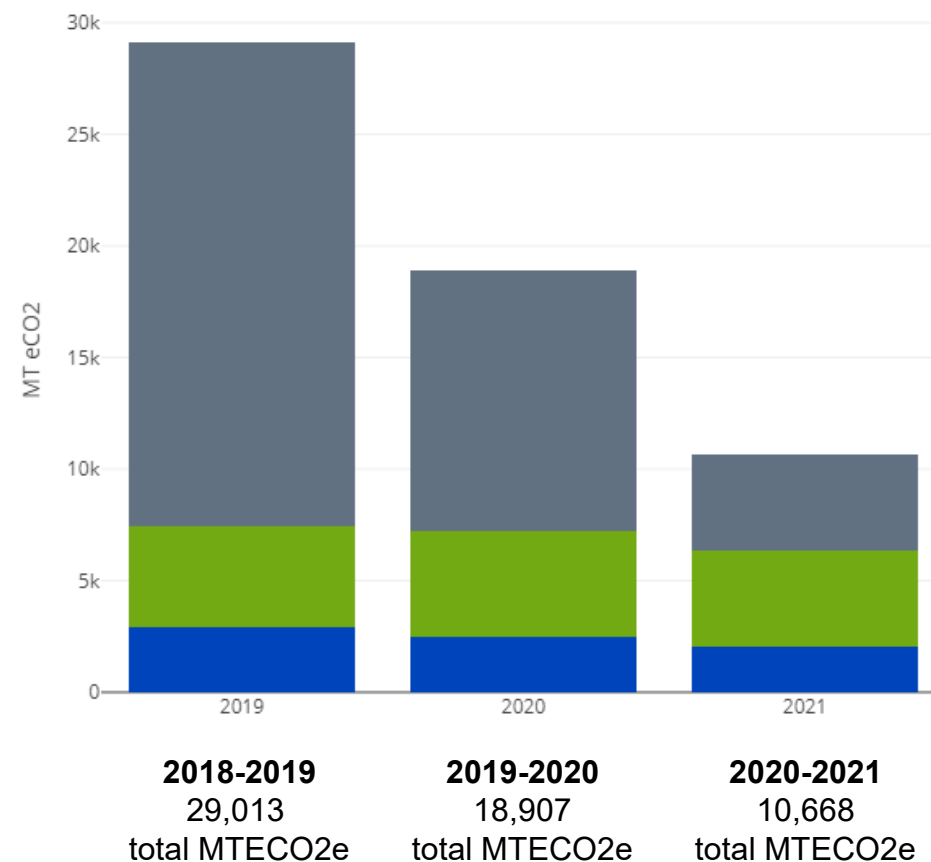


Scope 1 – On site gas combustion
Scope 2 - Purchased Electricity
Scope 3 – Transportation and Waste

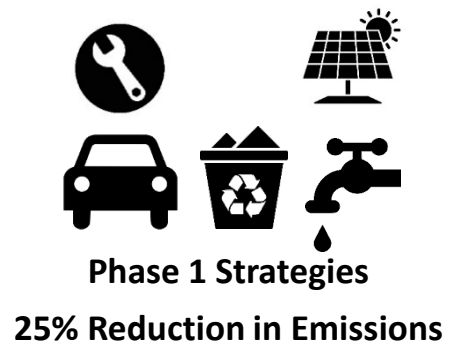
Greenhouse Gas Analysis 2018-2021

- Scope 3 emissions decreased significantly due to a decrease in commuting
- Scope 1 and Scope 2 had minimal changes due to consistent energy use
- Anticipated increase in all Scopes as in-person campus enrollment increases and as facilities expand

■ Scope 1 – On site gas combustion
■ Scope 2 - Purchased Electricity
■ Scope 3 – Transportation and Waste

