

UCSC CES



Report Date: 2016.04.10 18:50
(United States of America/San Francisco)

Project Owner: UCSC

Project Team: Andrea Traber
Andrew Meiman
Ben Toscher
Chrissy Thomure
Curtis Schmitt
Dawn Pillsbury
Eric Chang
Hillary Weitze
James Barsimantov
Jim Bererton
Joe Dizon
Kim Courtney
Lauren Mills
Lindsey Gaunt
Marilyn Specht
Megan White
Russell Driver
Tiffany Wise-West

Key: Late Today Tomorrow This week Next week Future To-do Done

Master Timeline —= WEEKLY CONSULTANT & PM CALL MEETING MINUTES

Notify UCOP - Allowances to purchase in first ARB Auction	Chrissy Thomure	2015.03.18
Set up FileMaker Pro Access for Chrissy	Chrissy Thomure	2015.03.18

Appendix A

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Give P6 access to Consultants	Chrissy Thomure	2015.03.03
Schedule Benchmarking Meeting	Megan White	2015.03.03
Webex iLiv Training —scheduled by Chrissy	Megan White	2015.02.27
Create Building Survey for Bldg. Managers —Curtis can find a template	Hillary Weitze	2015.03.09
Give Consultants Access to Tridium	Megan White	2015.02.23
SkySpark Login	Megan White	2015.03.09
Reschedule BMS Training for next week	Megan White	2015.03.03
Master Electrical Map to Russell	Chrissy Thomure	2015.03.18
Develop Glossary for BMS	Megan White	2015.06.19
STUDENT FINALS —Confirmed	Megan White	2015.03.23
Set Up Meeting with Dining Team	Megan White	2015.05.04
DELIVERABLE: OUTLINE CES REPORT	Megan White	2015.04.20
2016 Capital Project List Due	Megan White	2015.06.19
2016 SEP Project List Due	Megan White	2015.06.19
STUDENT FINALS —Confirmed	Megan White	2015.06.19
Spring Deadline for Major Maintenance —Question for Housing	Megan White	2015.07.24
Deferred Maintenance List	Megan White	2015.07.24
SEP Deadline	Megan White	2015.07.24
STUDENT SUMMER BREAK	Megan White	2015.09.21
Master Infrastructure Plan —Erin	Megan White	2015.11.06
Internal Team Scenario Pow-Wow	Megan White	2015.11.06
Surrender compliance instruments for 2014 CY	Megan White	2015.11.30
Integrate studies into Strategic Energy Plan	Megan White	2015.12.04
Generate 2015 Stategic Energy Plan	Megan White	2015.12.14
CES Report Pow-Wow —Megan, Chrissy, Joe	Megan White	2016.02.22

Appendix A

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HOLIDAY BREAK —Student out 12/11 - 1/4		Megan White	2016.02.22
CES Team January Collaboration Meeting —3 hours		Megan White	2016.02.22
On Hold 1 —Resumed		Megan White	2016.04.11
60% MILESTONE CES REPORT	Andrea Traber, Andrew Meiman, Ben Toscher, Curtis Schmitt, Hillary Weitze, James Barsimantov, Lindsey Gaunt, Megan White, Russell Driver, Tiffany Wise-West		2016.02.29
90% MILESTONE: CES REPORT —For UCSC Comment/Review	Andrea Traber, Andrew Meiman, Ben Toscher, Curtis Schmitt, Hillary Weitze, James Barsimantov, Lindsey Gaunt, Megan White, Russell Driver, Tiffany Wise-West		2016.04.11
Present 90% CES Report to UCSC Stakeholders —To Receive Comments	Andrea Traber, Hillary Weitze, Lindsey Gaunt, Megan White		2016.04.19
UCSC comment period	Chrissy Thomure, Joe Dizon, Lauren Mills		2016.04.08–2016.04.29
Consultants to Address Comments	Andrea Traber, Andrew Meiman, Ben Toscher, Curtis Schmitt, Hillary Weitze, James Barsimantov, Lindsey Gaunt, Megan White, Russell Driver, Tiffany Wise-West		2016.04.29–2016.06.01
100% MILESTONE: CES REPORT	Andrea Traber, Andrew Meiman, Ben Toscher, Curtis Schmitt, Hillary Weitze, James Barsimantov, Lindsey Gaunt, Megan White, Russell Driver, Tiffany Wise-West		2016.06.01
MILESTONE: Present 2015 SEP to stakeholders — - Chrissy/UCSC ONLY (no consultants)	Chrissy Thomure, Joe Dizon, Lauren Mills		2016.07.01

Task I. Preliminary Project Planning & Data Collection —\$70,560

CES Project Kick Off Meeting		Megan White	2015.03.10
Schedule NEXT STEPS meeting —Working Groups Brainstorm Separately		Megan White	2015.03.10
CES Technical Team Kick-Off/ NEXT STEPS Meeting —\$6400		Megan White	2015.04.06
Become familiar with campus EMS/BMS systems —\$1140		Megan White	2015.03.16
Project Consultant Team Initial Meetings		Megan White	2015.03.16
Review all spreadsheets, docs, plans, data, etc. —\$11280		Megan White	2015.04.06
Define data hierarchy & identify gaps in info —\$1340		Megan White	2015.04.13
Gather initial data, review EMS, BMS, other databases —\$2480		Megan White	2015.04.13

Appendix A

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Collect, compile, review existing and history data —\$1280	Megan White	2015.06.19
Gather pertinent data and info from UCOP —\$2120	Megan White	2015.06.19
Collect, compile, review existing renewable energy info —\$540	Kim Courtney	2015.09.18
Build database/templates repository for campus ftp site —\$1120	Megan White	2015.04.27
Identify data gaps & assign data collection tasks —\$1340	Megan White	2015.04.27
Review/Confirm delivery format/content of report (CRMs) —\$2400	Megan White	2015.05.04
Develop draft outline for CES Final Report —\$4360	Megan White	2015.04.20
MEMO - Synthesized Data Collection/ Org Folder	Megan White	2016.04.11
Draft preliminary project outcome indicators —\$6240 w/ outline	Megan White	2016.04.11
MEMO: 3 Step Indicators Memo (post June 1st Meeting)	Megan White	2016.04.11
R3A Webinar Presentation —\$260	Megan White	2016.04.11
R4 Collaboration Meetings —\$3120	Megan White	2015.11.01–2016.04.01
R2 CES Report —\$6,760	Megan White	2016.01.16–2016.04.15
R3B 90% Presentation —\$3,840 Megan, Andrea, Hillary (8 hrs each)	Megan White	2016.03.07–2016.04.15
Participate in regular work sessions with the ICES PM —\$7500 (continued in R1)	Megan White	2015.02.02–2016.05.01
R1 Ongoing PM —\$13,520	Megan White	2015.11.01–2016.05.02
Ongoing project management —\$26,524 (continued in R1)	Chrissy Thomure, Megan White	2015.01.01–2016.06.01

Task II. Cap & Trade Strategy —\$22,710

Collect, compile and analyze emissions data	Tiffany Wise-West	2015.04.10
Generate Assumptions for Regulatory C&T Impacts —\$4800	Tiffany Wise-West	2015.09.03
MEMO 1 - Assumptions for Reg impact	Tiffany Wise-West	2015.11.30
Develop short and long-term scenarios (2020 to 2025) ... —\$6100	Tiffany Wise-West	2015.11.30
MEMO 2 - Findings of Therm Savings Feasibility Study —See 90% Scenario Memo	Megan White	2015.12.07

Appendix A

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MEMO 3 - Findings of In Depth Scenario Analysis —See 90% Scenario Memo		Megan White	2015.12.07
R1 Stakeholder Engagement Meetings (pre memo) —\$5580		Megan White	2016.04.11
Conduct in-depth "Data Compliance and Scenario Analysis" —No \$ Assigned		Megan White	2016.04.11
Conduct therm savings study —\$12560 (continued in R2)		Megan White	2016.04.11
R2 90% Scenario Memo/Presentation —\$5700		Megan White	2016.04.11
90% MILESTONE: Presentation of Short and Long Term Scenarios		Megan White	2016.04.11
90% MILESTONE (SCENARIOS) —MEMO		Megan White	2016.04.11
R3 Tool Updates and Maintenance —\$17640		Megan White	2016.04.11
UCSC 90% Memo Comment Period		Megan White	2016.04.11
R6 Collaboration Meetings —\$8300	Ben Toscher, James Barsimantov, Tiffany Wise-West		2015.11.01–2016.04.01
R4 Weekly Team Meetings —\$10540	Ben Toscher, James Barsimantov, Tiffany Wise-West		2015.11.01–2016.04.01
R5 CES Report —\$9760	Ben Toscher, James Barsimantov, Tiffany Wise-West		2016.01.18–2016.04.15

Task III. Energy Efficiency —\$255,540

Calculate EUI/ Benchmark Buildings —Interval Data, Therms, kbtu/sf, etc.		Megan White	2015.04.13
Develop Energy Efficiency Audit process		Hillary Weitze	2015.04.06
MEMO 1 - EE Audit Process		Hillary Weitze	2015.04.06
UCSC to review Memo 1 - Audit Process		Megan White	2015.06.01
Chrissy to Ping Building Operators on Survey		Megan White	2015.04.27
Collect, compile, analyze energy efficiency data		Megan White	2015.04.27
Provide Template of Audit Results to Ecoshift		Hillary Weitze	2015.06.01
MEMO 2 - EE Audit Plan DRAFT		Megan White	2015.06.01
Develop list of candidate bldgs for energy audits —\$24200		Megan White	2015.07.28
DEADLINE: UCOP Bond funded E2 project		Curtis Schmitt	2015.07.30

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30% MILESTONE (EE)		Megan White	2015.07.28
Desktop Audits —Part of the \$24K from bldg list prioritization		Curtis Schmitt	2015.07.30
60% MILESTONE (EE)		Megan White	2015.09.14
Field Audits		Hillary Weitze	2015.09.04
90% MILESTONE (EE) —For UCSC Review		Curtis Schmitt	2015.11.02
Identify potential CRMs for Higher Ed Partnership Incentive —\$6340		Curtis Schmitt	2015.11.02
Calculate Project Life Cycle Cost... —\$82400		Curtis Schmitt	2015.11.02
Conduct Energy Efficiency Study & Audits —\$122800-8400=\$114400		Curtis Schmitt	2015.11.02
Design and develop delivery methods		Curtis Schmitt	2015.11.02
*** Recommend financing options and funding mechanisms —\$11040		Curtis Schmitt	2015.11.02
For each priority building, compile/ prioritize CRMs —\$1480		Curtis Schmitt	2015.11.02
Present EE 90% to Stakeholders / UCSC		Curtis Schmitt	2015.11.02
MEMO 3 - EE Audit Results FINAL —into 90% Milestone		Curtis Schmitt	2015.11.02
Identify EEMs Including TES/CHW systems (Districts) —~\$14,000 (continued in R5)		Megan White	2016.04.11
UCSC comment period (EE)		Megan White	2015.11.30
MEMO 4 - CRMs for Higher Ed Incentive + Financing —into 90% Milestone		Megan White	2016.04.11
Extrapolate Project list to ARC/Ecoshift —Joe		Megan White	2016.04.11
Verify the Default Year of Implementation —send to ARC/Ecoshift		Megan White	2016.04.11
R1 Comments from 90% —\$5025		Megan White	2016.04.11
R4 Therm Savings/Scenario Support —\$5360		Megan White	2016.04.11
R5 Districts —\$6540		Megan White	2016.04.11
R2 Weekly Team Meetings —\$4355 (Curtis + Hillary)	Andrew Meiman, Curtis Schmitt, Hillary Weitze, Lindsey Gaunt, Russell Driver		2015.11.01–2016.04.01
R6 Collaboration Meetings —\$5950	Andrew Meiman, Curtis Schmitt, Hillary Weitze, Lindsey Gaunt		2015.11.01–2016.04.01

Task IV. Renewable Energy —\$75,190

Infrastructure study (TBD) —\$12,000	Kim Courtney, Russell Driver	To-do
Review Mastersite Electrical Plan —Provide Questions/ Comments for Rhonda	Russell Driver	2015.03.12
Update approach to study —\$4,000	Russell Driver	2015.05.29
Conduct detailed utility analysis —\$7,500	Russell Driver	2015.05.29
MEMO 1 - Current Power Use	Russell Driver	2015.07.30
MEMO 0 - Methodology —"RE Audit Process Memo"	Russell Driver	2015.07.30
30% MILESTONE (RE)	Russell Driver	2015.07.30
Conduct sizing & location study —\$10,890	Kim Courtney	2015.08.20
MEMO 2 - System Size and Locations	Kim Courtney	2015.08.31
60% MILESTONE (RE) —Review system size & location	Kim Courtney	2015.10.22
Regulatory and finance review —\$6,000	Kim Courtney	2015.10.22
MEMO 3 - Financing Options	Kim Courtney	2015.10.30
Modeling Scenarios Meeting	Kim Courtney	2015.10.30
Identify other potential renewable technologies —\$3,000 (continued in R4)	Megan White	2015.12.01
Perform economic modeling —\$16,000	Kim Courtney	2015.10.30
90% MILESTONE (RE) —Complete Economic Modeling	Kim Courtney	2015.10.30
Develop final report —\$8,000	Kim Courtney	2015.10.30
RE Results Presentation to UCSC —Aligned w ith EE presentation	Kim Courtney	2015.10.30
Pass off proposed PV projects to ES for Carbon Implications —\$4,000	Megan White	2015.12.01
UCSC comment period (RE)	Megan White	2015.12.01

Appendix A

UCSC CES 90%

R4 Solar Thermal —\$2960		Megan White	2016.04.11
R3 Thermal Savings/ Scenario Support —\$1480		Megan White	2016.04.11
R1 BiWeekly Team Meetings —\$1202.50		Megan White	2016.04.11
R5 Collaboration Meetings —\$2960 (limited via call in)		Megan White	2016.04.11
R2 CES Report —\$5920		Kim Courtney, Russell Driver	2016.01.18–2016.04.15

Task V. Scenario Analysis for Strategic Decision-Making —\$92,570 (residual \$ transferred to Task 2)

DESIGN: Generate scenario options/parameters @ planning start —\$6150 (SCENARIO)		Megan White	2015.04.13
DATA: Organize existing data/ compile new data —\$5400		Tiffany Wise-West	2015.05.17
DESIGN: Identify inputs and constraints		Tiffany Wise-West	2015.05.17
BUILD: Develop high level scenario demo tool		Tiffany Wise-West	2015.05.17
develop CRM template fields		Tiffany Wise-West	2015.05.17
MILESTONE: Review CRM data input format		Tiffany Wise-West	2015.06.01
DESIGN: Define template for CRMs data output with ARC/INTEGR		Tiffany Wise-West	2015.05.17
DESIGN: Develop Concept Techno-Eco Analysis Tool —\$5450		Tiffany Wise-West	2015.06.01
DESIGN: Create mockups of integrated graphs —DATA budget		Tiffany Wise-West	2015.07.24
30% MILESTONE (TOOL): MEMO on Final design document		Tiffany Wise-West	2015.08.10
MILESTONE: Workshop to review full draft design		Megan White	2015.08.03
DATA: Gather data for baseline scenario, projections		Tiffany Wise-West	2015.08.11
DATA: Baseline energy/emission & future projections —\$5350		Tiffany Wise-West	2015.08.11
BUILD: Develop backend Excel database —DATA budget		Tiffany Wise-West	2015.10.31
DESIGN: Develop User Interface Template		Tiffany Wise-West	2015.08.11
BUILD: Develop excel based tool based on UCOP Carbon Calc —\$31000 (TOOL)		Tiffany Wise-West	2015.10.31
60% MILESTONE (TOOL): Review Preliminary Tool —Mock up & Backend		Tiffany Wise-West	2015.10.31

Appendix A

UCSC CES 90%

30% MILESTONE (SCENARIOS)		Megan White	2015.12.01
BUILD: Apply a graphical user interface —\$18450 (TOOL)		Tiffany Wise-West	2015.10.31
STRATEGY: Develop ranking/prioritization approach for CRMs		Megan White	2015.12.01
BUILD: Provide Training —\$3000 (SCENARIO) (continued in Task 2 R3)		Megan White	2016.04.11
STRATEGY: Evaluate scenarios		Megan White	2016.04.11
60% MILESTONE (SCENARIOS)		Megan White	2015.12.01
DATA: Create reference sources/library for all data inputs —\$5320 (DATA)		Megan White	2016.04.11
90% MILESTONE (TOOL): Review Final Tool		Megan White	2016.04.11
Present SCENARIOS to Stakeholders / UCSC —Align w ith Executive Committee on Sustainability Meeting		Megan White	2016.04.11
STRATEGY: Recommend Strategies		Megan White	2016.04.11
STRATEGY: Develop long-term strategy —\$17700 (SCENARIO)		Megan White	2016.04.11
UCSC comment period (SCENARIOS)		Megan White	2016.04.11

Task VI. Faculty/Student Involvement —\$27,650 (\$22,222.50 residual transferred to Task 2)

Hire 2 Interns —work w ith ARC on Audit Support		Tiffany Wise-West	2015.06.01
Student Training		Tiffany Wise-West	2015.07.24
Recruit and Work with PowerSave Students for Engagement —Survey RA's, etc to get additional feedback		Tiffany Wise-West	2015.07.24
Student Engagement Outreach/ Survey Collection		Tiffany Wise-West	2015.07.24
plan CES IDEASS projects for 2015/16 —Scope Cancelled		Megan White	2015.12.01
develop GHG and energy auditing curriculum —Scope Transferred to Task 2		Megan White	2015.12.01
provide student engagement opporutunities via res halls —\$9525		Tiffany Wise-West	2015.10.31
Co-plan and Co-deliver CES student and faculty engagement —Scope Transferred to Task 2		Megan White	2015.12.01

UC Santa Cruz Climate & Energy Strategy
Energy Efficiency Building Audit Results
Projects Identified (Building Measures)

		Mechanical														Lighting					PL		
		Audit Level	Audit Team	Boiler Upgrade	Heat Pump Conversion	Deep HVAC	VAV Conversion	Demand Based Sched	2 way valve Conversion	Controls Upgrades	Fume Hood	Server Rm HVAC Setback	Pump VFD	MBCx	Kitchen DCV	Other	Daylighting	Controls	Deep Lighting Retrofit	LED Retrofit	T12 Retrofit	Delamping	Stirling Freezers
CAAN	Building																						
7096	ERC	2	ARC	X	X			X				X		X					X				
7098	Interdisciplinary Sciences Building	2	IG			X								X					X				
7115	Hahn Student Services	1	IG	X										X					X				
7116	Thimann Laboratories	1	IG			X			X			X	X						X				X
7123	Cowell Morison House	1	IG	X	X			X	X					X									
7134	Cowell College Commons	2	ARC	X	X	X			X					X	X		X	X	X				
7137	Stevenson House 3	2	ARC	X	X	X				X				X									
7144	Stevenson Commons	1	ARC			X		X						X					X	X			
7145	McHenry Library	2	IG			X								X				X	X				
7157	Crown Dining	2	ARC	X	X		X	X	X					X	X		X		X				
7175	Communications Building	2	IG			X			X		X2		X						X				
7179	Natural Sciences 2 Main Building	1	IG			X	X		X		X	X	X				X		X				X
7180	Natural Sciences 2 Annex	1	IG					X		X									X				
7184	Merrill College House B	2	IG		X			X2						X					X				
7185	Merrill Dining	1	ARC			X								X					X	X			
7194	Jack Baskin Engineering Building	2	IG			X	X		X		X		X	X					X				X
7200	Cowell Student Health Center	2	IG	X	X		X			X3				X			X					X	
7201	Cowell Student Health Center Addition	2	IG							X3				X									
7301	Classroom Unit 1	1	IG	X	X		X		X	X2				X					X	(D)			
7304	Porter House B	1	ARC							X				X									
7305	Porter Dining	2	ARC			X								X	X								
7376	Kerr	2	ARC			X								X		X2			X				
7377	Kresge College Academic Building	1	IG	X	X		X	X		X				X				X	X				
7379	Kresge College Assembly Building	1	IG		X		X	X						X	X	X							
7392	Kresge College House 11	1	IG		X			X						X		X							
7419	Oakes Commons	1	ARC	X	X	X								X	X								
7421	Oakes College Residence C11-15	1	IG		X			X2						X		X2							
7435	Fieldhouse West	1	ARC	X	X	X								X									
7438	LML William T. Doyle Research Building	1	ARC			X		(D)		(D)				X	X		(D)	X		X			
7547	Crown-Merrill Housing Building 13	1	IG		X			X						X	X		X						
7694	LML COH	1	ARC	X	X		X			(D)	X			X					X				X
7700	LML Dolphinarium	1	ARC	X								X2	X							X			
7706	Humanities Building 1	1	IG	X	X					X				X									
7707	Cowell College Apartment Building 2	1	IG	X	X			X	X					X									
7710	Humanities & Social Sciences Building	1	IG	X	X					X				X	X				X				
7717	DARC	2	ARC	X	X			X						X	X	X			X				
7726	OPERS Fitness Center	1	ARC	X	X					X				X			X						
7733	LML Seymour	1	ARC	X	X		X	X2						X			X	(D)	X	X	X		
7743	OPERS Office & Support	2	ARC		X			X						X		X			X				
7744	Sinsheimer Laboratories	2	IG			X								X			X	(D)	X				X
7756	College 8 Kitchen	1	ARC	X	X									X	X		X		X				
7759	College 8 Dorm AL	1	ARC	X	X					X				X									
7775	Earth & Marine Sciences	2	IG			X	X			X				X	X				X				X
7801	College 8 Apt Bldg 2	1	ARC		X					X						X2							
7905	Stevenson College Apartment Building 10	1	IG	X	X			X	X					X									
7910	Porter Apt K	1	ARC	X	X					X				X									
7919	Physical Sciences Building	2	IG			X	X			X	X			X									X
7932	College Nine Residence Hall 2	1	IG	X	X			X						X									
7933	College 9 Dining	1	ARC	X	X		X	X						X	X	X			X				
7940	EB2	2	ARC					X			X			X		X			X				
7944	2300 Delaware	2	ARC								X			X						X			
7947	Biomedical Sciences	2	IG							X				X				X					X

UC Santa Cruz Climate and Energy Strategy
Energy Efficiency Building Audit Results
Project List

SEP ID	Building CAAN	Building Name	Project Name	Building Electric Energy Savings (kWh/yr)	Peak Electric Demand Savings (kW)	Building HW Energy Savings (kBtu/yr)	Building Gas Energy Savings (therms/yr)	Building Condenser Water Energy Savings (ton-hr/yr)	Annual Cost Savings (\$/yr)	Net Project Cost (\$)	Net Simple Payback Period (yrs)
G3709601A	7096	Emergency Response Center	Condensing Boiler Retrofit	-	-	-	258	-	3,026	\$ 94,590	31.3
G3709602A	7096	Emergency Response Center	Replace HHW Boiler with Heat Pump	(9,123)	(34.0)	-	2,677	-	\$ 4,683	\$ 165,462	35.3
G3709603	7096	Emergency Response Center	Demand Based Scheduling	3,740	-	-	460	-	\$ 3,210	\$ 117,793	36.7
G3709604	7096	Emergency Response Center	Raise Server Room Temp Setpoints	6,570	0.8	-	-	-	\$ 889	\$ 112	0.1
G3709605	7096	Emergency Response Center	MBCx	15,306	-	-	304	-	\$ 3,013	\$ 32,698	10.9
G3709606	7096	Emergency Response Center	Deep Lighting Retrofit	8,000	2.4	-	-	-	\$ 2,317	\$ 59,917	25.9
G3709801	7098	Interdisciplinary Sciences Buildi	Deep HVAC Retrofit	24,887	-	3,463,004	-	2,760	\$ 62,242	\$ 1,407,632	22.6
G3709802	7098	Interdisciplinary Sciences Buildi	Deep Lighting Retrofit	165,349	12.5	-	-	-	\$ 27,935	\$ 262,682	9.4
G3709803	7098	Interdisciplinary Sciences Buildi	MBCx	62,931	8.2	1,442,727	2	1,104	\$ 21,240	\$ 144,740	6.8
G3711501	7115	Hahn Student Services	MBCx	17,371	-	-	331	-	\$ 3,496	\$ 41,429	11.9
G3711502	7115	Hahn Student Services	Deep Lighting Retrofit	78,874	5.0	-	-	-	\$ 13,668	\$ 142,094	10.4
G3711503	7115	Hahn Student Services	Boiler Upgrade	-	-	-	390	-	\$ 2,506	\$ 111,292	44.4
G3711601A	7116	Thimann Laboratories	Deep Retrofit_Smart Lab	456,372	-	4,278,260	-	1,793	\$ 151,160	\$ 2,486,183	16.4
G3711602	7116	Thimann Laboratories	2-Way Valve	8,300	1.4	-	-	-	\$ 2,972	\$ 90,584	30.5
G3711603	7116	Thimann Laboratories	DIWP Pump VFD	19,870	-	-	-	-	\$ 3,136	\$ 17,918	5.7
G3711604	7116	Thimann Laboratories	Replace Ultra Low Freezers	23,830	2.7	-	-	-	\$ 9,156	\$ 291,214	31.8
G3711605	7116	Thimann Laboratories	Deep Lighting	241,843	16.5	-	-	-	\$ 40,656	\$ 342,301	8.4
G3711606	7116	Thimann Laboratories	MBCx	168,405	21.9	1,187,709	9	598	\$ 37,764	\$ 187,779	5.0
G3712401	7124	Cowell College Prescott House	MBCx	2,664	-	-	335	-	\$ 1,043	\$ 21,472	20.6
G3712402A	7124	Cowell College Prescott House	Condensing boiler with HHW reset	-	-	-	614	-	\$ 3,531	\$ 102,772	29.1
G3712403	7124	Cowell College Prescott House	VFD for HHW pump	10,781	0.5	-	-	-	\$ 10,176	\$ 433,431	42.6
G3712404	7124	Cowell College Prescott House	Occupancy based operation for restroom	14,917	-	-	-	-	\$ 2,739	\$ 32,687	11.9
G3712405A	7124	Cowell College Prescott House	Heat Pump for HHW & DHW	(31,322)	(19.8)	-	6,531	-	\$ 10,335	\$ 499,594	48.3
G3713401A	7134	Cowell College Commons	Boiler Retrofit (Primary)	-	-	-	5,333	-	\$ 24,542	\$ 1,035,142	42.2
G3713402A	7134	Cowell College Commons	Boiler Retrofit (alt)	-	-	-	3,132	-	\$ 17,656	\$ 770,076	43.6
G3713403	7134	Cowell College Commons	Steam Boiler Retrofit	-	-	-	166	-	\$ 1,003	\$ 44,197	44.1
G3713404	7134	Cowell College Commons	MBCx	20,067	-	-	4,579	-	\$ 8,313	\$ 110,526	13.3
G3713405B	7134	Cowell College Commons	Dining Area Daylighting Controls	311	0.6	-	(2)	-	\$ 134	\$ 4,620	34.4
G3713406B	7134	Cowell College Commons	Deep Lighting Retrofit	73,042	7.0	-	-	-	\$ 13,905	\$ 184,665	13.3
G3713407A	7134	Cowell College Commons	Deep HVAC Retrofit	20,779	5.9	-	4,420	-	\$ 23,013	\$ 846,286	36.8
G3713408A	7134	Cowell College Commons	Replace HHW Boiler with Heat Pump	(192,759)	(191.6)	-	40,277	-	\$ 20,027	\$ 898,783	44.9
G3713409	7134	Cowell College Commons	Dishwasher Replacement	-	-	-	8,669	-	\$ 12,544	\$ 137,868	11.0
G3713410	7134	Cowell College Commons	Kitchen Hood DCV	20,600	3.5	-	1,200	-	\$ 6,376	\$ 135,102	21.2
G3713701A	7137	Stevenson College House 3	Condensing Boiler Retrofit	-	-	-	1,085	-	\$ 3,938	\$ 104,859	26.6
G3713702A	7137	Stevenson College House 3	Replace HHW Boiler with Heat Pump	(32,549)	(46.9)	-	8,506	-	\$ 8,995	\$ 371,058	41.2
G3713703	7137	Stevenson College House 3	Deep HVAC	8,089	2.3	-	2,025	-	\$ 9,599	\$ 350,493	36.5
G3713704	7137	Stevenson College House 3	MBCx	3,087	-	-	453	-	\$ 1,115	\$ 17,893	16.0
G3713705	7137	Stevenson College House 3	Interlock Danfoss Valves with Windows	-	-	-	1,350	-	\$ 1,955	\$ 49,151	25.1
G3714401	7144	Stevenson College Commons	Deep HVAC	27,194	7.8	-	9,000	-	\$ 17,357	\$ 353,781	20.4
G3714402	7144	Stevenson College Commons	HVAC Occ Sensor / Demand Based Sche	11,537	-	-	3,076	-	\$ 4,061	\$ 11,648	2.9
G3714403	7144	Stevenson College Commons	MBCx	12,954	-	-	3,354	-	\$ 4,629	\$ 20,157	4.4
G3714404A	7144	Stevenson College Commons	Deep Lighting	23,901	1.4	-	-	-	\$ 4,910	\$ 78,419	16.0
G3714405B	7144	Stevenson College Commons	MPR LED Lighting Retrofit	24,057	3.7	-	(180)	-	\$ 5,172	\$ 96,574	18.7
G3714501A	7145	McHenry Library	Deep HVAC	96,446	-	617,880	-	-	\$ 72,409	\$ 2,675,970	37.0
G3714502B	7145	McHenry Library	Deep Lighting	1,575,539	142.5	-	-	-	\$ 237,558	\$ 949,123	4.0
G3714503B	7145	McHenry Library	Emergency Lighting	233,991	-	-	-	-	\$ 32,939	\$ 285,330	8.7
G3714504A	7145	McHenry Library	MBCx	370,946	-	257,450	-	-	\$ 66,508	\$ 619,850	9.3
G3715701	7157	Crown College Commons	Steam Boiler Retrofit	-	-	-	102	-	\$ 959	\$ 44,260	46.2

UC Santa Cruz Climate and Energy Strategy
Energy Efficiency Building Audit Results
Project List

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G3715702B	7157	Crown College Commons	Convert to VAV	86,414	-	-	3,586	-	\$ 18,698	\$ 206,782	11.1
G3715703B	7157	Crown College Commons	HVAC Occ Sensor / Demand Based Sched	637	-	-	209	-	\$ 519	\$ 13,958	26.9
G3715704	7157	Crown College Commons	Convert to 2-Way Valve	3,699	13.9	-	-	-	\$ 1,031	\$ 25,695	24.9
G3715705	7157	Crown College Commons	MBCx	81,200	-	-	2,831	-	\$ 13,973	\$ 29,117	2.1
G3715706A	7157	Crown College Commons	MH to LED Lighting Retrofit with Daylight	6,444	2.3	-	(48)	-	\$ 1,265	\$ 19,879	15.7
G3715707B	7157	Crown College Commons	Deep Lighting	54,948	9.4	-	-	-	\$ 9,152	\$ 78,037	8.5
G3715708	7157	Crown College Commons	Air-to-Water Heat Pump	(80,302)	(140.9)	-	16,991	-	\$ 8,672	\$ 380,956	43.9
G3715709	7157	Crown College Commons	Kitchen Hood DCV	26,400	7.3	-	1,600	-	\$ 7,173	\$ 118,932	16.6
G3717501	7175	Communications Building	Deep HVAC	1,657,589	-	289,866	-	-	\$ 274,661	\$ 2,019,677	7.4
G3717502	7175	Communications Building	IT Room	39,420	4.5	-	-	-	\$ 5,979	\$ 23,417	3.9
G3717503	7175	Communications Building	Data Center Retrofit	437,793	50.0	-	-	-	\$ 67,244	\$ 302,014	4.5
G3717504	7175	Communications Building	Deep Lighting	99,187	7.5	-	-	-	\$ 16,979	\$ 167,309	9.9
G3717505	7175	Communications Building	2-Way Valve	3,794	2.2	-	-	-	\$ 4,062	\$ 176,602	43.5
G3717506	7175	Communications Building	MBCx	118,871	15.4	57,837	32	-	\$ 17,667	\$ 26,046	1.5
G3717901A	7179	Natural Sciences 2 Main Buildin	Deep Retrofit_Smart Lab	218,796	-	1,512,814	-	22,083	\$ 75,384	\$ 1,454,485	19.3
G3717902A	7179	Natural Sciences 2 Main Buildin	VAV_Labs	172,019	117.2	950,395	-	16,646	\$ 57,737	\$ 1,175,575	20.4
G3717903	7179	Natural Sciences 2 Main Buildin	2-Way Valve	37,466	5.7	-	-	-	\$ 7,182	\$ 97,224	13.5
G3717904	7179	Natural Sciences 2 Main Buildin	Process Water Pump VFD	29,805	-	-	-	-	\$ 4,805	\$ 31,921	6.6
G3717905B	7179	Natural Sciences 2 Main Buildin	Daylighting	3,689	-	-	-	-	\$ 1,372	\$ 42,696	31.1
G3717906	7179	Natural Sciences 2 Main Buildin	Replace Ultra Low Freezers	15,873	1.8	-	-	-	\$ 6,219	\$ 200,023	32.2
G3717907	7179	Natural Sciences 2 Main Buildin	Server Room HVAC	22,075	2.5	-	-	-	\$ 2,980	\$ 3,195	1.1
G3717908B	7179	Natural Sciences 2 Main Buildin	Deep Lighting	265,021	16.8	-	-	-	\$ 43,612	\$ 328,108	7.5
G3717909	7179	Natural Sciences 2 Main Buildin	MBCx	53,932	7.0	168,005	1	2,760	\$ 11,528	\$ 110,433	9.6
G3718001	7180	Natural Sciences 2 Annex	Demand Based Scheduling	22,789	-	7,490,475	-	-	\$ 69,725	\$ 33,871	0.5
G3718002	7180	Natural Sciences 2 Annex	EF-02 Timeclock	7,370	-	-	-	-	\$ 1,023	\$ 3,878	3.8
G3718003	7180	Natural Sciences 2 Annex	Deep Lighting	40,100	4.8	-	-	-	\$ 6,272	\$ 37,786	6.0
G3718401	7184	Merrill College House B	MBCx	8,128	-	-	1,590	-	\$ 3,668	\$ 69,331	18.9
G3718402	7184	Merrill College House B	Occupancy based control on AH-B1/EF-E	14,206	-	-	3,479	-	\$ 5,416	\$ 46,258	8.5
G3718403	7184	Merrill College House B	Deep Lighting Retrofit	84,986	11.0	-	-	-	\$ 14,029	\$ 125,841	9.0
G3718404	7184	Merrill College House B	Seasonal Building Scheduling	13,547	-	-	2,650	-	\$ 4,195	\$ 18,624	4.4
G3718405	7184	Merrill College House B	HHW & DHW Heat Pumps	(71,724)	(121.2)	-	14,954	-	\$ 19,819	\$ 951,673	48.0
G3718501	7185	Merrill College Dining Common	2638 Merrill Cultural Center Renovations	7,551	3.1	-	-	-	\$ 8,041	\$ 349,279	43.4
G3718502	7185	Merrill College Dining Common	2638 Merrill Cultural Center Renovations	4,510	1.3	-	4,800	-	\$ 19,666	\$ 778,993	39.6
G3718503A	7185	Merrill College Dining Common	MBCx	2,971	-	-	1,531	-	\$ 1,769	\$ 12,563	7.1
G3719401A	7194	Jack Baskin Engineering Buildin	Deep Retrofit_Smart Lab	704,331	-	690,583	-	-	\$ 182,533	\$ 4,321,263	23.7
G3719402A	7194	Jack Baskin Engineering Buildin	VAV Non-Labs	466,454	-	666,544	-	-	\$ 110,209	\$ 1,958,334	17.8
G3719403	7194	Jack Baskin Engineering Buildin	2-Way Valve	4,699	5.2	-	-	-	\$ 9,600	\$ 447,166	46.6
G3719404	7194	Jack Baskin Engineering Buildin	Data Center Retrofit	159,415	18.2	-	-	-	\$ 27,929	\$ 282,123	10.1
G3719405	7194	Jack Baskin Engineering Buildin	Replace Ultra Low Freezers	53,604	6.1	-	-	-	\$ 21,146	\$ 682,621	32.3
G3719406	7194	Jack Baskin Engineering Buildin	Deep Lighting	493,336	33.7	-	-	-	\$ 82,509	\$ 677,466	8.2
G3719407	7194	Jack Baskin Engineering Buildin	MBCx	383,028	49.7	164,400	0	-	\$ 68,874	\$ 694,374	10.1
G3720001A	7200	Cowell Student Health Center	Reduce Morning Warmup Setpoints	-	-	-	3,269	-	\$ 2,305	\$ 861	0.4
G3720002A	7200	Cowell Student Health Center	Lockout heating when windows are open	-	-	-	2,179	-	\$ 1,873	\$ 15,209	8.1
G3720003B	7200	Cowell Student Health Center	HHW/DHW Boiler Upgrade	-	-	-	3,054	-	\$ 5,622	\$ 113,095	20.1
G3720004C	7200	Cowell Student Health Center	Demand Controlled Ventilation	8,576	-	-	5,448	-	\$ 6,462	\$ 67,018	10.4
G3720005	7200	Cowell Student Health Center	Delamp	13,607	5.2	-	-	-	\$ 1,934	\$ 4,844	2.5
G3720006	7200	Cowell Student Health Center	Daylighting Controls	3,666	-	-	(27)	-	\$ 2,377	\$ 94,185	39.6
G3720007C	7200	Cowell Student Health Center	Upgrade AHUs to VAV	164,088	24.0	-	21,775	-	\$ 51,759	\$ 657,037	12.7

UC Santa Cruz Climate and Energy Strategy
Energy Efficiency Building Audit Results
Project List

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G3720008A	7200	Cowell Student Health Center	MBCx	21,441	-	-	1,362	-	\$ 5,076	\$ 54,878	10.8
G3720009B	7200	Cowell Student Health Center	Heat Pump for HHW & DHW	(122,475)	(554.0)	-	25,535	-	\$ 8,753	\$ 370,635	42.3
G3720101	7201	Cowell Student Health Center A	Reduce Morning Warmup Setpoints	-	-	-	630	-	\$ 458	\$ 861	1.9
G3720102	7201	Cowell Student Health Center A	Lockout heating when windows are open	-	-	-	420	-	\$ 522	\$ 10,128	19.4
G3720103	7201	Cowell Student Health Center A	Demand Controlled Ventilation	5,451	-	-	630	-	\$ 1,922	\$ 34,006	17.7
G3720104	7201	Cowell Student Health Center A	MBCx	4,130	-	-	262	-	\$ 1,053	\$ 13,967	13.3
G3730101	7301	Classroom Unit 1	MBCx	3,772	-	-	544	-	\$ 2,251	\$ 66,588	29.6
G3730102A	7301	Classroom Unit 1	Condensing boiler with HHW reset	-	-	-	610	-	\$ 5,643	\$ 173,261	30.7
G3730103	7301	Classroom Unit 1	VFD for HHW pump	955	-	-	-	-	\$ 2,940	\$ 140,325	47.7
G3730104	7301	Classroom Unit 1	Occupancy-based AC control for project	9,845	-	-	-	-	\$ 1,681	\$ 15,222	9.1
G3730105	7301	Classroom Unit 1	Deep Lighting Retrofit	40,565	3.8	-	-	-	\$ 6,853	\$ 68,829	10.0
G3730106	7301	Classroom Unit 1	Automatic tstat control for convectors	-	-	-	958	-	\$ 847	\$ 7,880	9.3
G3730107	7301	Classroom Unit 1	Add VFDs to SFs	8,041	-	-	2,661	-	\$ 9,327	\$ 314,349	33.7
G3730108A	7301	Classroom Unit 1	HHW & DHW Heat Pumps	(25,009)	(92.0)	-	5,214	-	\$ 4,405	\$ 206,558	46.9
G3730401	7304	Porter College House B	MBCx	66,840	-	-	3,114	-	\$ 16,299	\$ 235,658	14.5
G3730402	7304	Porter College House B	Window Interlock Controls	-	-	-	3,737	-	\$ 7,986	\$ 264,768	33.2
G3730501	7305	Porter College Dining Common	MBCx	24,607	-	-	917	-	\$ 5,743	\$ 82,109	14.3
G3730502	7305	Porter College Dining Common	Deep HVAC	82,023	23.4	-	6,800	-	\$ 26,834	\$ 523,582	19.5
G3730503	7305	Porter College Dining Common	Kitchen Hood DCV	28,100	4.7	-	1,700	-	\$ 6,603	\$ 77,373	11.7
G3737601A	7376	Kerr Hall	MBCx	65,490	-	283,650	-	-	\$ 17,946	\$ 340,225	19.0
G3737602B	7376	Kerr Hall	Deep HVAC Retrofit	81,371	23.2	700,000	-	-	\$ 39,546	\$ 1,163,517	29.4
G3737603	7376	Kerr Hall	Deep Lighting	76,620	15.7	-	-	-	\$ 17,545	\$ 350,466	20.0
G3737604	7376	Kerr Hall	Disconnect/Remove AC4	837	13.9	-	-	-	\$ 115	\$ 81	0.7
G3737605	7376	Kerr Hall	Premium Efficiency Pump Replacement (9,797	-	-	-	-	\$ 1,510	\$ 9,356	6.2
G3737701	7377	Kresge College Academic Build	Demand Based Scheduling	3,917	-	-	649	-	\$ 3,351	\$ 86,789	25.9
G3737702	7377	Kresge College Academic Build	Automatic t-stat control for convectors	-	-	-	195	-	\$ 1,008	\$ 43,407	43.1
G3737703B	7377	Kresge College Academic Build	Dual Circuit Lighting	13,400	-	-	-	-	\$ 2,334	\$ 40,982	17.6
G3737704A	7377	Kresge College Academic Build	Condensing HHW/DHW boiler w/ HWST	-	-	-	545	-	\$ 3,345	\$ 98,231	29.4
G3737705	7377	Kresge College Academic Build	VAV for WAFs	32,123	-	-	-	-	\$ 5,287	\$ 39,809	7.5
G3737706B	7377	Kresge College Academic Build	Deep Lighting	65,218	10.3	-	-	-	\$ 10,285	\$ 68,528	6.7
G3737707	7377	Kresge College Academic Build	MBCx	4,930	-	-	243	-	\$ 2,243	\$ 68,945	30.7
G3737708A	7377	Kresge College Academic Build	Heat Pump for HHW & DHW	(23,231)	(36.8)	-	4,843	-	\$ 17,611	\$ 867,841	49.3
G3737901	7379	Kresge College Assembly Build	Demand Based Scheduling	10,450	-	-	649	-	\$ 2,328	\$ 50,016	21.5
G3737902	7379	Kresge College Assembly Build	Instantaneous Gas DHW Heater	-	-	-	216	-	\$ 240	\$ 4,235	17.6
G3737903	7379	Kresge College Assembly Build	VAV for WAFs	36,126	-	-	4,134	-	\$ 12,131	\$ 198,109	16.3
G3737904	7379	Kresge College Assembly Build	MBCx	5,225	-	-	324	-	\$ 1,509	\$ 27,264	18.1
G3737905	7379	Kresge College Assembly Build	Heat Pump for Heating & DHW	(26,630)	(158.7)	-	5,552	-	\$ 2,333	\$ 102,069	43.8
G3737906	7379	Kresge College Assembly Build	Kitchen Hood DCV	6,900	1.2	-	400	-	\$ 1,607	\$ 18,891	11.8
G3739201	7392	Kresge College House 11	Demand Based Scheduling	2,162	-	-	229	-	\$ 668	\$ 28,066	42.0
G3739202	7392	Kresge College House 11	Instantaneous Gas DHW Heater	-	-	-	76	-	\$ 218	\$ 8,163	37.4
G3739203	7392	Kresge College House 11	MBCx	2,162	-	-	229	-	\$ 1,271	\$ 40,208	31.6
G3739204	7392	Kresge College House 11	Heat Pump for Heating & DHW	(10,785)	(6.2)	-	2,249	-	\$ 2,907	\$ 139,448	48.0
G3741901A	7419	Oakes College Tutorial Commo	Condensing Boiler Retrofit	-	-	-	807	-	\$ 3,416	\$ 94,217	27.6
G3741902A	7419	Oakes College Tutorial Commo	Replace HHW Boiler with Heat Pump	(33,233)	(46.3)	-	7,024	-	\$ 7,309	\$ 344,892	47.2
G3741903B	7419	Oakes College Tutorial Commo	Deep HVAC	5,546	1.6	-	1,935	-	\$ 9,999	\$ 391,519	39.2
G3741904B	7419	Oakes College Tutorial Commo	MBCx	1,252	-	-	361	-	\$ 1,436	\$ 50,046	34.9
G3741905	7419	Oakes College Tutorial Commo	Kitchen Hood DCV	4,100	0.7	-	200	-	\$ 931	\$ 11,334	12.2
G3742101	7421	Oakes College Residence C11-	MBCx	2,574	-	-	162	-	\$ 861	\$ 19,251	22.4

UC Santa Cruz Climate and Energy Strategy
Energy Efficiency Building Audit Results
Project List

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G3742102	7421	Oakes College Residence C11-	Install instantaneous GWH	-	-	-	144	-	\$ 335	\$ 11,598	34.6
G3742103	7421	Oakes College Residence C11-	Occupancy-based EF control for bathroo	1,842	-	-	-	-	\$ 745	\$ 24,393	32.7
G3742104A	7421	Oakes College Residence C11-	Condensing Furnace w VFD upgrade	772	-	-	209	-	\$ 387	\$ 6,636	17.2
G3742105	7421	Oakes College Residence C11-	Occupancy controlled heating system	-	-	-	388	-	\$ 659	\$ 33,101	50.2
G3742106A	7421	Oakes College Residence C11-	HHW & DHW Heat Pumps	(15,257)	(14.1)	-	3,181	-	\$ 5,719	\$ 277,608	48.5
G3743501A	7435	Fieldhouse West	Boiler Retrofit	-	-	-	437	-	\$ 4,337	\$ 130,904	30.2
G3743502	7435	Fieldhouse West	MBCx	19,770	-	-	195	-	\$ 3,309	\$ 20,220	6.1
G3743503A	7435	Fieldhouse West	Deep HVAC Retrofit	23,414	6.7	-	1,250	-	\$ 7,451	\$ 163,879	22.0
G3743504A	7435	Fieldhouse West	Air-to-Water Heat Pump	(15,405)	(32.9)	-	3,680	-	\$ 2,653	\$ 107,885	40.7
G3743801A	7438	LML William T. Doyle Research	T12 Retrofit	3,985	0.2	-	(30)	-	\$ 1,367	\$ 16,937	12.4
G3743802B	7438	LML William T. Doyle Research	Deep Lighting Retrofit	21,048	2.5	-	-	-	\$ 3,614	\$ 36,245	10.0
G3743803	7438	LML William T. Doyle Research	Deep HVAC Retrofit	4,540	1.3	-	180	-	\$ 16,849	\$ 804,238	47.7
G3743804	7438	LML William T. Doyle Research	MBCx	7,656	-	-	56	-	\$ 1,317	\$ 10,323	7.8
G3743805	7438	LML William T. Doyle Research	ECM Motors	1,594	0.2	-	-	-	\$ 237	\$ 724	3.1
G3754701	7547	Crown-Merrill Housing Building	Exterior Lighting Controls	118	-	-	-	-	\$ 85	\$ 3,471	40.7
G3754702	7547	Crown-Merrill Housing Building	HVAC Occupancy Schedule	276	-	-	63	-	\$ 1,229	\$ 57,249	46.6
G3754703A	7547	Crown-Merrill Housing Building	Condensing Furnace	-	-	-	224	-	\$ 428	\$ 13,347	31.2
G3754704	7547	Crown-Merrill Housing Building	MBCx	901	-	-	168	-	\$ 500	\$ 12,643	25.3
G3754705A	7547	Crown-Merrill Housing Building	HHW & DHW Heat Pumps	(15,755)	(13.8)	-	3,285	-	\$ 5,492	\$ 265,969	48.4
G3769401A	7694	Long Marine Lab Ocean Health	Condensing Boiler Retrofit	-	-	-	2,161	-	\$ 6,484	\$ 122,122	18.8
G3769402A	7694	Long Marine Lab Ocean Health	Replace HHW Boiler with Heat Pump	(80,850)	(113.6)	-	18,302	-	\$ 14,949	\$ 653,728	43.7
G3769403	7694	Long Marine Lab Ocean Health	Decommission AC1	3,042	0.6	-	-	-	\$ 731	\$ 187	0.3
G3769404	7694	Long Marine Lab Ocean Health	Convert AH1 to VAV	135,748	-	-	3,055	-	\$ 35,876	\$ 734,936	20.5
G3769405	7694	Long Marine Lab Ocean Health	MBCx	62,946	-	-	957	-	\$ 10,491	\$ 50,102	4.8
G3769406	7694	Long Marine Lab Ocean Health	Deep Lighting Retrofit	13,236	3.7	-	-	-	\$ 4,018	\$ 108,384	27.0
G3769407	7694	Long Marine Lab Ocean Health	Replace Ultra Low Freezers	9,823	1.1	-	-	-	\$ 4,250	\$ 143,851	33.8
G3770001	7700	Long Marine Lab Dolphinarium	Pool Heat Exchanger	-	-	-	44,307	-	\$ 31,015	\$ 107,900	3.5
G3770002	7700	Long Marine Lab Dolphinarium	Caisson #2 Pump Replacement	80,230	-	-	-	-	\$ 39,987	\$ 563,873	14.1
G3770003	7700	Long Marine Lab Dolphinarium	MBCx	-	-	-	4,125	-	\$ 3,175	\$ 10,227	3.2
G3770004	7700	Long Marine Lab Dolphinarium	Lighting Retrofit	3,285	-	-	-	-	\$ 521	\$ 3,181	6.1
G3770005	7700	Long Marine Lab Dolphinarium	VFDs in Caisson #1	59,924	-	-	-	-	\$ 13,009	\$ 84,007	6.5
G3770601	7706	Humanities Building 1	Demand Controlled Ventilation	8,681	-	-	1,469	-	\$ 28,503	\$ 1,311,572	46.0
G3770602A	7706	Humanities Building 1	Boiler Upgrade	-	-	-	718	-	\$ 6,503	\$ 199,834	30.7
G3770603	7706	Humanities Building 1	MBCx	21,704	-	-	735	-	\$ 6,489	\$ 146,315	22.5
G3770604A	7706	Humanities Building 1	Heat Pump for HHW & DHW	(34,306)	(94.9)	-	7,153	-	\$ 29,314	\$ 1,446,919	49.4
G3770701A	7707	Cowell College Apartment Build	Boiler Upgrade	-	-	-	692	-	\$ 2,859	\$ 117,623	41.1
G3770702	7707	Cowell College Apartment Build	HVAC Occ Sensor	3,174	-	-	1,064	-	\$ 5,417	\$ 210,386	38.8
G3770703	7707	Cowell College Apartment Build	MBCx	3,142	0.4	-	285	-	\$ 1,212	\$ 28,374	23.4
G3770704	7707	Cowell College Apartment Build	2-Way Valve	11,546	4.6	-	-	-	\$ 8,245	\$ 331,556	40.2
G3770705A	7707	Cowell College Apartment Build	HHW & DHW Heat Pumps	(22,432)	(64.8)	-	4,677	-	\$ 8,254	\$ 400,420	48.5
G3771001	7710	Humanities & Social Sciences E	Demand Controlled Ventilation	1,641	-	-	822	-	\$ 7,460	\$ 331,949	44.5
G3771002A	7710	Humanities & Social Sciences E	Boiler Upgrade	-	-	-	334	-	\$ 3,171	\$ 97,820	30.8
G3771003	7710	Humanities & Social Sciences E	Improve Southeast Glazing	-	-	-	137	-	\$ 192	\$ 4,673	24.3
G3771004	7710	Humanities & Social Sciences E	Deep Lighting	42,970	3.3	-	-	-	\$ 7,770	\$ 93,931	12.1
G3771005	7710	Humanities & Social Sciences E	MBCx	4,103	-	-	342	-	\$ 1,916	\$ 54,816	28.6
G3771006A	7710	Humanities & Social Sciences E	Heat Pump for HHW & DHW	(15,976)	(43.9)	-	3,331	-	\$ 8,514	\$ 416,970	49.0
G3771701A	7717	Digital Arts Research Center	Condensing Boiler Retrofit	-	-	-	735	-	\$ 3,733	\$ 106,563	28.5
G3771702A	7717	Digital Arts Research Center	Replace HHW Boiler with Heat Pump	(18,731)	(80.1)	-	5,884	-	\$ 15,272	\$ 682,695	44.7

UC Santa Cruz Climate and Energy Strategy
Energy Efficiency Building Audit Results
Project List

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G3771703	7717	Digital Arts Research Center	Demand Based Scheduling	53,037	10.7	-	3,260	-	\$ 15,859	\$ 304,854	19.2
G3771704B	7717	Digital Arts Research Center	Eliminate Comfort Cooling	44,427	62.2	-	-	-	\$ 6,638	\$ 230	0.0
G3771705B	7717	Digital Arts Research Center	MBCx	13,485	-	-	328	-	\$ 3,070	\$ 47,471	15.5
G3771706C	7717	Digital Arts Research Center	Dining Area Daylighting Controls	594	0.4	-	(4)	-	\$ 182	\$ 5,131	28.1
G3771707C	7717	Digital Arts Research Center	Deep Lighting Retrofit	58,900	9.0	-	-	-	\$ 11,824	\$ 179,470	15.2
G3772601A	7726	OPERS Fitness Center	Condensing Boiler Retrofit, with 2 Way V	-	-	-	559	-	\$ 1,137	\$ 87,126	76.6
G3772602A	7726	OPERS Fitness Center	Replace HHW Boiler with Heat Pump	(23,730)	(40.0)	-	5,004	-	\$ 2,651	\$ 118,253	44.6
G3772603B	7726	OPERS Fitness Center	Window Interlock Sensors	22,327	-	-	2,819	-	\$ 5,755	\$ 30,191	5.2
G3772604B	7726	OPERS Fitness Center	MBCx	13,428	-	-	760	-	\$ 3,441	\$ 50,805	14.8
G3772605	7726	OPERS Fitness Center	Dining Area Daylighting Controls	5,456	7.5	-	(41)	-	\$ 813	\$ 3,951	4.9
G3773301A	7733	Long Marine Lab Seymour Cent	Boiler Retrofit	-	-	-	271	-	\$ 1,616	\$ 45,407	28.1
G3773302A	7733	Long Marine Lab Seymour Cent	Air-to-Water Heat Pump	(8,440)	(29.7)	-	2,260	-	\$ 2,553	\$ 105,314	41.2
G3773303B	7733	Long Marine Lab Seymour Cent	Variable Air Volume Conversion for AHUs	31,121	-	-	1,182	-	\$ 14,347	\$ 457,227	31.9
G3773304B	7733	Long Marine Lab Seymour Cent	HVAC Occ Sensor / Demand Based Sche	6,922	-	-	613	-	\$ 1,854	\$ 22,227	12.0
G3773305B	7733	Long Marine Lab Seymour Cent	Dual Technology Controls	6,996	-	-	97	-	\$ 1,670	\$ 32,352	19.4
G3773306	7733	Long Marine Lab Seymour Cent	MBCx	10,521	-	-	242	-	\$ 2,092	\$ 22,349	10.7
G3773307C	7733	Long Marine Lab Seymour Cent	Deep Lighting	46,981	7.4	-	-	-	\$ 7,930	\$ 71,654	9.0
G3773308C	7733	Long Marine Lab Seymour Cent	Retrofit Highbay Lighting to LED and add	3,210	0.4	-	(24)	-	\$ 1,046	\$ 30,696	29.3
G3773309C	7733	Long Marine Lab Seymour Cent	Retrofit T12 Lighting with LED	4,597	0.6	-	(34)	-	\$ 933	\$ 16,077	17.2
G3774301	7743	OPERS Offices & Support Spac	HVAC Occ Sensor / Demand Based Sche	13,185	-	-	1,817	-	\$ 3,052	\$ 36,617	12.0
G3774302	7743	OPERS Offices & Support Spac	MBCx	21,794	-	-	1,389	-	\$ 4,453	\$ 20,322	4.6
G3774303	7743	OPERS Offices & Support Spac	Pool Cover	-	-	-	10,542	-	\$ 7,379	\$ 27,504	3.7
G3774304	7743	OPERS Offices & Support Spac	Deep Lighting	33,136	3.0	-	-	-	\$ 6,177	\$ 80,391	13.0
G3774305A	7743	OPERS Offices & Support Spac	Air-to-Water Heat Pump	(51,427)	(95.0)	-	13,011	-	\$ 7,169	\$ 249,538	34.8
G3774401	7744	Sinsheimer Laboratories	Deep Retrofit_Smart Lab	802,869	-	3,649,177	-	-	\$ 189,307	\$ 2,472,311	13.1
G3774402	7744	Sinsheimer Laboratories	Daylighting	3,713	-	-	-	-	\$ 1,509	\$ 49,431	32.7
G3774403	7744	Sinsheimer Laboratories	Replace Ultra Low Freezers	112,153	12.8	-	-	-	\$ 35,411	\$ 986,585	27.9
G3774404	7744	Sinsheimer Laboratories	Deep Lighting	321,330	21.1	-	-	-	\$ 52,375	\$ 377,218	7.2
G3774405	7744	Sinsheimer Laboratories	MBCx	160,499	20.8	699,050	1,398	33,703	\$ 34,576	\$ 211,521	6.1
G3775601A	7756	College Eight Kitchen	Boiler Retrofit	-	-	-	4,022	-	\$ 6,241	\$ 83,575	13.4
G3775602A	7756	College Eight Kitchen	Air-to-Water Heat Pump	(93,467)	(154.1)	-	21,676	-	\$ 11,526	\$ 448,528	38.9
G3775603B	7756	College Eight Kitchen	Daylighting	1,983	-	-	(15)	-	\$ 362	\$ 4,770	13.2
G3775604B	7756	College Eight Kitchen	Deep Lighting	30,191	3.2	-	-	-	\$ 5,411	\$ 59,739	11.0
G3775605	7756	College Eight Kitchen	MBCx	36,120	-	-	3,464	-	\$ 8,093	\$ 27,454	3.4
G3775606	7756	College Eight Kitchen	Kitchen Hood DCV	35,000	5.9	-	2,100	-	\$ 8,210	\$ 96,263	11.7
G3775901A	7759	College Eight Dorm A-L-Building	Boiler Retrofit	-	-	-	532	-	\$ 3,080	\$ 86,208	28.0
G3775902B	7759	College Eight Dorm A-L-Building	HVAC Tstat & Window Interlock	2,892	-	-	962	-	\$ 2,265	\$ 58,402	25.8
G3775903B	7759	College Eight Dorm A-L-Building	MBCx	3,214	-	-	458	-	\$ 1,215	\$ 21,799	17.9
G3775904A	7759	College Eight Dorm A-L-Building	Air-to-Water Heat Pump	(6,636)	(12.3)	-	3,768	-	\$ 9,212	\$ 371,368	40.3
G3777501A	7775	Earth & Marine Sciences	Deep Retrofit_Smart Labs	1,340,039	-	68,299,510	-	14,650	\$ 878,437	\$ 4,658,568	5.3
G3777502A	7775	Earth & Marine Sciences	VAV Conversion	1,039,459	-	65,771,709	-	-	\$ 812,161	\$ 4,567,123	5.6
G3777503	7775	Earth & Marine Sciences	Improve Glazing	20,238	-	1,951,415	-	-	\$ 21,976	\$ 103,588	4.7
G3777504	7775	Earth & Marine Sciences	DCV with CO2 sensors	16,465	-	975,707	-	-	\$ 10,870	\$ 1,528	0.1
G3777505	7775	Earth & Marine Sciences	Deep Lighting	434,774	29.7	-	-	-	\$ 72,360	\$ 583,399	8.1
G3777506	7775	Earth & Marine Sciences	Replace Ultra Low Freezers	46,820	5.3	-	-	-	\$ 18,081	\$ 576,753	31.9
G3777507	7775	Earth & Marine Sciences	MBCx	210,813	27.4	5,420,156	5	1,831	\$ 84,032	\$ 354,304	4.2
G3780101A	7801	College Eight Apartment Buildin	Condensing Furnace Retrofit	-	-	-	300	-	\$ 2,219	\$ 100,138	45.1
G3780102A	7801	College Eight Apartment Buildin	Install Heat Pumps for Heating	(14,970)	-	-	2,299	-	\$ 3,855	\$ 213,346	55.3

UC Santa Cruz Climate and Energy Strategy
Energy Efficiency Building Audit Results
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G3780103B	7801	College Eight Apartment Buildin	Condensing Furnace Retrofit	-	-	-	240	-	\$ 1,452	\$ 63,971	44.1
G3780104B	7801	College Eight Apartment Buildin	Energy Star Electric Heat Pump Water He	(13,307)	-	-	1,839	-	\$ 1,424	\$ 87,662	61.5
G3780105	7801	College Eight Apartment Buildin	Smart Thermostat	-	-	-	115	-	\$ 568	\$ 24,372	42.9
G3790501A	7905	Stevenson College Apartment E	Boiler Upgrade	-	-	-	1,772	-	\$ 3,616	\$ 115,845	32.0
G3790502	7905	Stevenson College Apartment E	HVAC Occ Sensor	372	-	-	287	-	\$ 4,403	\$ 207,222	47.1
G3790503	7905	Stevenson College Apartment E	MBCx	2,911	0.4	-	729	-	\$ 1,441	\$ 25,441	17.7
G3790504	7905	Stevenson College Apartment E	2-Way Valve	4,151	0.7	-	-	-	\$ 11,410	\$ 541,493	47.5
G3790505A	7905	Stevenson College Apartment E	HHW & DHW Heat Pumps	(61,571)	(135.8)	-	12,837	-	\$ 5,193	\$ 225,951	43.5
G3791001A	7910	Porter College Apartment Buildi	Condensing Boiler Retrofit	-	-	-	1,138	-	\$ 3,648	\$ 92,198	25.3
G3791002A	7910	Porter College Apartment Buildi	Replace HHW Boiler with Heat Pump	(34,159)	(73.5)	-	8,060	-	\$ 7,935	\$ 345,350	43.5
G3791003	7910	Porter College Apartment Buildi	Smart Thermostat	-	-	-	403	-	\$ 845	\$ 28,120	33.3
G3791004	7910	Porter College Apartment Buildi	MBCx	2,787	-	-	422	-	\$ 1,352	\$ 32,942	24.4
G3791901A	7919	Physical Sciences Building	Deep Retrofit_Smart Lab	720,623	-	289,664	-	28,406	\$ 121,637	\$ 756,114	6.2
G3791902A	7919	Physical Sciences Building	VAV_Lab Exhaust	418,629	5.3	-	-	-	\$ 58,656	\$ 6,605	0.4
G3791903	7919	Physical Sciences Building	Controls	-	-	115,866	-	-	\$ 2,373	\$ 67,948	28.6
G3791904	7919	Physical Sciences Building	Replace Ultra Low Freezers	65,764	7.5	-	-	-	\$ 21,583	\$ 619,437	28.7
G3791905	7919	Physical Sciences Building	Server Room HVAC	12,811	1.7	-	-	-	\$ 2,722	\$ 46,558	17.1
G3791906	7919	Physical Sciences Building	MBCx	160,921	-	64,150	3	7,102	\$ 30,104	\$ 312,461	10.4
G3793201A	7932	College Nine Residence Hall 2	Boiler Upgrade	-	-	-	2,460	-	\$ 6,135	\$ 216,567	35.3
G3793202	7932	College Nine Residence Hall 2	HVAC Occ Sensor	23,926	-	-	4,446	-	\$ 10,326	\$ 139,517	13.5
G3793203	7932	College Nine Residence Hall 2	MBCx	5,622	0.7	-	1,012	-	\$ 3,470	\$ 97,762	28.2
G3793204A	7932	College Nine Residence Hall 2	HHW & DHW Heat Pumps	(81,232)	(208.5)	-	16,936	-	\$ 12,294	\$ 570,245	46.4
G3793301A	7933	College Nine Dining Hall	Condensing Boiler Retrofit	-	-	-	4,018	-	\$ 9,664	\$ 224,369	23.2
G3793302A	7933	College Nine Dining Hall	Replace HHW Boiler with Heat Pump	(139,504)	(230.8)	-	32,930	-	\$ 17,691	\$ 674,229	38.1
G3793303	7933	College Nine Dining Hall	Demand Based Scheduling	8,828	-	-	1,431	-	\$ 3,384	\$ 55,990	16.5
G3793304	7933	College Nine Dining Hall	Convert AH4 to VAV with Demand Based	8,443	-	-	83	-	\$ 3,663	\$ 121,145	33.1
G3793305	7933	College Nine Dining Hall	MBCx	47,443	2.5	-	1,730	-	\$ 10,201	\$ 116,151	11.4
G3793306B	7933	College Nine Dining Hall	Dining Area Daylighting Controls	1,279	1.5	-	(10)	-	\$ 271	\$ 4,944	18.2
G3793307B	7933	College Nine Dining Hall	Deep Lighting Retrofit	81,794	7.7	-	-	-	\$ 15,401	\$ 198,322	12.9
G3793308	7933	College Nine Dining Hall	Dish room industrial & pre-rinse sprayers	-	-	-	578	-	\$ 414	\$ 425	1.0
G3793309	7933	College Nine Dining Hall	Dishwasher Replacement	-	-	-	3,595	-	\$ 12,720	\$ 140,939	11.1
G37933010	7933	College Nine Dining Hall	Lidded Charboiler	-	-	-	1,216	-	\$ 1,005	\$ 6,484	6.5
G3794001	7940	Engineering Building 2	MBCx	409,236	-	-	4,164	-	\$ 71,756	\$ 577,321	8.0
G3794002	7940	Engineering Building 2	HVAC Occ Sensor / Demand Based Sche	21,637	-	-	4,606	-	\$ 8,687	\$ 117,283	13.5
G3794003	7940	Engineering Building 2	Server Room HVAC: Includes Rooms 20	120,743	13.8	-	-	-	\$ 16,894	\$ 23,737	0.4
G3794004	7940	Engineering Building 2	Server Room UPS Rm 208 and 594	19,536	2.2	-	-	-	\$ 3,579	\$ 42,385	11.8
G3794005	7940	Engineering Building 2	Deep Lighting	355,940	81.2	-	-	-	\$ 61,804	\$ 637,482	10.3
G3794401	7944	2300 Delaware Avenue A/B	Parking Lot LED Retrofit	13,579	-	-	-	-	\$ 2,446	\$ 27,374	11.2
G3794402	7944	2300 Delaware Avenue A/B	MBCx	60,097	-	-	1,565	-	\$ 11,388	\$ 93,006	8.2
G3794403	7944	2300 Delaware Avenue A/B	Raise Server Room Temp Setpoints	6,570	0.8	-	-	-	\$ 889	\$ 112	0.1
G3794701	7947	Biomedical Sciences	Vivarium Lighting Control	5,851	-	-	-	-	\$ 1,345	\$ 27,768	20.6
G3794702	7947	Biomedical Sciences	Replace Ultra Low Freezers	30,482	3.5	-	-	-	\$ 9,109	\$ 242,387	26.6
G3794703	7947	Biomedical Sciences	Monitoring Based Commissioning	34,071	4.4	116,820	31,922	1	\$ 33,234	\$ 255,175	7.7
G3WIDE01	WIDE	Campuswide	Campus Wide Wall Pack Upgrade	373,345	-	-	-	-	\$ 57,747	\$ 277,693	4.8
G3WIDE02	WIDE	Campuswide	Unplug Refrigerators for Summer Break	1,290	0.6	-	-	-	\$ 176	\$ 82	0.5
G3WIDE03	WIDE	Campuswide	Eliminate Building Heat on 90°F Days	-	-	-	19,819	-	\$ 14,983	\$ 55,500	3.7
G3WIDE04	WIDE	Campuswide	Walk-in Cooler & Freezer Optimization	47,466	5.4	-	-	-	\$ 6,624	\$ (586)	0.3
G3WIDE05	WIDE	Campuswide	Campuswide Incandescent/Halogen Ligh	69,143	30.5	-	-	-	\$ 10,673	\$ 66,919	6.3

UC Santa Cruz Climate and Energy Strategy
Energy Efficiency Building Audit Results
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G3WIDE06	WIDE	Campuswide	Porter & Crown Kitchen Shutdown	56,758	-	-	-	-	\$ 7,662	\$ 775	0.1
G3WIDE07	WIDE	Campuswide	Crown & Porter Kitchen Hood Shutdown	6,947	-	-	-	-	\$ 938	\$ 260	0.3
G3WIDE08	WIDE	Campuswide	Replace Ultra Low Freezers	12,234	1.4	-	-	-	\$ 5,227	\$ 175,811	33.6
G3WIDE09	WIDE	Campuswide	Pathway Lighting Retrofit	302,498	73.0	-	-	-	\$ 44,123	\$ 53,880	1.2
G4714501A	7145	McHenry Library	Lighting Conversion Phase II	188,290	15.1	-	-	-	\$ 36,434	\$ 482,022	13.2
G4792101	7921	Social Sciences II	Hallway Lighting Retrofit	56,081	7.2	-	-	-	\$ 9,150	\$ 58,469	6.4
G4717901A	7179	Natural Sciences II	Hallway Lighting Retrofit	15,330	1.5	-	-	-	\$ 2,773	\$ 29,601	10.7
G4714601	7146	Central Heating Plant	Fackler Plant LED & Controls Conversion	27,160	3.0	-	-	-	\$ 4,347	\$ 24,119	5.5
G4711601A	7116	Thimann Lab	Add VFDs to CHW Pump	8,420	7.3	-	-	-	\$ 1,358	\$ 7,979	5.9
G4711602A	7116	Thimann Lab	Add VFDs to Process Heating Water Pump	8,420	7.3	-	-	-	\$ 1,358	\$ 7,979	5.9
G57120401	7120	Cowell College Turner House	MBCx	2,664	-	-	335	-	\$ 1,043	\$ 21,472	20.6
G57120402A	7120	Cowell College Turner House	Condensing boiler with HHW reset	-	-	-	614	-	\$ 3,531	\$ 102,772	29.1
G57120403	7120	Cowell College Turner House	VFD for HHW pump	10,781	0.5	-	-	-	\$ 10,176	\$ 433,431	42.6
G57120404	7120	Cowell College Turner House	Occupancy based operation for restroom	14,917	-	-	-	-	\$ 2,739	\$ 32,687	11.9
G57120405A	7120	Cowell College Turner House	Heat Pump for HHW & DHW	(31,322)	(19.8)	-	6,531	-	\$ 10,335	\$ 499,594	48.3
G57125401	7125	Cowell College Parkman House	MBCx	2,664	-	-	335	-	\$ 1,043	\$ 21,472	20.6
G57125402A	7125	Cowell College Parkman House	Condensing boiler with HHW reset	-	-	-	614	-	\$ 3,531	\$ 102,772	29.1
G57125403	7125	Cowell College Parkman House	VFD for HHW pump	10,781	0.5	-	-	-	\$ 10,176	\$ 433,431	42.6
G57125404	7125	Cowell College Parkman House	Occupancy based operation for restroom	14,917	-	-	-	-	\$ 2,739	\$ 32,687	11.9
G57125405A	7125	Cowell College Parkman House	Heat Pump for HHW & DHW	(31,322)	(19.8)	-	6,531	-	\$ 10,335	\$ 499,594	48.3
G57126401	7126	Cowell College Adams House	MBCx	2,664	-	-	335	-	\$ 1,043	\$ 21,472	20.6
G57126402A	7126	Cowell College Adams House	Condensing boiler with HHW reset	-	-	-	614	-	\$ 3,531	\$ 102,772	29.1
G57126403	7126	Cowell College Adams House	VFD for HHW pump	10,781	0.5	-	-	-	\$ 10,176	\$ 433,431	42.6
G57126404	7126	Cowell College Adams House	Occupancy based operation for restroom	14,917	-	-	-	-	\$ 2,739	\$ 32,687	11.9
G57126405A	7126	Cowell College Adams House	Heat Pump for HHW & DHW	(31,322)	(19.8)	-	6,531	-	\$ 10,335	\$ 499,594	48.3
G57122401	7122	Cowell College Beard House	MBCx	2,664	-	-	335	-	\$ 1,043	\$ 21,472	20.6
G57122402A	7122	Cowell College Beard House	Condensing boiler with HHW reset	-	-	-	614	-	\$ 3,531	\$ 102,772	29.1
G57122403	7122	Cowell College Beard House	VFD for HHW pump	10,781	0.5	-	-	-	\$ 10,176	\$ 433,431	42.6
G57122404	7122	Cowell College Beard House	Occupancy based operation for restroom	14,917	-	-	-	-	\$ 2,739	\$ 32,687	11.9
G57122405A	7122	Cowell College Beard House	Heat Pump for HHW & DHW	(31,322)	(19.8)	-	6,531	-	\$ 10,335	\$ 499,594	48.3
G57121401	7121	Cowell College Parrington House	MBCx	2,664	-	-	335	-	\$ 1,043	\$ 21,472	20.6
G57121402A	7121	Cowell College Parrington House	Condensing boiler with HHW reset	-	-	-	614	-	\$ 3,531	\$ 102,772	29.1
G57121403	7121	Cowell College Parrington House	VFD for HHW pump	10,781	0.5	-	-	-	\$ 10,176	\$ 433,431	42.6
G57121404	7121	Cowell College Parrington House	Occupancy based operation for restroom	14,917	-	-	-	-	\$ 2,739	\$ 32,687	11.9
G57121405A	7121	Cowell College Parrington House	Heat Pump for HHW & DHW	(31,322)	(19.8)	-	6,531	-	\$ 10,335	\$ 499,594	48.3
G57123401	7123	Cowell College Morison House	MBCx	2,664	-	-	335	-	\$ 1,043	\$ 21,472	20.6
G57123402A	7123	Cowell College Morison House	Condensing boiler with HHW reset	-	-	-	614	-	\$ 3,531	\$ 102,772	29.1
G57123403	7123	Cowell College Morison House	VFD for HHW pump	10,781	0.5	-	-	-	\$ 10,176	\$ 433,431	42.6
G57123404	7123	Cowell College Morison House	Occupancy based operation for restroom	14,917	-	-	-	-	\$ 2,739	\$ 32,687	11.9
G57123405A	7123	Cowell College Morison House	Heat Pump for HHW & DHW	(31,322)	(19.8)	-	6,531	-	\$ 10,335	\$ 499,594	48.3
G57142701A	7142	Stevenson College House 8	Condensing Boiler Retrofit	-	-	-	1,085	-	\$ 3,938	\$ 104,859	26.6
G57142702A	7142	Stevenson College House 8	Replace HHW Boiler with Heat Pump	(32,549)	(46.9)	-	8,506	-	\$ 8,995	\$ 371,058	41.2
G57142703	7142	Stevenson College House 8	Deep HVAC	8,089	2.3	-	2,025	-	\$ 9,599	\$ 350,493	36.5
G57142704	7142	Stevenson College House 8	MBCx	3,087	-	-	453	-	\$ 1,115	\$ 17,893	16.0
G57142705	7142	Stevenson College House 8	Interlock Danfoss Valves with Windows	-	-	-	1,350	-	\$ 1,955	\$ 49,151	25.1
G57139701A	7139	Stevenson College House 5	Condensing Boiler Retrofit	-	-	-	1,085	-	\$ 3,938	\$ 104,859	26.6
G57139702A	7139	Stevenson College House 5	Replace HHW Boiler with Heat Pump	(32,549)	(46.9)	-	8,506	-	\$ 8,995	\$ 371,058	41.2
G57139703	7139	Stevenson College House 5	Deep HVAC	8,089	2.3	-	2,025	-	\$ 9,599	\$ 350,493	36.5

UC Santa Cruz Climate and Energy Strategy
Energy Efficiency Building Audit Results
Project List

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G57139704	7139	Stevenson College House 5	MBCx	3,087	-	-	453	-	\$ 1,115	\$ 17,893	16.0
G57139705	7139	Stevenson College House 5	Interlock Danfoss Valves with Windows	-	-	-	1,350	-	\$ 1,955	\$ 49,151	25.1
G57140701A	7140	Stevenson College House 6	Condensing Boiler Retrofit	-	-	-	1,085	-	\$ 3,938	\$ 104,859	26.6
G57140702A	7140	Stevenson College House 6	Replace HHW Boiler with Heat Pump	(32,549)	(46.9)	-	8,506	-	\$ 8,995	\$ 371,058	41.2
G57140703	7140	Stevenson College House 6	Deep HVAC	8,089	2.3	-	2,025	-	\$ 9,599	\$ 350,493	36.5
G57140704	7140	Stevenson College House 6	MBCx	3,087	-	-	453	-	\$ 1,115	\$ 17,893	16.0
G57140705	7140	Stevenson College House 6	Interlock Danfoss Valves with Windows	-	-	-	1,350	-	\$ 1,955	\$ 49,151	25.1
G57141701A	7141	Stevenson College House 7	Condensing Boiler Retrofit	-	-	-	1,085	-	\$ 3,938	\$ 104,859	26.6
G57141702A	7141	Stevenson College House 7	Replace HHW Boiler with Heat Pump	(32,549)	(46.9)	-	8,506	-	\$ 8,995	\$ 371,058	41.2
G57141703	7141	Stevenson College House 7	Deep HVAC	8,089	2.3	-	2,025	-	\$ 9,599	\$ 350,493	36.5
G57141704	7141	Stevenson College House 7	MBCx	3,087	-	-	453	-	\$ 1,115	\$ 17,893	16.0
G57141705	7141	Stevenson College House 7	Interlock Danfoss Valves with Windows	-	-	-	1,350	-	\$ 1,955	\$ 49,151	25.1
G57138701A	7138	Stevenson College House 4	Condensing Boiler Retrofit	-	-	-	1,085	-	\$ 3,938	\$ 104,859	26.6
G57138702A	7138	Stevenson College House 4	Replace HHW Boiler with Heat Pump	(32,549)	(46.9)	-	8,506	-	\$ 8,995	\$ 371,058	41.2
G57138703	7138	Stevenson College House 4	Deep HVAC	8,089	2.3	-	2,025	-	\$ 9,599	\$ 350,493	36.5
G57138704	7138	Stevenson College House 4	MBCx	3,087	-	-	453	-	\$ 1,115	\$ 17,893	16.0
G57138705	7138	Stevenson College House 4	Interlock Danfoss Valves with Windows	-	-	-	1,350	-	\$ 1,955	\$ 49,151	25.1
G57136701A	7136	Stevenson College House 2	Condensing Boiler Retrofit	-	-	-	1,085	-	\$ 3,938	\$ 104,859	26.6
G57136702A	7136	Stevenson College House 2	Replace HHW Boiler with Heat Pump	(32,549)	(46.9)	-	8,506	-	\$ 8,995	\$ 371,058	41.2
G57136703	7136	Stevenson College House 2	Deep HVAC	8,089	2.3	-	2,025	-	\$ 9,599	\$ 350,493	36.5
G57136704	7136	Stevenson College House 2	MBCx	3,087	-	-	453	-	\$ 1,115	\$ 17,893	16.0
G57136705	7136	Stevenson College House 2	Interlock Danfoss Valves with Windows	-	-	-	1,350	-	\$ 1,955	\$ 49,151	25.1
G57135701A	7135	Stevenson College House 1	Condensing Boiler Retrofit	-	-	-	1,085	-	\$ 3,938	\$ 104,859	26.6
G57135702A	7135	Stevenson College House 1	Replace HHW Boiler with Heat Pump	(32,549)	(46.9)	-	8,506	-	\$ 8,995	\$ 371,058	41.2
G57135703	7135	Stevenson College House 1	Deep HVAC	8,089	2.3	-	2,025	-	\$ 9,599	\$ 350,493	36.5
G57135704	7135	Stevenson College House 1	MBCx	3,087	-	-	453	-	\$ 1,115	\$ 17,893	16.0
G57135705	7135	Stevenson College House 1	Interlock Danfoss Valves with Windows	-	-	-	1,350	-	\$ 1,955	\$ 49,151	25.1
G57147701A	7147	Crown College Leonardo House	Condensing Boiler Retrofit	-	-	-	1,085	-	\$ 3,938	\$ 104,859	26.6
G57147702A	7147	Crown College Leonardo House	Replace HHW Boiler with Heat Pump	(32,549)	(46.9)	-	8,506	-	\$ 8,995	\$ 371,058	41.2
G57147703	7147	Crown College Leonardo House	Deep HVAC	8,089	2.3	-	2,025	-	\$ 9,599	\$ 350,493	36.5
G57147704	7147	Crown College Leonardo House	MBCx	3,087	-	-	453	-	\$ 1,115	\$ 17,893	16.0
G57147705	7147	Crown College Leonardo House	Interlock Danfoss Valves with Windows	-	-	-	1,350	-	\$ 1,955	\$ 49,151	25.1
G57148701A	7148	Crown College Maxwell House	Condensing Boiler Retrofit	-	-	-	1,085	-	\$ 3,938	\$ 104,859	26.6
G57148702A	7148	Crown College Maxwell House	Replace HHW Boiler with Heat Pump	(32,549)	(46.9)	-	8,506	-	\$ 8,995	\$ 371,058	41.2
G57148703	7148	Crown College Maxwell House	Deep HVAC	8,089	2.3	-	2,025	-	\$ 9,599	\$ 350,493	36.5
G57148704	7148	Crown College Maxwell House	MBCx	3,087	-	-	453	-	\$ 1,115	\$ 17,893	16.0
G57148705	7148	Crown College Maxwell House	Interlock Danfoss Valves with Windows	-	-	-	1,350	-	\$ 1,955	\$ 49,151	25.1
G57149701A	7149	Crown College Harvey House	Condensing Boiler Retrofit	-	-	-	1,085	-	\$ 3,938	\$ 104,859	26.6
G57149702A	7149	Crown College Harvey House	Replace HHW Boiler with Heat Pump	(32,549)	(46.9)	-	8,506	-	\$ 8,995	\$ 371,058	41.2
G57149703	7149	Crown College Harvey House	Deep HVAC	8,089	2.3	-	2,025	-	\$ 9,599	\$ 350,493	36.5
G57149704	7149	Crown College Harvey House	MBCx	3,087	-	-	453	-	\$ 1,115	\$ 17,893	16.0
G57149705	7149	Crown College Harvey House	Interlock Danfoss Valves with Windows	-	-	-	1,350	-	\$ 1,955	\$ 49,151	25.1
G57150701A	7150	Crown College Galen House	Condensing Boiler Retrofit	-	-	-	1,085	-	\$ 3,938	\$ 104,859	26.6
G57150702A	7150	Crown College Galen House	Replace HHW Boiler with Heat Pump	(32,549)	(46.9)	-	8,506	-	\$ 8,995	\$ 371,058	41.2
G57150703	7150	Crown College Galen House	Deep HVAC	8,089	2.3	-	2,025	-	\$ 9,599	\$ 350,493	36.5
G57150704	7150	Crown College Galen House	MBCx	3,087	-	-	453	-	\$ 1,115	\$ 17,893	16.0
G57150705	7150	Crown College Galen House	Interlock Danfoss Valves with Windows	-	-	-	1,350	-	\$ 1,955	\$ 49,151	25.1
G57151701A	7151	Crown College Gauss House	Condensing Boiler Retrofit	-	-	-	1,085	-	\$ 3,938	\$ 104,859	26.6

UC Santa Cruz Climate and Energy Strategy
Energy Efficiency Building Audit Results
Project List

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G57151702A	7151	Crown College Gauss House	Replace HHW Boiler with Heat Pump	(32,549)	(46.9)	-	8,506	-	\$ 8,995	\$ 371,058	41.2
G57151703	7151	Crown College Gauss House	Deep HVAC	8,089	2.3	-	2,025	-	\$ 9,599	\$ 350,493	36.5
G57151704	7151	Crown College Gauss House	MBCx	3,087	-	-	453	-	\$ 1,115	\$ 17,893	16.0
G57151705	7151	Crown College Gauss House	Interlock Danfoss Valves with Windows	-	-	-	1,350	-	\$ 1,955	\$ 49,151	25.1
G57152701A	7152	Crown College Descartes Hous	Condensing Boiler Retrofit	-	-	-	1,085	-	\$ 3,938	\$ 104,859	26.6
G57152702A	7152	Crown College Descartes Hous	Replace HHW Boiler with Heat Pump	(32,549)	(46.9)	-	8,506	-	\$ 8,995	\$ 371,058	41.2
G57152703	7152	Crown College Descartes Hous	Deep HVAC	8,089	2.3	-	2,025	-	\$ 9,599	\$ 350,493	36.5
G57152704	7152	Crown College Descartes Hous	MBCx	3,087	-	-	453	-	\$ 1,115	\$ 17,893	16.0
G57152705	7152	Crown College Descartes Hous	Interlock Danfoss Valves with Windows	-	-	-	1,350	-	\$ 1,955	\$ 49,151	25.1
G57153701A	7153	Crown College Rutherford Hous	Condensing Boiler Retrofit	-	-	-	1,085	-	\$ 3,938	\$ 104,859	26.6
G57153702A	7153	Crown College Rutherford Hous	Replace HHW Boiler with Heat Pump	(32,549)	(46.9)	-	8,506	-	\$ 8,995	\$ 371,058	41.2
G57153703	7153	Crown College Rutherford Hous	Deep HVAC	8,089	2.3	-	2,025	-	\$ 9,599	\$ 350,493	36.5
G57153704	7153	Crown College Rutherford Hous	MBCx	3,087	-	-	453	-	\$ 1,115	\$ 17,893	16.0
G57153705	7153	Crown College Rutherford Hous	Interlock Danfoss Valves with Windows	-	-	-	1,350	-	\$ 1,955	\$ 49,151	25.1
G57154701A	7154	Crown College Galileo House	Condensing Boiler Retrofit	-	-	-	1,085	-	\$ 3,938	\$ 104,859	26.6
G57154702A	7154	Crown College Galileo House	Replace HHW Boiler with Heat Pump	(32,549)	(46.9)	-	8,506	-	\$ 8,995	\$ 371,058	41.2
G57154703	7154	Crown College Galileo House	Deep HVAC	8,089	2.3	-	2,025	-	\$ 9,599	\$ 350,493	36.5
G57154704	7154	Crown College Galileo House	MBCx	3,087	-	-	453	-	\$ 1,115	\$ 17,893	16.0
G57154705	7154	Crown College Galileo House	Interlock Danfoss Valves with Windows	-	-	-	1,350	-	\$ 1,955	\$ 49,151	25.1
G57303401	7303	Porter College House A	MBCx	66,840	-	-	3,114	-	\$ 16,299	\$ 235,658	14.5
G57303402	7303	Porter College House A	Window Interlock Controls	-	-	-	3,737	-	\$ 7,986	\$ 264,768	33.2
G57765901A	7765	College Eight Dorm D-L-Building	Boiler Retrofit	-	-	-	532	-	\$ 3,080	\$ 86,208	28.0
G57765902B	7765	College Eight Dorm D-L-Building	HVAC Tstat & Window Interlock	2,892	-	-	962	-	\$ 2,265	\$ 58,402	25.8
G57765903B	7765	College Eight Dorm D-L-Building	MBCx	3,214	-	-	458	-	\$ 1,215	\$ 21,799	17.9
G57765904A	7765	College Eight Dorm D-L-Building	Air-to-Water Heat Pump	(6,636)	(12.3)	-	3,768	-	\$ 9,212	\$ 371,368	40.3
G57763901A	7763	College Eight Dorm C-L-Building	Boiler Retrofit	-	-	-	532	-	\$ 3,080	\$ 86,208	28.0
G57763902B	7763	College Eight Dorm C-L-Building	HVAC Tstat & Window Interlock	2,892	-	-	962	-	\$ 2,265	\$ 58,402	25.8
G57763903B	7763	College Eight Dorm C-L-Building	MBCx	3,214	-	-	458	-	\$ 1,215	\$ 21,799	17.9
G57763904A	7763	College Eight Dorm C-L-Building	Air-to-Water Heat Pump	(6,636)	(12.3)	-	3,768	-	\$ 9,212	\$ 371,368	40.3
G57761901A	7761	College Eight Dorm B-L-Building	Boiler Retrofit	-	-	-	532	-	\$ 3,080	\$ 86,208	28.0
G57761902B	7761	College Eight Dorm B-L-Building	HVAC Tstat & Window Interlock	2,892	-	-	962	-	\$ 2,265	\$ 58,402	25.8
G57761903B	7761	College Eight Dorm B-L-Building	MBCx	3,214	-	-	458	-	\$ 1,215	\$ 21,799	17.9
G57761904A	7761	College Eight Dorm B-L-Building	Air-to-Water Heat Pump	(6,636)	(12.3)	-	3,768	-	\$ 9,212	\$ 371,368	40.3
G57931201A	7932	College Nine Residence Hall 2	Boiler Upgrade	-	-	-	2,460	-	\$ 6,135	\$ 216,567	35.3
G57931202	7932	College Nine Residence Hall 2	HVAC Occ Sensor	23,926	-	-	4,446	-	\$ 10,326	\$ 139,517	13.5
G57931203	7932	College Nine Residence Hall 2	MBCx	5,622	0.7	-	1,012	-	\$ 3,470	\$ 97,762	28.2
G57931204A	7932	College Nine Residence Hall 2	HHW & DHW Heat Pumps	(81,232)	(208.5)	-	16,936	-	\$ 12,294	\$ 570,245	46.4
G57934201A	7932	College Nine Residence Hall 2	Boiler Upgrade	-	-	-	2,460	-	\$ 6,135	\$ 216,567	35.3
G57934202	7932	College Nine Residence Hall 2	HVAC Occ Sensor	23,926	-	-	4,446	-	\$ 10,326	\$ 139,517	13.5
G57934203	7932	College Nine Residence Hall 2	MBCx	5,622	0.7	-	1,012	-	\$ 3,470	\$ 97,762	28.2
G57934204A	7932	College Nine Residence Hall 2	HHW & DHW Heat Pumps	(81,232)	(208.5)	-	16,936	-	\$ 12,294	\$ 570,245	46.4
G57936201A	7932	College Nine Residence Hall 2	Boiler Upgrade	-	-	-	2,460	-	\$ 6,135	\$ 216,567	35.3
G57936202	7932	College Nine Residence Hall 2	HVAC Occ Sensor	23,926	-	-	4,446	-	\$ 10,326	\$ 139,517	13.5
G57936203	7932	College Nine Residence Hall 2	MBCx	5,622	0.7	-	1,012	-	\$ 3,470	\$ 97,762	28.2
G57936204A	7932	College Nine Residence Hall 2	HHW & DHW Heat Pumps	(81,232)	(208.5)	-	16,936	-	\$ 12,294	\$ 570,245	46.4
G57937201A	7932	College Nine Residence Hall 2	Boiler Upgrade	-	-	-	2,460	-	\$ 6,135	\$ 216,567	35.3
G57937202	7932	College Nine Residence Hall 2	HVAC Occ Sensor	23,926	-	-	4,446	-	\$ 10,326	\$ 139,517	13.5
G57937203	7932	College Nine Residence Hall 2	MBCx	5,622	0.7	-	1,012	-	\$ 3,470	\$ 97,762	28.2

UC Santa Cruz Climate and Energy Strategy
Energy Efficiency Building Audit Results
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G57937204A	7932	College Nine Residence Hall 2	HHW & DHW Heat Pumps	(81,232)	(208.5)	-	16,936	-	\$ 12,294	\$ 570,245	46.4
G57938201A	7932	College Nine Residence Hall 2	Boiler Upgrade	-	-	-	2,460	-	\$ 6,135	\$ 216,567	35.3
G57938202	7932	College Nine Residence Hall 2	HVAC Occ Sensor	23,926	-	-	4,446	-	\$ 10,326	\$ 139,517	13.5
G57938203	7932	College Nine Residence Hall 2	MBCx	5,622	0.7	-	1,012	-	\$ 3,470	\$ 97,762	28.2
G57938204A	7932	College Nine Residence Hall 2	HHW & DHW Heat Pumps	(81,232)	(208.5)	-	16,936	-	\$ 12,294	\$ 570,245	46.4
G57911201A	7932	College Nine Residence Hall 2	Boiler Upgrade	-	-	-	2,460	-	\$ 6,135	\$ 216,567	35.3
G57911202	7932	College Nine Residence Hall 2	HVAC Occ Sensor	23,926	-	-	4,446	-	\$ 10,326	\$ 139,517	13.5
G57911203	7932	College Nine Residence Hall 2	MBCx	5,622	0.7	-	1,012	-	\$ 3,470	\$ 97,762	28.2
G57911204A	7932	College Nine Residence Hall 2	HHW & DHW Heat Pumps	(81,232)	(208.5)	-	16,936	-	\$ 12,294	\$ 570,245	46.4
G57912201A	7932	College Nine Residence Hall 2	Boiler Upgrade	-	-	-	2,460	-	\$ 6,135	\$ 216,567	35.3
G57912202	7932	College Nine Residence Hall 2	HVAC Occ Sensor	23,926	-	-	4,446	-	\$ 10,326	\$ 139,517	13.5
G57912203	7932	College Nine Residence Hall 2	MBCx	5,622	0.7	-	1,012	-	\$ 3,470	\$ 97,762	28.2
G57912204A	7932	College Nine Residence Hall 2	HHW & DHW Heat Pumps	(81,232)	(208.5)	-	16,936	-	\$ 12,294	\$ 570,245	46.4
G57913201A	7932	College Nine Residence Hall 2	Boiler Upgrade	-	-	-	2,460	-	\$ 6,135	\$ 216,567	35.3
G57913202	7932	College Nine Residence Hall 2	HVAC Occ Sensor	23,926	-	-	4,446	-	\$ 10,326	\$ 139,517	13.5
G57913203	7932	College Nine Residence Hall 2	MBCx	5,622	0.7	-	1,012	-	\$ 3,470	\$ 97,762	28.2
G57913204A	7932	College Nine Residence Hall 2	HHW & DHW Heat Pumps	(81,232)	(208.5)	-	16,936	-	\$ 12,294	\$ 570,245	46.4
G57914201A	7932	College Nine Residence Hall 2	Boiler Upgrade	-	-	-	2,460	-	\$ 6,135	\$ 216,567	35.3
G57914202	7932	College Nine Residence Hall 2	HVAC Occ Sensor	23,926	-	-	4,446	-	\$ 10,326	\$ 139,517	13.5
G57914203	7932	College Nine Residence Hall 2	MBCx	5,622	0.7	-	1,012	-	\$ 3,470	\$ 97,762	28.2
G57914204A	7932	College Nine Residence Hall 2	HHW & DHW Heat Pumps	(81,232)	(208.5)	-	16,936	-	\$ 12,294	\$ 570,245	46.4
G57915201A	7932	College Nine Residence Hall 2	Boiler Upgrade	-	-	-	2,460	-	\$ 6,135	\$ 216,567	35.3
G57915202	7932	College Nine Residence Hall 2	HVAC Occ Sensor	23,926	-	-	4,446	-	\$ 10,326	\$ 139,517	13.5
G57915203	7932	College Nine Residence Hall 2	MBCx	5,622	0.7	-	1,012	-	\$ 3,470	\$ 97,762	28.2
G57915204A	7932	College Nine Residence Hall 2	HHW & DHW Heat Pumps	(81,232)	(208.5)	-	16,936	-	\$ 12,294	\$ 570,245	46.4
G57388201	7392	Kresge College House 11	Demand Based Scheduling	1,396	-	-	148	-	\$ 432	\$ 18,127	42.0
G57388202	7392	Kresge College House 11	Instantaneous Gas DHW Heater	-	-	-	49	-	\$ 141	\$ 5,272	37.4
G57388203	7392	Kresge College House 11	MBCx	1,396	-	-	148	-	\$ 821	\$ 25,970	31.6
G57388204	7392	Kresge College House 11	Heat Pump for Heating & DHW	(6,966)	(4.0)	-	1,452	-	\$ 1,878	\$ 90,068	48.0
G57389201	7392	Kresge College House 11	Demand Based Scheduling	2,052	-	-	217	-	\$ 634	\$ 26,635	42.0
G57389202	7392	Kresge College House 11	Instantaneous Gas DHW Heater	-	-	-	72	-	\$ 207	\$ 7,747	37.4
G57389203	7392	Kresge College House 11	MBCx	2,052	-	-	217	-	\$ 1,206	\$ 38,159	31.6
G57389204	7392	Kresge College House 11	Heat Pump for Heating & DHW	(10,235)	(5.9)	-	2,134	-	\$ 2,759	\$ 132,341	48.0
G57387201	7392	Kresge College House 11	Demand Based Scheduling	1,398	-	-	148	-	\$ 432	\$ 18,151	42.0
G57387202	7392	Kresge College House 11	Instantaneous Gas DHW Heater	-	-	-	49	-	\$ 141	\$ 5,279	37.4
G57387203	7392	Kresge College House 11	MBCx	1,398	-	-	148	-	\$ 822	\$ 26,004	31.6
G57387204	7392	Kresge College House 11	Heat Pump for Heating & DHW	(6,975)	(4.0)	-	1,454	-	\$ 1,880	\$ 90,185	48.0
G57383201	7392	Kresge College House 11	Demand Based Scheduling	1,468	-	-	155	-	\$ 454	\$ 19,058	42.0
G57383202	7392	Kresge College House 11	Instantaneous Gas DHW Heater	-	-	-	52	-	\$ 148	\$ 5,543	37.4
G57383203	7392	Kresge College House 11	MBCx	1,468	-	-	155	-	\$ 863	\$ 27,304	31.6
G57383204	7392	Kresge College House 11	Heat Pump for Heating & DHW	(7,324)	(4.2)	-	1,527	-	\$ 1,974	\$ 94,693	48.0
G57382201	7392	Kresge College House 11	Demand Based Scheduling	1,458	-	-	154	-	\$ 451	\$ 18,931	42.0
G57382202	7392	Kresge College House 11	Instantaneous Gas DHW Heater	-	-	-	51	-	\$ 147	\$ 5,506	37.4
G57382203	7392	Kresge College House 11	MBCx	1,458	-	-	154	-	\$ 857	\$ 27,121	31.6
G57382204	7392	Kresge College House 11	Heat Pump for Heating & DHW	(7,275)	(4.2)	-	1,517	-	\$ 1,961	\$ 94,062	48.0
G57384201	7392	Kresge College House 11	Demand Based Scheduling	771	-	-	82	-	\$ 238	\$ 10,003	42.0
G57384202	7392	Kresge College House 11	Instantaneous Gas DHW Heater	-	-	-	27	-	\$ 78	\$ 2,910	37.4
G57384203	7392	Kresge College House 11	MBCx	771	-	-	82	-	\$ 453	\$ 14,331	31.6