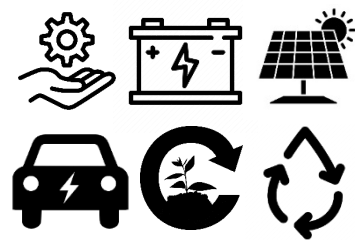


Decarbonization Plan Timeline

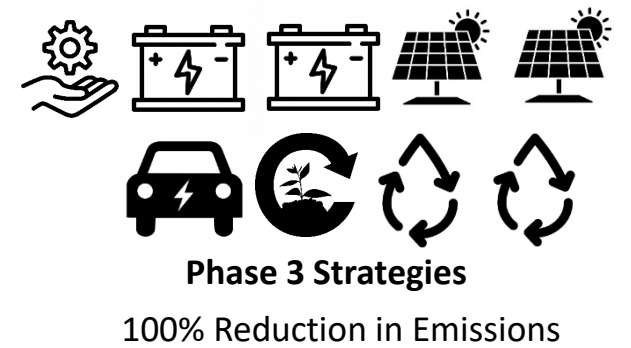


2025

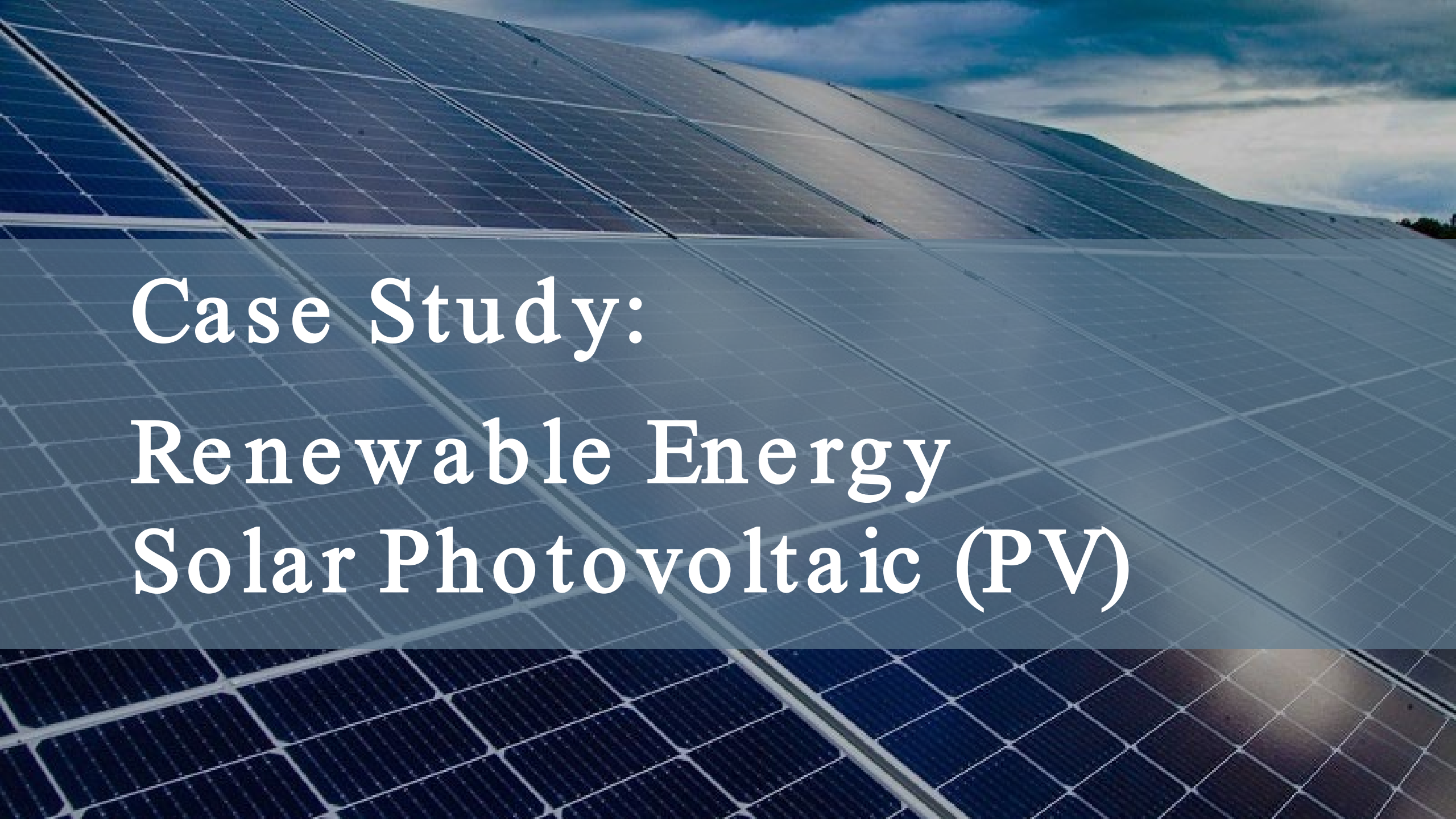
Phase 2 Strategies
50% Reduction in Emissions