UC Santa Cruz Climate and Energy Strategy
Energy Efficiency Building Audit Results
Project List

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G57384204	7392	Kresge College House 11	Heat Pump for Heating & DHW	(3,844)	(2.2)	-	801	-	\$ 1,036	\$ 49,703	48.0
G57390201	7392	Kresge College House 11	Demand Based Scheduling	771	-	-	82	-	\$ 238	\$ 10,003	42.0
G57390202	7392	Kresge College House 11	Instantaneous Gas DHW Heater	-	-	-	27	-	\$ 78	\$ 2,910	37.4
G57390203	7392	Kresge College House 11	MBCx	771	-	-	82	-	\$ 453	\$ 14,331	31.6
G57390204	7392	Kresge College House 11	Heat Pump for Heating & DHW	(3,844)	(2.2)	-	801	-	\$ 1,036	\$ 49,703	48.0
G57385201	7392	Kresge College House 11	Demand Based Scheduling	1,452	-	-	154	-	\$ 449	\$ 18,851	42.0
G57385202	7392	Kresge College House 11	Instantaneous Gas DHW Heater	-	-	-	51	-	\$ 147	\$ 5,483	37.4
G57385203	7392	Kresge College House 11	MBCx	1,452	-	-	154	-	\$ 854	\$ 27,007	31.6
G57385204	7392	Kresge College House 11	Heat Pump for Heating & DHW	(7,244)	(4.2)	-	1,510	-	\$ 1,953	\$ 93,665	48.0
G57391201	7392	Kresge College House 11	Demand Based Scheduling	1,389	-	-	147	-	\$ 429	\$ 18,033	42.0
G57391202	7392	Kresge College House 11	Instantaneous Gas DHW Heater	-	-	-	49	-	\$ 140	\$ 5,245	37.4
G57391203	7392	Kresge College House 11	MBCx	1,389	-	-	147	-	\$ 817	\$ 25,834	31.6
G57391204	7392	Kresge College House 11	Heat Pump for Heating & DHW	(6,930)	(4.0)	-	1,445	-	\$ 1,868	\$ 89,598	48.0
G57386201	7392	Kresge College House 11	Demand Based Scheduling	770	-	-	81	-	\$ 238	\$ 9,989	42.0
G57386202	7392	Kresge College House 11	Instantaneous Gas DHW Heater	-	-	-	27	-	\$ 78	\$ 2,905	37.4
G57386203	7392	Kresge College House 11	MBCx	770	-	-	81	-	\$ 452	\$ 14,310	31.6
G57386204	7392	Kresge College House 11	Heat Pump for Heating & DHW	(3,838)	(2.2)	-	800	-	\$ 1,035	\$ 49,630	48.0
G57381201	7392	Kresge College House 11	Demand Based Scheduling	838	-	-	89	-	\$ 259	\$ 10,881	42.0
G57381202	7392	Kresge College House 11	Instantaneous Gas DHW Heater	-	-	-	30	-	\$ 85	\$ 3,165	37.4
G57381203	7392	Kresge College House 11	MBCx	838	-	-	89	-	\$ 493	\$ 15,589	31.6
G57381204	7392	Kresge College House 11	Heat Pump for Heating & DHW	(4,181)	(2.4)	-	872	-	\$ 1,127	\$ 54,064	48.0
G57394201	7392	Kresge College House 11	Demand Based Scheduling	684	-	-	72	-	\$ 211	\$ 8,880	42.0
G57394202	7392	Kresge College House 11	Instantaneous Gas DHW Heater	-	-	-	24	-	\$ 69	\$ 2,583	37.4
G57394203	7392	Kresge College House 11	MBCx	684	-	-	72	-	\$ 402	\$ 12,722	31.6
G57394204	7392	Kresge College House 11	Heat Pump for Heating & DHW	(3,413)	(2.0)	-	711	-	\$ 920	\$ 44,124	48.0
G57395201	7392	Kresge College House 11	Demand Based Scheduling	507	-	-	54	-	\$ 157	\$ 6,578	42.0
G57395202	7392	Kresge College House 11	Instantaneous Gas DHW Heater	-	-	-	18	-	\$ 51	\$ 1,913	37.4
G57395203	7392	Kresge College House 11	MBCx	507	-	-	54	-	\$ 298	\$ 9,424	31.6
G57395204	7392	Kresge College House 11	Heat Pump for Heating & DHW	(2,528)	(1.5)	-	527	-	\$ 681	\$ 32,685	48.0
G57397201	7392	Kresge College House 11	Demand Based Scheduling	463	-	-	49	-	\$ 143	\$ 6,008	42.0
G57397202	7392	Kresge College House 11	Instantaneous Gas DHW Heater	-	-	-	16	-	\$ 47	\$ 1,747	37.4
G57397203	7392	Kresge College House 11	MBCx	463	-	-	49	-	\$ 272	\$ 8,607	31.6
G57397204	7392	Kresge College House 11	Heat Pump for Heating & DHW	(2,309)	(1.3)	-	481	-	\$ 622	\$ 29,851	48.0
G57424101	7421	Oakes College Residence C11-	MBCx	689	-	-	43	-	\$ 230	\$ 5,152	22.4
G57424102	7421	Oakes College Residence C11-	Install instantaneous GWH	-	-	-	38	-	\$ 90	\$ 3,104	34.6
G57424103	7421	Oakes College Residence C11-	Occupancy-based EF control for bathroo	493	-	-	-	-	\$ 199	\$ 6,527	32.7
G57424104A	7421	Oakes College Residence C11-	Condensing Furnace w VFD upgrade	207	-	-	56	-	\$ 104	\$ 1,776	17.2
G57424105	7421	Oakes College Residence C11-	Occupancy controlled heating system	-	-	-	104	-	\$ 176	\$ 8,858	50.2
G57424106A	7421	Oakes College Residence C11-	HHW & DHW Heat Pumps	(4,083)	(3.8)	-	851	-	\$ 1,530	\$ 74,287	48.5
G57423101	7421	Oakes College Residence C11-	MBCx	1,884	-	-	118	-	\$ 630	\$ 14,091	22.4
G57423102	7421	Oakes College Residence C11-	Install instantaneous GWH	-	-	-	105	-	\$ 245	\$ 8,489	34.6
G57423103	7421	Oakes College Residence C11-	Occupancy-based EF control for bathroo	1,348	-	-	-	-	\$ 546	\$ 17,854	32.7
G57423104A	7421	Oakes College Residence C11-	Condensing Furnace w VFD upgrade	565	-	-	153	-	\$ 283	\$ 4,857	17.2
G57423105	7421	Oakes College Residence C11-	Occupancy controlled heating system	-	-	-	284	-	\$ 482	\$ 24,228	50.2
G57423106A	7421	Oakes College Residence C11-	HHW & DHW Heat Pumps	(11,167)	(10.3)	-	2,328	-	\$ 4,186	\$ 203,194	48.5
G57410101	7421	Oakes College Residence C11-	MBCx	1,013	-	-	64	-	\$ 339	\$ 7,577	22.4
G57410102	7421	Oakes College Residence C11-	Install instantaneous GWH	-	-	-	57	-	\$ 132	\$ 4,564	34.6
G57410103	7421	Oakes College Residence C11-	Occupancy-based EF control for bathroo	725	-	-	-	-	\$ 293	\$ 9,600	32.7

UC Santa Cruz Climate and Energy Strategy
Energy Efficiency Building Audit Results
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G57410104A	7421	Oakes College Residence C11-	Condensing Furnace w VFD upgrade	304	-	-	82	-	\$ 152	\$ 2,612	17.2
G57410105	7421	Oakes College Residence C11-	Occupancy controlled heating system	-	-	-	153	-	\$ 259	\$ 13,027	50.2
G57410106A	7421	Oakes College Residence C11-	HHW & DHW Heat Pumps	(6,004)	(5.6)	-	1,252	-	\$ 2,251	\$ 109,255	48.5
G57408101	7421	Oakes College Residence C11-	MBCx	1,581	-	-	99	-	\$ 529	\$ 11,828	22.4
G57408102	7421	Oakes College Residence C11-	Install instantaneous GWH	-	-	-	88	-	\$ 206	\$ 7,126	34.6
G57408103	7421	Oakes College Residence C11-	Occupancy-based EF control for bathroo	1,132	-	-	-	-	\$ 458	\$ 14,987	32.7
G57408104A	7421	Oakes College Residence C11-	Condensing Furnace w VFD upgrade	474	-	-	128	-	\$ 238	\$ 4,077	17.2
G57408105	7421	Oakes College Residence C11-	Occupancy controlled heating system	-	-	-	238	-	\$ 405	\$ 20,338	50.2
G57408106A	7421	Oakes College Residence C11-	HHW & DHW Heat Pumps	(9,374)	(8.7)	-	1,954	-	\$ 3,514	\$ 170,569	48.5
G57407101	7421	Oakes College Residence C11-	MBCx	509	-	-	32	-	\$ 170	\$ 3,808	22.4
G57407102	7421	Oakes College Residence C11-	Install instantaneous GWH	-	-	-	28	-	\$ 66	\$ 2,294	34.6
G57407103	7421	Oakes College Residence C11-	Occupancy-based EF control for bathroo	364	-	-	-	-	\$ 147	\$ 4,825	32.7
G57407104A	7421	Oakes College Residence C11-	Condensing Furnace w VFD upgrade	153	-	-	41	-	\$ 77	\$ 1,312	17.2
G57407105	7421	Oakes College Residence C11-	Occupancy controlled heating system	-	-	-	77	-	\$ 130	\$ 6,547	50.2
G57407106A	7421	Oakes College Residence C11-	HHW & DHW Heat Pumps	(3,018)	(2.8)	-	629	-	\$ 1,131	\$ 54,906	48.5
G57414101	7421	Oakes College Residence C11-	MBCx	2,079	-	-	130	-	\$ 696	\$ 15,551	22.4
G57414102	7421	Oakes College Residence C11-	Install instantaneous GWH	-	-	-	116	-	\$ 271	\$ 9,369	34.6
G57414103	7421	Oakes College Residence C11-	Occupancy-based EF control for bathroo	1,488	-	-	-	-	\$ 602	\$ 19,704	32.7
G57414104A	7421	Oakes College Residence C11-	Condensing Furnace w VFD upgrade	624	-	-	169	-	\$ 313	\$ 5,360	17.2
G57414105	7421	Oakes College Residence C11-	Occupancy controlled heating system	-	-	-	313	-	\$ 532	\$ 26,739	50.2
G57414106A	7421	Oakes College Residence C11-	HHW & DHW Heat Pumps	(12,324)	(11.4)	-	2,570	-	\$ 4,620	\$ 224,248	48.5
G57412101	7421	Oakes College Residence C11-	MBCx	1,022	-	-	64	-	\$ 342	\$ 7,643	22.4
G57412102	7421	Oakes College Residence C11-	Install instantaneous GWH	-	-	-	57	-	\$ 133	\$ 4,604	34.6
G57412103	7421	Oakes College Residence C11-	Occupancy-based EF control for bathroo	731	-	-	-	-	\$ 296	\$ 9,684	32.7
G57412104A	7421	Oakes College Residence C11-	Condensing Furnace w VFD upgrade	307	-	-	83	-	\$ 154	\$ 2,634	17.2
G57412105	7421	Oakes College Residence C11-	Occupancy controlled heating system	-	-	-	154	-	\$ 262	\$ 13,141	50.2
G57412106A	7421	Oakes College Residence C11-	HHW & DHW Heat Pumps	(6,057)	(5.6)	-	1,263	-	\$ 2,271	\$ 110,211	48.5
G57543701	7547	Crown-Merrill Housing Building	Exterior Lighting Controls	60	-	-	-	-	\$ 43	\$ 1,760	40.7
G57543702	7547	Crown-Merrill Housing Building	HVAC Occupancy Schedule	140	-	-	32	-	\$ 623	\$ 29,029	46.6
G57543703A	7547	Crown-Merrill Housing Building	Condensing Furnace	-	-	-	113	-	\$ 217	\$ 6,768	31.2
G57543704	7547	Crown-Merrill Housing Building	MBCx	457	-	-	85	-	\$ 253	\$ 6,411	25.3
G57543705A	7547	Crown-Merrill Housing Building	HHW & DHW Heat Pumps	(7,989)	(7.0)	-	1,666	-	\$ 2,785	\$ 134,863	48.4
G57542701	7547	Crown-Merrill Housing Building	Exterior Lighting Controls	68	-	-	-	-	\$ 49	\$ 2,008	40.7
G57542702	7547	Crown-Merrill Housing Building	HVAC Occupancy Schedule	160	-	-	36	-	\$ 711	\$ 33,117	46.6
G57542703A	7547	Crown-Merrill Housing Building	Condensing Furnace	-	-	-	129	-	\$ 248	\$ 7,721	31.2
G57542704	7547	Crown-Merrill Housing Building	MBCx	521	-	-	97	-	\$ 289	\$ 7,314	25.3
G57542705A	7547	Crown-Merrill Housing Building	HHW & DHW Heat Pumps	(9,114)	(8.0)	-	1,900	-	\$ 3,177	\$ 153,857	48.4
G57535701	7547	Crown-Merrill Housing Building	Exterior Lighting Controls	68	-	-	-	-	\$ 49	\$ 2,008	40.7
G57535702	7547	Crown-Merrill Housing Building	HVAC Occupancy Schedule	160	-	-	36	-	\$ 711	\$ 33,117	46.6
G57535703A	7547	Crown-Merrill Housing Building	Condensing Furnace	-	-	-	129	-	\$ 248	\$ 7,721	31.2
G57535704	7547	Crown-Merrill Housing Building	MBCx	521	-	-	97	-	\$ 289	\$ 7,314	25.3
G57535705A	7547	Crown-Merrill Housing Building	HHW & DHW Heat Pumps	(9,114)	(8.0)	-	1,900	-	\$ 3,177	\$ 153,857	48.4
G57544701	7547	Crown-Merrill Housing Building	Exterior Lighting Controls	71	-	-	-	-	\$ 51	\$ 2,080	40.7
G57544702	7547	Crown-Merrill Housing Building	HVAC Occupancy Schedule	165	-	-	37	-	\$ 736	\$ 34,315	46.6
G57544703A	7547	Crown-Merrill Housing Building	Condensing Furnace	-	-	-	134	-	\$ 256	\$ 8,000	31.2
G57544704	7547	Crown-Merrill Housing Building	MBCx	540	-	-	101	-	\$ 299	\$ 7,578	25.3
G57544705A	7547	Crown-Merrill Housing Building	HHW & DHW Heat Pumps	(9,443)	(8.3)	-	1,969	-	\$ 3,292	\$ 159,422	48.4
G57540701	7547	Crown-Merrill Housing Building	Exterior Lighting Controls	68	-	-	-	-	\$ 49	\$ 2,008	40.7

UC Santa Cruz Climate and Energy Strategy
Energy Efficiency Building Audit Results
Project List

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G57540702	7547	Crown-Merrill Housing Building	HVAC Occupancy Schedule	160	-	-	36	-	\$ 711	\$ 33,117	46.6
G57540703A	7547	Crown-Merrill Housing Building	Condensing Furnace	-	-	-	129	-	\$ 248	\$ 7,721	31.2
G57540704	7547	Crown-Merrill Housing Building	MBCx	521	-	-	97	-	\$ 289	\$ 7,314	25.3
G57540705A	7547	Crown-Merrill Housing Building	HHW & DHW Heat Pumps	(9,114)	(8.0)	-	1,900	-	\$ 3,177	\$ 153,857	48.4
G57545701	7547	Crown-Merrill Housing Building	Exterior Lighting Controls	71	-	-	-	-	\$ 51	\$ 2,085	40.7
G57545702	7547	Crown-Merrill Housing Building	HVAC Occupancy Schedule	166	-	-	38	-	\$ 738	\$ 34,391	46.6
G57545703A	7547	Crown-Merrill Housing Building	Condensing Furnace	-	-	-	134	-	\$ 257	\$ 8,018	31.2
G57545704	7547	Crown-Merrill Housing Building	MBCx	541	-	-	101	-	\$ 300	\$ 7,595	25.3
G57545705A	7547	Crown-Merrill Housing Building	HHW & DHW Heat Pumps	(9,464)	(8.3)	-	1,973	-	\$ 3,299	\$ 159,774	48.4
G57538801A	7438	LML William T. Doyle Research	T12 Retrofit	2,305	0.1	-	(17)	-	\$ 791	\$ 9,798	12.4
G57538802B	7438	LML William T. Doyle Research	Deep Lighting Retrofit	12,176	1.4	-	-	-	\$ 2,091	\$ 20,967	10.0
G57538803	7438	LML William T. Doyle Research	Deep HVAC Retrofit	2,627	0.8	-	104	-	\$ 9,747	\$ 465,234	47.7
G57538804	7438	LML William T. Doyle Research	MBCx	4,429	-	-	32	-	\$ 762	\$ 5,972	7.8
G57538805	7438	LML William T. Doyle Research	ECM Motors	922	0.1	-	-	-	\$ 137	\$ 419	3.1
G57539701	7547	Crown-Merrill Housing Building	Exterior Lighting Controls	68	-	-	-	-	\$ 49	\$ 2,008	40.7
G57539702	7547	Crown-Merrill Housing Building	HVAC Occupancy Schedule	160	-	-	36	-	\$ 711	\$ 33,117	46.6
G57539703A	7547	Crown-Merrill Housing Building	Condensing Furnace	-	-	-	129	-	\$ 248	\$ 7,721	31.2
G57539704	7547	Crown-Merrill Housing Building	MBCx	521	-	-	97	-	\$ 289	\$ 7,314	25.3
G57539705A	7547	Crown-Merrill Housing Building	HHW & DHW Heat Pumps	(9,114)	(8.0)	-	1,900	-	\$ 3,177	\$ 153,857	48.4
G57541701	7547	Crown-Merrill Housing Building	Exterior Lighting Controls	104	-	-	-	-	\$ 75	\$ 3,046	40.7
G57541702	7547	Crown-Merrill Housing Building	HVAC Occupancy Schedule	242	-	-	55	-	\$ 1,078	\$ 50,240	46.6
G57541703A	7547	Crown-Merrill Housing Building	Condensing Furnace	-	-	-	196	-	\$ 376	\$ 11,712	31.2
G57541704	7547	Crown-Merrill Housing Building	MBCx	791	-	-	147	-	\$ 438	\$ 11,095	25.3
G57541705A	7547	Crown-Merrill Housing Building	HHW & DHW Heat Pumps	(13,826)	(12.1)	-	2,883	-	\$ 4,819	\$ 233,404	48.4
G57548701	7547	Crown-Merrill Housing Building	Exterior Lighting Controls	78	-	-	-	-	\$ 56	\$ 2,293	40.7
G57548702	7547	Crown-Merrill Housing Building	HVAC Occupancy Schedule	182	-	-	41	-	\$ 812	\$ 37,817	46.6
G57548703A	7547	Crown-Merrill Housing Building	Condensing Furnace	-	-	-	148	-	\$ 283	\$ 8,816	31.2
G57548704	7547	Crown-Merrill Housing Building	MBCx	595	-	-	111	-	\$ 330	\$ 8,352	25.3
G57548705A	7547	Crown-Merrill Housing Building	HHW & DHW Heat Pumps	(10,407)	(9.1)	-	2,170	-	\$ 3,628	\$ 175,693	48.4
G57536701	7547	Crown-Merrill Housing Building	Exterior Lighting Controls	104	-	-	-	-	\$ 75	\$ 3,046	40.7
G57536702	7547	Crown-Merrill Housing Building	HVAC Occupancy Schedule	242	-	-	55	-	\$ 1,078	\$ 50,240	46.6
G57536703A	7547	Crown-Merrill Housing Building	Condensing Furnace	-	-	-	196	-	\$ 376	\$ 11,712	31.2
G57536704	7547	Crown-Merrill Housing Building	MBCx	791	-	-	147	-	\$ 438	\$ 11,095	25.3
G57536705A	7547	Crown-Merrill Housing Building	HHW & DHW Heat Pumps	(13,826)	(12.1)	-	2,883	-	\$ 4,819	\$ 233,404	48.4
G57546701	7547	Crown-Merrill Housing Building	Exterior Lighting Controls	78	-	-	-	-	\$ 56	\$ 2,293	40.7
G57546702	7547	Crown-Merrill Housing Building	HVAC Occupancy Schedule	182	-	-	41	-	\$ 812	\$ 37,817	46.6
G57546703A	7547	Crown-Merrill Housing Building	Condensing Furnace	-	-	-	148	-	\$ 283	\$ 8,816	31.2
G57546704	7547	Crown-Merrill Housing Building	MBCx	595	-	-	111	-	\$ 330	\$ 8,352	25.3
G57546705A	7547	Crown-Merrill Housing Building	HHW & DHW Heat Pumps	(10,407)	(9.1)	-	2,170	-	\$ 3,628	\$ 175,693	48.4
G57537701	7547	Crown-Merrill Housing Building	Exterior Lighting Controls	68	-	-	-	-	\$ 49	\$ 2,008	40.7
G57537702	7547	Crown-Merrill Housing Building	HVAC Occupancy Schedule	160	-	-	36	-	\$ 711	\$ 33,117	46.6
G57537703A	7547	Crown-Merrill Housing Building	Condensing Furnace	-	-	-	129	-	\$ 248	\$ 7,721	31.2
G57537704	7547	Crown-Merrill Housing Building	MBCx	521	-	-	97	-	\$ 289	\$ 7,314	25.3
G57537705A	7547	Crown-Merrill Housing Building	HHW & DHW Heat Pumps	(9,114)	(8.0)	-	1,900	-	\$ 3,177	\$ 153,857	48.4
G57549701	7547	Crown-Merrill Housing Building	Exterior Lighting Controls	38	-	-	-	-	\$ 28	\$ 1,126	40.7
G57549702	7547	Crown-Merrill Housing Building	HVAC Occupancy Schedule	89	-	-	20	-	\$ 398	\$ 18,568	46.6
G57549703A	7547	Crown-Merrill Housing Building	Condensing Furnace	-	-	-	73	-	\$ 139	\$ 4,329	31.2
G57549704	7547	Crown-Merrill Housing Building	MBCx	292	-	-	54	-	\$ 162	\$ 4,101	25.3

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Energy Efficiency Building Audit Results
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G57549705A	7547	Crown-Merrill Housing Building	HHW & DHW Heat Pumps	(5,110)	(4.5)	-	1,065	-	\$ 1,781	\$ 86,261	48.4
G57553701	7547	Crown-Merrill Housing Building	Exterior Lighting Controls	117	-	-	-	-	\$ 85	\$ 3,442	40.7
G57553702	7547	Crown-Merrill Housing Building	HVAC Occupancy Schedule	274	-	-	62	-	\$ 1,218	\$ 56,774	46.6
G57553703A	7547	Crown-Merrill Housing Building	Condensing Furnace	-	-	-	222	-	\$ 424	\$ 13,236	31.2
G57553704	7547	Crown-Merrill Housing Building	MBCx	893	-	-	166	-	\$ 495	\$ 12,538	25.3
G57553705A	7547	Crown-Merrill Housing Building	HHW & DHW Heat Pumps	(15,624)	(13.7)	-	3,257	-	\$ 5,446	\$ 263,762	48.4
G57554701	7547	Crown-Merrill Housing Building	Exterior Lighting Controls	78	-	-	-	-	\$ 56	\$ 2,285	40.7
G57554702	7547	Crown-Merrill Housing Building	HVAC Occupancy Schedule	182	-	-	41	-	\$ 809	\$ 37,691	46.6
G57554703A	7547	Crown-Merrill Housing Building	Condensing Furnace	-	-	-	147	-	\$ 282	\$ 8,787	31.2
G57554704	7547	Crown-Merrill Housing Building	MBCx	593	-	-	110	-	\$ 329	\$ 8,324	25.3
G57554705A	7547	Crown-Merrill Housing Building	HHW & DHW Heat Pumps	(10,372)	(9.1)	-	2,163	-	\$ 3,616	\$ 175,106	48.4
G57555701	7547	Crown-Merrill Housing Building	Exterior Lighting Controls	78	-	-	-	-	\$ 56	\$ 2,285	40.7
G57555702	7547	Crown-Merrill Housing Building	HVAC Occupancy Schedule	182	-	-	41	-	\$ 809	\$ 37,691	46.6
G57555703A	7547	Crown-Merrill Housing Building	Condensing Furnace	-	-	-	147	-	\$ 282	\$ 8,787	31.2
G57555704	7547	Crown-Merrill Housing Building	MBCx	593	-	-	110	-	\$ 329	\$ 8,324	25.3
G57555705A	7547	Crown-Merrill Housing Building	HHW & DHW Heat Pumps	(10,372)	(9.1)	-	2,163	-	\$ 3,616	\$ 175,106	48.4
G57556701	7547	Crown-Merrill Housing Building	Exterior Lighting Controls	11	-	-	-	-	\$ 8	\$ 315	40.7
G57556702	7547	Crown-Merrill Housing Building	HVAC Occupancy Schedule	25	-	-	6	-	\$ 111	\$ 5,195	46.6
G57556703A	7547	Crown-Merrill Housing Building	Condensing Furnace	-	-	-	20	-	\$ 39	\$ 1,211	31.2
G57556704	7547	Crown-Merrill Housing Building	MBCx	82	-	-	15	-	\$ 45	\$ 1,147	25.3
G57556705A	7547	Crown-Merrill Housing Building	HHW & DHW Heat Pumps	(1,430)	(1.3)	-	298	-	\$ 498	\$ 24,136	48.4
G57736701	7547	Crown-Merrill Housing Building	Exterior Lighting Controls	76	-	-	-	-	\$ 55	\$ 2,222	40.7
G57736702	7547	Crown-Merrill Housing Building	HVAC Occupancy Schedule	177	-	-	40	-	\$ 787	\$ 36,655	46.6
G57736703A	7547	Crown-Merrill Housing Building	Condensing Furnace	-	-	-	143	-	\$ 274	\$ 8,545	31.2
G57736704	7547	Crown-Merrill Housing Building	MBCx	577	-	-	107	-	\$ 320	\$ 8,095	25.3
G57736705A	7547	Crown-Merrill Housing Building	HHW & DHW Heat Pumps	(10,087)	(8.8)	-	2,103	-	\$ 3,516	\$ 170,292	48.4
G57737701	7547	Crown-Merrill Housing Building	Exterior Lighting Controls	76	-	-	-	-	\$ 55	\$ 2,222	40.7
G57737702	7547	Crown-Merrill Housing Building	HVAC Occupancy Schedule	177	-	-	40	-	\$ 787	\$ 36,655	46.6
G57737703A	7547	Crown-Merrill Housing Building	Condensing Furnace	-	-	-	143	-	\$ 274	\$ 8,545	31.2
G57737704	7547	Crown-Merrill Housing Building	MBCx	577	-	-	107	-	\$ 320	\$ 8,095	25.3
G57737705A	7547	Crown-Merrill Housing Building	HHW & DHW Heat Pumps	(10,087)	(8.8)	-	2,103	-	\$ 3,516	\$ 170,292	48.4
G57738701	7547	Crown-Merrill Housing Building	Exterior Lighting Controls	76	-	-	-	-	\$ 55	\$ 2,222	40.7
G57738702	7547	Crown-Merrill Housing Building	HVAC Occupancy Schedule	177	-	-	40	-	\$ 787	\$ 36,655	46.6
G57738703A	7547	Crown-Merrill Housing Building	Condensing Furnace	-	-	-	143	-	\$ 274	\$ 8,545	31.2
G57738704	7547	Crown-Merrill Housing Building	MBCx	577	-	-	107	-	\$ 320	\$ 8,095	25.3
G57738705A	7547	Crown-Merrill Housing Building	HHW & DHW Heat Pumps	(10,087)	(8.8)	-	2,103	-	\$ 3,516	\$ 170,292	48.4
G57739701	7547	Crown-Merrill Housing Building	Exterior Lighting Controls	76	-	-	-	-	\$ 55	\$ 2,222	40.7
G57739702	7547	Crown-Merrill Housing Building	HVAC Occupancy Schedule	177	-	-	40	-	\$ 787	\$ 36,655	46.6
G57739703A	7547	Crown-Merrill Housing Building	Condensing Furnace	-	-	-	143	-	\$ 274	\$ 8,545	31.2
G57739704	7547	Crown-Merrill Housing Building	MBCx	577	-	-	107	-	\$ 320	\$ 8,095	25.3
G57739705A	7547	Crown-Merrill Housing Building	HHW & DHW Heat Pumps	(10,087)	(8.8)	-	2,103	-	\$ 3,516	\$ 170,292	48.4
G57740701	7547	Crown-Merrill Housing Building	Exterior Lighting Controls	76	-	-	-	-	\$ 55	\$ 2,222	40.7
G57740702	7547	Crown-Merrill Housing Building	HVAC Occupancy Schedule	177	-	-	40	-	\$ 787	\$ 36,655	46.6
G57740703A	7547	Crown-Merrill Housing Building	Condensing Furnace	-	-	-	143	-	\$ 274	\$ 8,545	31.2
G57740704	7547	Crown-Merrill Housing Building	MBCx	577	-	-	107	-	\$ 320	\$ 8,095	25.3
G57740705A	7547	Crown-Merrill Housing Building	HHW & DHW Heat Pumps	(10,087)	(8.8)	-	2,103	-	\$ 3,516	\$ 170,292	48.4
G57741701	7547	Crown-Merrill Housing Building	Exterior Lighting Controls	10	-	-	-	-	\$ 7	\$ 293	40.7
G57741702	7547	Crown-Merrill Housing Building	HVAC Occupancy Schedule	23	-	-	5	-	\$ 104	\$ 4,826	46.6

UC Santa Cruz Climate and Energy Strategy
Energy Efficiency Building Audit Results
Project List

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G57741703A	7547	Crown-Merrill Housing Building	Condensing Furnace	-	-	-	19	-	\$ 36	\$ 1,125	31.2
G57741704	7547	Crown-Merrill Housing Building	MBCx	76	-	-	14	-	\$ 42	\$ 1,066	25.3
G57741705A	7547	Crown-Merrill Housing Building	HHW & DHW Heat Pumps	(1,328)	(1.2)	-	277	-	\$ 463	\$ 22,422	48.4
G57701701A	7707	Cowell College Apartment Build	Boiler Upgrade	-	-	-	399	-	\$ 1,651	\$ 67,931	41.1
G57701702	7707	Cowell College Apartment Build	HVAC Occ Sensor	1,833	-	-	614	-	\$ 3,129	\$ 121,505	38.8
G57701703	7707	Cowell College Apartment Build	MBCx	1,814	0.2	-	164	-	\$ 700	\$ 16,387	23.4
G57701704	7707	Cowell College Apartment Build	2-Way Valve	6,668	2.6	-	-	-	\$ 4,762	\$ 191,485	40.2
G57701705A	7707	Cowell College Apartment Build	HHW & DHW Heat Pumps	(12,955)	(37.4)	-	2,701	-	\$ 4,767	\$ 231,256	48.5
G57714701A	7707	Cowell College Apartment Build	Boiler Upgrade	-	-	-	499	-	\$ 2,064	\$ 84,888	41.1
G57714702	7707	Cowell College Apartment Build	HVAC Occ Sensor	2,291	-	-	768	-	\$ 3,910	\$ 151,834	38.8
G57714703	7707	Cowell College Apartment Build	MBCx	2,267	0.3	-	205	-	\$ 874	\$ 20,477	23.4
G57714704	7707	Cowell College Apartment Build	2-Way Valve	8,332	3.3	-	-	-	\$ 5,950	\$ 239,281	40.2
G57714705A	7707	Cowell College Apartment Build	HHW & DHW Heat Pumps	(16,189)	(46.7)	-	3,375	-	\$ 5,957	\$ 288,980	48.5
G57800101A	7801	College Eight Apartment Buildin	Condensing Furnace Retrofit	-	-	-	191	-	\$ 1,416	\$ 63,910	45.1
G57800102A	7801	College Eight Apartment Buildin	Install Heat Pumps for Heating	(9,554)	-	-	1,467	-	\$ 2,461	\$ 136,161	55.3
G57800103B	7801	College Eight Apartment Buildin	Condensing Furnace Retrofit	-	-	-	153	-	\$ 927	\$ 40,827	44.1
G57800104B	7801	College Eight Apartment Buildin	Energy Star Electric Heat Pump Water H	(8,492)	-	-	1,174	-	\$ 909	\$ 55,947	61.5
G57800105	7801	College Eight Apartment Buildin	Smart Thermostat	-	-	-	73	-	\$ 362	\$ 15,555	42.9
G57805101A	7801	College Eight Apartment Buildin	Condensing Furnace Retrofit	-	-	-	219	-	\$ 1,623	\$ 73,273	45.1
G57805102A	7801	College Eight Apartment Buildin	Install Heat Pumps for Heating	(10,954)	-	-	1,682	-	\$ 2,821	\$ 156,109	55.3
G57805103B	7801	College Eight Apartment Buildin	Condensing Furnace Retrofit	-	-	-	176	-	\$ 1,063	\$ 46,809	44.1
G57805104B	7801	College Eight Apartment Buildin	Energy Star Electric Heat Pump Water H	(9,737)	-	-	1,346	-	\$ 1,042	\$ 64,144	61.5
G57805105	7801	College Eight Apartment Buildin	Smart Thermostat	-	-	-	84	-	\$ 415	\$ 17,833	42.9
G57804101A	7801	College Eight Apartment Buildin	Condensing Furnace Retrofit	-	-	-	97	-	\$ 719	\$ 32,438	45.1
G57804102A	7801	College Eight Apartment Buildin	Install Heat Pumps for Heating	(4,849)	-	-	745	-	\$ 1,249	\$ 69,109	55.3
G57804103B	7801	College Eight Apartment Buildin	Condensing Furnace Retrofit	-	-	-	78	-	\$ 470	\$ 20,722	44.1
G57804104B	7801	College Eight Apartment Buildin	Energy Star Electric Heat Pump Water H	(4,310)	-	-	596	-	\$ 461	\$ 28,396	61.5
G57804105	7801	College Eight Apartment Buildin	Smart Thermostat	-	-	-	37	-	\$ 184	\$ 7,895	42.9
G57803101A	7801	College Eight Apartment Buildin	Condensing Furnace Retrofit	-	-	-	104	-	\$ 766	\$ 34,589	45.1
G57803102A	7801	College Eight Apartment Buildin	Install Heat Pumps for Heating	(5,171)	-	-	794	-	\$ 1,332	\$ 73,693	55.3
G57803103B	7801	College Eight Apartment Buildin	Condensing Furnace Retrofit	-	-	-	83	-	\$ 502	\$ 22,096	44.1
G57803104B	7801	College Eight Apartment Buildin	Energy Star Electric Heat Pump Water H	(4,596)	-	-	635	-	\$ 492	\$ 30,280	61.5
G57803105	7801	College Eight Apartment Buildin	Smart Thermostat	-	-	-	40	-	\$ 196	\$ 8,418	42.9
G57802101A	7801	College Eight Apartment Buildin	Condensing Furnace Retrofit	-	-	-	104	-	\$ 766	\$ 34,589	45.1
G57802102A	7801	College Eight Apartment Buildin	Install Heat Pumps for Heating	(5,171)	-	-	794	-	\$ 1,332	\$ 73,693	55.3
G57802103B	7801	College Eight Apartment Buildin	Condensing Furnace Retrofit	-	-	-	83	-	\$ 502	\$ 22,096	44.1
G57802104B	7801	College Eight Apartment Buildin	Energy Star Electric Heat Pump Water H	(4,596)	-	-	635	-	\$ 492	\$ 30,280	61.5
G57802105	7801	College Eight Apartment Buildin	Smart Thermostat	-	-	-	40	-	\$ 196	\$ 8,418	42.9
G57904501A	7905	Stevenson College Apartment E	Boiler Upgrade	-	-	-	471	-	\$ 960	\$ 30,766	32.0
G57904502	7905	Stevenson College Apartment E	HVAC Occ Sensor	99	-	-	76	-	\$ 1,169	\$ 55,034	47.1
G57904503	7905	Stevenson College Apartment E	MBCx	773	0.1	-	194	-	\$ 383	\$ 6,757	17.7
G57904504	7905	Stevenson College Apartment E	2-Way Valve	1,102	0.2	-	-	-	\$ 3,030	\$ 143,809	47.5
G57904505A	7905	Stevenson College Apartment E	HHW & DHW Heat Pumps	(16,352)	(36.1)	-	3,409	-	\$ 1,379	\$ 60,008	43.5
G57906501A	7905	Stevenson College Apartment E	Boiler Upgrade	-	-	-	1,415	-	\$ 2,887	\$ 92,482	32.0
G57906502	7905	Stevenson College Apartment E	HVAC Occ Sensor	297	-	-	229	-	\$ 3,515	\$ 165,430	47.1
G57906503	7905	Stevenson College Apartment E	MBCx	2,324	0.3	-	582	-	\$ 1,150	\$ 20,310	17.7
G57906504	7905	Stevenson College Apartment E	2-Way Valve	3,314	0.6	-	-	-	\$ 9,109	\$ 432,286	47.5
G57906505A	7905	Stevenson College Apartment E	HHW & DHW Heat Pumps	(49,154)	(108.4)	-	10,248	-	\$ 4,146	\$ 180,382	43.5

UC Santa Cruz Climate and Energy Strategy
Energy Efficiency Building Audit Results
Project List

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G57709001A	7910	Porter College Apartment Buidi	Condensing Boiler Retrofit	-	-	-	667	-	\$ 2,136	\$ 53,978	25.3
G57709002A	7910	Porter College Apartment Buidi	Replace HHW Boiler with Heat Pump	(19,999)	(43.0)	-	4,719	-	\$ 4,646	\$ 202,189	43.5
G57709003	7910	Porter College Apartment Buidi	Smart Thermostat	-	-	-	236	-	\$ 494	\$ 16,463	33.3
G57709004	7910	Porter College Apartment Buidi	MBCx	1,632	-	-	247	-	\$ 792	\$ 19,286	24.4
G57713001A	7910	Porter College Apartment Buidi	Condensing Boiler Retrofit	-	-	-	877	-	\$ 2,811	\$ 71,043	25.3
G57713002A	7910	Porter College Apartment Buidi	Replace HHW Boiler with Heat Pump	(26,321)	(56.6)	-	6,211	-	\$ 6,114	\$ 266,109	43.5
G57713003	7910	Porter College Apartment Buidi	Smart Thermostat	-	-	-	311	-	\$ 651	\$ 21,668	33.3
G57713004	7910	Porter College Apartment Buidi	MBCx	2,147	-	-	325	-	\$ 1,042	\$ 25,383	24.4
G57715001A	7910	Porter College Apartment Buidi	Condensing Boiler Retrofit	-	-	-	591	-	\$ 1,893	\$ 47,854	25.3
G57715002A	7910	Porter College Apartment Buidi	Replace HHW Boiler with Heat Pump	(17,730)	(38.2)	-	4,184	-	\$ 4,119	\$ 179,251	43.5
G57715003	7910	Porter College Apartment Buidi	Smart Thermostat	-	-	-	209	-	\$ 438	\$ 14,595	33.3
G57715004	7910	Porter College Apartment Buidi	MBCx	1,447	-	-	219	-	\$ 702	\$ 17,098	24.4
G57712001A	7910	Porter College Apartment Buidi	Condensing Boiler Retrofit	-	-	-	937	-	\$ 3,001	\$ 75,849	25.3
G57712002A	7910	Porter College Apartment Buidi	Replace HHW Boiler with Heat Pump	(28,102)	(60.5)	-	6,631	-	\$ 6,528	\$ 284,110	43.5
G57712003	7910	Porter College Apartment Buidi	Smart Thermostat	-	-	-	332	-	\$ 695	\$ 23,133	33.3
G57712004	7910	Porter College Apartment Buidi	MBCx	2,293	-	-	347	-	\$ 1,112	\$ 27,100	24.4
G57909001A	7910	Porter College Apartment Buidi	Condensing Boiler Retrofit	-	-	-	925	-	\$ 2,964	\$ 74,927	25.3
G57909002A	7910	Porter College Apartment Buidi	Replace HHW Boiler with Heat Pump	(27,761)	(59.7)	-	6,551	-	\$ 6,449	\$ 280,658	43.5
G57909003	7910	Porter College Apartment Buidi	Smart Thermostat	-	-	-	328	-	\$ 686	\$ 22,852	33.3
G57909004	7910	Porter College Apartment Buidi	MBCx	2,265	-	-	343	-	\$ 1,099	\$ 26,771	24.4
G57716001A	7910	Porter College Apartment Buidi	Condensing Boiler Retrofit	-	-	-	112	-	\$ 359	\$ 9,079	25.3
G57716002A	7910	Porter College Apartment Buidi	Replace HHW Boiler with Heat Pump	(3,364)	(7.2)	-	794	-	\$ 781	\$ 34,006	43.5
G57716003	7910	Porter College Apartment Buidi	Smart Thermostat	-	-	-	40	-	\$ 83	\$ 2,769	33.3
G57716004	7910	Porter College Apartment Buidi	MBCx	274	-	-	42	-	\$ 133	\$ 3,244	24.4
G57917201A	7932	College Nine Residence Hall 2	Boiler Upgrade	-	-	-	110	-	\$ 275	\$ 9,722	35.3
G57917202	7932	College Nine Residence Hall 2	HVAC Occ Sensor	1,074	-	-	200	-	\$ 464	\$ 6,263	13.5
G57917203	7932	College Nine Residence Hall 2	MBCx	252	0.0	-	45	-	\$ 156	\$ 4,388	28.2
G57917204A	7932	College Nine Residence Hall 2	HHW & DHW Heat Pumps	(3,646)	(9.4)	-	760	-	\$ 552	\$ 25,598	46.4
G57930201A	7932	College Nine Residence Hall 2	Boiler Upgrade	-	-	-	128	-	\$ 319	\$ 11,266	35.3
G57930202	7932	College Nine Residence Hall 2	HVAC Occ Sensor	1,245	-	-	231	-	\$ 537	\$ 7,258	13.5
G57930203	7932	College Nine Residence Hall 2	MBCx	292	0.0	-	53	-	\$ 181	\$ 5,086	28.2
G57930204A	7932	College Nine Residence Hall 2	HHW & DHW Heat Pumps	(4,226)	(10.8)	-	881	-	\$ 640	\$ 29,665	46.4
G67130902A	7130	Cowell College Academic Buidi	Replace HHW Boiler with Heat Pump	(34,042)	(47.4)	-	7,194	-	\$ 7,487	\$ 353,281	47.2
G67130903B	7130	Cowell College Academic Buidi	Deep HVAC	5,681	1.6	-	1,982	-	\$ 10,242	\$ 401,042	39.2
G67130603	7130	Cowell College Academic Buidi	Demand Based Scheduling	3,178	-	-	391	-	\$ 2,727	\$ 100,093	36.7
G67130605	7130	Cowell College Academic Buidi	Dining Area Daylighting Controls	4,701	6.4	-	(35)	-	\$ 701	\$ 3,405	4.9
G67130103	7130	Cowell College Academic Buidi	VFD for HHW pump	729	-	-	-	-	\$ 2,244	\$ 107,126	47.7
G67130104	7130	Cowell College Academic Buidi	MBCx	4,229	-	-	269	-	\$ 1,079	\$ 14,302	13.3
G67111902A	7111	Receiving Barn	Replace HHW Boiler with Heat Pump	(41,593)	(58.0)	-	8,790	-	\$ 9,147	\$ 431,648	47.2
G67111201	7111	Receiving Barn	Demand Based Scheduling	3,221	-	-	341	-	\$ 996	\$ 41,816	42.0
G67111305B	7111	Receiving Barn	Dual Technology Controls	5,657	-	-	78	-	\$ 1,350	\$ 26,159	19.4
G67754501A	7754	Academic Resource Center	Boiler Upgrade	-	-	-	1,115	-	\$ 2,275	\$ 72,882	32.0
G67754201	7754	Academic Resource Center	Demand Based Scheduling	3,346	-	-	354	-	\$ 1,034	\$ 43,439	42.0
G67754305B	7754	Academic Resource Center	Dual Technology Controls	5,876	-	-	81	-	\$ 1,403	\$ 27,174	19.4
G67754103	7754	Academic Resource Center	VFD for HHW pump	925	-	-	-	-	\$ 2,849	\$ 135,968	47.7
G67754104	7754	Academic Resource Center	MBCx	5,367	-	-	341	-	\$ 1,369	\$ 18,153	13.3
G67189704A	7189	Merrill College Academic Buidir	Condensing HHW/DHW boiler w/ HWST	-	-	-	603	-	\$ 3,698	\$ 108,585	29.4
G67189201	7189	Merrill College Academic Buidir	Demand Based Scheduling	4,107	-	-	435	-	\$ 1,269	\$ 53,306	42.0

UC Santa Cruz Climate and Energy Strategy
Energy Efficiency Building Audit Results
Project List

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G67189305B	7189	Merrill College Academic Building	Dual Technology Controls	7,211	-	-	100	-	\$ 1,721	\$ 33,347	19.4
G67189103	7189	Merrill College Academic Building	VFD for HHW pump	1,136	-	-	-	-	\$ 3,496	\$ 166,854	47.7
G67189104	7189	Merrill College Academic Building	MBCx	6,586	-	-	418	-	\$ 1,680	\$ 22,276	13.3
G67110708	7110	Barn G	Air-to-Water Heat Pump	(78,559)	(137.8)	-	16,622	-	\$ 8,484	\$ 372,685	43.9
G67110201	7110	Barn G	Demand Based Scheduling	4,257	-	-	451	-	\$ 1,316	\$ 55,260	42.0
G67110605	7110	Barn G	Dining Area Daylighting Controls	7,591	10.4	-	(57)	-	\$ 1,131	\$ 5,497	4.9
G67110403	7110	Barn G	VFD for HHW pump	12,910	0.5	-	-	-	\$ 12,186	\$ 519,035	42.6
G67110401	7110	Barn G	MBCx	3,190	-	-	402	-	\$ 1,249	\$ 25,713	20.6
G67143901A	7143	Stevenson College Academic Building	Condensing Boiler Retrofit	-	-	-	1,983	-	\$ 8,390	\$ 231,417	27.6
G67143903B	7143	Stevenson College Academic Building	Deep HVAC	13,623	3.9	-	4,753	-	\$ 24,560	\$ 961,656	39.2
G67143701	7143	Stevenson College Academic Building	Demand Based Scheduling	6,666	-	-	1,104	-	\$ 5,702	\$ 147,698	25.9
G67143903	7143	Stevenson College Academic Building	Controls	-	-	23,622	-	-	\$ 484	\$ 13,853	28.6
G67143403	7143	Stevenson College Academic Building	VFD for HHW pump	19,173	0.8	-	-	-	\$ 18,097	\$ 770,822	42.6
G67143707	7143	Stevenson College Academic Building	MBCx	8,390	-	-	414	-	\$ 3,817	\$ 117,331	30.7
G67306901A	7306	Porter College Academic Building	Condensing Boiler Retrofit	-	-	-	2,300	-	\$ 9,729	\$ 268,342	27.6
G67306708A	7306	Porter College Academic Building	Heat Pump for HHW & DHW	(45,842)	(72.7)	-	9,558	-	\$ 34,753	\$ 1,712,547	49.3
G67306701	7306	Porter College Academic Building	Demand Based Scheduling	7,730	-	-	1,281	-	\$ 6,612	\$ 171,264	25.9
G67306903	7306	Porter College Academic Building	Controls	-	-	27,391	-	-	\$ 561	\$ 16,063	28.6
G67306403	7306	Porter College Academic Building	VFD for HHW pump	22,232	0.9	-	-	-	\$ 20,984	\$ 893,815	42.6
G67306707	7306	Porter College Academic Building	MBCx	9,729	-	-	480	-	\$ 4,427	\$ 136,052	30.7
G67311407A	7311	Theater Arts A Main Stage	Deep HVAC Retrofit	17,269	4.9	-	3,673	-	\$ 19,126	\$ 703,327	36.8
G67300701A	7300	Bay Tree Bookstore	Condensing Boiler Retrofit	-	-	-	756	-	\$ 3,840	\$ 109,620	28.5
G67300407A	7300	Bay Tree Bookstore	Deep HVAC Retrofit	20,467	5.8	-	4,354	-	\$ 22,668	\$ 833,582	36.8
G67300703	7300	Bay Tree Bookstore	Demand Based Scheduling	54,559	11.0	-	3,354	-	\$ 16,314	\$ 313,599	19.2
G67300903	7300	Bay Tree Bookstore	Controls	-	-	37,339	-	-	\$ 765	\$ 21,897	28.6
G67300403	7300	Bay Tree Bookstore	VFD for HHW pump	30,305	1.3	-	-	-	\$ 28,605	\$ 1,218,410	42.6
G67300403	7300	Bay Tree Bookstore	VFD for HHW pump	30,305	1.3	-	-	-	\$ 28,605	\$ 1,218,410	42.6
G67782602B	7782	Science and Engineering Library	Deep HVAC Retrofit	80,048	22.9	688,622	-	-	\$ 38,903	\$ 1,144,604	29.4
G67782303	7782	Science and Engineering Library	Demand Based Scheduling	14,348	-	-	2,326	-	\$ 5,500	\$ 90,999	16.5
G67782605	7782	Science and Engineering Library	Dining Area Daylighting Controls	31,694	43.4	-	(238)	-	\$ 4,724	\$ 22,952	4.9
G67782604	7782	Science and Engineering Library	Replace Ultra Low Freezers	21,085	2.4	-	-	-	\$ 8,101	\$ 257,672	31.8
G67782401	7782	Science and Engineering Library	MBCx	55,110	-	-	2,567	-	\$ 13,439	\$ 194,301	14.5
G67011002A	7011	Village Housing B1	Replace HHW Boiler with Heat Pump	(2,528)	(5.4)	-	597	-	\$ 587	\$ 25,559	43.5
G67011201	7011	Village Housing B1	Demand Based Scheduling	400	-	-	42	-	\$ 124	\$ 5,186	42.0
G67011903	7011	Village Housing B1	Controls	-	-	1,493	-	-	\$ 31	\$ 875	28.6
G67011704	7011	Village Housing B1	MBCx	407	-	-	60	-	\$ 147	\$ 2,361	16.0
G67011006	7011	Village Housing B1	Daylighting Controls	271	-	-	(2)	-	\$ 176	\$ 6,967	39.6
G67011403	7011	Village Housing B1	Deep Lighting Retrofit	5,296	0.7	-	-	-	\$ 874	\$ 7,842	9.0
G67012002A	7012	Village Housing B2	Replace HHW Boiler with Heat Pump	(2,528)	(5.4)	-	597	-	\$ 587	\$ 25,559	43.5
G67012201	7012	Village Housing B2	Demand Based Scheduling	400	-	-	42	-	\$ 124	\$ 5,186	42.0
G67012903	7012	Village Housing B2	Controls	-	-	1,493	-	-	\$ 31	\$ 875	28.6
G67012704	7012	Village Housing B2	MBCx	407	-	-	60	-	\$ 147	\$ 2,361	16.0
G67012006	7012	Village Housing B2	Daylighting Controls	271	-	-	(2)	-	\$ 176	\$ 6,967	39.6
G67012403	7012	Village Housing B2	Deep Lighting Retrofit	5,296	0.7	-	-	-	\$ 874	\$ 7,842	9.0
G67013002A	7013	Village Housing B3	Replace HHW Boiler with Heat Pump	(2,528)	(5.4)	-	597	-	\$ 587	\$ 25,559	43.5
G67013201	7013	Village Housing B3	Demand Based Scheduling	400	-	-	42	-	\$ 124	\$ 5,186	42.0
G67013903	7013	Village Housing B3	Controls	-	-	1,493	-	-	\$ 31	\$ 875	28.6
G67013704	7013	Village Housing B3	MBCx	407	-	-	60	-	\$ 147	\$ 2,361	16.0

UC Santa Cruz Climate and Energy Strategy
Energy Efficiency Building Audit Results
Project List

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G67013006	7013	Village Housing B3	Daylighting Controls	271	-	-	(2)	-	\$ 176	\$ 6,967	39.6
G67013403	7013	Village Housing B3	Deep Lighting Retrofit	5,296	0.7	-	-	-	\$ 874	\$ 7,842	9.0
G67014002A	7014	Village Housing C4	Replace HHW Boiler with Heat Pump	(2,528)	(5.4)	-	597	-	\$ 587	\$ 25,559	43.5
G67014201	7014	Village Housing C4	Demand Based Scheduling	400	-	-	42	-	\$ 124	\$ 5,186	42.0
G67014903	7014	Village Housing C4	Controls	-	-	1,493	-	-	\$ 31	\$ 875	28.6
G67014704	7014	Village Housing C4	MBCx	407	-	-	60	-	\$ 147	\$ 2,361	16.0
G67014006	7014	Village Housing C4	Daylighting Controls	271	-	-	(2)	-	\$ 176	\$ 6,967	39.6
G67014403	7014	Village Housing C4	Deep Lighting Retrofit	5,296	0.7	-	-	-	\$ 874	\$ 7,842	9.0
G67015002A	7015	Village Housing F3	Replace HHW Boiler with Heat Pump	(2,528)	(5.4)	-	597	-	\$ 587	\$ 25,559	43.5
G67015201	7015	Village Housing F3	Demand Based Scheduling	400	-	-	42	-	\$ 124	\$ 5,186	42.0
G67015903	7015	Village Housing F3	Controls	-	-	1,493	-	-	\$ 31	\$ 875	28.6
G67015704	7015	Village Housing F3	MBCx	407	-	-	60	-	\$ 147	\$ 2,361	16.0
G67015006	7015	Village Housing F3	Daylighting Controls	271	-	-	(2)	-	\$ 176	\$ 6,967	39.6
G67015403	7015	Village Housing F3	Deep Lighting Retrofit	5,296	0.7	-	-	-	\$ 874	\$ 7,842	9.0
G67016002A	7016	Village Housing F2	Replace HHW Boiler with Heat Pump	(2,528)	(5.4)	-	597	-	\$ 587	\$ 25,559	43.5
G67016201	7016	Village Housing F2	Demand Based Scheduling	400	-	-	42	-	\$ 124	\$ 5,186	42.0
G67016903	7016	Village Housing F2	Controls	-	-	1,493	-	-	\$ 31	\$ 875	28.6
G67016704	7016	Village Housing F2	MBCx	407	-	-	60	-	\$ 147	\$ 2,361	16.0
G67016006	7016	Village Housing F2	Daylighting Controls	271	-	-	(2)	-	\$ 176	\$ 6,967	39.6
G67016403	7016	Village Housing F2	Deep Lighting Retrofit	5,296	0.7	-	-	-	\$ 874	\$ 7,842	9.0
G67017002A	7017	Village Housing C3	Replace HHW Boiler with Heat Pump	(2,528)	(5.4)	-	597	-	\$ 587	\$ 25,559	43.5
G67017201	7017	Village Housing C3	Demand Based Scheduling	400	-	-	42	-	\$ 124	\$ 5,186	42.0
G67017903	7017	Village Housing C3	Controls	-	-	1,493	-	-	\$ 31	\$ 875	28.6
G67017704	7017	Village Housing C3	MBCx	407	-	-	60	-	\$ 147	\$ 2,361	16.0
G67017006	7017	Village Housing C3	Daylighting Controls	271	-	-	(2)	-	\$ 176	\$ 6,967	39.6
G67017403	7017	Village Housing C3	Deep Lighting Retrofit	5,296	0.7	-	-	-	\$ 874	\$ 7,842	9.0
G67018002A	7018	Village Housing E3	Replace HHW Boiler with Heat Pump	(2,528)	(5.4)	-	597	-	\$ 587	\$ 25,559	43.5
G67018201	7018	Village Housing E3	Demand Based Scheduling	400	-	-	42	-	\$ 124	\$ 5,186	42.0
G67018903	7018	Village Housing E3	Controls	-	-	1,493	-	-	\$ 31	\$ 875	28.6
G67018704	7018	Village Housing E3	MBCx	407	-	-	60	-	\$ 147	\$ 2,361	16.0
G67018006	7018	Village Housing E3	Daylighting Controls	271	-	-	(2)	-	\$ 176	\$ 6,967	39.6
G67018403	7018	Village Housing E3	Deep Lighting Retrofit	5,296	0.7	-	-	-	\$ 874	\$ 7,842	9.0
G67019002A	7019	Village Housing E4	Replace HHW Boiler with Heat Pump	(2,528)	(5.4)	-	597	-	\$ 587	\$ 25,559	43.5
G67019201	7019	Village Housing E4	Demand Based Scheduling	400	-	-	42	-	\$ 124	\$ 5,186	42.0
G67019903	7019	Village Housing E4	Controls	-	-	1,493	-	-	\$ 31	\$ 875	28.6
G67019704	7019	Village Housing E4	MBCx	407	-	-	60	-	\$ 147	\$ 2,361	16.0
G67019006	7019	Village Housing E4	Daylighting Controls	271	-	-	(2)	-	\$ 176	\$ 6,967	39.6
G67019403	7019	Village Housing E4	Deep Lighting Retrofit	5,296	0.7	-	-	-	\$ 874	\$ 7,842	9.0
G67020002A	7020	Village Housing F5	Replace HHW Boiler with Heat Pump	(1,556)	(3.3)	-	367	-	\$ 361	\$ 15,729	43.5
G67020201	7020	Village Housing F5	Demand Based Scheduling	246	-	-	26	-	\$ 76	\$ 3,192	42.0
G67020903	7020	Village Housing F5	Controls	-	-	919	-	-	\$ 19	\$ 539	28.6
G67020704	7020	Village Housing F5	MBCx	251	-	-	37	-	\$ 91	\$ 1,453	16.0
G67020006	7020	Village Housing F5	Daylighting Controls	167	-	-	(1)	-	\$ 108	\$ 4,288	39.6
G67020403	7020	Village Housing F5	Deep Lighting Retrofit	3,259	0.4	-	-	-	\$ 538	\$ 4,826	9.0
G67021002A	7021	Village Housing D2	Replace HHW Boiler with Heat Pump	(2,528)	(5.4)	-	597	-	\$ 587	\$ 25,559	43.5
G67021201	7021	Village Housing D2	Demand Based Scheduling	400	-	-	42	-	\$ 124	\$ 5,186	42.0
G67021903	7021	Village Housing D2	Controls	-	-	1,493	-	-	\$ 31	\$ 875	28.6
G67021704	7021	Village Housing D2	MBCx	407	-	-	60	-	\$ 147	\$ 2,361	16.0

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Energy Efficiency Building Audit Results
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G67021006	7021	Village Housing D2	Daylighting Controls	271	-	-	(2)	-	\$ 176	\$ 6,967	39.6
G67021403	7021	Village Housing D2	Deep Lighting Retrofit	5,296	0.7	-	-	-	\$ 874	\$ 7,842	9.0
G67022002A	7022	Village Housing E1	Replace HHW Boiler with Heat Pump	(2,528)	(5.4)	-	597	-	\$ 587	\$ 25,559	43.5
G67022201	7022	Village Housing E1	Demand Based Scheduling	400	-	-	42	-	\$ 124	\$ 5,186	42.0
G67022903	7022	Village Housing E1	Controls	-	-	1,493	-	-	\$ 31	\$ 875	28.6
G67022704	7022	Village Housing E1	MBCx	407	-	-	60	-	\$ 147	\$ 2,361	16.0
G67022006	7022	Village Housing E1	Daylighting Controls	271	-	-	(2)	-	\$ 176	\$ 6,967	39.6
G67022403	7022	Village Housing E1	Deep Lighting Retrofit	5,296	0.7	-	-	-	\$ 874	\$ 7,842	9.0
G67023002A	7023	Village Housing F1	Replace HHW Boiler with Heat Pump	(2,528)	(5.4)	-	597	-	\$ 587	\$ 25,559	43.5
G67023201	7023	Village Housing F1	Demand Based Scheduling	400	-	-	42	-	\$ 124	\$ 5,186	42.0
G67023903	7023	Village Housing F1	Controls	-	-	1,493	-	-	\$ 31	\$ 875	28.6
G67023704	7023	Village Housing F1	MBCx	407	-	-	60	-	\$ 147	\$ 2,361	16.0
G67023006	7023	Village Housing F1	Daylighting Controls	271	-	-	(2)	-	\$ 176	\$ 6,967	39.6
G67023403	7023	Village Housing F1	Deep Lighting Retrofit	5,296	0.7	-	-	-	\$ 874	\$ 7,842	9.0
G67024002A	7024	Village Housing C2	Replace HHW Boiler with Heat Pump	(2,528)	(5.4)	-	597	-	\$ 587	\$ 25,559	43.5
G67024201	7024	Village Housing C2	Demand Based Scheduling	400	-	-	42	-	\$ 124	\$ 5,186	42.0
G67024903	7024	Village Housing C2	Controls	-	-	1,493	-	-	\$ 31	\$ 875	28.6
G67024704	7024	Village Housing C2	MBCx	407	-	-	60	-	\$ 147	\$ 2,361	16.0
G67024006	7024	Village Housing C2	Daylighting Controls	271	-	-	(2)	-	\$ 176	\$ 6,967	39.6
G67024403	7024	Village Housing C2	Deep Lighting Retrofit	5,296	0.7	-	-	-	\$ 874	\$ 7,842	9.0
G67025002A	7025	Village Housing C5	Replace HHW Boiler with Heat Pump	(2,528)	(5.4)	-	597	-	\$ 587	\$ 25,559	43.5
G67025201	7025	Village Housing C5	Demand Based Scheduling	400	-	-	42	-	\$ 124	\$ 5,186	42.0
G67025903	7025	Village Housing C5	Controls	-	-	1,493	-	-	\$ 31	\$ 875	28.6
G67025704	7025	Village Housing C5	MBCx	407	-	-	60	-	\$ 147	\$ 2,361	16.0
G67025006	7025	Village Housing C5	Daylighting Controls	271	-	-	(2)	-	\$ 176	\$ 6,967	39.6
G67025403	7025	Village Housing C5	Deep Lighting Retrofit	5,296	0.7	-	-	-	\$ 874	\$ 7,842	9.0
G67026002A	7026	Village Housing C6	Replace HHW Boiler with Heat Pump	(2,528)	(5.4)	-	597	-	\$ 587	\$ 25,559	43.5
G67026201	7026	Village Housing C6	Demand Based Scheduling	400	-	-	42	-	\$ 124	\$ 5,186	42.0
G67026903	7026	Village Housing C6	Controls	-	-	1,493	-	-	\$ 31	\$ 875	28.6
G67026704	7026	Village Housing C6	MBCx	407	-	-	60	-	\$ 147	\$ 2,361	16.0
G67026006	7026	Village Housing C6	Daylighting Controls	271	-	-	(2)	-	\$ 176	\$ 6,967	39.6
G67026403	7026	Village Housing C6	Deep Lighting Retrofit	5,296	0.7	-	-	-	\$ 874	\$ 7,842	9.0
G67027002A	7027	Village Housing E2	Replace HHW Boiler with Heat Pump	(2,528)	(5.4)	-	597	-	\$ 587	\$ 25,559	43.5
G67027201	7027	Village Housing E2	Demand Based Scheduling	400	-	-	42	-	\$ 124	\$ 5,186	42.0
G67027903	7027	Village Housing E2	Controls	-	-	1,493	-	-	\$ 31	\$ 875	28.6
G67027704	7027	Village Housing E2	MBCx	407	-	-	60	-	\$ 147	\$ 2,361	16.0
G67027006	7027	Village Housing E2	Daylighting Controls	271	-	-	(2)	-	\$ 176	\$ 6,967	39.6
G67027403	7027	Village Housing E2	Deep Lighting Retrofit	5,296	0.7	-	-	-	\$ 874	\$ 7,842	9.0
G67028002A	7028	Village Housing C1	Replace HHW Boiler with Heat Pump	(1,556)	(3.3)	-	367	-	\$ 361	\$ 15,729	43.5
G67028201	7028	Village Housing C1	Demand Based Scheduling	246	-	-	26	-	\$ 76	\$ 3,192	42.0
G67028903	7028	Village Housing C1	Controls	-	-	919	-	-	\$ 19	\$ 539	28.6
G67028704	7028	Village Housing C1	MBCx	251	-	-	37	-	\$ 91	\$ 1,453	16.0
G67028006	7028	Village Housing C1	Daylighting Controls	167	-	-	(1)	-	\$ 108	\$ 4,288	39.6
G67028403	7028	Village Housing C1	Deep Lighting Retrofit	3,259	0.4	-	-	-	\$ 538	\$ 4,826	9.0
G67030002A	7030	Village Housing D1	Replace HHW Boiler with Heat Pump	(2,528)	(5.4)	-	597	-	\$ 587	\$ 25,559	43.5
G67030201	7030	Village Housing D1	Demand Based Scheduling	400	-	-	42	-	\$ 124	\$ 5,186	42.0
G67030903	7030	Village Housing D1	Controls	-	-	1,493	-	-	\$ 31	\$ 875	28.6
G67030704	7030	Village Housing D1	MBCx	407	-	-	60	-	\$ 147	\$ 2,361	16.0

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G67030006	7030	Village Housing D1	Daylighting Controls	271	-	-	(2)	-	\$ 176	\$ 6,967	39.6
G67030403	7030	Village Housing D1	Deep Lighting Retrofit	5,296	0.7	-	-	-	\$ 874	\$ 7,842	9.0
G67033002A	7033	Village Dining	Replace HHW Boiler with Heat Pump	(1,425)	(3.1)	-	336	-	\$ 331	\$ 14,404	43.5
G67033201	7033	Village Dining	Demand Based Scheduling	225	-	-	24	-	\$ 70	\$ 2,923	42.0
G67033903	7033	Village Dining	Controls	-	-	841	-	-	\$ 17	\$ 493	28.6
G67033704	7033	Village Dining	MBCx	230	-	-	34	-	\$ 83	\$ 1,331	16.0
G67033006	7033	Village Dining	Daylighting Controls	153	-	-	(1)	-	\$ 99	\$ 3,926	39.6
G67033403	7033	Village Dining	Deep Lighting Retrofit	2,984	0.4	-	-	-	\$ 493	\$ 4,419	9.0
G67127701A	7127	Cowell College Scholars House	Condensing Boiler Retrofit	-	-	-	393	-	\$ 1,425	\$ 37,957	26.6
G67127002A	7127	Cowell College Scholars House	Replace HHW Boiler with Heat Pump	(6,935)	(14.9)	-	1,636	-	\$ 1,611	\$ 70,110	43.5
G67127201	7127	Cowell College Scholars House	Demand Based Scheduling	1,096	-	-	116	-	\$ 339	\$ 14,226	42.0
G67127903	7127	Cowell College Scholars House	Controls	-	-	4,095	-	-	\$ 84	\$ 2,401	28.6
G67127704	7127	Cowell College Scholars House	MBCx	1,117	-	-	164	-	\$ 404	\$ 6,477	16.0
G67127006	7127	Cowell College Scholars House	Daylighting Controls	744	-	-	(6)	-	\$ 482	\$ 19,112	39.6
G67127403	7127	Cowell College Scholars House	Deep Lighting Retrofit	14,527	1.9	-	-	-	\$ 2,398	\$ 21,510	9.0
G67128002A	7128	Cowell College House	Replace HHW Boiler with Heat Pump	(6,396)	(13.8)	-	1,509	-	\$ 1,486	\$ 64,663	43.5
G67128201	7128	Cowell College House	Demand Based Scheduling	1,011	-	-	107	-	\$ 312	\$ 13,121	42.0
G67128903	7128	Cowell College House	Controls	-	-	3,777	-	-	\$ 77	\$ 2,215	28.6
G67128704	7128	Cowell College House	MBCx	1,031	-	-	151	-	\$ 372	\$ 5,974	16.0
G67128006	7128	Cowell College House	Daylighting Controls	686	-	-	(5)	-	\$ 445	\$ 17,627	39.6
G67128403	7128	Cowell College House	Deep Lighting Retrofit	13,398	1.7	-	-	-	\$ 2,212	\$ 19,839	9.0
G67160002A	7160	Crown College House	Replace HHW Boiler with Heat Pump	(7,425)	(16.0)	-	1,752	-	\$ 1,725	\$ 75,062	43.5
G67160201	7160	Crown College House	Demand Based Scheduling	1,173	-	-	124	-	\$ 363	\$ 15,231	42.0
G67160903	7160	Crown College House	Controls	-	-	4,384	-	-	\$ 90	\$ 2,571	28.6
G67160704	7160	Crown College House	MBCx	1,196	-	-	175	-	\$ 432	\$ 6,934	16.0
G67160006	7160	Crown College House	Daylighting Controls	796	-	-	(6)	-	\$ 516	\$ 20,462	39.6
G67160403	7160	Crown College House	Deep Lighting Retrofit	15,553	2.0	-	-	-	\$ 2,567	\$ 23,030	9.0
G67161002A	7161	Crown College Preceptors Apar	Replace HHW Boiler with Heat Pump	(1,606)	(3.5)	-	379	-	\$ 373	\$ 16,239	43.5
G67161201	7161	Crown College Preceptors Apar	Demand Based Scheduling	254	-	-	27	-	\$ 78	\$ 3,295	42.0
G67161903	7161	Crown College Preceptors Apar	Controls	-	-	948	-	-	\$ 19	\$ 556	28.6
G67161704	7161	Crown College Preceptors Apar	MBCx	259	-	-	38	-	\$ 94	\$ 1,500	16.0
G67161006	7161	Crown College Preceptors Apar	Daylighting Controls	172	-	-	(1)	-	\$ 112	\$ 4,427	39.6
G67161403	7161	Crown College Preceptors Apar	Deep Lighting Retrofit	3,365	0.4	-	-	-	\$ 555	\$ 4,982	9.0
G67173002A	7173	Stevenson College House	Replace HHW Boiler with Heat Pump	(5,305)	(11.4)	-	1,252	-	\$ 1,232	\$ 53,638	43.5
G67173201	7173	Stevenson College House	Demand Based Scheduling	838	-	-	89	-	\$ 259	\$ 10,884	42.0
G67173903	7173	Stevenson College House	Controls	-	-	3,133	-	-	\$ 64	\$ 1,837	28.6
G67173704	7173	Stevenson College House	MBCx	855	-	-	125	-	\$ 309	\$ 4,955	16.0
G67173006	7173	Stevenson College House	Daylighting Controls	569	-	-	(4)	-	\$ 369	\$ 14,622	39.6
G67173403	7173	Stevenson College House	Deep Lighting Retrofit	11,114	1.4	-	-	-	\$ 1,835	\$ 16,457	9.0
G67174002A	7174	Stevenson Preceptor House	Replace HHW Boiler with Heat Pump	(1,497)	(3.2)	-	353	-	\$ 348	\$ 15,132	43.5
G67174201	7174	Stevenson Preceptor House	Demand Based Scheduling	237	-	-	25	-	\$ 73	\$ 3,070	42.0
G67174903	7174	Stevenson Preceptor House	Controls	-	-	884	-	-	\$ 18	\$ 518	28.6
G67174704	7174	Stevenson Preceptor House	MBCx	241	-	-	35	-	\$ 87	\$ 1,398	16.0
G67174006	7174	Stevenson Preceptor House	Daylighting Controls	161	-	-	(1)	-	\$ 104	\$ 4,125	39.6
G67174403	7174	Stevenson Preceptor House	Deep Lighting Retrofit	3,135	0.4	-	-	-	\$ 518	\$ 4,643	9.0
G67183002A	7183	Merrill College House A	Replace HHW Boiler with Heat Pump	(68,525)	(147.5)	-	16,170	-	\$ 15,918	\$ 692,783	43.5
G67183201	7183	Merrill College House A	Demand Based Scheduling	10,830	-	-	1,146	-	\$ 3,348	\$ 140,577	42.0
G67183903	7183	Merrill College House A	Controls	-	-	40,464	-	-	\$ 829	\$ 23,730	28.6

UC Santa Cruz Climate and Energy Strategy
Energy Efficiency Building Audit Results
Project List

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G67183704	7183	Merrill College House A	MBCx	11,041	-	-	1,619	-	\$ 3,989	\$ 64,002	16.0
G67183006	7183	Merrill College House A	Daylighting Controls	7,351	-	-	(55)	-	\$ 4,766	\$ 188,850	39.6
G67183403	7183	Merrill College House A	Deep Lighting Retrofit	143,547	18.6	-	-	-	\$ 23,695	\$ 212,553	9.0
G67186002A	7186	Merrill College Common	Replace HHW Boiler with Heat Pump	(1,576)	(3.4)	-	372	-	\$ 366	\$ 15,933	43.5
G67186201	7186	Merrill College Common	Demand Based Scheduling	249	-	-	26	-	\$ 77	\$ 3,233	42.0
G67186903	7186	Merrill College Common	Controls	-	-	931	-	-	\$ 19	\$ 546	28.6
G67186704	7186	Merrill College Common	MBCx	254	-	-	37	-	\$ 92	\$ 1,472	16.0
G67186006	7186	Merrill College Common	Daylighting Controls	169	-	-	(1)	-	\$ 110	\$ 4,343	39.6
G67186403	7186	Merrill College Common	Deep Lighting Retrofit	3,301	0.4	-	-	-	\$ 545	\$ 4,888	9.0
G67192002A	7192	Merrill College House C	Replace HHW Boiler with Heat Pump	(11,063)	(23.8)	-	2,611	-	\$ 2,570	\$ 111,850	43.5
G67192201	7192	Merrill College House C	Demand Based Scheduling	1,748	-	-	185	-	\$ 540	\$ 22,696	42.0
G67192903	7192	Merrill College House C	Controls	-	-	6,533	-	-	\$ 134	\$ 3,831	28.6
G67192704	7192	Merrill College House C	MBCx	1,783	-	-	261	-	\$ 644	\$ 10,333	16.0
G67192006	7192	Merrill College House C	Daylighting Controls	1,187	-	-	(9)	-	\$ 769	\$ 30,490	39.6
G67192403	7192	Merrill College House C	Deep Lighting Retrofit	23,176	3.0	-	-	-	\$ 3,826	\$ 34,317	9.0
G67193002A	7193	Merrill College House D	Replace HHW Boiler with Heat Pump	(9,908)	(21.3)	-	2,338	-	\$ 2,302	\$ 100,169	43.5
G67193201	7193	Merrill College House D	Demand Based Scheduling	1,566	-	-	166	-	\$ 484	\$ 20,326	42.0
G67193903	7193	Merrill College House D	Controls	-	-	5,851	-	-	\$ 120	\$ 3,431	28.6
G67193704	7193	Merrill College House D	MBCx	1,596	-	-	234	-	\$ 577	\$ 9,254	16.0
G67193006	7193	Merrill College House D	Daylighting Controls	1,063	-	-	(8)	-	\$ 689	\$ 27,306	39.6
G67193403	7193	Merrill College House D	Deep Lighting Retrofit	20,755	2.7	-	-	-	\$ 3,426	\$ 30,733	9.0
G67307002A	7307	Merrill College House	Replace HHW Boiler with Heat Pump	(6,206)	(13.4)	-	1,464	-	\$ 1,442	\$ 62,741	43.5
G67307201	7307	Merrill College House	Demand Based Scheduling	981	-	-	104	-	\$ 303	\$ 12,731	42.0
G67307903	7307	Merrill College House	Controls	-	-	3,665	-	-	\$ 75	\$ 2,149	28.6
G67307704	7307	Merrill College House	MBCx	1,000	-	-	147	-	\$ 361	\$ 5,796	16.0
G67307006	7307	Merrill College House	Daylighting Controls	666	-	-	(5)	-	\$ 432	\$ 17,103	39.6
G67307403	7307	Merrill College House	Deep Lighting Retrofit	13,000	1.7	-	-	-	\$ 2,146	\$ 19,249	9.0
G67422002A	7422	Oakes College House	Replace HHW Boiler with Heat Pump	(4,820)	(10.4)	-	1,137	-	\$ 1,120	\$ 48,730	43.5
G67422201	7422	Oakes College House	Demand Based Scheduling	762	-	-	81	-	\$ 235	\$ 9,888	42.0
G67422903	7422	Oakes College House	Controls	-	-	2,846	-	-	\$ 58	\$ 1,669	28.6
G67422704	7422	Oakes College House	MBCx	777	-	-	114	-	\$ 281	\$ 4,502	16.0
G67422006	7422	Oakes College House	Daylighting Controls	517	-	-	(4)	-	\$ 335	\$ 13,284	39.6
G67422403	7422	Oakes College House	Deep Lighting Retrofit	10,097	1.3	-	-	-	\$ 1,667	\$ 14,951	9.0
G67468002A	7468	Porter College House	Replace HHW Boiler with Heat Pump	(5,121)	(11.0)	-	1,208	-	\$ 1,190	\$ 51,774	43.5
G67468201	7468	Porter College House	Demand Based Scheduling	809	-	-	86	-	\$ 250	\$ 10,506	42.0
G67468903	7468	Porter College House	Controls	-	-	3,024	-	-	\$ 62	\$ 1,773	28.6
G67468704	7468	Porter College House	MBCx	825	-	-	121	-	\$ 298	\$ 4,783	16.0
G67468006	7468	Porter College House	Daylighting Controls	549	-	-	(4)	-	\$ 356	\$ 14,113	39.6
G67468403	7468	Porter College House	Deep Lighting Retrofit	10,728	1.4	-	-	-	\$ 1,771	\$ 15,885	9.0
G67489002A	7489	RV Park Recreation Building	Replace HHW Boiler with Heat Pump	(1,379)	(3.0)	-	325	-	\$ 320	\$ 13,938	43.5
G67489201	7489	RV Park Recreation Building	Demand Based Scheduling	218	-	-	23	-	\$ 67	\$ 2,828	42.0
G67489903	7489	RV Park Recreation Building	Controls	-	-	814	-	-	\$ 17	\$ 477	28.6
G67489704	7489	RV Park Recreation Building	MBCx	222	-	-	33	-	\$ 80	\$ 1,288	16.0
G67489006	7489	RV Park Recreation Building	Daylighting Controls	148	-	-	(1)	-	\$ 96	\$ 3,799	39.6
G67489403	7489	RV Park Recreation Building	Deep Lighting Retrofit	2,888	0.4	-	-	-	\$ 477	\$ 4,276	9.0
G67746701A	7746	Oakes College Dorm 1	Condensing Boiler Retrofit	-	-	-	1,276	-	\$ 4,633	\$ 123,373	26.6
G67746002A	7746	Oakes College Dorm 1	Replace HHW Boiler with Heat Pump	(22,540)	(48.5)	-	5,319	-	\$ 5,236	\$ 227,879	43.5
G67746201	7746	Oakes College Dorm 1	Demand Based Scheduling	3,562	-	-	377	-	\$ 1,101	\$ 46,240	42.0

UC Santa Cruz Climate and Energy Strategy
Energy Efficiency Building Audit Results
Project List

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G67746903	7746	Oakes College Dorm 1	Controls	-	-	13,310	-	-	\$ 273	\$ 7,805	28.6
G67746704	7746	Oakes College Dorm 1	MBCx	3,632	-	-	533	-	\$ 1,312	\$ 21,052	16.0
G67746006	7746	Oakes College Dorm 1	Daylighting Controls	2,418	-	-	(18)	-	\$ 1,568	\$ 62,119	39.6
G67746403	7746	Oakes College Dorm 1	Deep Lighting Retrofit	47,217	6.1	-	-	-	\$ 7,794	\$ 69,916	9.0
G67747701A	7747	Oakes College Dorm 2	Condensing Boiler Retrofit	-	-	-	1,276	-	\$ 4,633	\$ 123,373	26.6
G67747002A	7747	Oakes College Dorm 2	Replace HHW Boiler with Heat Pump	(22,540)	(48.5)	-	5,319	-	\$ 5,236	\$ 227,879	43.5
G67747201	7747	Oakes College Dorm 2	Demand Based Scheduling	3,562	-	-	377	-	\$ 1,101	\$ 46,240	42.0
G67747903	7747	Oakes College Dorm 2	Controls	-	-	13,310	-	-	\$ 273	\$ 7,805	28.6
G67747704	7747	Oakes College Dorm 2	MBCx	3,632	-	-	533	-	\$ 1,312	\$ 21,052	16.0
G67747006	7747	Oakes College Dorm 2	Daylighting Controls	2,418	-	-	(18)	-	\$ 1,568	\$ 62,119	39.6
G67747403	7747	Oakes College Dorm 2	Deep Lighting Retrofit	47,217	6.1	-	-	-	\$ 7,794	\$ 69,916	9.0
G67748701A	7748	Oakes College Dorm 3	Condensing Boiler Retrofit	-	-	-	1,274	-	\$ 4,624	\$ 123,152	26.6
G67748002A	7748	Oakes College Dorm 3	Replace HHW Boiler with Heat Pump	(22,500)	(48.4)	-	5,309	-	\$ 5,227	\$ 227,471	43.5
G67748201	7748	Oakes College Dorm 3	Demand Based Scheduling	3,556	-	-	376	-	\$ 1,099	\$ 46,158	42.0
G67748903	7748	Oakes College Dorm 3	Controls	-	-	13,286	-	-	\$ 272	\$ 7,791	28.6
G67748704	7748	Oakes College Dorm 3	MBCx	3,625	-	-	532	-	\$ 1,310	\$ 21,015	16.0
G67748006	7748	Oakes College Dorm 3	Daylighting Controls	2,414	-	-	(18)	-	\$ 1,565	\$ 62,008	39.6
G67748403	7748	Oakes College Dorm 3	Deep Lighting Retrofit	47,133	6.1	-	-	-	\$ 7,780	\$ 69,790	9.0
G67749701A	7749	Oakes College Dorm 4	Condensing Boiler Retrofit	-	-	-	1,304	-	\$ 4,733	\$ 126,046	26.6
G67749002A	7749	Oakes College Dorm 4	Replace HHW Boiler with Heat Pump	(23,028)	(49.6)	-	5,434	-	\$ 5,349	\$ 232,816	43.5
G67749201	7749	Oakes College Dorm 4	Demand Based Scheduling	3,639	-	-	385	-	\$ 1,125	\$ 47,242	42.0
G67749903	7749	Oakes College Dorm 4	Controls	-	-	13,598	-	-	\$ 278	\$ 7,975	28.6
G67749704	7749	Oakes College Dorm 4	MBCx	3,711	-	-	544	-	\$ 1,341	\$ 21,508	16.0
G67749006	7749	Oakes College Dorm 4	Daylighting Controls	2,470	-	-	(19)	-	\$ 1,602	\$ 63,465	39.6
G67749403	7749	Oakes College Dorm 4	Deep Lighting Retrofit	48,240	6.3	-	-	-	\$ 7,963	\$ 71,430	9.0
G67757002A	7757	College Eight Dining Room	Replace HHW Boiler with Heat Pump	(10,572)	(22.8)	-	2,495	-	\$ 2,456	\$ 106,883	43.5
G67757201	7757	College Eight Dining Room	Demand Based Scheduling	1,671	-	-	177	-	\$ 516	\$ 21,688	42.0
G67757903	7757	College Eight Dining Room	Controls	-	-	6,243	-	-	\$ 128	\$ 3,661	28.6
G67757704	7757	College Eight Dining Room	MBCx	1,703	-	-	250	-	\$ 615	\$ 9,874	16.0
G67757410	7757	College Eight Dining Room	Kitchen Hood DCV	3,393	0.6	-	198	-	\$ 1,050	\$ 22,249	21.2
G67757006	7757	College Eight Dining Room	Daylighting Controls	1,134	-	-	(8)	-	\$ 735	\$ 29,136	39.6
G67757403	7757	College Eight Dining Room	Deep Lighting Retrofit	22,147	2.9	-	-	-	\$ 3,656	\$ 32,793	9.0
G67758701A	7758	College Eight Dorm A-Garden	Condensing Boiler Retrofit	-	-	-	407	-	\$ 1,477	\$ 39,345	26.6
G67758002A	7758	College Eight Dorm A-Garden	Replace HHW Boiler with Heat Pump	(7,188)	(15.5)	-	1,696	-	\$ 1,670	\$ 72,673	43.5
G67758201	7758	College Eight Dorm A-Garden	Demand Based Scheduling	1,136	-	-	120	-	\$ 351	\$ 14,747	42.0
G67758903	7758	College Eight Dorm A-Garden	Controls	-	-	4,245	-	-	\$ 87	\$ 2,489	28.6
G67758704	7758	College Eight Dorm A-Garden	MBCx	1,158	-	-	170	-	\$ 418	\$ 6,714	16.0
G67758006	7758	College Eight Dorm A-Garden	Daylighting Controls	771	-	-	(6)	-	\$ 500	\$ 19,810	39.6
G67758403	7758	College Eight Dorm A-Garden	Deep Lighting Retrofit	15,058	2.0	-	-	-	\$ 2,486	\$ 22,297	9.0
G67760701A	7760	College Eight Dorm B-Garden	Condensing Boiler Retrofit	-	-	-	465	-	\$ 1,688	\$ 44,951	26.6
G67760002A	7760	College Eight Dorm B-Garden	Replace HHW Boiler with Heat Pump	(8,212)	(17.7)	-	1,938	-	\$ 1,908	\$ 83,028	43.5
G67760201	7760	College Eight Dorm B-Garden	Demand Based Scheduling	1,298	-	-	137	-	\$ 401	\$ 16,848	42.0
G67760903	7760	College Eight Dorm B-Garden	Controls	-	-	4,849	-	-	\$ 99	\$ 2,844	28.6
G67760704	7760	College Eight Dorm B-Garden	MBCx	1,323	-	-	194	-	\$ 478	\$ 7,670	16.0
G67760006	7760	College Eight Dorm B-Garden	Daylighting Controls	881	-	-	(7)	-	\$ 571	\$ 22,633	39.6
G67760403	7760	College Eight Dorm B-Garden	Deep Lighting Retrofit	17,204	2.2	-	-	-	\$ 2,840	\$ 25,474	9.0
G67762701A	7762	College Eight Dorm C-Garden	Condensing Boiler Retrofit	-	-	-	465	-	\$ 1,688	\$ 44,951	26.6
G67762002A	7762	College Eight Dorm C-Garden	Replace HHW Boiler with Heat Pump	(8,212)	(17.7)	-	1,938	-	\$ 1,908	\$ 83,028	43.5

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 Energy Efficiency Building Audit Results
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G67762201	7762	College Eight Dorm C-Garden	Demand Based Scheduling	1,298	-	-	137	-	\$ 401	\$ 16,848	42.0
G67762903	7762	College Eight Dorm C-Garden	Controls	-	-	4,849	-	-	\$ 99	\$ 2,844	28.6
G67762704	7762	College Eight Dorm C-Garden	MBCx	1,323	-	-	194	-	\$ 478	\$ 7,670	16.0
G67762006	7762	College Eight Dorm C-Garden	Daylighting Controls	881	-	-	(7)	-	\$ 571	\$ 22,633	39.6
G67762403	7762	College Eight Dorm C-Garden	Deep Lighting Retrofit	17,204	2.2	-	-	-	\$ 2,840	\$ 25,474	9.0
G67764701A	7764	College Eight Dorm D-Garden	Condensing Boiler Retrofit	-	-	-	407	-	\$ 1,477	\$ 39,345	26.6
G67764002A	7764	College Eight Dorm D-Garden	Replace HHW Boiler with Heat Pump	(7,188)	(15.5)	-	1,696	-	\$ 1,670	\$ 72,673	43.5
G67764201	7764	College Eight Dorm D-Garden	Demand Based Scheduling	1,136	-	-	120	-	\$ 351	\$ 14,747	42.0
G67764903	7764	College Eight Dorm D-Garden	Controls	-	-	4,245	-	-	\$ 87	\$ 2,489	28.6
G67764704	7764	College Eight Dorm D-Garden	MBCx	1,158	-	-	170	-	\$ 418	\$ 6,714	16.0
G67764006	7764	College Eight Dorm D-Garden	Daylighting Controls	771	-	-	(6)	-	\$ 500	\$ 19,810	39.6
G67764403	7764	College Eight Dorm D-Garden	Deep Lighting Retrofit	15,058	2.0	-	-	-	\$ 2,486	\$ 22,297	9.0
G67767002A	7767	College Eight Cafe Building	Replace HHW Boiler with Heat Pump	(6,297)	(13.6)	-	1,486	-	\$ 1,463	\$ 63,658	43.5
G67767201	7767	College Eight Cafe Building	Demand Based Scheduling	995	-	-	105	-	\$ 308	\$ 12,917	42.0
G67767903	7767	College Eight Cafe Building	Controls	-	-	3,718	-	-	\$ 76	\$ 2,180	28.6
G67767704	7767	College Eight Cafe Building	MBCx	1,015	-	-	149	-	\$ 367	\$ 5,881	16.0
G67767410	7767	College Eight Cafe Building	Kitchen Hood DCV	2,021	0.3	-	118	-	\$ 625	\$ 13,251	21.2
G67767006	7767	College Eight Cafe Building	Daylighting Controls	675	-	-	(5)	-	\$ 438	\$ 17,353	39.6
G67767403	7767	College Eight Cafe Building	Deep Lighting Retrofit	13,190	1.7	-	-	-	\$ 2,177	\$ 19,531	9.0
G67768002A	7768	College Eight Student Common	Replace HHW Boiler with Heat Pump	(4,274)	(9.2)	-	1,009	-	\$ 993	\$ 43,211	43.5
G67768201	7768	College Eight Student Common	Demand Based Scheduling	675	-	-	71	-	\$ 209	\$ 8,768	42.0
G67768903	7768	College Eight Student Common	Controls	-	-	2,524	-	-	\$ 52	\$ 1,480	28.6
G67768704	7768	College Eight Student Common	MBCx	689	-	-	101	-	\$ 249	\$ 3,992	16.0
G67768006	7768	College Eight Student Common	Daylighting Controls	458	-	-	(3)	-	\$ 297	\$ 11,779	39.6
G67768403	7768	College Eight Student Common	Deep Lighting Retrofit	8,953	1.2	-	-	-	\$ 1,478	\$ 13,257	9.0
Grand Totals (include overlapping savings, excludes incentive cost caps)				18,187,239	(6,075.5)	172,545,381	1,500,113	133,436	\$ 8,214,121	\$ 150,550,920	18.3

UC Santa Cruz Climate and Energy Strategy
 Energy Efficiency Building Audit Results
 Potential Project Bundles by Year

SEP ID	Building CAAN	Building Name	Project Name	Building Electric Energy Savings (kWh/yr)	Peak Electric Demand Savings (kW)	Building HW Energy Savings (kBtu/yr)	Building Gas Energy Savings (therms/yr)	Building Condenser Water Energy Savings (ton-hr/yr)	Annual Energy Cost Savings (\$/yr)	Net Project Cost (\$)	Net Simple Payback Period (yrs)	Default Year
2016 Bundle												
G3712401	7124	Cowell College Prescott House	MBCx	2,664	-	-	335	-	\$ 594	\$ 21,472	20.6	2016
G3712403	7124	Cowell College Prescott House	VFD for HHW pump	10,781	0	-	-	-	\$ 1,455	\$ 433,431	42.6	2016
G3714401	7144	Stevenson College Commons	Deep HVAC	27,194	8	-	9,000	-	\$ 9,971	\$ 353,781	20.4	2016
G3718001	7180	Natural Sciences 2 Annex	Demand Based Scheduling	22,789	-	7,490,475	-	-	\$ 68,618	\$ 33,871	0.5	2016
G3718002	7180	Natural Sciences 2 Annex	EF-02 Timeclock	7,370	-	-	-	-	\$ 995	\$ 3,878	3.8	2016
G3718003	7180	Natural Sciences 2 Annex	Deep Lighting	40,100	5	-	-	-	\$ 5,414	\$ 37,786	6.0	2016
G3WIDE02	WIDE	Campuswide	Unplug Refrigerators for Summer Break	1,290	1	-	-	-	\$ 174	\$ 82	0.5	2016
Subtotal 2016 Bundle				2016 Debt Service Over Energy Cost Avoidance Ratio =				0.98	\$ 87,222	\$ 884,302		