2035



2050



Case Study: Renewable Energy Solar Photovoltaic (PV)

Solar PV Locations Study



Parking Lot H
1.48 MW

Gateway Parking
719 kW

Building 47 Parking
86 kW

Total: 2.3 MW

Solar PV Locations Study- Gateway Parking



540 Watt Full Coverage Carport at 2° Tilt

ARRAY	QTY	AZI	HEIGHT
C1	666	153	10'-0"
C2	666	153	10'-0"
Total	1332	719.3 kWp	

- Solar Carports on rooftop of Gateway Parking Structure

Solar PV Locations Study- Building 47 Parking

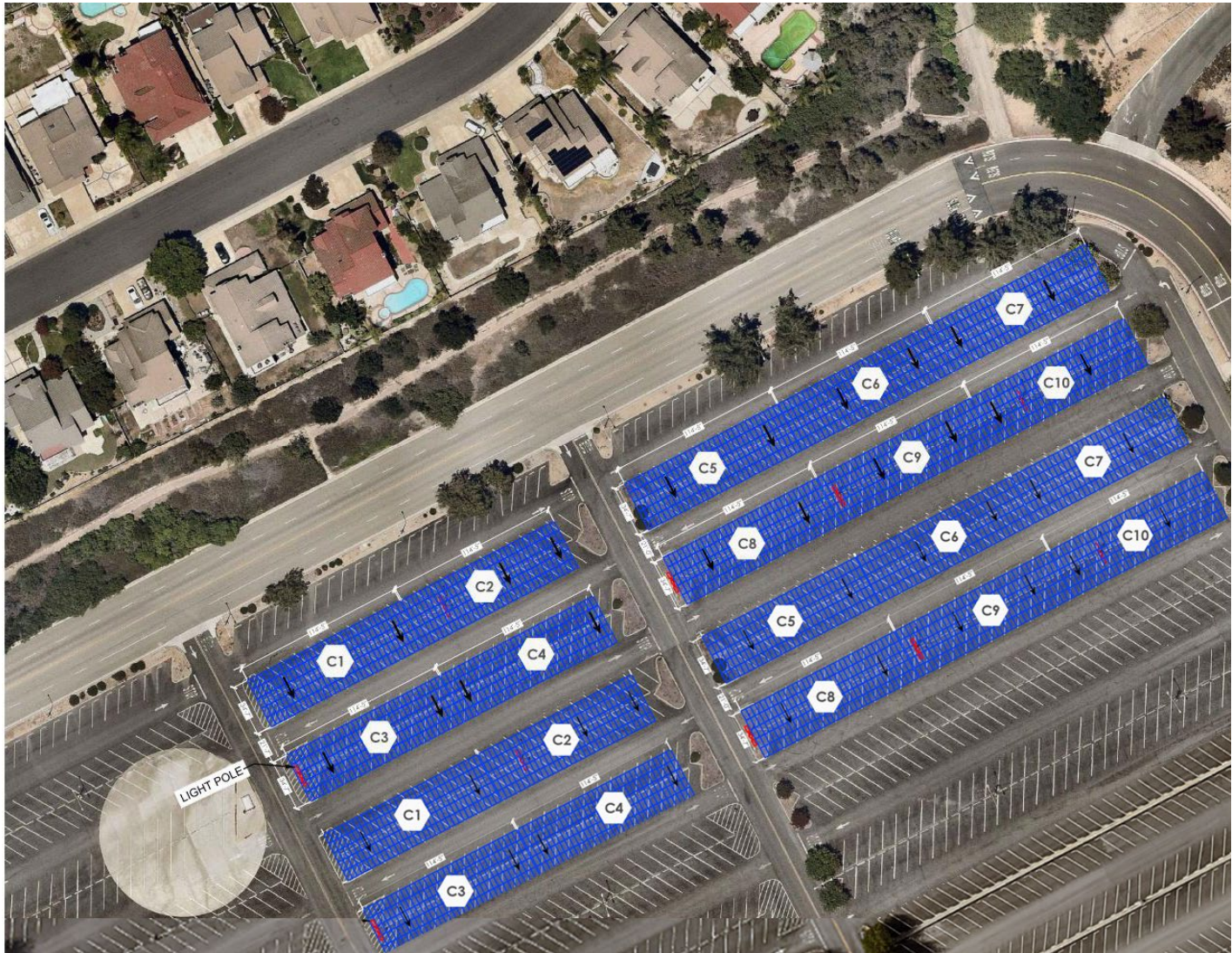


540 Watt Full Solar Carport at 5° Tilt

ARRAY	QTY	AZI	HEIGHT
C1	160	240	12'-6"
Total	160	86.4 kWp	

- 30 Electric Carts below Solar Carports
- 15 Battery Packs
- Demonstration Pilot for Solar-Battery Storage

Solar PV Locations Study- Parking Lot H



450 Watt Full Solar Carport at 5° Tilt

ARRAY	QTY	AZI	HEIGHT
C1	165	153	10'-0"
C2	165	153	10'-0"
C3	165	153	10'-0"
C4	165	153	10'-0"
C5	165	153	10'-0"
C6	165	153	10'-0"
C7	165	153	10'-0"
C8	165	153	10'-0"
C9	165	153	10'-0"
C10	165	153	10'-0"
Multiplier Of 2	1650	153	10'-0"