UC Santa Cruz Climate and Energy Strategy
 Energy Efficiency Building Audit Results
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2017 Bundle												
G3713404	7134	Cowell College Commons	MBCx	20,067	-	-	4,579	-	\$ 5,915	\$ 110,526	13.3	2017
G3713703	7137	Stevenson College House 3	Deep HVAC	8,089	2	-	2,025	-	\$ 2,510	\$ 350,493	36.5	2017
G3713705	7137	Stevenson College House 3	Interlock Danfoss Valves with Windows	-	-	-	1,350	-	\$ 945	\$ 49,151	25.1	2017
G3714504A	7145	McHenry Library	MBCx	370,946	-	257,450	-	-	\$ 52,330	\$ 619,850	9.3	2017
G3717503	7175	Communications Building	Data Center Retrofit	437,793	50	-	-	-	\$ 59,102	\$ 302,014	4.5	2017
G3717506	7175	Communications Building	MBCx	118,871	15	57,837	32	-	\$ 16,576	\$ 26,046	1.5	2017
G3718501	7185	Merrill College Dining Common	2638 Merrill Cultural Center Renovations (Deep Lig	7,551	3	-	-	-	\$ 1,019	\$ 349,279	43.4	2017
G3718502	7185	Merrill College Dining Common	2638 Merrill Cultural Center Renovations (Deep HV	4,510	1	-	4,800	-	\$ 3,969	\$ 778,993	39.6	2017
G3719404	7194	Jack Baskin Engineering Building	Data Center Retrofit	159,415	18	-	-	-	\$ 21,521	\$ 282,123	10.1	2017
G3719407	7194	Jack Baskin Engineering Building	MBCx	383,028	50	164,400	0	-	\$ 53,148	\$ 694,374	10.1	2017
G3720001A	7200	Cowell Student Health Center	Reduce Morning Warmup Setpoints	-	-	-	3,269	-	\$ 2,288	\$ 861	0.4	2017
G3720003B	7200	Cowell Student Health Center	HHW/DHW Boiler Upgrade	-	-	-	3,054	-	\$ 2,138	\$ 113,095	20.1	2017
G3720004C	7200	Cowell Student Health Center	Demand Controlled Ventilation	8,576	-	-	5,448	-	\$ 4,971	\$ 67,018	10.4	2017
G3720005	7200	Cowell Student Health Center	Delamp	13,607	5	-	-	-	\$ 1,837	\$ 4,844	2.5	2017
G3720006	7200	Cowell Student Health Center	Daylighting Controls	3,666	-	-	(27)	-	\$ 476	\$ 94,185	39.6	2017
G3720101	7201	Cowell Student Health Center Addi	Reduce Morning Warmup Setpoints	-	-	-	630	-	\$ 441	\$ 861	1.9	2017
G3720102	7201	Cowell Student Health Center Addi	Lockout heating when windows are open	-	-	-	420	-	\$ 294	\$ 10,128	19.4	2017
G3720103	7201	Cowell Student Health Center Addi	Demand Controlled Ventilation	5,451	-	-	630	-	\$ 1,177	\$ 34,006	17.7	2017
G3720104	7201	Cowell Student Health Center Addi	MBCx	4,130	-	-	262	-	\$ 741	\$ 13,967	13.3	2017
G3730502	7305	Porter College Dining Common	Deep HVAC	82,023	23	-	6,800	-	\$ 15,833	\$ 523,582	19.5	2017
G3741905	7419	Oakes College Tutorial Commons	Kitchen Hood DCV	4,100	1	-	200	-	\$ 694	\$ 11,334	12.2	2017
G3770001	7700	Long Marine Lab Dolphinarium	Pool Heat Exchanger	-	-	-	44,307	-	\$ 31,015	\$ 107,900	3.5	2017
G3774303	7743	OPERS Offices & Support Space	Pool Cover	-	-	-	10,542	-	\$ 7,379	\$ 27,504	3.7	2017
G3775601A	7756	College Eight Kitchen	Boiler Retrofit	-	-	-	4,022	-	\$ 2,815	\$ 83,575	13.4	2017
G3775903B	7759	College Eight Dorm A-L-Building	MBCx	3,214	-	-	458	-	\$ 754	\$ 21,799	17.9	2017
G3791906	7919	Physical Sciences Building	MBCx	160,921	-	64,150	3	7,102	\$ 23,055	\$ 312,461	10.4	2017
G3794401	7944	2300 Delaware Avenue A/B	Parking Lot LED Retrofit	13,579	-	-	-	-	\$ 1,833	\$ 27,374	11.2	2017
G3794402	7944	2300 Delaware Avenue A/B	MBCx	60,097	-	-	1,565	-	\$ 9,208	\$ 93,006	8.2	2017
G3794403	7944	2300 Delaware Avenue A/B	Raise Server Room Temp Setpoints	6,570	1	-	-	-	\$ 887	\$ 112	0.1	2017
G3WIDE05	WIDE	Campuswide	Campuswide Incandescent/Halogen Lighting Retro	69,143	31	-	-	-	\$ 9,334	\$ 66,919	6.3	2017
G3WIDE06	WIDE	Campuswide	Porter & Crown Kitchen Shutdown	56,758	-	-	-	-	\$ 7,662	\$ 775	0.1	2017
G3DIST09A	DIST	Campuswide	Cooling Tower Staging & Optimization	183,402	-	-	-	-	\$ 24,759	\$ 19,304	0.7	2017
G4714501A	7145	McHenry Library	Lighting Conversion Phase II	188,290	15	-	-	-	\$ 25,890	\$ 482,022	13.2	2017
G4792101	7921	Social Sciences II	Hallway Lighting Retrofit	56,081	7	-	-	-	\$ 7,711	\$ 58,469	6.4	2017
G4717901A	7179	Natural Sciences II	Hallway Lighting Retrofit	15,330	2	-	-	-	\$ 2,108	\$ 29,601	10.7	2017
G4714601	7146	Central Heating Plant	Fackler Plant LED & Controls Conversion	27,160	3	-	-	-	\$ 3,734	\$ 24,119	5.5	2017
G4711601A	7116	Thimann Lab	Add VFDs to CHW Pump	8,420	7	-	-	-	\$ 1,158	\$ 7,979	5.9	2017
G4711602A	7116	Thimann Lab	Add VFDs to Process Heating Water Pump	8,420	7	-	-	-	\$ 1,158	\$ 7,979	5.9	2017
Subtotal 2017 Bundle				2017 Debt Service Over Energy Cost Avoidance Ratio =				1.37	\$ 408,384	\$ 5,807,628		
Cumulative Subtotal				2016 through 2017 Debt Service Over Energy Cost Avoidance Ratio =				1.30	\$ 495,606	\$ 6,691,929		

UC Santa Cruz Climate and Energy Strategy
 Energy Efficiency Building Audit Results
 Potential Project Bundles by Year

SEP ID	Building CAAN	Building Name	Project Name	Building Electric Energy Savings (kWh/yr)	Peak Electric Demand Savings (kW)	Building HW Energy Savings (kBtu/yr)	Building Gas Energy Savings (therms/yr)	Building Condenser Water Energy Savings (ton-hr/yr)	Annual Energy Cost Savings (\$/yr)	Net Project Cost (\$)	Simple Payback Period (yrs)	Default Year
2018 Bundle												
G3712404	7124	Cowell College Prescott House	Occupancy based operation for restroom Efs	14,917	-	-	-	-	\$ 2,014	\$ 32,687	11.9	2018
G3714402	7144	Stevenson College Commons	HVAC Occ Sensor / Demand Based Scheduling for	11,537	-	-	3,076	-	\$ 3,711	\$ 11,648	2.9	2018
G3714403	7144	Stevenson College Commons	MBCx	12,954	-	-	3,354	-	\$ 4,097	\$ 20,157	4.4	2018
G3714404A	7144	Stevenson College Commons	Deep Lighting	23,901	1	-	-	-	\$ 3,227	\$ 78,419	16.0	2018
G3715701	7157	Crown College Commons	Steam Boiler Retrofit	-	-	-	102	-	\$ 72	\$ 44,260	46.2	2018
G3715702B	7157	Crown College Commons	Convert to VAV	86,414	-	-	3,586	-	\$ 14,176	\$ 206,782	11.1	2018
G3715704	7157	Crown College Commons	Convert to 2-Way Valve	3,699	14	-	-	-	\$ 499	\$ 25,695	24.9	2018
G3715706A	7157	Crown College Commons	MH to LED Lighting Retrofit with Daylighting	6,444	2	-	(48)	-	\$ 836	\$ 19,879	15.7	2018
G3715708	7157	Crown College Commons	Air-to-Water Heat Pump	(80,302)	(141)	-	16,991	-	\$ 1,053	\$ 380,956	43.9	2018
G3718402	7184	Merrill College House B	Occupancy based control on AH-B1/EF-B1, AH-B2/	14,206	-	-	3,479	-	\$ 4,353	\$ 46,258	8.5	2018
G3719402A	7194	Jack Baskin Engineering Building	VAV Non-Labs	466,454	-	666,544	-	-	\$ 68,804	\$ 1,958,334	17.8	2018
G3719403	7194	Jack Baskin Engineering Building	2-Way Valve	4,699	5	-	-	-	\$ 634	\$ 447,166	46.6	2018
G3719405	7194	Jack Baskin Engineering Building	Replace Ultra Low Freezers	53,604	6	-	-	-	\$ 7,237	\$ 682,621	32.3	2018
G3719406	7194	Jack Baskin Engineering Building	Deep Lighting	493,336	34	-	-	-	\$ 66,600	\$ 677,466	8.2	2018
G3730101	7301	Classroom Unit 1	MBCx	3,772	-	-	544	-	\$ 890	\$ 66,588	29.6	2018
G3730102A	7301	Classroom Unit 1	Condensing boiler with HHW reset	-	-	-	610	-	\$ 427	\$ 173,261	30.7	2018
G3730103	7301	Classroom Unit 1	VFD for HHW pump	955	-	-	-	-	\$ 129	\$ 140,325	47.7	2018
G3730104	7301	Classroom Unit 1	Occupancy-based AC control for projector room	9,845	-	-	-	-	\$ 1,329	\$ 15,222	9.1	2018
G3730105	7301	Classroom Unit 1	Deep Lighting Retrofit	40,565	4	-	-	-	\$ 5,476	\$ 68,829	10.0	2018
G3730106	7301	Classroom Unit 1	Automatic tstat control for convectors	-	-	-	958	-	\$ 670	\$ 7,880	9.3	2018
G3730107	7301	Classroom Unit 1	Add VFDs to SFs	8,041	-	-	2,661	-	\$ 2,948	\$ 314,349	33.7	2018
G3730401	7304	Porter College House B	MBCx	66,840	-	-	3,114	-	\$ 11,203	\$ 235,658	14.5	2018
G3741901A	7419	Oakes College Tutorial Commons	Condensing Boiler Retrofit	-	-	-	807	-	\$ 565	\$ 94,217	27.6	2018
G3741904B	7419	Oakes College Tutorial Commons	MBCx	1,252	-	-	361	-	\$ 422	\$ 50,046	34.9	2018
G3742101	7421	Oakes College Residence C11-15	MBCx	2,574	-	-	162	-	\$ 461	\$ 19,251	22.4	2018
G3742102	7421	Oakes College Residence C11-15	Install instantaneous GWH	-	-	-	144	-	\$ 101	\$ 11,598	34.6	2018
G3742103	7421	Oakes College Residence C11-15	Occupancy-based EF control for bathrooms	1,842	-	-	-	-	\$ 249	\$ 24,393	32.7	2018
G3742105	7421	Oakes College Residence C11-15	Occupancy controlled heating system	-	-	-	388	-	\$ 271	\$ 33,101	50.2	2018
G3775605	7756	College Eight Kitchen	MBCx	36,120	-	-	3,464	-	\$ 7,301	\$ 27,454	3.4	2018
G3791902A	7919	Physical Sciences Building	VAV_Lab Exhaust	418,629	5	-	-	-	\$ 56,515	\$ 6,605	0.4	2018
G3791903	7919	Physical Sciences Building	Controls	-	-	115,866	-	-	\$ 1,014	\$ 67,948	28.6	2018
G3791904	7919	Physical Sciences Building	Replace Ultra Low Freezers	65,764	8	-	-	-	\$ 8,878	\$ 619,437	28.7	2018
G3791905	7919	Physical Sciences Building	Server Room HVAC	12,811	2	-	-	-	\$ 1,729	\$ 46,558	17.1	2018
G3793202	7932	College Nine Residence Hall 2	HVAC Occ Sensor	23,926	-	-	4,446	-	\$ 6,342	\$ 139,517	13.5	2018
G3793307B	7933	College Nine Dining Hall	Deep Lighting Retrofit	81,794	8	-	-	-	\$ 11,042	\$ 198,322	12.9	2018
G3WIDE07	WIDE	Campuswide	Crown & Porter Kitchen Hood Shutdown	6,947	-	-	-	-	\$ 938	\$ 260	0.3	2018
G3WIDE09	WIDE	Campuswide	Pathway Lighting Retrofit	302,498	73	-	-	-	\$ 41,593	\$ 53,880	1.2	2018
G3DIST02	DIST	Campuswide	PVThermal at OPERS Pool	38,688	-	-	47,780	-	\$ 38,669	\$ 46,044	1.5	2018
Subtotal 2018 Bundle				2018 Debt Service Over Energy Cost Avoidance Ratio =				1.82	\$ 376,474	\$ 7,093,074		
Cumulative Subtotal				2016 through 2018 Debt Service Over Energy Cost Avoidance Ratio =				1.52	\$ 872,080	\$ 13,785,003		

UC Santa Cruz Climate and Energy Strategy
 Energy Efficiency Building Audit Results
 Potential Project Bundles by Year

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2019 Bundle												
G3715705	7157	Crown College Commons	MBCx	81,200	-	-	2,831	-	\$ 12,944	\$ 29,117	2.1	2019
G3715707B	7157	Crown College Commons	Deep Lighting	54,948	9	-	-	-	\$ 7,418	\$ 78,037	8.5	2019
G3715709	7157	Crown College Commons	Kitchen Hood DCV	26,400	7	-	1,600	-	\$ 4,684	\$ 118,932	16.6	2019
G3718401	7184	Merrill College House B	MBCx	8,128	-	-	1,590	-	\$ 2,210	\$ 69,331	18.9	2019
G3718404	7184	Merrill College House B	Seasonal Building Scheduling	13,547	-	-	2,650	-	\$ 3,684	\$ 18,624	4.4	2019
G3743502	7435	Fieldhouse West	MBCx	19,770	-	-	195	-	\$ 2,806	\$ 20,220	6.1	2019
G3743503A	7435	Fieldhouse West	Deep HVAC Retrofit	23,414	7	-	1,250	-	\$ 4,036	\$ 163,879	22.0	2019
G3774401	7744	Sinsheimer Laboratories	Deep Retrofit Smart Lab	802,869	-	3,649,177	-	-	\$ 140,318	\$ 2,472,311	13.1	2019
G3774402	7744	Sinsheimer Laboratories	Daylighting	3,713	-	-	-	-	\$ 501	\$ 49,431	32.7	2019
G3774403	7744	Sinsheimer Laboratories	Replace Ultra Low Freezers	112,153	13	-	-	-	\$ 15,141	\$ 986,585	27.9	2019
G3774404	7744	Sinsheimer Laboratories	Deep Lighting	321,330	21	-	-	-	\$ 43,380	\$ 377,218	7.2	2019
G3774405	7744	Sinsheimer Laboratories	MBCx	160,499	21	699,050	1,398	33,703	\$ 29,445	\$ 211,521	6.1	2019
G3775606	7756	College Eight Kitchen	Kitchen Hood DCV	35,000	6	-	2,100	-	\$ 6,195	\$ 96,263	11.7	2019
G3793305	7933	College Nine Dining Hall	MBCx	47,443	2	-	1,730	-	\$ 7,616	\$ 116,151	11.4	2019
G3DIST01A	DIST	Campuswide	Pre-Cool Cooling Tower Air	187,941	-	-	-	-	\$ 25,372	\$ 376,482	11.1	2019
G3DIST4bA	DIST	Campuswide	Reduce Condenser Water Temperature with Pony	711,307	115	-	-	-	\$ 96,026	\$ 532,708	5.5	2019
Subtotal 2019 Bundle				2019 Debt Service Over Energy Cost Avoidance Ratio =				1.37	\$ 401,776	\$ 5,716,809		
Cumulative Subtotal				2016 through 2019 Debt Service Over Energy Cost Avoidance Ratio =				1.47	\$ 1,273,856	\$ 19,501,812		

UC Santa Cruz Climate and Energy Strategy
 Energy Efficiency Building Audit Results
 Potential Project Bundles by Year

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2020 Bundle												
G3711501	7115	Hahn Student Services	MBCx	17,371	-	-	331	-	\$ 2,577	\$ 41,429	11.9	2020
G3711502	7115	Hahn Student Services	Deep Lighting Retrofit	78,874	5	-	-	-	\$ 10,648	\$ 142,094	10.4	2020
G3713406B	7134	Cowell College Commons	Deep Lighting Retrofit	73,042	7	-	-	-	\$ 9,861	\$ 184,665	13.3	2020
G3713410	7134	Cowell College Commons	Kitchen Hood DCV	20,600	4	-	1,200	-	\$ 3,621	\$ 135,102	21.2	2020
G3713704	7137	Stevenson College House 3	MBCx	3,087	-	-	453	-	\$ 734	\$ 17,893	16.0	2020
G3717501	7175	Communications Building	Deep HVAC	1,657,589	-	289,866	-	-	\$ 226,311	\$ 2,019,677	7.4	2020
G3717502	7175	Communications Building	IT Room	39,420	5	-	-	-	\$ 5,322	\$ 23,417	3.9	2020
G3717504	7175	Communications Building	Deep Lighting	99,187	8	-	-	-	\$ 13,390	\$ 167,309	9.9	2020
G3717505	7175	Communications Building	2-Way Valve	3,794	2	-	-	-	\$ 512	\$ 176,602	43.5	2020
G3718503A	7185	Merrill College Dining Common	MBCx	2,971	-	-	1,531	-	\$ 1,473	\$ 12,563	7.1	2020
G3730501	7305	Porter College Dining Common	MBCx	24,607	-	-	917	-	\$ 3,964	\$ 82,109	14.3	2020
G3737701	7377	Kresge College Academic Building	Demand Based Scheduling	3,917	-	-	649	-	\$ 983	\$ 86,789	25.9	2020
G3737702	7377	Kresge College Academic Building	Automatic t-stat control for convectors	-	-	-	195	-	\$ 136	\$ 43,407	43.1	2020
G3737704A	7377	Kresge College Academic Building	Condensing HHW/DHW boiler w/ HWST reset	-	-	-	545	-	\$ 382	\$ 98,231	29.4	2020
G3737705	7377	Kresge College Academic Building	VAV for WAFs	32,123	-	-	-	-	\$ 4,337	\$ 39,809	7.5	2020
G3737706B	7377	Kresge College Academic Building	Deep Lighting	65,218	10	-	-	-	\$ 8,804	\$ 68,528	6.7	2020
G3737707	7377	Kresge College Academic Building	MBCx	4,930	-	-	243	-	\$ 836	\$ 68,945	30.7	2020
G3737901	7379	Kresge College Assembly Building	Demand Based Scheduling	10,450	-	-	649	-	\$ 1,865	\$ 50,016	21.5	2020
G3737902	7379	Kresge College Assembly Building	Instantaneous Gas DHW Heater	-	-	-	216	-	\$ 151	\$ 4,235	17.6	2020
G3737903	7379	Kresge College Assembly Building	VAV for WAFs	36,126	-	-	4,134	-	\$ 7,771	\$ 198,109	16.3	2020
G3737904	7379	Kresge College Assembly Building	MBCx	5,225	-	-	324	-	\$ 932	\$ 27,264	18.1	2020
G3737905	7379	Kresge College Assembly Building	Heat Pump for Heating & DHW	(26,630)	(159)	-	5,552	-	\$ 291	\$ 102,069	43.8	2020
G3737906	7379	Kresge College Assembly Building	Kitchen Hood DCV	6,900	1	-	400	-	\$ 1,212	\$ 18,891	11.8	2020
G3739201	7392	Kresge College House 11	Demand Based Scheduling	2,162	-	-	229	-	\$ 452	\$ 28,066	42.0	2020
G3739202	7392	Kresge College House 11	Instantaneous Gas DHW Heater	-	-	-	76	-	\$ 53	\$ 8,163	37.4	2020
G3739203	7392	Kresge College House 11	MBCx	2,162	-	-	229	-	\$ 452	\$ 40,208	31.6	2020
G3739204	7392	Kresge College House 11	Heat Pump for Heating & DHW	(10,785)	(6)	-	2,249	-	\$ 118	\$ 139,448	48.0	2020
G3754701	7547	Crown-Merrill Housing Building 13	Exterior Lighting Controls	118	-	-	-	-	\$ 16	\$ 3,471	40.7	2020
G3754702	7547	Crown-Merrill Housing Building 13	HVAC Occupancy Schedule	276	-	-	63	-	\$ 81	\$ 57,249	46.6	2020
G3754703A	7547	Crown-Merrill Housing Building 13	Condensing Furnace	-	-	-	224	-	\$ 157	\$ 13,347	31.2	2020
G3754704	7547	Crown-Merrill Housing Building 13	MBCx	901	-	-	168	-	\$ 239	\$ 12,643	25.3	2020
G3775603B	7756	College Eight Kitchen	Daylighting	1,983	-	-	(15)	-	\$ 257	\$ 4,770	13.2	2020
G3777502A	7775	Earth & Marine Sciences	VAV Conversion	1,039,459	-	#####	-	-	\$ 715,829	\$ 4,567,123	5.6	2020
G3777503	7775	Earth & Marine Sciences	Improve Glazing	20,238	-	1,951,415	-	-	\$ 19,807	\$ 103,588	4.7	2020
G3777504	7775	Earth & Marine Sciences	DCV with CO2 sensors	16,465	-	975,707	-	-	\$ 10,760	\$ 1,528	0.1	2020
G3777505	7775	Earth & Marine Sciences	Deep Lighting	434,774	30	-	-	-	\$ 58,694	\$ 583,399	8.1	2020
G3777507	7775	Earth & Marine Sciences	MBCx	210,813	27	5,420,156	5	1,831	\$ 75,927	\$ 354,304	4.2	2020
G3790503	7905	Stevenson College Apartment Buil	MBCx	2,911	0	-	729	-	\$ 903	\$ 25,441	17.7	2020
G3793303	7933	College Nine Dining Hall	Demand Based Scheduling	8,828	-	-	1,431	-	\$ 2,193	\$ 55,990	16.5	2020
G3793308	7933	College Nine Dining Hall	Dish room industrial & pre-rinse sprayers	-	-	-	578	-	\$ 405	\$ 425	1.0	2020
G3DIST06A	DIST	Campuswide	Distributed Resource Optimization	155,709	-	-	399,817	-	\$ 300,892	\$ 3,988,516	13.3	2020
Subtotal 2020 Bundle				2020 Debt Service Over Energy Cost Avoidance Ratio =				0.89	\$ 1,493,350	\$ 13,796,834		
Cumulative Subtotal				2016 through 2020 Debt Service Over Energy Cost Avoidance Ratio =				1.16	\$ 2,767,206	\$ 33,298,646		

UC Santa Cruz Climate and Energy Strategy
 Energy Efficiency Building Audit Results
 Potential Project Bundles by Year

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2021 Bundle												
G3714502B	7145	McHenry Library	Deep Lighting	1,575,539	142	-	-	-	\$ 212,698	\$ 949,123	4.0	2021
G3718403	7184	Merrill College House B	Depp Lighting Retrofit	84,986	11	-	-	-	\$ 11,473	\$ 125,841	9.0	2021
G3743801A	7438	LML William T. Doyle Research Bui	T12 Retrofit	3,985	0	-	(30)	-	\$ 517	\$ 16,937	12.4	2021
G3743802B	7438	LML William T. Doyle Research Bui	Deep Lighting Retrofit	21,048	2	-	-	-	\$ 2,841	\$ 36,245	10.0	2021
G3743803	7438	LML William T. Doyle Research Bui	Deep HVAC Retrofit	4,540	1	-	180	-	\$ 739	\$ 804,238	47.7	2021
G3743804	7438	LML William T. Doyle Research Bui	MBCx	7,656	-	-	56	-	\$ 1,073	\$ 10,323	7.8	2021
G3743805	7438	LML William T. Doyle Research Bui	ECM Motors	1,594	0	-	-	-	\$ 215	\$ 724	3.1	2021
G3770701A	7707	Cowell College Apartment Building	Boiler Upgrade	-	-	-	692	-	\$ 484	\$ 117,623	41.1	2021
G3770702	7707	Cowell College Apartment Building	HVAC Occ Sensor	3,174	-	-	1,064	-	\$ 1,173	\$ 210,386	38.8	2021
G3770703	7707	Cowell College Apartment Building	MBCx	3,142	0	-	285	-	\$ 623	\$ 28,374	23.4	2021
G3770704	7707	Cowell College Apartment Building	2-Way Valve	11,546	5	-	-	-	\$ 1,559	\$ 331,556	40.2	2021
G3794001	7940	Engineering Building 2	MBCx	409,236	-	-	4,164	-	\$ 58,162	\$ 577,321	8.0	2021
G3794002	7940	Engineering Building 2	HVAC Occ Sensor / Demand Based Scheduling	21,637	-	-	4,606	-	\$ 6,145	\$ 117,283	13.5	2021
G3794003	7940	Engineering Building 2	Server Room HVAC: Includes Rooms 208 and 594	120,743	14	-	-	-	\$ 16,300	\$ 23,737	0.4	2021
G3794004	7940	Engineering Building 2	Server Room UPS Rm 208 and 594	19,536	2	-	-	-	\$ 2,637	\$ 42,385	11.8	2021
G3794005	7940	Engineering Building 2	Deep Lighting	355,940	81	-	-	-	\$ 48,052	\$ 637,482	10.3	2021
G3DIST08	DIST	Campuswide	Low Temp Heating of Ventilation Air	314,503	105	-	-	-	\$ 42,458	\$ 1,514,228	20.4	2021
Subtotal 2021 Bundle				2021 Debt Service Over Energy Cost Avoidance Ratio =		1.31		\$ 407,150		\$ 5,543,805		
Cumulative Subtotal				2016 through 2021 Debt Service Over Energy Cost Avoidance Ratio =		1.18		\$ 3,174,355		\$ 38,842,451		
2022 Bundle												
G3709801	7098	Interdisciplinary Sciences Building	Deep HVAC Retrofit	24,887	-	3,463,004	-	2,760	\$ 33,959	\$ 1,407,632	22.6	2022
G3709802	7098	Interdisciplinary Sciences Building	Deep Lighting Retrofit	165,349	13	-	-	-	\$ 22,322	\$ 262,682	9.4	2022
G3709803	7098	Interdisciplinary Sciences Building	MBCx	62,931	8	1,442,727	2	1,104	\$ 21,240	\$ 144,740	6.8	2022
G3711601A	7116	Thimann Laboratories	Deep Retrofit_Smart Lab	456,372	-	4,278,260	-	1,793	\$ 99,239	\$ 2,486,183	16.4	2022
G3711602	7116	Thimann Laboratories	2-Way Valve	8,300	1	-	-	-	\$ 1,120	\$ 90,584	30.5	2022
G3711603	7116	Thimann Laboratories	DIWP Pump VFD	19,870	-	-	-	-	\$ 2,682	\$ 17,918	5.7	2022
G3711604	7116	Thimann Laboratories	Replace Ultra Low Freezers	23,830	3	-	-	-	\$ 3,217	\$ 291,214	31.8	2022
G3711605	7116	Thimann Laboratories	Deep Lighting	241,843	17	-	-	-	\$ 32,649	\$ 342,301	8.4	2022
G3711606	7116	Thimann Laboratories	MBCx	168,405	22	1,187,709	9	598	\$ 33,198	\$ 187,779	5.0	2022
G3742104A	7421	Oakes College Residence C11-15	Condensing Furnace w VFD upgrade	772	-	-	209	-	\$ 250	\$ 6,636	17.2	2022
G3769401A	7694	Long Marine Lab Ocean Health Bui	Condensing Boiler Retrofit	-	-	-	2,161	-	\$ 1,513	\$ 122,122	18.8	2022
G3769403	7694	Long Marine Lab Ocean Health Bui	Decommission AC1	3,042	1	-	-	-	\$ 411	\$ 187	0.3	2022
G3769404	7694	Long Marine Lab Ocean Health Bui	Convert AH1 to VAV	135,748	-	-	3,055	-	\$ 20,465	\$ 734,936	20.5	2022
G3769405	7694	Long Marine Lab Ocean Health Bui	MBCx	62,946	-	-	957	-	\$ 9,168	\$ 50,102	4.8	2022
G3769406	7694	Long Marine Lab Ocean Health Bui	Deep Lighting Retrofit	13,236	4	-	-	-	\$ 1,787	\$ 108,384	27.0	2022
G3771701A	7717	Digital Arts Research Center	Condensing Boiler Retrofit	-	-	-	735	-	\$ 514	\$ 106,563	28.5	2022
G3771703	7717	Digital Arts Research Center	Demand Based Scheduling	53,037	11	-	3,260	-	\$ 9,442	\$ 304,854	19.2	2022
G3771704B	7717	Digital Arts Research Center	Eliminate Comfort Cooling	44,427	62	-	-	-	\$ 5,998	\$ 230	0.0	2022
G3771707C	7717	Digital Arts Research Center	Deep Lighting Retrofit	58,900	9	-	-	-	\$ 7,952	\$ 179,470	15.2	2022
G3775901A	7759	College Eight Dorm A-L-Building	Boiler Retrofit	-	-	-	532	-	\$ 372	\$ 86,208	28.0	2022
G3775902B	7759	College Eight Dorm A-L-Building	HVAC Tstat & Window Interlock	2,892	-	-	962	-	\$ 1,064	\$ 58,402	25.8	2022
Subtotal 2022 Bundle				2022 Debt Service Over Energy Cost Avoidance Ratio =		2.18		\$ 308,561		\$ 6,989,125		
Cumulative Subtotal				2016 through 2022 Debt Service Over Energy Cost Avoidance Ratio =		1.27		\$ 3,482,916		\$ 45,831,576		

UC Santa Cruz Climate and Energy Strategy
 Energy Efficiency Building Audit Results
 Potential Project Bundles by Year

SEP ID	Building CAAN	Building Name	Project Name	Building Electric Energy Savings (kWh/yr)	Peak Electric Demand Savings (kW)	Building HW Energy Savings (kBtu/yr)	Building Gas Energy Savings (therms/yr)	Building Condenser Water Energy Savings (ton-hr/yr)	Annual Energy Cost Savings (\$/yr)	Net Project Cost (\$)	Net Simple Payback Period (yrs)	Default Year
2023 Bundle												
G3717902A	7179	Natural Sciences 2 Main Building	VAV_Labs	172,019	117	950,395	-	16,646	\$ 33,336	\$ 1,175,575	20.4	2023
G3717903	7179	Natural Sciences 2 Main Building	2-Way Valve	37,466	6	-	-	-	\$ 5,058	\$ 97,224	13.5	2023
G3717904	7179	Natural Sciences 2 Main Building	Process Water Pump VFD	29,805	-	-	-	-	\$ 4,024	\$ 31,921	6.6	2023
G3717906	7179	Natural Sciences 2 Main Building	Replace Ultra Low Freezers	15,873	2	-	-	-	\$ 2,143	\$ 200,023	32.2	2023
G3717907	7179	Natural Sciences 2 Main Building	Server Room HVAC	22,075	3	-	-	-	\$ 2,980	\$ 3,195	1.1	2023
G3717908B	7179	Natural Sciences 2 Main Building	Deep Lighting	265,021	17	-	-	-	\$ 35,778	\$ 328,108	7.5	2023
G3717909	7179	Natural Sciences 2 Main Building	MBCx	53,932	7	168,005	1	2,760	\$ 9,050	\$ 110,433	9.6	2023
G3737601A	7376	Kerr Hall	MBCx	65,490	-	283,650	-	-	\$ 10,827	\$ 340,225	19.0	2023
G3737602B	7376	Kerr Hall	Deep HVAC Retrofit	81,371	23	700,000	-	-	\$ 15,885	\$ 1,163,517	29.4	2023
G3737603	7376	Kerr Hall	Deep Lighting	76,620	16	-	-	-	\$ 10,344	\$ 350,466	20.0	2023
G3737604	7376	Kerr Hall	Disconnect/Remove AC4	837	14	-	-	-	\$ 113	\$ 81	0.7	2023
G3737605	7376	Kerr Hall	Premium Efficiency Pump Replacement (HWP 02)	9,797	-	-	-	-	\$ 1,323	\$ 9,356	6.2	2023
G3770002	7700	Long Marine Lab Dolphinarium	Caisson #2 Pump Replacement	80,230	-	-	-	-	\$ 10,831	\$ 563,873	14.1	2023
G3770003	7700	Long Marine Lab Dolphinarium	MBCx	-	-	-	4,125	-	\$ 2,888	\$ 10,227	3.2	2023
G3770004	7700	Long Marine Lab Dolphinarium	Lighting Retrofit	3,285	-	-	-	-	\$ 443	\$ 3,181	6.1	2023
G3770005	7700	Long Marine Lab Dolphinarium	VFDs in Caisson #1	59,924	-	-	-	-	\$ 8,090	\$ 84,007	6.5	2023
G3780101A	7801	College Eight Apartment Building 2	Condensing Furnace Retrofit	-	-	-	300	-	\$ 210	\$ 100,138	45.1	2023
G3780103B	7801	College Eight Apartment Building 2	Condensing Furnace Retrofit	-	-	-	240	-	\$ 168	\$ 63,971	44.1	2023
G3780105	7801	College Eight Apartment Building 2	Smart Thermostat	-	-	-	115	-	\$ 80	\$ 24,372	42.9	2023
Subtotal 2023 Bundle				2023 Debt Service Over Energy Cost Avoidance Ratio =				2.92	\$ 153,569	\$ 4,659,892		
Cumulative Subtotal				2016 through 2023 Debt Service Over Energy Cost Avoidance Ratio =				1.34	\$ 3,636,486	\$ 50,491,468		

UC Santa Cruz Climate and Energy Strategy
 Energy Efficiency Building Audit Results
 Potential Project Bundles by Year

SEP ID	Building CAAN	Building Name	Project Name	Building Electric Energy Savings (kWh/yr)	Peak Electric Demand Savings (kW)	Building HW Energy Savings (kBtu/yr)	Building Gas Energy Savings (therms/yr)	Building Condenser Water Energy Savings (ton-hr/yr)	Annual Energy Cost Savings (\$/yr)	Net Project Cost (\$)	Net Simple Payback Period (yrs)	Default Year	
2024 Bundle													
G3709601A	7096	Emergency Response Center	Condensing Boiler Retrofit	-	-	-	258	-	\$ 181	\$ 94,590	31.3	2024	
G3709603	7096	Emergency Response Center	Demand Based Scheduling	3,740	-	-	460	-	\$ 827	\$ 117,793	36.7	2024	
G3709604	7096	Emergency Response Center	Raise Server Room Temp Setpoints	6,570	1	-	-	-	\$ 887	\$ 112	0.1	2024	
G3709605	7096	Emergency Response Center	MBCx	15,306	-	-	304	-	\$ 2,279	\$ 32,698	10.9	2024	
G3709606	7096	Emergency Response Center	Deep Lighting Retrofit	8,000	2	-	-	-	\$ 1,080	\$ 59,917	25.9	2024	
G3713401A	7134	Cowell College Commons	Boiler Retrofit (Primary)	-	-	-	5,333	-	\$ 3,733	\$ 1,035,142	42.2	2024	
G3713403	7134	Cowell College Commons	Steam Boiler Retrofit	-	-	-	166	-	\$ 116	\$ 44,197	44.1	2024	
G3713407A	7134	Cowell College Commons	Deep HVAC Retrofit	20,779	6	-	4,420	-	\$ 5,899	\$ 846,286	36.8	2024	
G3713409	7134	Cowell College Commons	Dishwasher Replacement	-	-	-	8,669	-	\$ 6,068	\$ 137,868	11.0	2024	
G3772602A	7726	OPERS Fitness Center	Replace HHW Boiler with Heat Pump	(23,730)	(40)	-	5,004	-	\$ 299	\$ 118,253	44.6	2024	
G3772603B	7726	OPERS Fitness Center	Window Interlock Sensors	22,327	-	-	2,819	-	\$ 4,988	\$ 30,191	5.2	2024	
G3772605	7726	OPERS Fitness Center	Dining Area Daylighting Controls	5,456	7	-	(41)	-	\$ 708	\$ 3,951	4.9	2024	
G3774301	7743	OPERS Offices & Support Space	HVAC Occ Sensor / Demand Based Scheduling	13,185	-	-	1,817	-	\$ 3,052	\$ 36,617	12.0	2024	
G3774302	7743	OPERS Offices & Support Space	MBCx	21,794	-	-	1,389	-	\$ 3,914	\$ 20,322	4.6	2024	
G3774304	7743	OPERS Offices & Support Space	Deep Lighting	33,136	3	-	-	-	\$ 4,473	\$ 80,391	13.0	2024	
G3774305A	7743	OPERS Offices & Support Space	Air-to-Water Heat Pump	(51,427)	(95)	-	13,011	-	\$ 2,165	\$ 249,538	34.8	2024	
G3790501A	7905	Stevenson College Apartment Builc	Boiler Upgrade	-	-	-	1,772	-	\$ 1,241	\$ 115,845	32.0	2024	
G3790502	7905	Stevenson College Apartment Builc	HVAC Occ Sensor	372	-	-	287	-	\$ 251	\$ 207,222	47.1	2024	
G3790504	7905	Stevenson College Apartment Builc	2-Way Valve	4,151	1	-	-	-	\$ 560	\$ 541,493	47.5	2024	
G3793203	7932	College Nine Residence Hall 2	MBCx	5,622	1	-	1,012	-	\$ 1,468	\$ 97,762	28.2	2024	
G3794701	7947	Biomedical Sciences	Vivarium Lighting Control	5,851	-	-	-	-	\$ 790	\$ 27,768	20.6	2024	
G3794702	7947	Biomedical Sciences	Replace Ultra Low Freezers	30,482	3	-	-	-	\$ 4,115	\$ 242,387	26.6	2024	
G3794703	7947	Biomedical Sciences	Monitoring Based Commisioning	34,071	4	116,820	31,922	1	\$ 27,967	\$ 255,175	7.7	2024	
Subtotal 2024 Bundle				2024 Debt Service Over Energy Cost Avoidance Ratio =				5.50		\$ 77,061	\$ 4,395,518		
Cumulative Subtotal				2016 through 2024 Debt Service Over Energy Cost Avoidance Ratio =				1.42		\$ 3,713,546	\$ 54,886,986		

UC Santa Cruz Climate and Energy Strategy
 Energy Efficiency Building Audit Results
 Potential Project Bundles by Year

SEP ID	Building CAAN	Building Name	Project Name	Building Electric Energy Savings (kWh/yr)	Peak Electric Demand Savings (kW)	Building HW Energy Savings (kBtu/yr)	Building Gas Energy Savings (therms/yr)	Building Condenser Water Energy Savings (ton-hr/yr)	Annual Energy Cost Savings (\$/yr)	Net Project Cost (\$)	Net Simple Payback Period (yrs)	Default Year
2025 Bundle												
G3714405B	7144	Stevenson College Commons	MPR LED Lighting Retrofit	24,057	4	-	(180)	-	\$ 3,122	\$ 96,574	18.7	2025
G3718405	7184	Merrill College House B	HHW & DHW Heat Pumps	(71,724)	(121)	-	14,954	-	\$ 785	\$ 951,673	48.0	2025
G3770601	7706	Humanities Building 1	Demand Controlled Ventilation	8,681	-	-	1,469	-	\$ 2,200	\$ 1,311,572	46.0	2025
G3770602A	7706	Humanities Building 1	Boiler Upgrade	-	-	-	718	-	\$ 502	\$ 199,834	30.7	2025
G3770603	7706	Humanities Building 1	MBCx	21,704	-	-	735	-	\$ 3,444	\$ 146,315	22.5	2025
G3771001	7710	Humanities & Social Sciences Build	Demand Controlled Ventilation	1,641	-	-	822	-	\$ 797	\$ 331,949	44.5	2025
G3771002A	7710	Humanities & Social Sciences Build	Boiler Upgrade	-	-	-	334	-	\$ 234	\$ 97,820	30.8	2025
G3771003	7710	Humanities & Social Sciences Build	Improve Southeast Glazing	-	-	-	137	-	\$ 96	\$ 4,673	24.3	2025
G3771004	7710	Humanities & Social Sciences Build	Deep Lighting	42,970	3	-	-	-	\$ 5,801	\$ 93,931	12.1	2025
G3771005	7710	Humanities & Social Sciences Build	MBCx	4,103	-	-	342	-	\$ 794	\$ 54,816	28.6	2025
G3773301A	7733	Long Marine Lab Seymour Center	Boiler Retrofit	-	-	-	271	-	\$ 190	\$ 45,407	28.1	2025
G3773304B	7733	Long Marine Lab Seymour Center	HVAC Occ Sensor / Demand Based Scheduling	6,922	-	-	613	-	\$ 1,364	\$ 22,227	12.0	2025
G3773306	7733	Long Marine Lab Seymour Center	MBCx	10,521	-	-	242	-	\$ 1,590	\$ 22,349	10.7	2025
G3773307C	7733	Long Marine Lab Seymour Center	Deep Lighting	46,981	7	-	-	-	\$ 6,342	\$ 71,654	9.0	2025
G3791001A	7910	Porter College Apartment Building	Condensing Boiler Retrofit	-	-	-	1,138	-	\$ 797	\$ 92,198	25.3	2025
G3791003	7910	Porter College Apartment Building	Smart Thermostat	-	-	-	403	-	\$ 282	\$ 28,120	33.3	2025
G3791004	7910	Porter College Apartment Building	MBCx	2,787	-	-	422	-	\$ 672	\$ 32,942	24.4	2025
G3793301A	7933	College Nine Dining Hall	Condensing Boiler Retrofit	-	-	-	4,018	-	\$ 2,813	\$ 224,369	23.2	2025
G3793304	7933	College Nine Dining Hall	Convert AH4 to VAV with Demand Based Scheduling	8,443	-	-	83	-	\$ 1,198	\$ 121,145	33.1	2025
G3793306B	7933	College Nine Dining Hall	Dining Area Daylighting Controls	1,279	1	-	(10)	-	\$ 166	\$ 4,944	18.2	2025
Subtotal 2025 Bundle				2025 Debt Service Over Energy Cost Avoidance Ratio =				11.48	\$ 33,188	\$ 3,954,514		
Cumulative Subtotal				2016 through 2025 Debt Service Over Energy Cost Avoidance Ratio =				1.51	\$ 3,746,734	\$ 58,841,500		

SUMMARY TABLE OF CURRENT APPROACHES

Option/Approach	UCSC Suitability and Experience	Dependencies	Limitations and Impacts	Key Terms	Amount Available
Statewide Energy Partnership (SEP) Program Bond – bond program administered by UCOP	<p>UCSC has used SEP bond for approximately 25 active and completed projects since 2009 totaling approximately \$7M, including incentives.</p> <p>Current version of Ten Year plan (2015-16 edition) has a line item for SEP: \$4M in 2015-16, \$4M in 2016-17, \$1.5M in 2017-18, \$1.5M in 2018-19¹</p>	<p>Funds need to be requested in Regents Authorization. Utility incentive (UC/CSU Partnership) must be part of project funding to be eligible for funds.</p> <p>Also part of campus Capital Planning Process.</p>	<p>Campus portfolio of SEP projects must stay under 85% debt service ratio (annual loan payment/bill savings).</p> <p>Impacts total campus debt per the UCOP debt model.</p>	<p>5% rate for planning, 15 year term</p>	<p>Unlimited to date – based on request</p>
UC/CSU Partnership Program (PG&E Incentives)	<p>Combine with any other funding mechanism for eligible EE projects. Not a standalone funding source</p>	<p>Must meet Partnership program requirements: program applications, utility review, payment terms, etc.</p>	<p>Based on approved energy savings, up to a maximum percentage of eligible project cost.</p>	<p>\$0.24/kwh \$1/therm saved</p>	<p>Unlimited to date – based on eligible projects</p>
Capital Project Budgets – Other External Financing	<p>Ten Year Capital Financial Plan and Annual Capital Improvement Plans identify budgets and fund source by fiscal year. Includes large projects for Auxiliaries.</p>	<p>Capital Planning Process</p>	<p>Impacts total campus debt per the UCOP debt model.</p>	<p>6% rate for planning, Term based on asset (assume 15 yr EE life)</p>	<p>Request Per Capital Plan – current EE all under SEP item (see above)</p>

Capital Project Budgets State Funds – General Obligation Bonds – General Funds (State)	Identified in Ten Year Capital Financial Plan. State provided funding. Either straight general funds, or GO bond for which State pays debt service.	Capital Planning Process	High demand, very limited availability. Does not affect campus debt. Earliest possible availability 2017 for GO Bond.	N/A – costs covered by State	Request Per Capital Plan
Campus Discretionary Operating Funds	Could be used for upfront design work.		Limited availability, no set amounts. Not appropriate for significant project investment.	N/A	Very limited
Deferred Maintenance and Capital Renewal - Campus	Energy improvements related to other maintenance and renewal projects. Campus funded and state eligible.	Budgets established in a specific DM/Cap Renewal planning process. 2015 to 2017 plan just approved		N/A	<i>need info from campus approved plan</i>
Auxiliaries (Housing, Dining, Transportation and Parking, Bookstore) and Other Business Units (Athletics, Health, Recreation)	These units have their own processes for budgeting operating funds, including their own Deferred Maintenance and Capital Renewal program. Also have access to SEP funding.	SEP funding by unit must be specifically requested in Regents Authorization	Varies depending on Unit.	SEP and Capital per above.	SEP and Capital per above. Other funds depend on Unit.
Green Revolving Loan Fund	Existing UCSC Carbon Fund	Existing campus application process	Currently a small fund overall. Consider expansion plans in future?	N/A	\$150K
On-Bill Financing – PG&E program where PG&E loans money for EE projects with repayment through utility bill	Other UCs have used (UCSF, UCI, UCB)	Must meet Partnership program requirements (for incentive) and PG&E OBF program requirements for loan	OBF funding still available. Unsure of impact, if any, on total campus debt per the UCOP debt model – needs campus/UCOP determination	0% rate Term based on savings payback (assume 10yr)	\$1M per government customer

<p>California Energy Commission (CEC) Loans Available to Public College or University (except community colleges).</p>	<p>Rolling funding authorization from State that is fairly popular and available on first come first served basis, sometimes fully subscribed.</p>	<p>Projects with proven energy and/or demand cost savings are eligible</p>	<p>Impacts total campus debt per the UCOP debt model. 17 year max simple payback. Loan repaid from energy savings within a max of 20 years. Term cannot exceed the useful life of equipment. \$3M per applicant or less if remaining program funds are less. Total pool of \$6M/yr historically available.</p>	<p>1% rate Term based on savings payback (assume 10yr)</p>	<p>\$700K in current pool; \$3M additional in Dec 2016;</p>
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SUMMARY TABLE OF POTENTIAL FUTURE APPROACHES

The following approaches are less concrete at present than those options presented in Section 2.0, however, they bear watching, particularly Cap & Trade and Specific Grants that align with the CES mission as they are likely to become available in the near term.

Option/Approach	UCSC Suitability and Experience	Dependencies	Limitations and Impacts	Key Terms	Amount Available
Cap & Trade Funds – Potential Annual Allocation from CA Air Resource Board	First year allocation not yet approved, but possible for 2016.	Must show CO2 impact. Commit within year and expend by next	Allocation method currently in development with UCOP. Mix of direct campus allocation and system-wide pool available to highest rated projects.	N/A	\$1M/yr base, plus \$10M/yr system-wide
Specific Grants – DOE, CEC for Net Zero, specific technologies, GHG, other	Opportunistic as they arise	Specific grant requirements		Grant specific	Grant specific
Tax Exempt Lease-Purchase	Possible fit for TAPS as they may have experience with approach. Broader fit possible for equipment where operations are outsourced.	Deal specific	Check with Financial Accounting and Reporting Office, Plant Accounting for viability	Deal specific	Deal specific
Public Private Partnerships (P3)	Mostly applicable in New Construction, but may apply in housing, dorms, and parking for some retrofits	Deal specific	Deal specific. If debt, then part of total campus debt per the UCOP debt mode. If equity, no effect.	Deal specific	Deal specific
Non-Residential On-Bill Repayment – Future PG&E program where a Third Party loans money for EE projects, repaid through utility bill	Pilot programs under development. Eligibility for public sector under discussion and will need to be confirmed in future	Likely many program requirements including measure eligibility and loan security	Limited or no availability in pilot. Impacts total campus debt per the UCOP debt model. Interest rates likely higher than SEP	Not yet available	Not yet available

TABLE OF NON APPLICABLE APPROACHES

The following approaches are not applicable to the CES effort at present, but are listed here for completeness as questions about their applicability often come up. Performance contracting should not be ruled out entirely, however, significant work is required to full understand the Universities ability to employ that approach given current understanding.

Option/Approach	UCSC Suitability and Experience	Dependencies	Limitations and Impacts	Key Terms	Amount Available
Property Assessed Clean Energy (PACE)	Not Applicable. PACE programs can only provide financing to publicly owned buildings if they receive a property tax bill, of which UCSC receives none.		Form of loan secured by real property administered through property tax collection authority.		None
Proposition 39 – CA Clean Energy Jobs Act.	Not Applicable. Provides funding to K-12 and CA Community Colleges only.				None
Energy Savings Performance Contract (ESPC)	Ability to engage in performance contracting typically prohibited under current practice, but approach may be revisited system-wide				None
Energy or Efficiency Services Agreement (ESA) Master Energy Services Agreement (MESA)	PPA structure applied to energy efficiency. Fundamentally relies on performance contracting concepts, so ability to engage in these approaches is unclear and unlikely until (if) ESCP approach is revisited system-wide				None

ASSUMPTIONS FOR REGULATORY IMPACT DATA SOURCES

Data	Source
Table 2.1.1 - Allowances and offsets purchased to date	E-mail communications between Element Markets (Jesse McKenna), UCSC (Patrick Testoni, Free Moini, Chrissy Thomure), and UCOP (Nick Balistreri) March 17, 2015 and August 19, 2015 (for March 2015 allowance and offset purchases); <i>UC Campus- Level Allocation Model 3-5-2015.xlsx</i> prepared by Element Markets (for all other allowance and offset activity in table 2.1.1)
Table 2.2.1 - Compliance targets, offsets, and free allowances through 2020	<i>UC Campus- Level Allocation Model 3-5-2015.xlsx</i> ; UCOP ESU
Table 3.1.1 - Projected Allowance Prices	UCOP ESU
Table 3.2.1 - Energy costs	E-mail communication between EcoShift (Tiffany Wise-West), UCSC (Patrick Testoni), and Curtis Schmitt (ARC Alternatives) August 11, 2015
Table 3.2.2 – UC ESU Emissions Factor	E-mail and phone communication between EcoShift and Mark Byron (UCOP); <i>RPS calculation emissions rate for UC DA 2015 09 21.xlsx</i> prepared by Mark Byron, sent September 23, 2015
Table 3.2.3 - Natural Gas Emissions Factor	CARB, via Erik Eriksen
Tables 3.3.1 and 3.3.2 - Biogas Production Costs	UCSC (2014). Consolidated Material Recovery Facility and Compost Feasibility Study. USDA (2007). Beddoes, J. C., Bracmort, K. S., Burn, R. B., & Lazarus, W. F. An analysis of energction costs from anaerobic digestion systems on US livestock production facilities. <i>Washington, DC: NREL</i> (2013). Moriarty, K. Feasibility Study of Anaerobic Digestion of Food Waste in St Bernard, Louisiana. <i>National Renewable Energy Laboratory– Technical Report</i> .
Table 4.1.1 - Historical scope 1 GHG	<i>UC Campus- Level Allocation Model 3-5-2015.xlsx</i> prepared by Element Markets

emissions	
Table 4.1.3 – Historical Non-Fleet Scope 3 GHG emissions	<i>Pageler GHG model 2.2.xls</i> prepared by Larry Pageler (UCSC)
Table 4.2.1 – Electrical Efficiency Curve for Mercury 50 Turbine	Figure F-3 from American Public Power Association (APPA). “DEED Project Final Report – Comparison of Mercury 50 Combustion Turbine to Traditional Generating Units”. http://www.publicpower.org/files/Deed/FinalReportComparisonofMercury50CombustionTurbine.pdf
Tables 5.1.1, 5.1.2, 5.1.3, and 5.1.4 - Electric and Thermal EUIs	<i>08.21.15 EUIs by Fuel Type v3 CPS.xls</i> and <i>04.27.15 EUI and Monthly Energy Wb SGv11</i> sent by Curtis Schmitt (ARC Alternatives), September 2, 2015; Benchmark Based, Whole-Building Energy Performance Targets for UC Buildings: UC Building 1999 Energy Benchmarks by Campus – Baseline for Targets (Tables 5.1.1 & 5.1.2); E-mail communication between EcoShift and Karl Brown (of CIEE, Author of <i>Benchmark Based, Whole-Building Energy Performance Targets for UC Buildings</i> study) dated October 8, 2015
Scope 1 mobile, Scope 3 Emissions Factors and Calculation Methodology	<i>Pageler GHG model 2.2.xls</i> prepared by Larry Pageler (UCSC); EPA/NHTSA projected achieved CAFÉ from Schoettle, Brandon, and Michael Sivak. "A comparison of CAFE standards and actual CAFE performance of new light-duty vehicles." (2013).

CES Project ID	SEP ID - Project Type - Building	CP4-All Electric Buildout (With Fuel Cells)		CP4.1- All Electric Buildout (With Fuel Cells)		CP5-Fuel Cells for Future Buildout		DM1: District Measures Only	
		Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year
EE1	G3709601A - Condensing Boiler Retrofit - Emergency Response Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE2	G3709602A - Replace HHW Boiler with Heat Pump - Emergency Response Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE3	G3709603 - Demand Based Scheduling - Emergency Response Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE4	G3709604 - Raise Server Room Temp Setpoints - Emergency Response Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE5	G3709605 - MBCx - Emergency Response Center	Yes	2024	Yes	2024	Yes	2024	No	Use Default
EE6	G3709606 - Deep Lighting Retrofit - Emergency Response Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE7	G3709801 - Deep HVAC Retrofit - Interdisciplinary Sciences Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE8	G3709802 - Deep Lighting Retrofit - Interdisciplinary Sciences Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE9	G3709803 - MBCx - Interdisciplinary Sciences Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE10	G3711501 - MBCx - Hahn Student Services	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE11	G3711502 - Deep Lighting Retrofit - Hahn Student Services	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE12	G3711503 - Boiler Upgrade - Hahn Student Services	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE13	G3711601A - Deep Retrofit Smart Lab - Thimann Laboratories	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE14	G3711602 - 2-Way Valve - Thimann Laboratories	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE15	G3711603 - DIWP Pump VFD - Thimann Laboratories	Yes	2025	Yes	2025	Yes	2025	No	Use Default
EE16	G3711604 - Replace Ultra Low Freezers - Thimann Laboratories	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE17	G3711605 - Deep Lighting - Thimann Laboratories	Yes	2022	Yes	2022	Yes	2022	No	Use Default
EE18	G3711606 - MBCx - Thimann Laboratories	Yes	2022	Yes	2022	Yes	2022	No	Use Default
EE19	G3712401 - MBCx - Cowell College Prescott House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE20	G3712402A - Condensing boiler with HHW reset - Cowell College Prescott House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE21	G3712403 - VFD for HHW pump - Cowell College Prescott House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE22	G3712404 - Occupancy based operation for restroom Efs - Cowell College Prescott House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE23	G3712405A - Heat Pump for HHW & DHW - Cowell College Prescott House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE24	G3713401A - Boiler Retrofit (Primary) - Cowell College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE25	G3713402A - Boiler Retrofit (alt) - Cowell College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE26	G3713403 - Steam Boiler Retrofit - Cowell College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE27	G3713404 - MBCx - Cowell College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE28	G3713405B - Dining Area Daylighting Controls - Cowell College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE29	G3713406B - Deep Lighting Retrofit - Cowell College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE30	G3713407A - Deep HVAC Retrofit - Cowell College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE31	G3713408A - Replace HHW Boiler with Heat Pump - Cowell College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE32	G3713409 - Dishwasher Replacement - Cowell College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE33	G3713410 - Kitchen Hood DCV - Cowell College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE34	G3713701A - Condensing Boiler Retrofit - Stevenson College House 3	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE35	G3713702A - Replace HHW Boiler with Heat Pump - Stevenson College House 3	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE36	G3713703 - Deep HVAC - Stevenson College House 3	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE37	G3713704 - MBCx - Stevenson College House 3	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE38	G3713705 - Interlock Danfoss Valves with Windows - Stevenson College House 3	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE39	G3714401 - Deep HVAC - Stevenson College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE40	G3714402 - HVAC Occ Sensor / Demand Based Scheduling for MPR - Stevenson College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE41	G3714403 - MBCx - Stevenson College Commons	Yes	2025	Yes	2025	Yes	2025	No	Use Default
EE42	G3714404A - Deep Lighting - Stevenson College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE43	G3714405B - MPR LED Lighting Retrofit - Stevenson College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE44	G3714501A - Deep HVAC - McHenry Library	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE45	G3714502B - Deep Lighting - McHenry Library	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE46	G3714503B - Emergency Lighting - McHenry Library	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE47	G3714504A - MBCx - McHenry Library	Yes	2017	Yes	2017	Yes	2017	No	Use Default
EE48	G3715701 - Steam Boiler Retrofit - Crown College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE49	G3715702B - Convert to VAV - Crown College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE50	G3715703B - HVAC Occ Sensor / Demand Based Scheduling - Crown College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE51	G3715704 - Convert to 2-Way Valve - Crown College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE52	G3715705 - MBCx - Crown College Commons	Yes	2025	Yes	2025	Yes	2025	No	Use Default
EE53	G3715706A - MH to LED Lighting Retrofit with Daylighting - Crown College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE54	G3715707B - Deep Lighting - Crown College Commons	Yes	2022	Yes	2022	Yes	2022	No	Use Default
EE55	G3715708 - Air-to-Water Heat Pump - Crown College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE56	G3715709 - Kitchen Hood DCV - Crown College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE57	G3717501 - Deep HVAC - Communications Building	Yes	2023	Yes	2023	Yes	2023	No	Use Default
EE58	G3717502 - IT Room - Communications Building	Yes	2024	Yes	2024	Yes	2024	No	Use Default
EE59	G3717503 - Data Center Retrofit - Communications Building	Yes	2017	Yes	2017	Yes	2017	No	Use Default
EE60	G3717504 - Deep Lighting - Communications Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE61	G3717505 - 2-Way Valve - Communications Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE62	G3717506 - MBCx - Communications Building	Yes	2017	Yes	2017	Yes	2017	No	Use Default
EE63	G3717901A - Deep Retrofit Smart Lab - Natural Sciences 2 Main Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE64	G3717902A - VAV Labs - Natural Sciences 2 Main Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE65	G3717903 - 2-Way Valve - Natural Sciences 2 Main Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE66	G3717904 - Process Water Pump VFD - Natural Sciences 2 Main Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE67	G3717905B - Daylighting - Natural Sciences 2 Main Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE68	G3717906 - Replace Ultra Low Freezers - Natural Sciences 2 Main Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE69	G3717907 - Server Room HVAC - Natural Sciences 2 Main Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE70	G3717908B - Deep Lighting - Natural Sciences 2 Main Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE71	G3717909 - MBCx - Natural Sciences 2 Main Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE72	G3718001 - Demand Based Scheduling - Natural Sciences 2 Annex	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE73	G3718002 - EF-02 Timeclock - Natural Sciences 2 Annex	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE74	G3718003 - Deep Lighting - Natural Sciences 2 Annex	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE75	G3718401 - MBCx - Merrill College House B	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE76	G3718402 - Occupancy based control on AH-B1/EF-B1, AH-B2/EF-2 - Merrill College	Yes	2022	Yes	2022	Yes	2022	No	Use Default
EE77	G3718403 - Deep Lighting Retrofit - Merrill College House B	Yes	2021	Yes	2021	Yes	2021	No	Use Default
EE78	G3718404 - Seasonal Building Scheduling - Merrill College House B	Yes	2025	Yes	2025	Yes	2025	No	Use Default
EE79	G3718405 - HHW & DHW Heat Pumps - Merrill College House B	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE80	G3718501 - 2638 Merrill Cultural Center Renovations (Deep Lighting) - Merrill College	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE81	G3718502 - 2638 Merrill Cultural Center Renovations (Deep HVAC) - Merrill College	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE82	G3718503A - MBCx - Merrill College Dining Common	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE83	G3719401A - Deep Retrofit Smart Lab - Jack Baskin Engineering Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE84	G3719402A - VAV Non-Labs - Jack Baskin Engineering Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE85	G3719403 - 2-Way Valve - Jack Baskin Engineering Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE86	G3719404 - Data Center Retrofit - Jack Baskin Engineering Building	Yes	2017	Yes	2017	Yes	2017	No	Use Default
EE87	G3719405 - Replace Ultra Low Freezers - Jack Baskin Engineering Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE88	G3719406 - Deep Lighting - Jack Baskin Engineering Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE89	G3719407 - MBCx - Jack Baskin Engineering Building	Yes	2017	Yes	2017	Yes	2017	No	Use Default
EE90	G3720001A - Reduce Morning Warmup Setpoints - Cowell Student Health Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE91	G3720002A - Lockout heating when windows are open - Cowell Student Health Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE92	G3720003B - HHW/DHW Boiler Upgrade - Cowell Student Health Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE93	G3720004C - Demand Controlled Ventilation - Cowell Student Health Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default

CES Project ID	SEP ID - Project Type - Building	CP4-All Electric Buildout (With Fuel Cells)		CP4.1- All Electric Buildout (With Fuel Cells)		CP5-Fuel Cells for Future Buildout		DM1: District Measures Only	
		Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year
EE94	G3720005 - Delamp - Cowell Student Health Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE95	G3720006 - Daylighting Controls - Cowell Student Health Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE96	G3720007C - Upgrade AHUs to VAV - Cowell Student Health Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE97	G3720008A - MBCx - Cowell Student Health Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE98	G3720009B - Heat Pump for HHW & DHW - Cowell Student Health Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE99	G3720101 - Reduce Morning Warmup Setpoints - Cowell Student Health Center Add	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE100	G3720102 - Lockout heating when windows are open - Cowell Student Health Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE101	G3720103 - Demand Controlled Ventilation - Cowell Student Health Center Addition	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE102	G3720104 - MBCx - Cowell Student Health Center Addition	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE103	G3730101 - MBCx - Classroom Unit 1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE104	G3730102A - Condensing boiler with HHW reset - Classroom Unit 1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE105	G3730103 - VFD for HHW pump - Classroom Unit 1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE106	G3730104 - Occupancy-based AC control for projector room - Classroom Unit 1	Yes	2022	Yes	2022	Yes	2022	No	Use Default
EE107	G3730105 - Deep Lighting Retrofit - Classroom Unit 1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE108	G3730106 - Automatic tstat control for convectors - Classroom Unit 1	Yes	2022	Yes	2022	Yes	2022	No	Use Default
EE109	G3730107 - Add VFDs to SFs - Classroom Unit 1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE110	G3730108A - HHW & DHW Heat Pumps - Classroom Unit 1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE111	G3730401 - MBCx - Porter College House B	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE112	G3730402 - Window Interlock Controls - Porter College House B	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE113	G3730501 - MBCx - Porter College Dining Common	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE114	G3730502 - Deep HVAC - Porter College Dining Common	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE115	G3730503 - Kitchen Hood DCV - Porter College Dining Common	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE116	G3737601A - MBCx - Kerr Hall	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE117	G3737602B - Deep HVAC Retrofit - Kerr Hall	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE118	G3737603 - Deep Lighting - Kerr Hall	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE119	G3737604 - Disconnect/Remove AC4 - Kerr Hall	Yes	2025	Yes	2025	Yes	2025	No	Use Default
EE120	G3737605 - Premium Efficiency Pump Replacement (HWP 02) - Kerr Hall	Yes	2025	Yes	2025	Yes	2025	No	Use Default
EE121	G3737701 - Demand Based Scheduling - Kresge College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE122	G3737702 - Automatic t-stat control for convectors - Kresge College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE123	G3737703B - Dual Circuit Lighting - Kresge College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE124	G3737704A - Condensing HHW/DHW boiler w/ HWST reset - Kresge College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE125	G3737705 - VAV for WAFs - Kresge College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE126	G3737706B - Deep Lighting - Kresge College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE127	G3737707 - MBCx - Kresge College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE128	G3737708A - Heat Pump for HHW & DHW - Kresge College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE129	G3737901 - Demand Based Scheduling - Kresge College Assembly Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE130	G3737902 - Instantaneous Gas DHW Heater - Kresge College Assembly Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE131	G3737903 - VAV for WAFs - Kresge College Assembly Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE132	G3737904 - MBCx - Kresge College Assembly Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE133	G3737905 - Heat Pump for Heating & DHW - Kresge College Assembly Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE134	G3737906 - Kitchen Hood DCV - Kresge College Assembly Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE135	G3739201 - Demand Based Scheduling - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE136	G3739202 - Instantaneous Gas DHW Heater - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE137	G3739203 - MBCx - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE138	G3739204 - Heat Pump for Heating & DHW - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE139	G3741901A - Condensing Boiler Retrofit - Oakes College Tutorial Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE140	G3741902A - Replace HHW Boiler with Heat Pump - Oakes College Tutorial Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE141	G3741903B - Deep HVAC - Oakes College Tutorial Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE142	G3741904B - MBCx - Oakes College Tutorial Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE143	G3741905 - Kitchen Hood DCV - Oakes College Tutorial Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE144	G3742101 - MBCx - Oakes College Residence C11-15	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE145	G3742102 - Install instantaneous GWH - Oakes College Residence C11-15	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE146	G3742103 - Occupancy-based EF control for bathrooms - Oakes College Residence C11-15	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE147	G3742104A - Condensing Furnace w VFD upgrade - Oakes College Residence C11-15	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE148	G3742105 - Occupancy controlled heating system - Oakes College Residence C11-15	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE149	G3742106A - HHW & DHW Heat Pumps - Oakes College Residence C11-15	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE150	G3743501A - Boiler Retrofit - Fieldhouse West	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE151	G3743502 - MBCx - Fieldhouse West	Yes	2025	Yes	2025	Yes	2025	No	Use Default
EE152	G3743503A - Deep HVAC Retrofit - Fieldhouse West	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE153	G3743504A - Air-to-Water Heat Pump - Fieldhouse West	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE154	G3743801A - T12 Retrofit - LML William T. Doyle Research Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE155	G3743802B - Deep Lighting Retrofit - LML William T. Doyle Research Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE156	G3743803 - Deep HVAC Retrofit - LML William T. Doyle Research Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE157	G3743804 - MBCx - LML William T. Doyle Research Building	Yes	2021	Yes	2021	Yes	2021	No	Use Default
EE158	G3743805 - ECM Motors - LML William T. Doyle Research Building	Yes	2021	Yes	2021	Yes	2021	No	Use Default
EE159	G3754701 - Exterior Lighting Controls - Crown-Merrill Housing Building 13	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE160	G3754702 - HVAC Occupancy Schedule - Crown-Merrill Housing Building 13	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE161	G3754703A - Condensing Furnace - Crown-Merrill Housing Building 13	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE162	G3754704 - MBCx - Crown-Merrill Housing Building 13	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE163	G3754705A - HHW & DHW Heat Pumps - Crown-Merrill Housing Building 13	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE164	G3769401A - Condensing Boiler Retrofit - Long Marine Lab Ocean Health Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE165	G3769402A - Replace HHW Boiler with Heat Pump - Long Marine Lab Ocean Health Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE166	G3769403 - Decommission AC1 - Long Marine Lab Ocean Health Building	Yes	2025	Yes	2025	Yes	2025	No	Use Default
EE167	G3769404 - Convert AH1 to VAV - Long Marine Lab Ocean Health Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE168	G3769405 - MBCx - Long Marine Lab Ocean Health Building	Yes	2025	Yes	2025	Yes	2025	No	Use Default
EE169	G3769406 - Deep Lighting Retrofit - Long Marine Lab Ocean Health Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE170	G3769407 - Replace Ultra Low Freezers - Long Marine Lab Ocean Health Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE171	G3770001 - Pool Heat Exchanger - Long Marine Lab Dolphinarium	Yes	2017	Yes	2017	Yes	2017	No	Use Default
EE172	G3770002 - Caisson #2 Pump Replacement - Long Marine Lab Dolphinarium	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE173	G3770003 - MBCx - Long Marine Lab Dolphinarium	Yes	2024	Yes	2024	Yes	2024	No	Use Default
EE174	G3770004 - Lighting Retrofit - Long Marine Lab Dolphinarium	Yes	2025	Yes	2025	Yes	2025	No	Use Default
EE175	G3770005 - VFDs in Caisson #1 - Long Marine Lab Dolphinarium	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE176	G3770601 - Demand Controlled Ventilation - Humanities Building 1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE177	G3770602A - Boiler Upgrade - Humanities Building 1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE178	G3770603 - MBCx - Humanities Building 1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE179	G3770604A - Heat Pump for HHW & DHW - Humanities Building 1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE180	G3770701A - Boiler Upgrade - Cowell College Apartment Building 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE181	G3770702 - HVAC Occ Sensor - Cowell College Apartment Building 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE182	G3770703 - MBCx - Cowell College Apartment Building 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE183	G3770704 - 2-Way Valve - Cowell College Apartment Building 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE184	G3770705A - HHW & DHW Heat Pumps - Cowell College Apartment Building 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE185	G3771001 - Demand Controlled Ventilation - Humanities & Social Sciences Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE186	G3771002A - Boiler Upgrade - Humanities & Social Sciences Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default

CES Project ID	SEP ID - Project Type - Building	CP4-All Electric Buildout (With Fuel Cells)		CP4.1- All Electric Buildout (With Fuel Cells)		CP5-Fuel Cells for Future Buildout		DM1: District Measures Only	
		Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year
EE187	G3771003 - Improve Southeast Glazing - Humanities & Social Sciences Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE188	G3771004 - Deep Lighting - Humanities & Social Sciences Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE189	G3771005 - MBCx - Humanities & Social Sciences Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE190	G3771006A - Heat Pump for HHW & DHW - Humanities & Social Sciences Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE191	G3771701A - Condensing Boiler Retrofit - Digital Arts Research Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE192	G3771702A - Replace HHW Boiler with Heat Pump - Digital Arts Research Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE193	G3771703 - Demand Based Scheduling - Digital Arts Research Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE194	G3771704B - Eliminate Comfort Cooling - Digital Arts Research Center	Yes	2025	Yes	2025	Yes	2025	No	Use Default
EE195	G3771705B - MBCx - Digital Arts Research Center	Yes	2018	Yes	2018	Yes	2018	No	Use Default
EE196	G3771706C - Dining Area Daylighting Controls - Digital Arts Research Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE197	G3771707C - Deep Lighting Retrofit - Digital Arts Research Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE198	G3772601A - Condensing Boiler Retrofit, with 2 Way Valve - OPERS Fitness Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE199	G3772602A - Replace HHW Boiler with Heat Pump - OPERS Fitness Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE200	G3772603B - Window Interlock Sensors - OPERS Fitness Center	Yes	2024	Yes	2024	Yes	2024	No	Use Default
EE201	G3772604B - MBCx - OPERS Fitness Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE202	G3772605 - Dining Area Daylighting Controls - OPERS Fitness Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE203	G3773301A - Boiler Retrofit - Long Marine Lab Seymour Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE204	G3773302A - Air-to-Water Heat Pump - Long Marine Lab Seymour Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE205	G3773303B - Variable Air Volume Conversion for AHUs - Long Marine Lab Seymour Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE206	G3773304B - HVAC Occ Sensor / Demand Based Scheduling - Long Marine Lab Seymour Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE207	G3773305B - Dual Technology Controls - Long Marine Lab Seymour Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE208	G3773306C - MBCx - Long Marine Lab Seymour Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE209	G3773307C - Deep Lighting - Long Marine Lab Seymour Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE210	G3773308C - Retrofit Highbay Lighting to LED and add Daylighting controls - Long Marine Lab Seymour Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE211	G3773309C - Retrofit T12 Lighting with LED - Long Marine Lab Seymour Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE212	G3774301 - HVAC Occ Sensor / Demand Based Scheduling - OPERS Offices & Support Space	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE213	G3774302 - MBCx - OPERS Offices & Support Space	Yes	2024	Yes	2024	Yes	2024	No	Use Default
EE214	G3774303 - Pool Cover - OPERS Offices & Support Space	Yes	2017	Yes	2017	Yes	2017	No	Use Default
EE215	G3774304 - Deep Lighting - OPERS Offices & Support Space	Yes	2024	Yes	2024	Yes	2024	No	Use Default
EE216	G3774305A - Air-to-Water Heat Pump - OPERS Offices & Support Space	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE217	G3774401 - Deep Retrofit - Smart Lab - Sinsheimer Laboratories	Yes	2019	Yes	2019	Yes	2019	No	Use Default
EE218	G3774402 - Daylighting - Sinsheimer Laboratories	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE219	G3774403 - Replace Ultra Low Freezers - Sinsheimer Laboratories	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE220	G3774404 - Deep Lighting - Sinsheimer Laboratories	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE221	G3774405 - MBCx - Sinsheimer Laboratories	Yes	2025	Yes	2025	Yes	2025	No	Use Default
EE222	G3775601A - Boiler Retrofit - College Eight Kitchen	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE223	G3775602A - Air-to-Water Heat Pump - College Eight Kitchen	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE224	G3775603B - Daylighting - College Eight Kitchen	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE225	G3775604B - Deep Lighting - College Eight Kitchen	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE226	G3775605 - MBCx - College Eight Kitchen	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE227	G3775606 - Kitchen Hood DCV - College Eight Kitchen	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE228	G3775901A - Boiler Retrofit - College Eight Dorm A-L-Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE229	G3775902B - HVAC Tstat & Window Interlock - College Eight Dorm A-L-Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE230	G3775903B - MBCx - College Eight Dorm A-L-Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE231	G3775904A - Air-to-Water Heat Pump - College Eight Dorm A-L-Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE232	G3775901A - Deep Retrofit - Smart Labs - Earth & Marine Sciences	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE233	G3777502A - VAV Conversion - Earth & Marine Sciences	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE234	G3777503 - Improve Glazing - Earth & Marine Sciences	Yes	2025	Yes	2025	Yes	2025	No	Use Default
EE235	G3777504 - DCV with CO2 sensors - Earth & Marine Sciences	Yes	2025	Yes	2025	Yes	2025	No	Use Default
EE236	G3777505 - Deep Lighting - Earth & Marine Sciences	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE237	G3777506 - Replace Ultra Low Freezers - Earth & Marine Sciences	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE238	G3777507 - MBCx - Earth & Marine Sciences	Yes	2024	Yes	2024	Yes	2024	No	Use Default
EE239	G3780101A - Condensing Furnace Retrofit - College Eight Apartment Building 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE240	G3780102A - Install Heat Pumps for Heating - College Eight Apartment Building 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE241	G3780103B - Condensing Furnace Retrofit - College Eight Apartment Building 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE242	G3780104B - Energy Star Electric Heat Pump Water Heater - College Eight Apartment Building 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE243	G3780105 - Smart Thermostat - College Eight Apartment Building 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE244	G3790501A - Boiler Upgrade - Stevenson College Apartment Building 10	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE245	G3790502 - HVAC Occ Sensor - Stevenson College Apartment Building 10	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE246	G3790503 - MBCx - Stevenson College Apartment Building 10	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE247	G3790504 - 2-Way Valve - Stevenson College Apartment Building 10	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE248	G3790505A - HHW & DHW Heat Pumps - Stevenson College Apartment Building 10	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE249	G3791001A - Condensing Boiler Retrofit - Porter College Apartment Building K	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE250	G3791002A - Replace HHW Boiler with Heat Pump - Porter College Apartment Building K	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE251	G3791003 - Smart Thermostat - Porter College Apartment Building K	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE252	G3791004 - MBCx - Porter College Apartment Building K	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE253	G3791901A - Deep Retrofit - Smart Lab - Physical Sciences Building	Yes	2018	Yes	2018	Yes	2018	No	Use Default
EE254	G3791902A - VAV Lab Exhaust - Physical Sciences Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE255	G3791903 - Controls - Physical Sciences Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE256	G3791904 - Replace Ultra Low Freezers - Physical Sciences Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE257	G3791905 - Server Room HVAC - Physical Sciences Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE258	G3791906 - MBCx - Physical Sciences Building	Yes	2018	Yes	2018	Yes	2018	No	Use Default
EE259	G3793201A - Boiler Upgrade - College Nine Residence Hall 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE260	G3793202 - HVAC Occ Sensor - College Nine Residence Hall 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE261	G3793203 - MBCx - College Nine Residence Hall 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE262	G3793204A - HHW & DHW Heat Pumps - College Nine Residence Hall 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE272	G37933010 - Lidded Charboiler - College Nine Dining Hall	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE263	G3793301A - Condensing Boiler Retrofit - College Nine Dining Hall	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE264	G3793302A - Replace HHW Boiler with Heat Pump - College Nine Dining Hall	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE265	G3793303 - Demand Based Scheduling - College Nine Dining Hall	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE266	G3793304 - Convert AHU to VAV with Demand Based Scheduling - College Nine Dining Hall	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE267	G3793305 - MBCx - College Nine Dining Hall	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE268	G3793306B - Dining Area Daylighting Controls - College Nine Dining Hall	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE269	G3793307B - Deep Lighting Retrofit - College Nine Dining Hall	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE270	G3793308 - Dish room industrial & pre-rinse sprayers - College Nine Dining Hall	Yes	2025	Yes	2025	Yes	2025	No	Use Default
EE271	G3793309 - Dishwasher Replacement - College Nine Dining Hall	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE273	G3794001 - MBCx - Engineering Building 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE274	G3794002 - HVAC Occ Sensor / Demand Based Scheduling - Engineering Building 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE275	G3794003 - Server Room HVAC: Includes Rooms 208 and 594 - Engineering Building 2	Yes	2021	Yes	2021	Yes	2021	No	Use Default
EE276	G3794004 - Server Room UPS Rm 208 and 594 - Engineering Building 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE277	G3794005 - Deep Lighting - Engineering Building 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE278	G3794401 - Parking Lot LED Retrofit - 2300 Delaware Avenue A/B	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE279	G3794402 - MBCx - 2300 Delaware Avenue A/B	No	Use Default	No	Use Default	No	Use Default	No	Use Default

CES Project ID	SEP ID - Project Type - Building	CP4-All Electric Buildout (With Fuel Cells)		CP4.1- All Electric Buildout (With Fuel Cells)		CP5-Fuel Cells for Future Buildout		DM1: District Measures Only	
		Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year
EE280	G3794403 - Raise Server Room Temp Setpoints - 2300 Delaware Avenue A/B	Yes	2025	Yes	2025	Yes	2025	No	Use Default
EE281	G3794701 - Vivarium Lighting Control - Biomedical Sciences	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE282	G3794702 - Replace Ultra Low Freezers - Biomedical Sciences	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE283	G3794703 - Monitoring Based Commissioning - Biomedical Sciences	Yes	2024	Yes	2024	Yes	2024	No	Use Default
EE293	G3DIST01A - Pre-Cool Cooling Tower Air - Campuswide	No	Use Default	No	Use Default	No	Use Default	Yes	Use Default
EE294	G3DIST02 - PVThermal at OPERS Pool - Campuswide	No	Use Default	No	Use Default	No	Use Default	Yes	Use Default
EE297	G3DIST05 - Porter College Mini District Low Temp Heating - Campuswide	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE298	G3DIST06A - Distributed Resource Optimization - Campuswide	No	Use Default	No	Use Default	No	Use Default	Yes	Use Default
EE299	G3DIST08 - Low Temp Heating of Ventilation Air - Campuswide	No	Use Default	No	Use Default	No	Use Default	Yes	Use Default
EE300	G3DIST09A - Cooling Tower Staging & Optimization - Campuswide	No	Use Default	No	Use Default	No	Use Default	Yes	Use Default
EE295	G3DIST4aA - Reduce Condenser Water Temperature with Pony Chillers - Campuswide	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE296	G3DIST4bA - Reduce Condenser Water Temperature with Pony Chillers - Campuswide	Yes	2025	Yes	2025	Yes	2025	Yes	Use Default
EE284	G3WIDE01 - Campus Wide Wall Pack Upgrade - Campuswide	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE285	G3WIDE02 - Unplug Refrigerators for Summer Break - Campuswide	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE286	G3WIDE03 - Eliminate Building Heat on 90°F Days - Campuswide	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE287	G3WIDE04 - Walk-in Cooler & Freezer Optimization - Campuswide	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE288	G3WIDE05 - Campuswide Incandescent/Halogen Lighting Retrofit - Campuswide	Yes	2017	Yes	2017	Yes	2017	No	Use Default
EE289	G3WIDE06 - Porter & Crown Kitchen Shutdown - Campuswide	Yes	2017	Yes	2017	Yes	2017	No	Use Default
EE290	G3WIDE07 - Crown & Porter Kitchen Hood Shutdown - Campuswide	Yes	2018	Yes	2018	Yes	2018	No	Use Default
EE291	G3WIDE08 - Replace Ultra Low Freezers - Campuswide	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE292	G3WIDE09 - Pathway Lighting Retrofit - Campuswide	Yes	2018	Yes	2018	Yes	2018	No	Use Default
EE305	G4711601A - Add VFDs to CHW Pump - Thimann Lab	Yes	2017	Yes	2017	Yes	2017	No	Use Default
EE306	G4711602A - Add VFDs to Process Heating Water Pump - Thimann Lab	Yes	2017	Yes	2017	Yes	2017	No	Use Default
EE301	G4714501A - Lighting Conversion Phase II - McHenry Library	Yes	2017	Yes	2017	Yes	2017	No	Use Default
EE304	G4714601 - Fackler Plant LED & Controls Conversion - Central Heating Plant	Yes	2017	Yes	2017	Yes	2017	No	Use Default
EE303	G4717901A - Hallway Lighting Retrofit - Natural Sciences II	Yes	2017	Yes	2017	Yes	2017	No	Use Default
EE302	G4792101 - Hallway Lighting Retrofit - Social Sciences II	Yes	2017	Yes	2017	Yes	2017	No	Use Default
EE307	G57120401 - MBCx - Cowell College Turner House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE308	G57120402A - Condensing boiler with HHW reset - Cowell College Turner House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE309	G57120403 - VFD for HHW pump - Cowell College Turner House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE310	G57120404 - Occupancy based operation for restroom Efs - Cowell College Turner House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE311	G57120405A - Heat Pump for HHW & DHW - Cowell College Turner House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE327	G57121401 - MBCx - Cowell College Parrington House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE328	G57121402A - Condensing boiler with HHW reset - Cowell College Parrington House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE329	G57121403 - VFD for HHW pump - Cowell College Parrington House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE330	G57121404 - Occupancy based operation for restroom Efs - Cowell College Parrington House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE331	G57121405A - Heat Pump for HHW & DHW - Cowell College Parrington House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE322	G57122401 - MBCx - Cowell College Beard House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE323	G57122402A - Condensing boiler with HHW reset - Cowell College Beard House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE324	G57122403 - VFD for HHW pump - Cowell College Beard House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE325	G57122404 - Occupancy based operation for restroom Efs - Cowell College Beard House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE326	G57122405A - Heat Pump for HHW & DHW - Cowell College Beard House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE332	G57123401 - MBCx - Cowell College Morison House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE333	G57123402A - Condensing boiler with HHW reset - Cowell College Morison House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE334	G57123403 - VFD for HHW pump - Cowell College Morison House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE335	G57123404 - Occupancy based operation for restroom Efs - Cowell College Morison House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE336	G57123405A - Heat Pump for HHW & DHW - Cowell College Morison House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE312	G57125401 - MBCx - Cowell College Parkman House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE313	G57125402A - Condensing boiler with HHW reset - Cowell College Parkman House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE314	G57125403 - VFD for HHW pump - Cowell College Parkman House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE315	G57125404 - Occupancy based operation for restroom Efs - Cowell College Parkman House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE316	G57125405A - Heat Pump for HHW & DHW - Cowell College Parkman House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE317	G57126401 - MBCx - Cowell College Adams House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE318	G57126402A - Condensing boiler with HHW reset - Cowell College Adams House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE319	G57126403 - VFD for HHW pump - Cowell College Adams House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE320	G57126404 - Occupancy based operation for restroom Efs - Cowell College Adams House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE321	G57126405A - Heat Pump for HHW & DHW - Cowell College Adams House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE367	G57135701A - Condensing Boiler Retrofit - Stevenson College House 1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE368	G57135702A - Replace HHW Boiler with Heat Pump - Stevenson College House 1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE369	G57135703 - Deep HVAC - Stevenson College House 1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE370	G57135704 - MBCx - Stevenson College House 1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE371	G57135705 - Interlock Danfoss Valves with Windows - Stevenson College House 1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE362	G57136701A - Condensing Boiler Retrofit - Stevenson College House 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE363	G57136702A - Replace HHW Boiler with Heat Pump - Stevenson College House 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE364	G57136703 - Deep HVAC - Stevenson College House 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE365	G57136704 - MBCx - Stevenson College House 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE366	G57136705 - Interlock Danfoss Valves with Windows - Stevenson College House 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE357	G57138701A - Condensing Boiler Retrofit - Stevenson College House 4	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE358	G57138702A - Replace HHW Boiler with Heat Pump - Stevenson College House 4	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE359	G57138703 - Deep HVAC - Stevenson College House 4	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE360	G57138704 - MBCx - Stevenson College House 4	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE361	G57138705 - Interlock Danfoss Valves with Windows - Stevenson College House 4	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE342	G57139701A - Condensing Boiler Retrofit - Stevenson College House 5	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE343	G57139702A - Replace HHW Boiler with Heat Pump - Stevenson College House 5	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE344	G57139703 - Deep HVAC - Stevenson College House 5	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE345	G57139704 - MBCx - Stevenson College House 5	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE346	G57139705 - Interlock Danfoss Valves with Windows - Stevenson College House 5	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE347	G57140701A - Condensing Boiler Retrofit - Stevenson College House 6	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE348	G57140702A - Replace HHW Boiler with Heat Pump - Stevenson College House 6	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE349	G57140703 - Deep HVAC - Stevenson College House 6	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE350	G57140704 - MBCx - Stevenson College House 6	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE351	G57140705 - Interlock Danfoss Valves with Windows - Stevenson College House 6	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE352	G57141701A - Condensing Boiler Retrofit - Stevenson College House 7	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE353	G57141702A - Replace HHW Boiler with Heat Pump - Stevenson College House 7	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE354	G57141703 - Deep HVAC - Stevenson College House 7	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE355	G57141704 - MBCx - Stevenson College House 7	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE356	G57141705 - Interlock Danfoss Valves with Windows - Stevenson College House 7	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE337	G57142701A - Condensing Boiler Retrofit - Stevenson College House 8	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE338	G57142702A - Replace HHW Boiler with Heat Pump - Stevenson College House 8	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE339	G57142703 - Deep HVAC - Stevenson College House 8	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE340	G57142704 - MBCx - Stevenson College House 8	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE341	G57142705 - Interlock Danfoss Valves with Windows - Stevenson College House 8	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE372	G57147701A - Condensing Boiler Retrofit - Crown College Leonardo House	No	Use Default	No	Use Default	No	Use Default	No	Use Default

CES Project ID	SEP ID - Project Type - Building	CP4-All Electric Buildout (With Fuel Cells)		CP4.1- All Electric Buildout (With Fuel Cells)		CP5-Fuel Cells for Future Buildout		DM1: District Measures Only	
		Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year
EE883	G67023903 - Controls - Village Housing F1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE887	G67024002A - Replace HHW Boiler with Heat Pump - Village Housing C2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE891	G67024006 - Daylighting Controls - Village Housing C2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE888	G67024201 - Demand Based Scheduling - Village Housing C2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE892	G67024403 - Depp Lighting Retrofit - Village Housing C2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE890	G67024704 - MBCx - Village Housing C2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE889	G67024903 - Controls - Village Housing C2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE893	G67025002A - Replace HHW Boiler with Heat Pump - Village Housing C5	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE897	G67025006 - Daylighting Controls - Village Housing C5	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE894	G67025201 - Demand Based Scheduling - Village Housing C5	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE898	G67025403 - Depp Lighting Retrofit - Village Housing C5	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE896	G67025704 - MBCx - Village Housing C5	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE895	G67025903 - Controls - Village Housing C5	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE899	G67026002A - Replace HHW Boiler with Heat Pump - Village Housing C6	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE903	G67026006 - Daylighting Controls - Village Housing C6	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE900	G67026201 - Demand Based Scheduling - Village Housing C6	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE904	G67026403 - Depp Lighting Retrofit - Village Housing C6	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE902	G67026704 - MBCx - Village Housing C6	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE901	G67026903 - Controls - Village Housing C6	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE905	G67027002A - Replace HHW Boiler with Heat Pump - Village Housing E2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE909	G67027006 - Daylighting Controls - Village Housing E2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE906	G67027201 - Demand Based Scheduling - Village Housing E2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE910	G67027403 - Depp Lighting Retrofit - Village Housing E2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE908	G67027704 - MBCx - Village Housing E2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE907	G67027903 - Controls - Village Housing E2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE911	G67028002A - Replace HHW Boiler with Heat Pump - Village Housing C1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE915	G67028006 - Daylighting Controls - Village Housing C1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE912	G67028201 - Demand Based Scheduling - Village Housing C1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE916	G67028403 - Depp Lighting Retrofit - Village Housing C1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE914	G67028704 - MBCx - Village Housing C1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE913	G67028903 - Controls - Village Housing C1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE917	G67030002A - Replace HHW Boiler with Heat Pump - Village Housing D1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE921	G67030006 - Daylighting Controls - Village Housing D1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE918	G67030201 - Demand Based Scheduling - Village Housing D1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE922	G67030403 - Depp Lighting Retrofit - Village Housing D1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE920	G67030704 - MBCx - Village Housing D1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE919	G67030903 - Controls - Village Housing D1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE923	G67030002A - Replace HHW Boiler with Heat Pump - Village Dining	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE927	G67033006 - Daylighting Controls - Village Dining	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE924	G67033201 - Demand Based Scheduling - Village Dining	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE928	G67033403 - Depp Lighting Retrofit - Village Dining	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE926	G67033704 - MBCx - Village Dining	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE925	G67033903 - Controls - Village Dining	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE781	G67110201 - Demand Based Scheduling - Barn G	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE784	G67110401 - MBCx - Barn G	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE783	G67110403 - VFD for HHW pump - Barn G	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE782	G67110605 - Dining Area Daylighting Controls - Barn G	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE780	G67110708 - Air-to-Water Heat Pump - Barn G	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE768	G67111201 - Demand Based Scheduling - Receiving Barn	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE769	G67111305B - Dual Technology Controls - Receiving Barn	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE767	G67111902A - Replace HHW Boiler with Heat Pump - Receiving Barn	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE930	G67127002A - Replace HHW Boiler with Heat Pump - Cowell College Scholars House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE934	G67127006 - Daylighting Controls - Cowell College Scholars House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE931	G67127201 - Demand Based Scheduling - Cowell College Scholars House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE935	G67127403 - Depp Lighting Retrofit - Cowell College Scholars House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE929	G67127701A - Condensing Boiler Retrofit - Cowell College Scholars House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE933	G67127704 - MBCx - Cowell College Scholars House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE932	G67127903 - Controls - Cowell College Scholars House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE936	G67128002A - Replace HHW Boiler with Heat Pump - Cowell College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE940	G67128006 - Daylighting Controls - Cowell College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE937	G67128201 - Demand Based Scheduling - Cowell College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE941	G67128403 - Depp Lighting Retrofit - Cowell College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE939	G67128704 - MBCx - Cowell College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE938	G67128903 - Controls - Cowell College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE765	G67130103 - VFD for HHW pump - Cowell College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE766	G67130104 - MBCx - Cowell College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE763	G67130603 - Demand Based Scheduling - Cowell College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE764	G67130605 - Dining Area Daylighting Controls - Cowell College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE761	G67130902A - Replace HHW Boiler with Heat Pump - Cowell College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE762	G67130903B - Deep HVAC - Cowell College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE789	G67143403 - VFD for HHW pump - Stevenson College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE787	G67143701 - Demand Based Scheduling - Stevenson College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE790	G67143707 - MBCx - Stevenson College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE785	G67143901A - Condensing Boiler Retrofit - Stevenson College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE788	G67143903 - Controls - Stevenson College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE786	G67143903B - Deep HVAC - Stevenson College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE942	G67160002A - Replace HHW Boiler with Heat Pump - Crown College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE946	G67160006 - Daylighting Controls - Crown College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE943	G67160201 - Demand Based Scheduling - Crown College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE947	G67160403 - Depp Lighting Retrofit - Crown College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE945	G67160704 - MBCx - Crown College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE944	G67160903 - Controls - Crown College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE948	G67161002A - Replace HHW Boiler with Heat Pump - Crown College Preceptors Apartments	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE952	G67161006 - Daylighting Controls - Crown College Preceptors Apartments	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE949	G67161201 - Demand Based Scheduling - Crown College Preceptors Apartments	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE953	G67161403 - Depp Lighting Retrofit - Crown College Preceptors Apartments	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE951	G67161704 - MBCx - Crown College Preceptors Apartments	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE950	G67161903 - Controls - Crown College Preceptors Apartments	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE954	G67173002A - Replace HHW Boiler with Heat Pump - Stevenson College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE958	G67173006 - Daylighting Controls - Stevenson College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE955	G67173201 - Demand Based Scheduling - Stevenson College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE959	G67173403 - Depp Lighting Retrofit - Stevenson College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE957	G67173704 - MBCx - Stevenson College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default