Total	3300	1.48 MW	

Solar PV Analysis – Payback Analysis

Solar PV- No Battery

Payment Options	Cash Purchase
IRR - Term	8.4%
LCOE PV Generation	\$0.061 /kWh
Net Present Value	\$5,460,402
Payback Period	12.9 Years
Total Payments	\$9,131,471
Total Incentives	\$2,739,441
Net Payments	\$6,392,030
Electric Bill Savings - Term	\$24,695,905
Upfront Payment	\$9,131,471

Combined Solar PV Rating

Power Rating: 2,371,680 W-DC

Power Rating: 2,151,346 W-AC-CEC

Cumulative Energy Costs By Payment Option



Solar PV- w/Battery Storage

Payment Options	Cash Purchase
IRR - Term	6.3%
LCOE PV Generation	\$0.102 /kWh
Net Present Value	\$4,303,795
Payback Period	16.5 Years
Total Payments	\$13,456,294
Total Incentives	\$2,739,441
Net Payments	\$10,716,853
Electric Bill Savings - Term	\$32,292,939
Upfront Payment	\$13,456,294

Combined Solar PV Rating

Power Rating: 2,371,680 W-DC

Power Rating: 2,151,346 W-AC-CEC

Cumulative Energy Costs By Payment Option





Questions?

Eera Babtiwale, Special Projects Director, Sustainability