CES Project ID	SEP ID - Project Type - Building	CP4-All Electric Buildout (With Fuel Cells)		CP4.1- All Electric Buildout (With Fuel Cells)		CP5-Fuel Cells for Future Buildout		DM1: District Measures Only	
		Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year
EE956	G67173903 - Controls - Stevenson College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE960	G67174002A - Replace HHW Boiler with Heat Pump - Stevenson Preceptor House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE964	G67174006 - Daylighting Controls - Stevenson Preceptor House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE961	G67174201 - Demand Based Scheduling - Stevenson Preceptor House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE965	G67174403 - Depp Lighting Retrofit - Stevenson Preceptor House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE963	G67174704 - MBCx - Stevenson Preceptor House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE962	G67174903 - Controls - Stevenson Preceptor House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE966	G67183002A - Replace HHW Boiler with Heat Pump - Merrill College House A	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE970	G67183006 - Daylighting Controls - Merrill College House A	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE967	G67183201 - Demand Based Scheduling - Merrill College House A	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE971	G67183403 - Depp Lighting Retrofit - Merrill College House A	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE969	G67183704 - MBCx - Merrill College House A	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE968	G67183903 - Controls - Merrill College House A	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE972	G67186002A - Replace HHW Boiler with Heat Pump - Merrill College Common	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE976	G67186006 - Daylighting Controls - Merrill College Common	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE973	G67186201 - Demand Based Scheduling - Merrill College Common	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE977	G67186403 - Depp Lighting Retrofit - Merrill College Common	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE975	G67186704 - MBCx - Merrill College Common	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE974	G67186903 - Controls - Merrill College Common	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE778	G67189103 - VFD for HHW pump - Merrill College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE779	G67189104 - MBCx - Merrill College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE776	G67189201 - Demand Based Scheduling - Merrill College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE777	G67189305B - Dual Technology Controls - Merrill College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE775	G67189704A - Condensing HHW/DHW boiler w/ HWST reset - Merrill College Academic	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE978	G67192002A - Replace HHW Boiler with Heat Pump - Merrill College House C	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE982	G67192006 - Daylighting Controls - Merrill College House C	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE979	G67192201 - Demand Based Scheduling - Merrill College House C	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE983	G67192403 - Depp Lighting Retrofit - Merrill College House C	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE981	G67192704 - MBCx - Merrill College House C	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE980	G67192903 - Controls - Merrill College House C	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE984	G67193002A - Replace HHW Boiler with Heat Pump - Merrill College House D	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE988	G67193006 - Daylighting Controls - Merrill College House D	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE985	G67193201 - Demand Based Scheduling - Merrill College House D	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE989	G67193403 - Depp Lighting Retrofit - Merrill College House D	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE987	G67193704 - MBCx - Merrill College House D	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE986	G67193903 - Controls - Merrill College House D	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE802	G67300403 - VFD for HHW pump - Bay Tree Bookstore	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE803	G67300404 - VFD for HHW pump - Bay Tree Bookstore	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE799	G67300407A - Deep HVAC Retrofit - Bay Tree Bookstore	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE798	G67300701A - Condensing Boiler Retrofit - Bay Tree Bookstore	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE800	G67300703 - Demand Based Scheduling - Bay Tree Bookstore	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE801	G67300903 - Controls - Bay Tree Bookstore	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE795	G67306403 - VFD for HHW pump - Porter College Academic	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE793	G67306701 - Demand Based Scheduling - Porter College Academic	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE796	G67306707 - MBCx - Porter College Academic	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE792	G67306708A - Heat Pump for HHW & DHW - Porter College Academic	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE791	G67306901A - Condensing Boiler Retrofit - Porter College Academic	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE794	G67306903 - Controls - Porter College Academic	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE990	G67307002A - Replace HHW Boiler with Heat Pump - Merrill College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE994	G67307006 - Daylighting Controls - Merrill College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE991	G67307201 - Demand Based Scheduling - Merrill College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE995	G67307403 - Depp Lighting Retrofit - Merrill College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE993	G67307704 - MBCx - Merrill College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE992	G67307903 - Controls - Merrill College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE797	G67311407A - Deep HVAC Retrofit - Theater Arts A Main Stage	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE996	G67422002A - Replace HHW Boiler with Heat Pump - Oakes College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1000	G67422006 - Daylighting Controls - Oakes College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE997	G67422201 - Demand Based Scheduling - Oakes College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1001	G67422403 - Depp Lighting Retrofit - Oakes College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE999	G67422704 - MBCx - Oakes College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE998	G67422903 - Controls - Oakes College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1002	G67468002A - Replace HHW Boiler with Heat Pump - Porter College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1006	G67468006 - Daylighting Controls - Porter College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1003	G67468201 - Demand Based Scheduling - Porter College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1007	G67468403 - Depp Lighting Retrofit - Porter College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1005	G67468704 - MBCx - Porter College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1004	G67468903 - Controls - Porter College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1008	G67489002A - Replace HHW Boiler with Heat Pump - RV Park Recreation Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1012	G67489006 - Daylighting Controls - RV Park Recreation Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1009	G67489201 - Demand Based Scheduling - RV Park Recreation Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1013	G67489403 - Depp Lighting Retrofit - RV Park Recreation Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1011	G67489704 - MBCx - RV Park Recreation Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1010	G67489903 - Controls - RV Park Recreation Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1015	G67746002A - Replace HHW Boiler with Heat Pump - Oakes College Dorm 1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1019	G67746006 - Daylighting Controls - Oakes College Dorm 1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1016	G67746201 - Demand Based Scheduling - Oakes College Dorm 1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1020	G67746403 - Depp Lighting Retrofit - Oakes College Dorm 1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1014	G67746701A - Condensing Boiler Retrofit - Oakes College Dorm 1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1018	G67746704 - MBCx - Oakes College Dorm 1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1017	G67746903 - Controls - Oakes College Dorm 1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1022	G67747002A - Replace HHW Boiler with Heat Pump - Oakes College Dorm 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1026	G67747006 - Daylighting Controls - Oakes College Dorm 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1023	G67747201 - Demand Based Scheduling - Oakes College Dorm 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1027	G67747403 - Depp Lighting Retrofit - Oakes College Dorm 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1021	G67747701A - Condensing Boiler Retrofit - Oakes College Dorm 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1025	G67747704 - MBCx - Oakes College Dorm 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1024	G67747903 - Controls - Oakes College Dorm 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1029	G67748002A - Replace HHW Boiler with Heat Pump - Oakes College Dorm 3	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1033	G67748006 - Daylighting Controls - Oakes College Dorm 3	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1030	G67748201 - Demand Based Scheduling - Oakes College Dorm 3	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1034	G67748403 - Depp Lighting Retrofit - Oakes College Dorm 3	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1028	G67748701A - Condensing Boiler Retrofit - Oakes College Dorm 3	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1032	G67748704 - MBCx - Oakes College Dorm 3	No	Use Default	No	Use Default	No	Use Default	No	Use Default

CES Project ID	SEP ID - Project Type - Building	CP4-All Electric Buildout (With Fuel Cells)		CP4.1- All Electric Buildout (With Fuel Cells)		CP5-Fuel Cells for Future Buildout		DM1: District Measures Only	
		Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year
EE1031	G67748903 - Controls - Oakes College Dorm 3	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1036	G67749002A - Replace HHW Boiler with Heat Pump - Oakes College Dorm 4	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1040	G67749006 - Daylighting Controls - Oakes College Dorm 4	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1037	G67749201 - Demand Based Scheduling - Oakes College Dorm 4	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1041	G67749403 - Depp Lighting Retrofit - Oakes College Dorm 4	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1035	G67749701A - Condensing Boiler Retrofit - Oakes College Dorm 4	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1039	G67749704 - MBCx - Oakes College Dorm 4	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1038	G67749903 - Controls - Oakes College Dorm 4	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE773	G67754103 - VFD for HHW pump - Academic Resource Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE774	G67754104 - MBCx - Academic Resource Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE771	G67754201 - Demand Based Scheduling - Academic Resource Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE772	G67754305B - Dual Technology Controls - Academic Resource Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE770	G67754501A - Boiler Upgrade - Academic Resource Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1042	G67757002A - Replace HHW Boiler with Heat Pump - College Eight Dining Room	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1047	G67757006 - Daylighting Controls - College Eight Dining Room	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1043	G67757201 - Demand Based Scheduling - College Eight Dining Room	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1048	G67757403 - Depp Lighting Retrofit - College Eight Dining Room	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1046	G67757410 - Kitchen Hood DCV - College Eight Dining Room	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1045	G67757704 - MBCx - College Eight Dining Room	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1044	G67757903 - Controls - College Eight Dining Room	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1050	G67758002A - Replace HHW Boiler with Heat Pump - College Eight Dorm A-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1054	G67758006 - Daylighting Controls - College Eight Dorm A-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1051	G67758201 - Demand Based Scheduling - College Eight Dorm A-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1055	G67758403 - Depp Lighting Retrofit - College Eight Dorm A-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1049	G67758701A - Condensing Boiler Retrofit - College Eight Dorm A-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1053	G67758704 - MBCx - College Eight Dorm A-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1052	G67758903 - Controls - College Eight Dorm A-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1057	G67760002A - Replace HHW Boiler with Heat Pump - College Eight Dorm B-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1061	G67760006 - Daylighting Controls - College Eight Dorm B-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1058	G67760201 - Demand Based Scheduling - College Eight Dorm B-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1062	G67760403 - Depp Lighting Retrofit - College Eight Dorm B-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1056	G67760701A - Condensing Boiler Retrofit - College Eight Dorm B-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1060	G67760704 - MBCx - College Eight Dorm B-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1059	G67760903 - Controls - College Eight Dorm B-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1064	G67762002A - Replace HHW Boiler with Heat Pump - College Eight Dorm C-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1068	G67762006 - Daylighting Controls - College Eight Dorm C-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1065	G67762201 - Demand Based Scheduling - College Eight Dorm C-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1069	G67762403 - Depp Lighting Retrofit - College Eight Dorm C-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1063	G67762701A - Condensing Boiler Retrofit - College Eight Dorm C-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1067	G67762704 - MBCx - College Eight Dorm C-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1066	G67762903 - Controls - College Eight Dorm C-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1071	G67764002A - Replace HHW Boiler with Heat Pump - College Eight Dorm D-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1075	G67764006 - Daylighting Controls - College Eight Dorm D-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1072	G67764201 - Demand Based Scheduling - College Eight Dorm D-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1076	G67764403 - Depp Lighting Retrofit - College Eight Dorm D-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1070	G67764701A - Condensing Boiler Retrofit - College Eight Dorm D-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1074	G67764704 - MBCx - College Eight Dorm D-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1073	G67764903 - Controls - College Eight Dorm D-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1077	G67767002A - Replace HHW Boiler with Heat Pump - College Eight Cafe Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1082	G67767006 - Daylighting Controls - College Eight Cafe Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1078	G67767201 - Demand Based Scheduling - College Eight Cafe Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1083	G67767403 - Depp Lighting Retrofit - College Eight Cafe Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1081	G67767410 - Kitchen Hood DCV - College Eight Cafe Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1080	G67767704 - MBCx - College Eight Cafe Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1079	G67767903 - Controls - College Eight Cafe Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1084	G67768002A - Replace HHW Boiler with Heat Pump - College Eight Student Common	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1088	G67768006 - Daylighting Controls - College Eight Student Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1085	G67768201 - Demand Based Scheduling - College Eight Student Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1089	G67768403 - Depp Lighting Retrofit - College Eight Student Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1087	G67768704 - MBCx - College Eight Student Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1086	G67768903 - Controls - College Eight Student Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE805	G67782303 - Demand Based Scheduling - Science and Engineering Library	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE808	G67782401 - MBCx - Science and Engineering Library	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE804	G67782602B - Deep HVAC Retrofit - Science and Engineering Library	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE807	G67782604 - Replace Ultra Low Freezers - Science and Engineering Library	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE806	G67782605 - Dining Area Daylighting Controls - Science and Engineering Library	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1090	REFC001 - KZSC Tower Hill -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1091	REFC002 - Engineering -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1092	REFC003 - Communications/Fackler Co-Generation Plant/Natural Sciences Woodsho	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1093	REFC004 - Interdisciplinary Science Bldgs/Earth & Marine Sciences/Science Labs/Nat	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1094	REFC005 - Physical Sciences/Sinsheimer Labs/Thimann Labs/Kerr Hall -	Yes	2019	Yes	2019	Yes	2018	No	Use Default
EE1095	REFC006 - College 9/10 -	Yes	2019	No	2019	No	Use Default	No	Use Default
EE1096	REFC007 - Crown College/Merrill College/Fire Station -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1097	REFC008 - Cowell Health Center/Student Center/Classrooms/Humanities -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1098	REFC009 - Cowell College/Stevenson College & Apartments -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1099	REFC010 - McHenry Library/Hahn Student Services -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1100	REFC011 - The Arts Complex -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1101	REFC012 - Kresge College/Porter College & Porter/Kresge Apartments -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1102	REFC013 - Kresge Housing East/Graduate Student Housing -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1103	REFC014 - College Eight and Oakes College -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1104	REFC015 - Family Student Housing -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1105	REFC016 - East Field House/Fitness Center -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1106	REFC017 - Quarry/Village/Farm/Agroecology -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1107	REFC018 - Arboretum -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1108	REFC019 - Barn G/Barn H/Central Stores/Carriage House/Cardiff House/Faculty Hous	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1109	REFC020 - Emergency Response Center -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1110	REFC021 - Communications/Fackler Co-Generation Plant/Natural Sciences Woodsho	Yes	2017	Yes	2017	Yes	2017	No	Use Default
EE1111	REFC022 - Physical Sciences/Sinsheimer Labs/Thimann Labs/Kerr Hall -	Yes	2018	Yes	2018	No	Use Default	No	Use Default
EE1112	REFC023 - College 9/10 -	Yes	2018	Yes	2018	No	Use Default	No	Use Default
EE1113	REFC024 - Cowell College/Stevenson College & Apartments -	Yes	2018	Yes	2018	No	Use Default	No	Use Default
EE1114	REFC025 - College Eight and Oakes College -	Yes	2017	Yes	2017	Yes	2020	No	Use Default

CES Project ID	SEP ID - Project Type - Building	CW1-2018 AB32 Exit		CW1.1-2018 AB32 Exit- Biogas		CW1.2-2018 AB32 Exit, Aggressive Onsite, Fuel Cells	
		Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year
EE1	G3709601A - Condensing Boiler Retrofit - Emergency Response Center	No	Use Default	No	Use Default	No	Use Default
EE2	G3709602A - Replace HHW Boiler with Heat Pump - Emergency Response Center	Yes	2019	No	Use Default	Yes	2019
EE3	G3709603 - Demand Based Scheduling - Emergency Response Center	No	Use Default	No	Use Default	No	Use Default
EE4	G3709604 - Raise Server Room Temp Setpoints - Emergency Response Center	No	Use Default	No	Use Default	No	Use Default
EE5	G3709605 - MBCx - Emergency Response Center	No	Use Default	Yes	2018	No	Use Default
EE6	G3709606 - Deep Lighting Retrofit - Emergency Response Center	No	Use Default	No	Use Default	No	Use Default
EE7	G3709801 - Deep HVAC Retrofit - Interdisciplinary Sciences Building	No	Use Default	No	Use Default	No	Use Default
EE8	G3709802 - Deep Lighting Retrofit - Interdisciplinary Sciences Building	No	Use Default	No	Use Default	No	Use Default
EE9	G3709803 - MBCx - Interdisciplinary Sciences Building	No	Use Default	Yes	2018	No	Use Default
EE10	G3711501 - MBCx - Hahn Student Services	No	Use Default	Yes	2018	No	Use Default
EE11	G3711502 - Deep Lighting Retrofit - Hahn Student Services	No	Use Default	No	Use Default	No	Use Default
EE12	G3711503 - Boiler Upgrade - Hahn Student Services	No	Use Default	No	Use Default	No	Use Default
EE13	G3711601A - Deep Retrofit Smart Lab - Thimann Laboratories	No	Use Default	No	Use Default	No	Use Default
EE14	G3711602 - 2-Way Valve - Thimann Laboratories	No	Use Default	No	Use Default	No	Use Default
EE15	G3711603 - DIWP Pump VFD - Thimann Laboratories	No	Use Default	No	Use Default	No	Use Default
EE16	G3711604 - Replace Ultra Low Freezers - Thimann Laboratories	No	Use Default	No	Use Default	No	Use Default
EE17	G3711605 - Deep Lighting - Thimann Laboratories	No	Use Default	No	Use Default	No	Use Default
EE18	G3711606 - MBCx - Thimann Laboratories	No	Use Default	Yes	2018	No	Use Default
EE19	G3712401 - MBCx - Cowell College Prescott House	No	Use Default	No	Use Default	No	Use Default
EE20	G3712402A - Condensing boiler with HHW reset - Cowell College Prescott House	No	Use Default	No	Use Default	No	Use Default
EE21	G3712403 - VFD for HHW pump - Cowell College Prescott House	No	Use Default	No	Use Default	No	Use Default
EE22	G3712404 - Occupancy based operation for restroom Efs - Cowell College Prescott House	No	Use Default	No	Use Default	No	Use Default
EE23	G3712405A - Heat Pump for HHW & DHW - Cowell College Prescott House	Yes	2017	No	Use Default	Yes	2017
EE24	G3713401A - Boiler Retrofit (Primary) - Cowell College Commons	Yes	2017	No	Use Default	Yes	2017
EE25	G3713402A - Boiler Retrofit (alt) - Cowell College Commons	No	Use Default	No	Use Default	No	Use Default
EE26	G3713403 - Steam Boiler Retrofit - Cowell College Commons	No	Use Default	No	Use Default	No	Use Default
EE27	G3713404 - MBCx - Cowell College Commons	No	Use Default	No	Use Default	No	Use Default
EE28	G3713405B - Dining Area Daylighting Controls - Cowell College Commons	No	Use Default	No	Use Default	No	Use Default
EE29	G3713406B - Deep Lighting Retrofit - Cowell College Commons	No	Use Default	No	Use Default	No	Use Default
EE30	G3713407A - Deep HVAC Retrofit - Cowell College Commons	Yes	2017	No	Use Default	Yes	2017
EE31	G3713408A - Replace HHW Boiler with Heat Pump - Cowell College Commons	Yes	2017	No	Use Default	Yes	2017
EE32	G3713409 - Dishwasher Replacement - Cowell College Commons	No	Use Default	Yes	2017	No	Use Default
EE33	G3713410 - Kitchen Hood DCV - Cowell College Commons	No	Use Default	No	Use Default	No	Use Default
EE34	G3713701A - Condensing Boiler Retrofit - Stevenson College House 3	No	Use Default	No	Use Default	No	Use Default
EE35	G3713702A - Replace HHW Boiler with Heat Pump - Stevenson College House 3	Yes	2017	No	Use Default	Yes	2017
EE36	G3713703 - Deep HVAC - Stevenson College House 3	No	Use Default	No	Use Default	No	Use Default
EE37	G3713704 - MBCx - Stevenson College House 3	No	Use Default	No	Use Default	No	Use Default
EE38	G3713705 - Interlock Danfoss Valves with Windows - Stevenson College House 3	No	Use Default	No	Use Default	No	Use Default
EE39	G3714401 - Deep HVAC - Stevenson College Commons	No	Use Default	No	Use Default	No	Use Default
EE40	G3714402 - HVAC Occ Sensor / Demand Based Scheduling for MPR - Stevenson College Commons	No	Use Default	Yes	2017	No	Use Default
EE41	G3714403 - MBCx - Stevenson College Commons	No	Use Default	Yes	2017	No	Use Default
EE42	G3714404A - Deep Lighting - Stevenson College Commons	No	Use Default	No	Use Default	No	Use Default
EE43	G3714405B - MPR LED Lighting Retrofit - Stevenson College Commons	No	Use Default	No	Use Default	No	Use Default
EE44	G3714501A - Deep HVAC - McHenry Library	No	Use Default	No	Use Default	No	Use Default
EE45	G3714502B - Deep Lighting - McHenry Library	No	Use Default	No	Use Default	No	Use Default
EE46	G3714503B - Emergency Lighting - McHenry Library	No	Use Default	No	Use Default	No	Use Default
EE47	G3714504A - MBCx - McHenry Library	No	Use Default	No	Use Default	No	Use Default
EE48	G3715701 - Steam Boiler Retrofit - Crown College Commons	No	Use Default	No	Use Default	No	Use Default
EE49	G3715702B - Convert to VAV - Crown College Commons	No	Use Default	Yes	2017	No	Use Default
EE50	G3715703B - HVAC Occ Sensor / Demand Based Scheduling - Crown College Commons	No	Use Default	No	Use Default	No	Use Default
EE51	G3715704 - Convert to 2-Way Valve - Crown College Commons	No	Use Default	No	Use Default	No	Use Default
EE52	G3715705 - MBCx - Crown College Commons	No	Use Default	No	Use Default	No	Use Default
EE53	G3715706A - MH to LED Lighting Retrofit with Daylighting - Crown College Commons	No	Use Default	No	Use Default	No	Use Default
EE54	G3715707B - Deep Lighting - Crown College Commons	No	Use Default	No	Use Default	No	Use Default
EE55	G3715708 - Air-to-Water Heat Pump - Crown College Commons	No	Use Default	No	Use Default	No	Use Default
EE56	G3715709 - Kitchen Hood DCV - Crown College Commons	No	Use Default	No	Use Default	No	Use Default
EE57	G3717501 - Deep HVAC - Communications Building	No	Use Default	No	Use Default	No	Use Default
EE58	G3717502 - IT Room - Communications Building	No	Use Default	No	Use Default	No	Use Default
EE59	G3717503 - Data Center Retrofit - Communications Building	No	Use Default	No	Use Default	No	Use Default
EE60	G3717504 - Deep Lighting - Communications Building	No	Use Default	No	Use Default	No	Use Default
EE61	G3717505 - 2-Way Valve - Communications Building	No	Use Default	No	Use Default	No	Use Default
EE62	G3717506 - MBCx - Communications Building	No	Use Default	Yes	2018	No	Use Default
EE63	G3717901A - Deep Retrofit Smart Lab - Natural Sciences 2 Main Building	No	Use Default	No	Use Default	No	Use Default
EE64	G3717902A - VAV Labs - Natural Sciences 2 Main Building	No	Use Default	No	Use Default	No	Use Default
EE65	G3717903 - 2-Way Valve - Natural Sciences 2 Main Building	No	Use Default	No	Use Default	No	Use Default
EE66	G3717904 - Process Water Pump VFD - Natural Sciences 2 Main Building	No	Use Default	No	Use Default	No	Use Default
EE67	G3717905B - Daylighting - Natural Sciences 2 Main Building	No	Use Default	No	Use Default	No	Use Default
EE68	G3717906 - Replace Ultra Low Freezers - Natural Sciences 2 Main Building	No	Use Default	No	Use Default	No	Use Default
EE69	G3717907 - Server Room HVAC - Natural Sciences 2 Main Building	No	Use Default	No	Use Default	No	Use Default
EE70	G3717908B - Deep Lighting - Natural Sciences 2 Main Building	No	Use Default	No	Use Default	No	Use Default
EE71	G3717909 - MBCx - Natural Sciences 2 Main Building	No	Use Default	Yes	2018	No	Use Default
EE72	G3718001 - Demand Based Scheduling - Natural Sciences 2 Annex	No	Use Default	No	Use Default	No	Use Default
EE73	G3718002 - EF-02 Timeclock - Natural Sciences 2 Annex	No	Use Default	No	Use Default	No	Use Default
EE74	G3718003 - Deep Lighting - Natural Sciences 2 Annex	No	Use Default	No	Use Default	No	Use Default
EE75	G3718401 - MBCx - Merrill College House B	No	Use Default	No	Use Default	No	Use Default
EE76	G3718402 - Occupancy based control on AH-B1/EF-B1, AH-B2/EF-2 - Merrill College	No	Use Default	Yes	2017	No	Use Default
EE77	G3718403 - Deep Lighting Retrofit - Merrill College House B	No	Use Default	No	Use Default	No	Use Default
EE78	G3718404 - Seasonal Building Scheduling - Merrill College House B	No	Use Default	Yes	2017	No	Use Default
EE79	G3718405 - HHW & DHW Heat Pumps - Merrill College House B	No	Use Default	No	Use Default	No	Use Default
EE80	G3718501 - 2638 Merrill Cultural Center Renovations (Deep Lighting) - Merrill College	No	Use Default	No	Use Default	No	Use Default
EE81	G3718502 - 2638 Merrill Cultural Center Renovations (Deep HVAC) - Merrill College	No	Use Default	No	Use Default	No	Use Default
EE82	G3718503A - MBCx - Merrill College Dining Common	Yes	2018	Yes	2018	Yes	2018
EE83	G3719401A - Deep Retrofit Smart Lab - Jack Baskin Engineering Building	No	Use Default	No	Use Default	No	Use Default
EE84	G3719402A - VAV Non-Labs - Jack Baskin Engineering Building	No	Use Default	No	Use Default	No	Use Default
EE85	G3719403 - 2-Way Valve - Jack Baskin Engineering Building	No	Use Default	No	Use Default	No	Use Default
EE86	G3719404 - Data Center Retrofit - Jack Baskin Engineering Building	No	Use Default	No	Use Default	No	Use Default
EE87	G3719405 - Replace Ultra Low Freezers - Jack Baskin Engineering Building	No	Use Default	No	Use Default	No	Use Default
EE88	G3719406 - Deep Lighting - Jack Baskin Engineering Building	No	Use Default	No	Use Default	No	Use Default
EE89	G3719407 - MBCx - Jack Baskin Engineering Building	No	Use Default	Yes	2018	No	Use Default
EE90	G3720001A - Reduce Morning Warmup Setpoints - Cowell Student Health Center	Yes	2017	Yes	2017	Yes	2017
EE91	G3720002A - Lockout heating when windows are open - Cowell Student Health Center	No	Use Default	Yes	2017	No	Use Default

CES Project ID	SEP ID - Project Type - Building	CW1-2018 AB32 Exit		CW1.1-2018 AB32 Exit- Biogas		CW1.2-2018 AB32 Exit, Aggressive Onsite, Fuel Cells	
		Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year
EE92	G372003B - HHW/DHW Boiler Upgrade - Cowell Student Health Center	No	Use Default	No	Use Default	No	Use Default
EE93	G372004C - Demand Controlled Ventilation - Cowell Student Health Center	No	Use Default	Yes	2017	No	Use Default
EE94	G372005 - Delamp - Cowell Student Health Center	No	Use Default	No	Use Default	No	Use Default
EE95	G372006 - Daylighting Controls - Cowell Student Health Center	No	Use Default	No	Use Default	No	Use Default
EE96	G372007C - Upgrade AHUs to VAV - Cowell Student Health Center	No	Use Default	Yes	2017	No	Use Default
EE97	G372008A - MBCx - Cowell Student Health Center	Yes	2017	Yes	2018	Yes	2017
EE98	G372009B - Heat Pump for HHW & DHW - Cowell Student Health Center	Yes	2017	No	Use Default	Yes	2017
EE99	G3720101 - Reduce Morning Warmup Setpoints - Cowell Student Health Center Add	No	Use Default	Yes	2017	No	Use Default
EE100	G3720102 - Lockout heating when windows are open - Cowell Student Health Center	No	Use Default	No	Use Default	No	Use Default
EE101	G3720103 - Demand Controlled Ventilation - Cowell Student Health Center Addition	No	Use Default	No	Use Default	No	Use Default
EE102	G3720104 - MBCx - Cowell Student Health Center Addition	No	Use Default	No	Use Default	No	Use Default
EE103	G3730101 - MBCx - Classroom Unit 1	No	Use Default	No	Use Default	No	Use Default
EE104	G3730102A - Condensing boiler with HHW reset - Classroom Unit 1	No	Use Default	No	Use Default	No	Use Default
EE105	G3730103 - VFD for HHW pump - Classroom Unit 1	No	Use Default	No	Use Default	No	Use Default
EE106	G3730104 - Occupancy-based AC control for projector room - Classroom Unit 1	No	Use Default	No	Use Default	No	Use Default
EE107	G3730105 - Deep Lighting Retrofit - Classroom Unit 1	No	Use Default	No	Use Default	No	Use Default
EE108	G3730106 - Automatic tstat control for convectors - Classroom Unit 1	No	Use Default	Yes	2018	No	Use Default
EE109	G3730107 - Add VFDs to SFs - Classroom Unit 1	No	Use Default	No	Use Default	No	Use Default
EE110	G3730108A - HHW & DHW Heat Pumps - Classroom Unit 1	Yes	2017	No	Use Default	Yes	2017
EE111	G3730401 - MBCx - Porter College House B	No	Use Default	No	Use Default	No	Use Default
EE112	G3730402 - Window Interlock Controls - Porter College House B	No	Use Default	No	Use Default	No	Use Default
EE113	G3730501 - MBCx - Porter College Dining Common	No	Use Default	No	Use Default	No	Use Default
EE114	G3730502 - Deep HVAC - Porter College Dining Common	No	Use Default	No	Use Default	No	Use Default
EE115	G3730503 - Kitchen Hood DCV - Porter College Dining Common	No	Use Default	No	Use Default	No	Use Default
EE116	G3737601A - MBCx - Kerr Hall	No	Use Default	No	Use Default	No	Use Default
EE117	G3737602B - Deep HVAC Retrofit - Kerr Hall	No	Use Default	No	Use Default	No	Use Default
EE118	G3737603 - Deep Lighting - Kerr Hall	No	Use Default	No	Use Default	No	Use Default
EE119	G3737604 - Disconnect/Remove AC4 - Kerr Hall	No	Use Default	No	Use Default	No	Use Default
EE120	G3737605 - Premium Efficiency Pump Replacement (HWP 02) - Kerr Hall	No	Use Default	No	Use Default	No	Use Default
EE121	G3737701 - Demand Based Scheduling - Kresge College Academic Building	No	Use Default	No	Use Default	No	Use Default
EE122	G3737702 - Automatic t-stat control for convectors - Kresge College Academic Buildi	No	Use Default	No	Use Default	No	Use Default
EE123	G3737703B - Dual Circuit Lighting - Kresge College Academic Building	No	Use Default	No	Use Default	No	Use Default
EE124	G3737704A - Condensing HHW/DHW boiler w/ HWST reset - Kresge College Academ	No	Use Default	No	Use Default	No	Use Default
EE125	G3737705 - VAV for WAFs - Kresge College Academic Building	No	Use Default	No	Use Default	No	Use Default
EE126	G3737706B - Deep Lighting - Kresge College Academic Building	No	Use Default	No	Use Default	No	Use Default
EE127	G3737707 - MBCx - Kresge College Academic Building	No	Use Default	No	Use Default	No	Use Default
EE128	G3737708A - Heat Pump for HHW & DHW - Kresge College Academic Building	Yes	2020	No	Use Default	Yes	2020
EE129	G3737901 - Demand Based Scheduling - Kresge College Assembly Building	No	Use Default	No	Use Default	No	Use Default
EE130	G3737902 - Instantaneous Gas DHW Heater - Kresge College Assembly Building	No	Use Default	No	Use Default	No	Use Default
EE131	G3737903 - VAV for WAFs - Kresge College Assembly Building	No	Use Default	Yes	2017	No	Use Default
EE132	G3737904 - MBCx - Kresge College Assembly Building	No	Use Default	No	Use Default	No	Use Default
EE133	G3737905 - Heat Pump for Heating & DHW - Kresge College Assembly Building	No	Use Default	No	Use Default	No	Use Default
EE134	G3737906 - Kitchen Hood DCV - Kresge College Assembly Building	No	Use Default	Yes	2018	No	Use Default
EE135	G3739201 - Demand Based Scheduling - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE136	G3739202 - Instantaneous Gas DHW Heater - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE137	G3739203 - MBCx - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE138	G3739204 - Heat Pump for Heating & DHW - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE139	G3741901A - Condensing Boiler Retrofit - Oakes College Tutorial Commons	No	Use Default	No	Use Default	No	Use Default
EE140	G3741902A - Replace HHW Boiler with Heat Pump - Oakes College Tutorial Commons	Yes	2018	No	Use Default	Yes	2018
EE141	G3741903B - Deep HVAC - Oakes College Tutorial Commons	Yes	2018	No	Use Default	Yes	2018
EE142	G3741904B - MBCx - Oakes College Tutorial Commons	Yes	2018	No	Use Default	Yes	2018
EE143	G3741905 - Kitchen Hood DCV - Oakes College Tutorial Commons	No	Use Default	Yes	2018	No	Use Default
EE144	G3742101 - MBCx - Oakes College Residence C11-15	No	Use Default	No	Use Default	No	Use Default
EE145	G3742102 - Install instantaneous GWH - Oakes College Residence C11-15	No	Use Default	No	Use Default	No	Use Default
EE146	G3742103 - Occupancy-based EF control for bathrooms - Oakes College Residence C	No	Use Default	No	Use Default	No	Use Default
EE147	G3742104A - Condensing Furnace w VFD upgrade - Oakes College Residence C11-15	No	Use Default	No	Use Default	No	Use Default
EE148	G3742105 - Occupancy controlled heating system - Oakes College Residence C11-15	No	Use Default	No	Use Default	No	Use Default
EE149	G3742106A - HHW & DHW Heat Pumps - Oakes College Residence C11-15	Yes	2018	No	Use Default	Yes	2018
EE150	G3743501A - Boiler Retrofit - Fieldhouse West	No	Use Default	No	Use Default	No	Use Default
EE151	G3743502 - MBCx - Fieldhouse West	No	Use Default	Yes	2018	No	Use Default
EE152	G3743503A - Deep HVAC Retrofit - Fieldhouse West	Yes	2019	No	Use Default	Yes	2019
EE153	G3743504A - Air-to-Water Heat Pump - Fieldhouse West	Yes	2019	No	Use Default	Yes	2019
EE154	G3743801A - T12 Retrofit - LML William T. Doyle Research Building	No	Use Default	No	Use Default	No	Use Default
EE155	G3743802B - Deep Lighting Retrofit - LML William T. Doyle Research Building	No	Use Default	No	Use Default	No	Use Default
EE156	G3743803 - Deep HVAC Retrofit - LML William T. Doyle Research Building	No	Use Default	No	Use Default	No	Use Default
EE157	G3743804 - MBCx - LML William T. Doyle Research Building	No	Use Default	Yes	2018	No	Use Default
EE158	G3743805 - ECM Motors - LML William T. Doyle Research Building	No	Use Default	No	Use Default	No	Use Default
EE159	G3754701 - Exterior Lighting Controls - Crown-Merrill Housing Building 13	No	Use Default	No	Use Default	No	Use Default
EE160	G3754702 - HVAC Occupancy Schedule - Crown-Merrill Housing Building 13	No	Use Default	No	Use Default	No	Use Default
EE161	G3754703A - Condensing Furnace - Crown-Merrill Housing Building 13	Yes	2018	No	Use Default	Yes	2018
EE162	G3754704 - MBCx - Crown-Merrill Housing Building 13	No	Use Default	No	Use Default	No	Use Default
EE163	G3754705A - HHW & DHW Heat Pumps - Crown-Merrill Housing Building 13	Yes	2018	No	Use Default	Yes	2018
EE164	G3769401A - Condensing Boiler Retrofit - Long Marine Lab Ocean Health Building	No	Use Default	No	Use Default	No	Use Default
EE165	G3769402A - Replace HHW Boiler with Heat Pump - Long Marine Lab Ocean Health B	Yes	2019	No	Use Default	Yes	2019
EE166	G3769403 - Decommission AC1 - Long Marine Lab Ocean Health Building	No	Use Default	No	Use Default	No	Use Default
EE167	G3769404 - Convert AH1 to VAV - Long Marine Lab Ocean Health Building	No	Use Default	No	Use Default	No	Use Default
EE168	G3769405 - MBCx - Long Marine Lab Ocean Health Building	No	Use Default	Yes	2018	No	Use Default
EE169	G3769406 - Deep Lighting Retrofit - Long Marine Lab Ocean Health Building	No	Use Default	No	Use Default	No	Use Default
EE170	G3769407 - Replace Ultra Low Freezers - Long Marine Lab Ocean Health Building	No	Use Default	No	Use Default	No	Use Default
EE171	G3770001 - Pool Heat Exchanger - Long Marine Lab Dolphinarium	No	Use Default	No	Use Default	No	Use Default
EE172	G3770002 - Caisson #2 Pump Replacement - Long Marine Lab Dolphinarium	No	Use Default	No	Use Default	No	Use Default
EE173	G3770003 - MBCx - Long Marine Lab Dolphinarium	No	Use Default	No	Use Default	No	Use Default
EE174	G3770004 - Lighting Retrofit - Long Marine Lab Dolphinarium	No	Use Default	No	Use Default	No	Use Default
EE175	G3770005 - VFDs in Caisson #1 - Long Marine Lab Dolphinarium	No	Use Default	No	Use Default	No	Use Default
EE176	G3770601 - Demand Controlled Ventilation - Humanities Building 1	No	Use Default	No	Use Default	No	Use Default
EE177	G3770602A - Boiler Upgrade - Humanities Building 1	No	Use Default	No	Use Default	No	Use Default
EE178	G3770603 - MBCx - Humanities Building 1	No	Use Default	No	Use Default	No	Use Default
EE179	G3770604A - Heat Pump for HHW & DHW - Humanities Building 1	Yes	2017	No	Use Default	Yes	2017
EE180	G3770701A - Boiler Upgrade - Cowell College Apartment Building 2	No	Use Default	No	Use Default	No	Use Default
EE181	G3770702 - HVAC Occ Sensor - Cowell College Apartment Building 2	No	Use Default	No	Use Default	No	Use Default
EE182	G3770703 - MBCx - Cowell College Apartment Building 2	No	Use Default	No	Use Default	No	Use Default

CES Project ID	SEP ID - Project Type - Building	CW1-2018 AB32 Exit		CW1.1-2018 AB32 Exit- Biogas		CW1.2-2018 AB32 Exit, Aggressive Onsite, Fuel Cells	
		Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year
EE183	G3770704 - 2-Way Valve - Cowell College Apartment Building 2	No	Use Default	No	Use Default	No	Use Default
EE184	G3770705A - HHW & DHW Heat Pumps - Cowell College Apartment Building 2	Yes	2017	No	Use Default	Yes	2017
EE185	G3771001 - Demand Controlled Ventilation - Humanities & Social Sciences Building	No	Use Default	No	Use Default	No	Use Default
EE186	G3771002A - Boiler Upgrade - Humanities & Social Sciences Building	No	Use Default	No	Use Default	No	Use Default
EE187	G3771003 - Improve Southeast Glazing - Humanities & Social Sciences Building	No	Use Default	No	Use Default	No	Use Default
EE188	G3771004 - Deep Lighting - Humanities & Social Sciences Building	No	Use Default	No	Use Default	No	Use Default
EE189	G3771005 - MBCx - Humanities & Social Sciences Building	No	Use Default	No	Use Default	No	Use Default
EE190	G3771006A - Heat Pump for HHW & DHW - Humanities & Social Sciences Building	Yes	2017	No	Use Default	Yes	2017
EE191	G3771701A - Condensing Boiler Retrofit - Digital Arts Research Center	No	Use Default	No	Use Default	No	Use Default
EE192	G3771702A - Replace HHW Boiler with Heat Pump - Digital Arts Research Center	Yes	2017	No	Use Default	Yes	2017
EE193	G3771703 - Demand Based Scheduling - Digital Arts Research Center	No	Use Default	No	Use Default	No	Use Default
EE194	G3771704B - Eliminate Comfort Cooling - Digital Arts Research Center	No	Use Default	No	Use Default	No	Use Default
EE195	G3771705B - MBCx - Digital Arts Research Center	Yes	2017	No	Use Default	Yes	2017
EE196	G3771706C - Dining Area Daylighting Controls - Digital Arts Research Center	No	Use Default	No	Use Default	No	Use Default
EE197	G3771707C - Deep Lighting Retrofit - Digital Arts Research Center	No	Use Default	No	Use Default	No	Use Default
EE198	G3772601A - Condensing Boiler Retrofit, with 2 Way Valve - OPERS Fitness Center	No	Use Default	No	Use Default	No	Use Default
EE199	G3772602A - Replace HHW Boiler with Heat Pump - OPERS Fitness Center	Yes	2017	No	Use Default	Yes	2017
EE200	G3772603B - Window Interlock Sensors - OPERS Fitness Center	Yes	2017	Yes	2017	Yes	2017
EE201	G3772604B - MBCx - OPERS Fitness Center	Yes	2017	No	Use Default	Yes	2017
EE202	G3772605 - Dining Area Daylighting Controls - OPERS Fitness Center	No	Use Default	No	Use Default	No	Use Default
EE203	G3773301A - Boiler Retrofit - Long Marine Lab Seymour Center	No	Use Default	No	Use Default	No	Use Default
EE204	G3773302A - Air-to-Water Heat Pump - Long Marine Lab Seymour Center	Yes	2019	No	Use Default	Yes	2019
EE205	G3773303B - Variable Air Volume Conversion for AHUs - Long Marine Lab Seymour C	No	Use Default	No	Use Default	No	Use Default
EE206	G3773304B - HVAC Occ Sensor / Demand Based Scheduling - Long Marine Lab Seymo	No	Use Default	Yes	2018	No	Use Default
EE207	G3773305B - Dual Technology Controls - Long Marine Lab Seymour Center	No	Use Default	No	Use Default	No	Use Default
EE208	G3773306 - MBCx - Long Marine Lab Seymour Center	No	Use Default	Yes	2018	No	Use Default
EE209	G3773307C - Deep Lighting - Long Marine Lab Seymour Center	No	Use Default	No	Use Default	No	Use Default
EE210	G3773308C - Retrofit Highbay Lighting to LED and add Daylighting controls - Long Ma	No	Use Default	No	Use Default	No	Use Default
EE211	G3773309C - Retrofit T12 Lighting with LED - Long Marine Lab Seymour Center	No	Use Default	No	Use Default	No	Use Default
EE212	G3774301 - HVAC Occ Sensor / Demand Based Scheduling - OPERS Offices & Support	No	Use Default	Yes	2018	No	Use Default
EE213	G3774302 - MBCx - OPERS Offices & Support Space	No	Use Default	Yes	2017	No	Use Default
EE214	G3774303 - Pool Cover - OPERS Offices & Support Space	No	Use Default	Yes	2017	No	Use Default
EE215	G3774304 - Deep Lighting - OPERS Offices & Support Space	No	Use Default	No	Use Default	No	Use Default
EE216	G3774305A - Air-to-Water Heat Pump - OPERS Offices & Support Space	Yes	2017	No	Use Default	Yes	2017
EE217	G3774401 - Deep Retrofit Smart Lab - Sinsheimer Laboratories	No	Use Default	No	Use Default	No	Use Default
EE218	G3774402 - Daylighting - Sinsheimer Laboratories	No	Use Default	No	Use Default	No	Use Default
EE219	G3774403 - Replace Ultra Low Freezers - Sinsheimer Laboratories	No	Use Default	No	Use Default	No	Use Default
EE220	G3774404 - Deep Lighting - Sinsheimer Laboratories	No	Use Default	No	Use Default	No	Use Default
EE221	G3774405 - MBCx - Sinsheimer Laboratories	No	Use Default	Yes	2018	No	Use Default
EE222	G3775601A - Boiler Retrofit - College Eight Kitchen	Yes	2019	Yes	2017	Yes	2019
EE223	G3775602A - Air-to-Water Heat Pump - College Eight Kitchen	Yes	2019	No	Use Default	Yes	2019
EE224	G3775603B - Daylighting - College Eight Kitchen	No	Use Default	No	Use Default	No	Use Default
EE225	G3775604B - Deep Lighting - College Eight Kitchen	No	Use Default	No	Use Default	No	Use Default
EE226	G3775605 - MBCx - College Eight Kitchen	No	Use Default	Yes	2017	No	Use Default
EE227	G3775606 - Kitchen Hood DCV - College Eight Kitchen	No	Use Default	Yes	2018	No	Use Default
EE228	G3775901A - Boiler Retrofit - College Eight Dorm A-L-Building	No	Use Default	No	Use Default	No	Use Default
EE229	G3775902B - HVAC Tstat & Window Interlock - College Eight Dorm A-L-Building	No	Use Default	No	Use Default	No	Use Default
EE230	G3775903B - MBCx - College Eight Dorm A-L-Building	Yes	2019	No	Use Default	Yes	2019
EE231	G3775904A - Air-to-Water Heat Pump - College Eight Dorm A-L-Building	Yes	2020	No	Use Default	Yes	2020
EE232	G3777501A - Deep Retrofit Smart Labs - Earth & Marine Sciences	No	Use Default	No	Use Default	No	Use Default
EE233	G3777502A - VAV Conversion - Earth & Marine Sciences	No	Use Default	No	Use Default	No	Use Default
EE234	G3777503 - Improve Glazing - Earth & Marine Sciences	No	Use Default	No	Use Default	No	Use Default
EE235	G3777504 - DCV with CO2 sensors - Earth & Marine Sciences	No	Use Default	No	Use Default	No	Use Default
EE236	G3777505 - Deep Lighting - Earth & Marine Sciences	No	Use Default	No	Use Default	No	Use Default
EE237	G3777506 - Replace Ultra Low Freezers - Earth & Marine Sciences	No	Use Default	No	Use Default	No	Use Default
EE238	G3777507 - MBCx - Earth & Marine Sciences	No	Use Default	No	Use Default	No	Use Default
EE239	G3780101A - Condensing Furnace Retrofit - College Eight Apartment Building 2	No	Use Default	No	Use Default	No	Use Default
EE240	G3780102A - Install Heat Pumps for Heating - College Eight Apartment Building 2	Yes	2020	No	Use Default	Yes	2020
EE241	G3780103B - Condensing Furnace Retrofit - College Eight Apartment Building 2	No	Use Default	No	Use Default	No	Use Default
EE242	G3780104B - Energy Star Electric Heat Pump Water Heater - College Eight Apartment	Yes	2020	No	Use Default	Yes	2020
EE243	G3780105 - Smart Thermostat - College Eight Apartment Building 2	No	Use Default	No	Use Default	No	Use Default
EE244	G3790501A - Boiler Upgrade - Stevenson College Apartment Building 10	No	Use Default	No	Use Default	No	Use Default
EE245	G3790502 - HVAC Occ Sensor - Stevenson College Apartment Building 10	No	Use Default	No	Use Default	No	Use Default
EE246	G3790503 - MBCx - Stevenson College Apartment Building 10	No	Use Default	No	Use Default	No	Use Default
EE247	G3790504 - 2-Way Valve - Stevenson College Apartment Building 10	No	Use Default	No	Use Default	No	Use Default
EE248	G3790505A - HHW & DHW Heat Pumps - Stevenson College Apartment Building 10	Yes	2017	No	Use Default	Yes	2017
EE249	G3791001A - Condensing Boiler Retrofit - Porter College Apartment Building K	No	Use Default	No	Use Default	No	Use Default
EE250	G3791002A - Replace HHW Boiler with Heat Pump - Porter College Apartment Building	Yes	2020	No	Use Default	Yes	2020
EE251	G3791003 - Smart Thermostat - Porter College Apartment Building K	No	Use Default	No	Use Default	No	Use Default
EE252	G3791004 - MBCx - Porter College Apartment Building K	No	Use Default	No	Use Default	No	Use Default
EE253	G3791901A - Deep Retrofit Smart Lab - Physical Sciences Building	No	Use Default	No	Use Default	No	Use Default
EE254	G3791902A - VAV Lab Exhaust - Physical Sciences Building	No	Use Default	No	Use Default	No	Use Default
EE255	G3791903 - Controls - Physical Sciences Building	No	Use Default	No	Use Default	No	Use Default
EE256	G3791904 - Replace Ultra Low Freezers - Physical Sciences Building	No	Use Default	No	Use Default	No	Use Default
EE257	G3791905 - Server Room HVAC - Physical Sciences Building	No	Use Default	No	Use Default	No	Use Default
EE258	G3791906 - MBCx - Physical Sciences Building	No	Use Default	Yes	2018	No	Use Default
EE259	G3793201A - Boiler Upgrade - College Nine Residence Hall 2	No	Use Default	No	Use Default	No	Use Default
EE260	G3793202 - HVAC Occ Sensor - College Nine Residence Hall 2	No	Use Default	No	Use Default	No	Use Default
EE261	G3793203 - MBCx - College Nine Residence Hall 2	No	Use Default	No	Use Default	No	Use Default
EE262	G3793204A - HHW & DHW Heat Pumps - College Nine Residence Hall 2	Yes	2019	No	Use Default	Yes	2019
EE272	G37933010 - Lidded Charboiler - College Nine Dining Hall	No	Use Default	Yes	2018	No	Use Default
EE263	G3793301A - Condensing Boiler Retrofit - College Nine Dining Hall	No	Use Default	Yes	2018	No	Use Default
EE264	G3793302A - Replace HHW Boiler with Heat Pump - College Nine Dining Hall	Yes	2020	No	Use Default	Yes	2020
EE265	G3793303 - Demand Based Scheduling - College Nine Dining Hall	No	Use Default	No	Use Default	No	Use Default
EE266	G3793304 - Convert AH4 to VAV with Demand Based Scheduling - College Nine Dinir	No	Use Default	No	Use Default	No	Use Default
EE267	G3793305 - MBCx - College Nine Dining Hall	No	Use Default	Yes	2018	No	Use Default
EE268	G3793306B - Dining Area Daylighting Controls - College Nine Dining Hall	No	Use Default	No	Use Default	No	Use Default
EE269	G3793307B - Deep Lighting Retrofit - College Nine Dining Hall	No	Use Default	No	Use Default	No	Use Default
EE270	G3793308 - Dish room industrial & pre-rinse sprayers - College Nine Dining Hall	No	Use Default	Yes	2017	No	Use Default
EE271	G3793309 - Dishwasher Replacement - College Nine Dining Hall	No	Use Default	Yes	2017	No	Use Default
EE273	G3794001 - MBCx - Engineering Building 2	No	Use Default	Yes	2017	No	Use Default

CES Project ID	SEP ID - Project Type - Building	CW1-2018 AB32 Exit		CW1.1-2018 AB32 Exit- Biogas		CW1.2-2018 AB32 Exit, Aggressive Onsite, Fuel Cells	
		Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year
EE274	G3794002 - HVAC Occ Sensor / Demand Based Scheduling - Engineering Building 2	No	Use Default	No	Use Default	No	Use Default
EE275	G3794003 - Server Room HVAC: Includes Rooms 208 and 594 - Engineering Building	No	Use Default	No	Use Default	No	Use Default
EE276	G3794004 - Server Room UPS Rm 208 and 594 - Engineering Building 2	No	Use Default	No	Use Default	No	Use Default
EE277	G3794005 - Deep Lighting - Engineering Building 2	No	Use Default	No	Use Default	No	Use Default
EE278	G3794401 - Parking Lot LED Retrofit - 2300 Delaware Avenue A/B	No	Use Default	No	Use Default	No	Use Default
EE279	G3794402 - MBCx - 2300 Delaware Avenue A/B	No	Use Default	Yes	2018	No	Use Default
EE280	G3794403 - Raise Server Room Temp Setpoints - 2300 Delaware Avenue A/B	No	Use Default	No	Use Default	No	Use Default
EE281	G3794701 - Vivarium Lighting Control - Biomedical Sciences	No	Use Default	No	Use Default	No	Use Default
EE282	G3794702 - Replace Ultra Low Freezers - Biomedical Sciences	No	Use Default	No	Use Default	No	Use Default
EE283	G3794703 - Monitoring Based Commissioning - Biomedical Sciences	No	Use Default	Yes	2017	No	Use Default
EE293	G3DIST01A - Pre-Cool Cooling Tower Air - Campuswide	No	Use Default	No	Use Default	No	Use Default
EE294	G3DIST02 - PVThermal at OPERS Pool - Campuswide	No	Use Default	No	Use Default	No	Use Default
EE297	G3DIST05 - Porter College Mini District Low Temp Heating - Campuswide	No	Use Default	No	Use Default	No	Use Default
EE298	G3DIST06A - Distributed Resource Optimization - Campuswide	Yes	2020	No	Use Default	Yes	2020
EE299	G3DIST08 - Low Temp Heating of Ventilation Air - Campuswide	No	Use Default	No	Use Default	No	Use Default
EE300	G3DIST09A - Cooling Tower Staging & Optimization - Campuswide	No	Use Default	No	Use Default	No	Use Default
EE295	G3DIST4aA - Reduce Condenser Water Temperature with Pony Chillers - Campuswide	No	Use Default	No	Use Default	No	Use Default
EE296	G3DIST4bA - Reduce Condenser Water Temperature with Pony Chillers - Campuswide	No	Use Default	No	Use Default	No	Use Default
EE284	G3WIDE01 - Campus Wide Wall Pack Upgrade - Campuswide	No	Use Default	No	Use Default	No	Use Default
EE285	G3WIDE02 - Unplug Refrigerators for Summer Break - Campuswide	No	Use Default	No	Use Default	No	Use Default
EE286	G3WIDE03 - Eliminate Building Heat on 90°F Days - Campuswide	No	Use Default	Yes	2017	No	Use Default
EE287	G3WIDE04 - Walk-in Cooler & Freezer Optimization - Campuswide	No	Use Default	No	Use Default	No	Use Default
EE288	G3WIDE05 - Campuswide Incandescent/Halogen Lighting Retrofit - Campuswide	No	Use Default	No	Use Default	No	Use Default
EE289	G3WIDE06 - Porter & Crown Kitchen Shutdown - Campuswide	No	Use Default	No	Use Default	No	Use Default
EE290	G3WIDE07 - Crown & Porter Kitchen Hood Shutdown - Campuswide	No	Use Default	No	Use Default	No	Use Default
EE291	G3WIDE08 - Replace Ultra Low Freezers - Campuswide	No	Use Default	No	Use Default	No	Use Default
EE292	G3WIDE09 - Pathway Lighting Retrofit - Campuswide	No	Use Default	No	Use Default	No	Use Default
EE305	G471601A - Add VFDs to CHW Pump - Thimann Lab	No	Use Default	No	Use Default	No	Use Default
EE306	G471602A - Add VFDs to Process Heating Water Pump - Thimann Lab	No	Use Default	No	Use Default	No	Use Default
EE301	G4714501A - Lighting Conversion Phase II - McHenry Library	No	Use Default	No	Use Default	No	Use Default
EE304	G4714601 - Fackler Plant LED & Controls Conversion - Central Heating Plant	No	Use Default	No	Use Default	No	Use Default
EE303	G4717901A - Hallway Lighting Retrofit - Natural Sciences II	No	Use Default	No	Use Default	No	Use Default
EE302	G4792101 - Hallway Lighting Retrofit - Social Sciences II	No	Use Default	No	Use Default	No	Use Default
EE307	G57120401 - MBCx - Cowell College Turner House	No	Use Default	No	Use Default	No	Use Default
EE308	G57120402A - Condensing boiler with HHW reset - Cowell College Turner House	No	Use Default	No	Use Default	No	Use Default
EE309	G57120403 - VFD for HHW pump - Cowell College Turner House	No	Use Default	No	Use Default	No	Use Default
EE310	G57120404 - Occupancy based operation for restroom Efs - Cowell College Turner H	No	Use Default	No	Use Default	No	Use Default
EE311	G57120405A - Heat Pump for HHW & DHW - Cowell College Turner House	Yes	2017	No	Use Default	Yes	2017
EE327	G57121401 - MBCx - Cowell College Parrington House	No	Use Default	No	Use Default	No	Use Default
EE328	G57121402A - Condensing boiler with HHW reset - Cowell College Parrington House	No	Use Default	No	Use Default	No	Use Default
EE329	G57121403 - VFD for HHW pump - Cowell College Parrington House	No	Use Default	No	Use Default	No	Use Default
EE330	G57121404 - Occupancy based operation for restroom Efs - Cowell College Parringt	No	Use Default	No	Use Default	No	Use Default
EE331	G57121405A - Heat Pump for HHW & DHW - Cowell College Parrington House	Yes	2017	No	Use Default	Yes	2017
EE322	G57122401 - MBCx - Cowell College Beard House	No	Use Default	No	Use Default	No	Use Default
EE323	G57122402A - Condensing boiler with HHW reset - Cowell College Beard House	No	Use Default	No	Use Default	No	Use Default
EE324	G57122403 - VFD for HHW pump - Cowell College Beard House	No	Use Default	No	Use Default	No	Use Default
EE325	G57122404 - Occupancy based operation for restroom Efs - Cowell College Beard H	No	Use Default	No	Use Default	No	Use Default
EE326	G57122405A - Heat Pump for HHW & DHW - Cowell College Beard House	Yes	2017	No	Use Default	Yes	2017
EE332	G57123401 - MBCx - Cowell College Morison House	No	Use Default	No	Use Default	No	Use Default
EE333	G57123402A - Condensing boiler with HHW reset - Cowell College Morison House	No	Use Default	No	Use Default	No	Use Default
EE334	G57123403 - VFD for HHW pump - Cowell College Morison House	No	Use Default	No	Use Default	No	Use Default
EE335	G57123404 - Occupancy based operation for restroom Efs - Cowell College Morison	No	Use Default	No	Use Default	No	Use Default
EE336	G57123405A - Heat Pump for HHW & DHW - Cowell College Morison House	Yes	2017	No	Use Default	Yes	2017
EE312	G57125401 - MBCx - Cowell College Parkman House	No	Use Default	No	Use Default	No	Use Default
EE313	G57125402A - Condensing boiler with HHW reset - Cowell College Parkman House	No	Use Default	No	Use Default	No	Use Default
EE314	G57125403 - VFD for HHW pump - Cowell College Parkman House	No	Use Default	No	Use Default	No	Use Default
EE315	G57125404 - Occupancy based operation for restroom Efs - Cowell College Parkman	No	Use Default	No	Use Default	No	Use Default
EE316	G57125405A - Heat Pump for HHW & DHW - Cowell College Parkman House	Yes	2017	No	Use Default	Yes	2017
EE317	G57126401 - MBCx - Cowell College Adams House	No	Use Default	No	Use Default	No	Use Default
EE318	G57126402A - Condensing boiler with HHW reset - Cowell College Adams House	No	Use Default	No	Use Default	No	Use Default
EE319	G57126403 - VFD for HHW pump - Cowell College Adams House	No	Use Default	No	Use Default	No	Use Default
EE320	G57126404 - Occupancy based operation for restroom Efs - Cowell College Adams H	No	Use Default	No	Use Default	No	Use Default
EE321	G57126405A - Heat Pump for HHW & DHW - Cowell College Adams House	Yes	2017	No	Use Default	Yes	2017
EE367	G57135701A - Condensing Boiler Retrofit - Stevenson College House 1	No	Use Default	No	Use Default	No	Use Default
EE368	G57135702A - Replace HHW Boiler with Heat Pump - Stevenson College House 1	Yes	2017	No	Use Default	Yes	2017
EE369	G57135703 - Deep HVAC - Stevenson College House 1	No	Use Default	No	Use Default	No	Use Default
EE370	G57135704 - MBCx - Stevenson College House 1	No	Use Default	No	Use Default	No	Use Default
EE371	G57135705 - Interlock Danfoss Valves with Windows - Stevenson College House 1	No	Use Default	No	Use Default	No	Use Default
EE362	G57136701A - Condensing Boiler Retrofit - Stevenson College House 2	No	Use Default	No	Use Default	No	Use Default
EE363	G57136702A - Replace HHW Boiler with Heat Pump - Stevenson College House 2	Yes	2018	No	Use Default	Yes	2018
EE364	G57136703 - Deep HVAC - Stevenson College House 2	No	Use Default	No	Use Default	No	Use Default
EE365	G57136704 - MBCx - Stevenson College House 2	No	Use Default	No	Use Default	No	Use Default
EE366	G57136705 - Interlock Danfoss Valves with Windows - Stevenson College House 2	No	Use Default	No	Use Default	No	Use Default
EE357	G57138701A - Condensing Boiler Retrofit - Stevenson College House 4	No	Use Default	No	Use Default	No	Use Default
EE358	G57138702A - Replace HHW Boiler with Heat Pump - Stevenson College House 4	Yes	2018	No	Use Default	Yes	2018
EE359	G57138703 - Deep HVAC - Stevenson College House 4	No	Use Default	No	Use Default	No	Use Default
EE360	G57138704 - MBCx - Stevenson College House 4	No	Use Default	No	Use Default	No	Use Default
EE361	G57138705 - Interlock Danfoss Valves with Windows - Stevenson College House 4	No	Use Default	No	Use Default	No	Use Default
EE342	G57139701A - Condensing Boiler Retrofit - Stevenson College House 5	No	Use Default	No	Use Default	No	Use Default
EE343	G57139702A - Replace HHW Boiler with Heat Pump - Stevenson College House 5	Yes	2018	No	Use Default	Yes	2018
EE344	G57139703 - Deep HVAC - Stevenson College House 5	No	Use Default	No	Use Default	No	Use Default
EE345	G57139704 - MBCx - Stevenson College House 5	No	Use Default	No	Use Default	No	Use Default
EE346	G57139705 - Interlock Danfoss Valves with Windows - Stevenson College House 5	No	Use Default	No	Use Default	No	Use Default
EE347	G57140701A - Condensing Boiler Retrofit - Stevenson College House 6	No	Use Default	No	Use Default	No	Use Default
EE348	G57140702A - Replace HHW Boiler with Heat Pump - Stevenson College House 6	Yes	2018	No	Use Default	Yes	2018
EE349	G57140703 - Deep HVAC - Stevenson College House 6	No	Use Default	No	Use Default	No	Use Default
EE350	G57140704 - MBCx - Stevenson College House 6	No	Use Default	No	Use Default	No	Use Default
EE351	G57140705 - Interlock Danfoss Valves with Windows - Stevenson College House 6	No	Use Default	No	Use Default	No	Use Default
EE352	G57141701A - Condensing Boiler Retrofit - Stevenson College House 7	No	Use Default	No	Use Default	No	Use Default
EE353	G57141702A - Replace HHW Boiler with Heat Pump - Stevenson College House 7	Yes	2018	No	Use Default	Yes	2018
EE354	G57141703 - Deep HVAC - Stevenson College House 7	No	Use Default	No	Use Default	No	Use Default

CES Project ID	SEP ID - Project Type - Building	CW1-2018 AB32 Exit		CW1.1-2018 AB32 Exit- Biogas		CW1.2-2018 AB32 Exit, Aggressive Onsite, Fuel Cells	
		Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year
EE355	G57141704 - MBCx - Stevenson College House 7	No	Use Default	No	Use Default	No	Use Default
EE356	G57141705 - Interlock Danfoss Valves with Windows - Stevenson College House 7	No	Use Default	No	Use Default	No	Use Default
EE337	G57142701A - Condensing Boiler Retrofit - Stevenson College House 8	No	Use Default	No	Use Default	No	Use Default
EE338	G57142702A - Replace HHW Boiler with Heat Pump - Stevenson College House 8	Yes	2018	No	Use Default	Yes	2018
EE339	G57142703 - Deep HVAC - Stevenson College House 8	No	Use Default	No	Use Default	No	Use Default
EE340	G57142704 - MBCx - Stevenson College House 8	No	Use Default	No	Use Default	No	Use Default
EE341	G57142705 - Interlock Danfoss Valves with Windows - Stevenson College House 8	No	Use Default	No	Use Default	No	Use Default
EE372	G57147701A - Condensing Boiler Retrofit - Crown College Leonardo House	No	Use Default	No	Use Default	No	Use Default
EE373	G57147702A - Replace HHW Boiler with Heat Pump - Crown College Leonardo House	Yes	2018	No	Use Default	Yes	2018
EE374	G57147703 - Deep HVAC - Crown College Leonardo House	No	Use Default	No	Use Default	No	Use Default
EE375	G57147704 - MBCx - Crown College Leonardo House	No	Use Default	No	Use Default	No	Use Default
EE376	G57147705 - Interlock Danfoss Valves with Windows - Crown College Leonardo House	No	Use Default	No	Use Default	No	Use Default
EE377	G57148701A - Condensing Boiler Retrofit - Crown College Maxwell House	No	Use Default	No	Use Default	No	Use Default
EE378	G57148702A - Replace HHW Boiler with Heat Pump - Crown College Maxwell House	Yes	2018	No	Use Default	Yes	2018
EE379	G57148703 - Deep HVAC - Crown College Maxwell House	No	Use Default	No	Use Default	No	Use Default
EE380	G57148704 - MBCx - Crown College Maxwell House	No	Use Default	No	Use Default	No	Use Default
EE381	G57148705 - Interlock Danfoss Valves with Windows - Crown College Maxwell House	No	Use Default	No	Use Default	No	Use Default
EE382	G57149701A - Condensing Boiler Retrofit - Crown College Harvey House	No	Use Default	No	Use Default	No	Use Default
EE383	G57149702A - Replace HHW Boiler with Heat Pump - Crown College Harvey House	Yes	2018	No	Use Default	Yes	2018
EE384	G57149703 - Deep HVAC - Crown College Harvey House	No	Use Default	No	Use Default	No	Use Default
EE385	G57149704 - MBCx - Crown College Harvey House	No	Use Default	No	Use Default	No	Use Default
EE386	G57149705 - Interlock Danfoss Valves with Windows - Crown College Harvey House	No	Use Default	No	Use Default	No	Use Default
EE387	G57150701A - Condensing Boiler Retrofit - Crown College Galen House	No	Use Default	No	Use Default	No	Use Default
EE388	G57150702A - Replace HHW Boiler with Heat Pump - Crown College Galen House	Yes	2018	No	Use Default	Yes	2018
EE389	G57150703 - Deep HVAC - Crown College Galen House	No	Use Default	No	Use Default	No	Use Default
EE390	G57150704 - MBCx - Crown College Galen House	No	Use Default	No	Use Default	No	Use Default
EE391	G57150705 - Interlock Danfoss Valves with Windows - Crown College Galen House	No	Use Default	No	Use Default	No	Use Default
EE392	G57151701A - Condensing Boiler Retrofit - Crown College Gauss House	No	Use Default	No	Use Default	No	Use Default
EE393	G57151702A - Replace HHW Boiler with Heat Pump - Crown College Gauss House	Yes	2018	No	Use Default	Yes	2018
EE394	G57151703 - Deep HVAC - Crown College Gauss House	No	Use Default	No	Use Default	No	Use Default
EE395	G57151704 - MBCx - Crown College Gauss House	No	Use Default	No	Use Default	No	Use Default
EE396	G57151705 - Interlock Danfoss Valves with Windows - Crown College Gauss House	No	Use Default	No	Use Default	No	Use Default
EE397	G57152701A - Condensing Boiler Retrofit - Crown College Descartes House	No	Use Default	No	Use Default	No	Use Default
EE398	G57152702A - Replace HHW Boiler with Heat Pump - Crown College Descartes House	Yes	2018	No	Use Default	Yes	2018
EE399	G57152703 - Deep HVAC - Crown College Descartes House	No	Use Default	No	Use Default	No	Use Default
EE400	G57152704 - MBCx - Crown College Descartes House	No	Use Default	No	Use Default	No	Use Default
EE401	G57152705 - Interlock Danfoss Valves with Windows - Crown College Descartes House	No	Use Default	No	Use Default	No	Use Default
EE402	G57153701A - Condensing Boiler Retrofit - Crown College Rutherford House	No	Use Default	No	Use Default	No	Use Default
EE403	G57153702A - Replace HHW Boiler with Heat Pump - Crown College Rutherford House	Yes	2018	No	Use Default	Yes	2018
EE404	G57153703 - Deep HVAC - Crown College Rutherford House	No	Use Default	No	Use Default	No	Use Default
EE405	G57153704 - MBCx - Crown College Rutherford House	No	Use Default	No	Use Default	No	Use Default
EE406	G57153705 - Interlock Danfoss Valves with Windows - Crown College Rutherford House	No	Use Default	No	Use Default	No	Use Default
EE407	G57154701A - Condensing Boiler Retrofit - Crown College Galileo House	No	Use Default	No	Use Default	No	Use Default
EE408	G57154702A - Replace HHW Boiler with Heat Pump - Crown College Galileo House	Yes	2018	No	Use Default	Yes	2018
EE409	G57154703 - Deep HVAC - Crown College Galileo House	No	Use Default	No	Use Default	No	Use Default
EE410	G57154704 - MBCx - Crown College Galileo House	No	Use Default	No	Use Default	No	Use Default
EE411	G57154705 - Interlock Danfoss Valves with Windows - Crown College Galileo House	No	Use Default	No	Use Default	No	Use Default
EE412	G57303401 - MBCx - Porter College House A	Yes	2020	No	Use Default	Yes	2020
EE413	G57303402 - Window Interlock Controls - Porter College House A	Yes	2020	No	Use Default	Yes	2020
EE506	G57381201 - Demand Based Scheduling - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE507	G57381202 - Instantaneous Gas DHW Heater - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE508	G57381203 - MBCx - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE509	G57381204 - Heat Pump for Heating & DHW - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE482	G57382201 - Demand Based Scheduling - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE483	G57382202 - Instantaneous Gas DHW Heater - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE484	G57382203 - MBCx - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE485	G57382204 - Heat Pump for Heating & DHW - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE478	G57383201 - Demand Based Scheduling - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE479	G57383202 - Instantaneous Gas DHW Heater - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE480	G57383203 - MBCx - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE481	G57383204 - Heat Pump for Heating & DHW - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE486	G57384201 - Demand Based Scheduling - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE487	G57384202 - Instantaneous Gas DHW Heater - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE488	G57384203 - MBCx - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE489	G57384204 - Heat Pump for Heating & DHW - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE494	G57385201 - Demand Based Scheduling - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE495	G57385202 - Instantaneous Gas DHW Heater - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE496	G57385203 - MBCx - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE497	G57385204 - Heat Pump for Heating & DHW - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE502	G57386201 - Demand Based Scheduling - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE503	G57386202 - Instantaneous Gas DHW Heater - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE504	G57386203 - MBCx - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE505	G57386204 - Heat Pump for Heating & DHW - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE474	G57387201 - Demand Based Scheduling - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE475	G57387202 - Instantaneous Gas DHW Heater - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE476	G57387203 - MBCx - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE477	G57387204 - Heat Pump for Heating & DHW - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE466	G57388201 - Demand Based Scheduling - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE467	G57388202 - Instantaneous Gas DHW Heater - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE468	G57388203 - MBCx - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE469	G57388204 - Heat Pump for Heating & DHW - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE470	G57389201 - Demand Based Scheduling - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE471	G57389202 - Instantaneous Gas DHW Heater - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE472	G57389203 - MBCx - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE473	G57389204 - Heat Pump for Heating & DHW - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE490	G57390201 - Demand Based Scheduling - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE491	G57390202 - Instantaneous Gas DHW Heater - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE492	G57390203 - MBCx - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE493	G57390204 - Heat Pump for Heating & DHW - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE498	G57391201 - Demand Based Scheduling - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default
EE499	G57391202 - Instantaneous Gas DHW Heater - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default

CES Project ID	SEP ID - Project Type - Building	CW1-2018 AB32 Exit		CW1.1-2018 AB32 Exit- Biogas		CW1.2-2018 AB32 Exit, Aggressive Onsite, Fuel Cells	
		Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year
EE660	G57737702 - HVAC Occupancy Schedule - Crown-Merrill Housing Building 13	No	Use Default	No	Use Default	No	Use Default
EE661	G57737703A - Condensing Furnace - Crown-Merrill Housing Building 13	No	Use Default	No	Use Default	No	Use Default
EE662	G57737704 - MBCx - Crown-Merrill Housing Building 13	No	Use Default	No	Use Default	No	Use Default
EE663	G57737705A - HHW & DHW Heat Pumps - Crown-Merrill Housing Building 13	Yes	2018	No	Use Default	Yes	2018
EE664	G57738701 - Exterior Lighting Controls - Crown-Merrill Housing Building 13	No	Use Default	No	Use Default	No	Use Default
EE665	G57738702 - HVAC Occupancy Schedule - Crown-Merrill Housing Building 13	No	Use Default	No	Use Default	No	Use Default
EE666	G57738703A - Condensing Furnace - Crown-Merrill Housing Building 13	No	Use Default	No	Use Default	No	Use Default
EE667	G57738704 - MBCx - Crown-Merrill Housing Building 13	No	Use Default	No	Use Default	No	Use Default
EE668	G57738705A - HHW & DHW Heat Pumps - Crown-Merrill Housing Building 13	Yes	2018	No	Use Default	Yes	2018
EE669	G57739701 - Exterior Lighting Controls - Crown-Merrill Housing Building 13	No	Use Default	No	Use Default	No	Use Default
EE670	G57739702 - HVAC Occupancy Schedule - Crown-Merrill Housing Building 13	No	Use Default	No	Use Default	No	Use Default
EE671	G57739703A - Condensing Furnace - Crown-Merrill Housing Building 13	No	Use Default	No	Use Default	No	Use Default
EE672	G57739704 - MBCx - Crown-Merrill Housing Building 13	No	Use Default	No	Use Default	No	Use Default
EE673	G57739705A - HHW & DHW Heat Pumps - Crown-Merrill Housing Building 13	Yes	2018	No	Use Default	Yes	2018
EE674	G57740701 - Exterior Lighting Controls - Crown-Merrill Housing Building 13	No	Use Default	No	Use Default	No	Use Default
EE675	G57740702 - HVAC Occupancy Schedule - Crown-Merrill Housing Building 13	No	Use Default	No	Use Default	No	Use Default
EE676	G57740703A - Condensing Furnace - Crown-Merrill Housing Building 13	No	Use Default	No	Use Default	No	Use Default
EE677	G57740704 - MBCx - Crown-Merrill Housing Building 13	No	Use Default	No	Use Default	No	Use Default
EE678	G57740705A - HHW & DHW Heat Pumps - Crown-Merrill Housing Building 13	Yes	2018	No	Use Default	Yes	2018
EE679	G57741701 - Exterior Lighting Controls - Crown-Merrill Housing Building 13	No	Use Default	No	Use Default	No	Use Default
EE680	G57741702 - HVAC Occupancy Schedule - Crown-Merrill Housing Building 13	No	Use Default	No	Use Default	No	Use Default
EE681	G57741703A - Condensing Furnace - Crown-Merrill Housing Building 13	No	Use Default	No	Use Default	No	Use Default
EE682	G57741704 - MBCx - Crown-Merrill Housing Building 13	No	Use Default	No	Use Default	No	Use Default
EE683	G57741705A - HHW & DHW Heat Pumps - Crown-Merrill Housing Building 13	Yes	2018	No	Use Default	Yes	2018
EE422	G57761901A - Boiler Retrofit - College Eight Dorm B-L-Building	No	Use Default	No	Use Default	No	Use Default
EE423	G57761902B - HVAC Tstat & Window Interlock - College Eight Dorm B-L-Building	No	Use Default	No	Use Default	No	Use Default
EE424	G57761903B - MBCx - College Eight Dorm B-L-Building	Yes	2019	No	Use Default	Yes	2019
EE425	G57761904A - Air-to-Water Heat Pump - College Eight Dorm B-L-Building	Yes	2019	No	Use Default	Yes	2019
EE418	G57763901A - Boiler Retrofit - College Eight Dorm C-L-Building	No	Use Default	No	Use Default	No	Use Default
EE419	G57763902B - HVAC Tstat & Window Interlock - College Eight Dorm C-L-Building	No	Use Default	No	Use Default	No	Use Default
EE420	G57763903B - MBCx - College Eight Dorm C-L-Building	Yes	2019	No	Use Default	Yes	2019
EE421	G57763904A - Air-to-Water Heat Pump - College Eight Dorm C-L-Building	Yes	2019	No	Use Default	Yes	2019
EE414	G57765901A - Boiler Retrofit - College Eight Dorm D-L-Building	No	Use Default	No	Use Default	No	Use Default
EE415	G57765902B - HVAC Tstat & Window Interlock - College Eight Dorm D-L-Building	No	Use Default	No	Use Default	No	Use Default
EE416	G57765903B - MBCx - College Eight Dorm D-L-Building	Yes	2019	No	Use Default	Yes	2019
EE417	G57765904A - Air-to-Water Heat Pump - College Eight Dorm D-L-Building	Yes	2019	No	Use Default	Yes	2019
EE694	G57800101A - Condensing Furnace Retrofit - College Eight Apartment Building 2	No	Use Default	No	Use Default	No	Use Default
EE695	G57800102A - Install Heat Pumps for Heating - College Eight Apartment Building 2	Yes	2019	No	Use Default	Yes	2019
EE696	G57800103B - Condensing Furnace Retrofit - College Eight Apartment Building 2	No	Use Default	No	Use Default	No	Use Default
EE697	G57800104B - Energy Star Electric Heat Pump Water Heater - College Eight Apartment Building 2	Yes	2019	No	Use Default	Yes	2019
EE698	G57800105 - Smart Thermostat - College Eight Apartment Building 2	No	Use Default	No	Use Default	No	Use Default
EE714	G57802101A - Condensing Furnace Retrofit - College Eight Apartment Building 2	No	Use Default	No	Use Default	No	Use Default
EE715	G57802102A - Install Heat Pumps for Heating - College Eight Apartment Building 2	Yes	2019	No	Use Default	Yes	2019
EE716	G57802103B - Condensing Furnace Retrofit - College Eight Apartment Building 2	No	Use Default	No	Use Default	No	Use Default
EE717	G57802104B - Energy Star Electric Heat Pump Water Heater - College Eight Apartment Building 2	Yes	2019	No	Use Default	Yes	2019
EE718	G57802105 - Smart Thermostat - College Eight Apartment Building 2	No	Use Default	No	Use Default	No	Use Default
EE709	G57803101A - Condensing Furnace Retrofit - College Eight Apartment Building 2	No	Use Default	No	Use Default	No	Use Default
EE710	G57803102A - Install Heat Pumps for Heating - College Eight Apartment Building 2	Yes	2019	No	Use Default	Yes	2019
EE711	G57803103B - Condensing Furnace Retrofit - College Eight Apartment Building 2	No	Use Default	No	Use Default	No	Use Default
EE712	G57803104B - Energy Star Electric Heat Pump Water Heater - College Eight Apartment Building 2	Yes	2019	No	Use Default	Yes	2019
EE713	G57803105 - Smart Thermostat - College Eight Apartment Building 2	No	Use Default	No	Use Default	No	Use Default
EE704	G57804101A - Condensing Furnace Retrofit - College Eight Apartment Building 2	No	Use Default	No	Use Default	No	Use Default
EE705	G57804102A - Install Heat Pumps for Heating - College Eight Apartment Building 2	Yes	2019	No	Use Default	Yes	2019
EE706	G57804103B - Condensing Furnace Retrofit - College Eight Apartment Building 2	No	Use Default	No	Use Default	No	Use Default
EE707	G57804104B - Energy Star Electric Heat Pump Water Heater - College Eight Apartment Building 2	Yes	2019	No	Use Default	Yes	2019
EE708	G57804105 - Smart Thermostat - College Eight Apartment Building 2	No	Use Default	No	Use Default	No	Use Default
EE699	G57805101A - Condensing Furnace Retrofit - College Eight Apartment Building 2	No	Use Default	No	Use Default	No	Use Default
EE700	G57805102A - Install Heat Pumps for Heating - College Eight Apartment Building 2	Yes	2019	No	Use Default	Yes	2019
EE701	G57805103B - Condensing Furnace Retrofit - College Eight Apartment Building 2	No	Use Default	No	Use Default	No	Use Default
EE702	G57805104B - Energy Star Electric Heat Pump Water Heater - College Eight Apartment Building 2	Yes	2019	No	Use Default	Yes	2019
EE703	G57805105 - Smart Thermostat - College Eight Apartment Building 2	No	Use Default	No	Use Default	No	Use Default
EE719	G57904501A - Boiler Upgrade - Stevenson College Apartment Building 10	No	Use Default	No	Use Default	No	Use Default
EE720	G57904502 - HVAC Occ Sensor - Stevenson College Apartment Building 10	No	Use Default	No	Use Default	No	Use Default
EE721	G57904503 - MBCx - Stevenson College Apartment Building 10	No	Use Default	No	Use Default	No	Use Default
EE722	G57904504 - 2-Way Valve - Stevenson College Apartment Building 10	No	Use Default	No	Use Default	No	Use Default
EE723	G57904505A - HHW & DHW Heat Pumps - Stevenson College Apartment Building 10	Yes	2017	No	Use Default	Yes	2017
EE724	G57906501A - Boiler Upgrade - Stevenson College Apartment Building 10	No	Use Default	No	Use Default	No	Use Default
EE725	G57906502 - HVAC Occ Sensor - Stevenson College Apartment Building 10	No	Use Default	No	Use Default	No	Use Default
EE726	G57906503 - MBCx - Stevenson College Apartment Building 10	No	Use Default	No	Use Default	No	Use Default
EE727	G57906504 - 2-Way Valve - Stevenson College Apartment Building 10	No	Use Default	No	Use Default	No	Use Default
EE728	G57906505A - HHW & DHW Heat Pumps - Stevenson College Apartment Building 10	Yes	2017	No	Use Default	Yes	2017
EE745	G57909001A - Condensing Boiler Retrofit - Porter College Apartment Building K	No	Use Default	No	Use Default	No	Use Default
EE746	G57909002A - Replace HHW Boiler with Heat Pump - Porter College Apartment Building K	Yes	2020	No	Use Default	Yes	2020
EE747	G57909003 - Smart Thermostat - Porter College Apartment Building K	No	Use Default	No	Use Default	No	Use Default
EE748	G57909004 - MBCx - Porter College Apartment Building K	No	Use Default	No	Use Default	No	Use Default
EE446	G57911201A - Boiler Upgrade - College Nine Residence Hall 2	No	Use Default	No	Use Default	No	Use Default
EE447	G57911202 - HVAC Occ Sensor - College Nine Residence Hall 2	No	Use Default	No	Use Default	No	Use Default
EE448	G57911203 - MBCx - College Nine Residence Hall 2	No	Use Default	No	Use Default	No	Use Default
EE449	G57911204A - HHW & DHW Heat Pumps - College Nine Residence Hall 2	Yes	2020	No	Use Default	Yes	2020
EE450	G57911201A - Boiler Upgrade - College Nine Residence Hall 2	No	Use Default	No	Use Default	No	Use Default
EE451	G57912202 - HVAC Occ Sensor - College Nine Residence Hall 2	No	Use Default	No	Use Default	No	Use Default
EE452	G57912203 - MBCx - College Nine Residence Hall 2	No	Use Default	No	Use Default	No	Use Default
EE453	G57912204A - HHW & DHW Heat Pumps - College Nine Residence Hall 2	Yes	2020	No	Use Default	Yes	2020
EE454	G57913201A - Boiler Upgrade - College Nine Residence Hall 2	No	Use Default	No	Use Default	No	Use Default
EE455	G57913202 - HVAC Occ Sensor - College Nine Residence Hall 2	No	Use Default	No	Use Default	No	Use Default
EE456	G57913203 - MBCx - College Nine Residence Hall 2	No	Use Default	No	Use Default	No	Use Default
EE457	G57913204A - HHW & DHW Heat Pumps - College Nine Residence Hall 2	Yes	2020	No	Use Default	Yes	2020
EE458	G57914201A - Boiler Upgrade - College Nine Residence Hall 2	No	Use Default	No	Use Default	No	Use Default
EE459	G57914202 - HVAC Occ Sensor - College Nine Residence Hall 2	No	Use Default	No	Use Default	No	Use Default
EE460	G57914203 - MBCx - College Nine Residence Hall 2	No	Use Default	No	Use Default	No	Use Default
EE461	G57914204A - HHW & DHW Heat Pumps - College Nine Residence Hall 2	Yes	2020	No	Use Default	Yes	2020

CES Project ID	SEP ID - Project Type - Building	CW1-2018 AB32 Exit		CW1.1-2018 AB32 Exit- Biogas		CW1.2-2018 AB32 Exit, Aggressive Onsite, Fuel Cells	
		Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year
EE865	G67020903 - Controls - Village Housing F5	No	Use Default	No	Use Default	No	Use Default
EE869	G67021002A - Replace HHW Boiler with Heat Pump - Village Housing D2	Yes	2020	No	Use Default	Yes	2020
EE873	G67021006 - Daylighting Controls - Village Housing D2	No	Use Default	No	Use Default	No	Use Default
EE870	G67021201 - Demand Based Scheduling - Village Housing D2	No	Use Default	No	Use Default	No	Use Default
EE874	G67021403 - Depp Lighting Retrofit - Village Housing D2	No	Use Default	No	Use Default	No	Use Default
EE872	G67021704 - MBCx - Village Housing D2	No	Use Default	No	Use Default	No	Use Default
EE871	G67021903 - Controls - Village Housing D2	No	Use Default	No	Use Default	No	Use Default
EE875	G67022002A - Replace HHW Boiler with Heat Pump - Village Housing E1	Yes	2020	No	Use Default	Yes	2020
EE879	G67022006 - Daylighting Controls - Village Housing E1	No	Use Default	No	Use Default	No	Use Default
EE876	G67022201 - Demand Based Scheduling - Village Housing E1	No	Use Default	No	Use Default	No	Use Default
EE880	G67022403 - Depp Lighting Retrofit - Village Housing E1	No	Use Default	No	Use Default	No	Use Default
EE878	G67022704 - MBCx - Village Housing E1	No	Use Default	No	Use Default	No	Use Default
EE877	G67022903 - Controls - Village Housing E1	No	Use Default	No	Use Default	No	Use Default
EE881	G67023002A - Replace HHW Boiler with Heat Pump - Village Housing F1	Yes	2020	No	Use Default	Yes	2020
EE885	G67023006 - Daylighting Controls - Village Housing F1	No	Use Default	No	Use Default	No	Use Default
EE882	G67023201 - Demand Based Scheduling - Village Housing F1	No	Use Default	No	Use Default	No	Use Default
EE886	G67023403 - Depp Lighting Retrofit - Village Housing F1	No	Use Default	No	Use Default	No	Use Default
EE884	G67023704 - MBCx - Village Housing F1	No	Use Default	No	Use Default	No	Use Default
EE883	G67023903 - Controls - Village Housing F1	No	Use Default	No	Use Default	No	Use Default
EE887	G67024002A - Replace HHW Boiler with Heat Pump - Village Housing C2	Yes	2020	No	Use Default	Yes	2020
EE891	G67024006 - Daylighting Controls - Village Housing C2	No	Use Default	No	Use Default	No	Use Default
EE888	G67024201 - Demand Based Scheduling - Village Housing C2	No	Use Default	No	Use Default	No	Use Default
EE892	G67024403 - Depp Lighting Retrofit - Village Housing C2	No	Use Default	No	Use Default	No	Use Default
EE890	G67024704 - MBCx - Village Housing C2	No	Use Default	No	Use Default	No	Use Default
EE889	G67024903 - Controls - Village Housing C2	No	Use Default	No	Use Default	No	Use Default
EE893	G67025002A - Replace HHW Boiler with Heat Pump - Village Housing C5	Yes	2020	No	Use Default	Yes	2020
EE897	G67025006 - Daylighting Controls - Village Housing C5	No	Use Default	No	Use Default	No	Use Default
EE894	G67025201 - Demand Based Scheduling - Village Housing C5	No	Use Default	No	Use Default	No	Use Default
EE898	G67025403 - Depp Lighting Retrofit - Village Housing C5	No	Use Default	No	Use Default	No	Use Default
EE896	G67025704 - MBCx - Village Housing C5	No	Use Default	No	Use Default	No	Use Default
EE895	G67025903 - Controls - Village Housing C5	No	Use Default	No	Use Default	No	Use Default
EE899	G67026002A - Replace HHW Boiler with Heat Pump - Village Housing C6	Yes	2020	No	Use Default	Yes	2020
EE903	G67026006 - Daylighting Controls - Village Housing C6	No	Use Default	No	Use Default	No	Use Default
EE900	G67026201 - Demand Based Scheduling - Village Housing C6	No	Use Default	No	Use Default	No	Use Default
EE904	G67026403 - Depp Lighting Retrofit - Village Housing C6	No	Use Default	No	Use Default	No	Use Default
EE902	G67026704 - MBCx - Village Housing C6	No	Use Default	No	Use Default	No	Use Default
EE901	G67026903 - Controls - Village Housing C6	No	Use Default	No	Use Default	No	Use Default
EE905	G67027002A - Replace HHW Boiler with Heat Pump - Village Housing E2	Yes	2020	No	Use Default	Yes	2020
EE909	G67027006 - Daylighting Controls - Village Housing E2	No	Use Default	No	Use Default	No	Use Default
EE906	G67027201 - Demand Based Scheduling - Village Housing E2	No	Use Default	No	Use Default	No	Use Default
EE910	G67027403 - Depp Lighting Retrofit - Village Housing E2	No	Use Default	No	Use Default	No	Use Default
EE908	G67027704 - MBCx - Village Housing E2	No	Use Default	No	Use Default	No	Use Default
EE907	G67027903 - Controls - Village Housing E2	No	Use Default	No	Use Default	No	Use Default
EE911	G67028002A - Replace HHW Boiler with Heat Pump - Village Housing C1	Yes	2020	No	Use Default	Yes	2020
EE915	G67028006 - Daylighting Controls - Village Housing C1	No	Use Default	No	Use Default	No	Use Default
EE912	G67028201 - Demand Based Scheduling - Village Housing C1	No	Use Default	No	Use Default	No	Use Default
EE916	G67028403 - Depp Lighting Retrofit - Village Housing C1	No	Use Default	No	Use Default	No	Use Default
EE914	G67028704 - MBCx - Village Housing C1	No	Use Default	No	Use Default	No	Use Default
EE913	G67028903 - Controls - Village Housing C1	No	Use Default	No	Use Default	No	Use Default
EE917	G67030002A - Replace HHW Boiler with Heat Pump - Village Housing D1	Yes	2020	No	Use Default	Yes	2020
EE921	G67030006 - Daylighting Controls - Village Housing D1	No	Use Default	No	Use Default	No	Use Default
EE918	G67030201 - Demand Based Scheduling - Village Housing D1	No	Use Default	No	Use Default	No	Use Default
EE922	G67030403 - Depp Lighting Retrofit - Village Housing D1	No	Use Default	No	Use Default	No	Use Default
EE920	G67030704 - MBCx - Village Housing D1	No	Use Default	No	Use Default	No	Use Default
EE919	G67030903 - Controls - Village Housing D1	No	Use Default	No	Use Default	No	Use Default
EE923	G67033002A - Replace HHW Boiler with Heat Pump - Village Dining	Yes	2020	No	Use Default	Yes	2020
EE927	G67033006 - Daylighting Controls - Village Dining	No	Use Default	No	Use Default	No	Use Default
EE924	G67033201 - Demand Based Scheduling - Village Dining	No	Use Default	No	Use Default	No	Use Default
EE928	G67033403 - Depp Lighting Retrofit - Village Dining	No	Use Default	No	Use Default	No	Use Default
EE926	G67033704 - MBCx - Village Dining	No	Use Default	No	Use Default	No	Use Default
EE925	G67033903 - Controls - Village Dining	No	Use Default	No	Use Default	No	Use Default
EE781	G67110201 - Demand Based Scheduling - Barn G	No	Use Default	No	Use Default	No	Use Default
EE784	G67110401 - MBCx - Barn G	No	Use Default	No	Use Default	No	Use Default
EE783	G67110403 - VFD for HHW pump - Barn G	No	Use Default	No	Use Default	No	Use Default
EE782	G67110605 - Dining Area Daylighting Controls - Barn G	No	Use Default	No	Use Default	No	Use Default
EE780	G67110708 - Air-to-Water Heat Pump - Barn G	No	Use Default	No	Use Default	No	Use Default
EE768	G67111201 - Demand Based Scheduling - Receiving Barn	No	Use Default	No	Use Default	No	Use Default
EE769	G67111305B - Dual Technology Controls - Receiving Barn	No	Use Default	No	Use Default	No	Use Default
EE767	G67111902A - Replace HHW Boiler with Heat Pump - Receiving Barn	Yes	2019	No	Use Default	Yes	2019
EE930	G67127002A - Replace HHW Boiler with Heat Pump - Cowell College Scholars House	Yes	2017	No	Use Default	Yes	2017
EE934	G67127006 - Daylighting Controls - Cowell College Scholars House	No	Use Default	No	Use Default	No	Use Default
EE931	G67127201 - Demand Based Scheduling - Cowell College Scholars House	No	Use Default	No	Use Default	No	Use Default
EE935	G67127403 - Depp Lighting Retrofit - Cowell College Scholars House	No	Use Default	No	Use Default	No	Use Default
EE929	G67127701A - Condensing Boiler Retrofit - Cowell College Scholars House	No	Use Default	No	Use Default	No	Use Default
EE933	G67127704 - MBCx - Cowell College Scholars House	No	Use Default	No	Use Default	No	Use Default
EE932	G67127903 - Controls - Cowell College Scholars House	No	Use Default	No	Use Default	No	Use Default
EE936	G67128002A - Replace HHW Boiler with Heat Pump - Cowell College House	Yes	2017	No	Use Default	Yes	2017
EE940	G67128006 - Daylighting Controls - Cowell College House	No	Use Default	No	Use Default	No	Use Default
EE937	G67128201 - Demand Based Scheduling - Cowell College House	No	Use Default	No	Use Default	No	Use Default
EE941	G67128403 - Depp Lighting Retrofit - Cowell College House	No	Use Default	No	Use Default	No	Use Default
EE939	G67128704 - MBCx - Cowell College House	No	Use Default	No	Use Default	No	Use Default
EE938	G67128903 - Controls - Cowell College House	No	Use Default	No	Use Default	No	Use Default
EE765	G67130103 - VFD for HHW pump - Cowell College Academic Building	No	Use Default	No	Use Default	No	Use Default
EE766	G67130104 - MBCx - Cowell College Academic Building	No	Use Default	No	Use Default	No	Use Default
EE763	G67130603 - Demand Based Scheduling - Cowell College Academic Building	No	Use Default	No	Use Default	No	Use Default
EE764	G67130605 - Dining Area Daylighting Controls - Cowell College Academic Building	No	Use Default	No	Use Default	No	Use Default
EE761	G67130902A - Replace HHW Boiler with Heat Pump - Cowell College Academic Building	Yes	2017	No	Use Default	Yes	2017
EE762	G67130903B - Deep HVAC - Cowell College Academic Building	Yes	2017	No	Use Default	Yes	2017
EE789	G67143403 - VFD for HHW pump - Stevenson College Academic Building	No	Use Default	No	Use Default	No	Use Default
EE787	G67143701 - Demand Based Scheduling - Stevenson College Academic Building	No	Use Default	No	Use Default	No	Use Default
EE790	G67143707 - MBCx - Stevenson College Academic Building	No	Use Default	No	Use Default	No	Use Default

CES Project ID	SEP ID - Project Type - Building	CW1-2018 AB32 Exit		CW1.1-2018 AB32 Exit- Biogas		CW1.2-2018 AB32 Exit, Aggressive Onsite, Fuel Cells	
		Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year
EE785	G67143901A - Condensing Boiler Retrofit - Stevenson College Academic Building	No	Use Default	No	Use Default	No	Use Default
EE788	G67143903 - Controls - Stevenson College Academic Building	No	Use Default	No	Use Default	No	Use Default
EE786	G67143903B - Deep HVAC - Stevenson College Academic Building	Yes	2017	No	Use Default	Yes	2017
EE942	G67160002A - Replace HHW Boiler with Heat Pump - Crown College House	Yes	2018	No	Use Default	Yes	2018
EE946	G67160006 - Daylighting Controls - Crown College House	No	Use Default	No	Use Default	No	Use Default
EE943	G67160201 - Demand Based Scheduling - Crown College House	No	Use Default	No	Use Default	No	Use Default
EE947	G67160403 - Depp Lighting Retrofit - Crown College House	No	Use Default	No	Use Default	No	Use Default
EE945	G67160704 - MBCx - Crown College House	No	Use Default	No	Use Default	No	Use Default
EE944	G67160903 - Controls - Crown College House	No	Use Default	No	Use Default	No	Use Default
EE948	G67161002A - Replace HHW Boiler with Heat Pump - Crown College Preceptors Apar	Yes	2018	No	Use Default	Yes	2018
EE952	G67161006 - Daylighting Controls - Crown College Preceptors Apartments	No	Use Default	No	Use Default	No	Use Default
EE949	G67161201 - Demand Based Scheduling - Crown College Preceptors Apartments	No	Use Default	No	Use Default	No	Use Default
EE953	G67161403 - Depp Lighting Retrofit - Crown College Preceptors Apartments	No	Use Default	No	Use Default	No	Use Default
EE951	G67161704 - MBCx - Crown College Preceptors Apartments	No	Use Default	No	Use Default	No	Use Default
EE950	G67161903 - Controls - Crown College Preceptors Apartments	No	Use Default	No	Use Default	No	Use Default
EE954	G67173002A - Replace HHW Boiler with Heat Pump - Stevenson College House	Yes	2017	No	Use Default	Yes	2017
EE958	G67173006 - Daylighting Controls - Stevenson College House	No	Use Default	No	Use Default	No	Use Default
EE955	G67173201 - Demand Based Scheduling - Stevenson College House	No	Use Default	No	Use Default	No	Use Default
EE959	G67173403 - Depp Lighting Retrofit - Stevenson College House	No	Use Default	No	Use Default	No	Use Default
EE957	G67173704 - MBCx - Stevenson College House	No	Use Default	No	Use Default	No	Use Default
EE956	G67173903 - Controls - Stevenson College House	No	Use Default	No	Use Default	No	Use Default
EE960	G67174002A - Replace HHW Boiler with Heat Pump - Stevenson Preceptor House	Yes	2017	No	Use Default	Yes	2017
EE964	G67174006 - Daylighting Controls - Stevenson Preceptor House	No	Use Default	No	Use Default	No	Use Default
EE961	G67174201 - Demand Based Scheduling - Stevenson Preceptor House	No	Use Default	No	Use Default	No	Use Default
EE965	G67174403 - Depp Lighting Retrofit - Stevenson Preceptor House	No	Use Default	No	Use Default	No	Use Default
EE963	G67174704 - MBCx - Stevenson Preceptor House	No	Use Default	No	Use Default	No	Use Default
EE962	G67174903 - Controls - Stevenson Preceptor House	No	Use Default	No	Use Default	No	Use Default
EE966	G67183002A - Replace HHW Boiler with Heat Pump - Merrill College House A	Yes	2018	No	Use Default	Yes	2018
EE970	G67183006 - Daylighting Controls - Merrill College House A	No	Use Default	No	Use Default	No	Use Default
EE967	G67183201 - Demand Based Scheduling - Merrill College House A	No	Use Default	No	Use Default	No	Use Default
EE971	G67183403 - Depp Lighting Retrofit - Merrill College House A	No	Use Default	No	Use Default	No	Use Default
EE969	G67183704 - MBCx - Merrill College House A	No	Use Default	No	Use Default	No	Use Default
EE968	G67183903 - Controls - Merrill College House A	No	Use Default	No	Use Default	No	Use Default
EE972	G67186002A - Replace HHW Boiler with Heat Pump - Merrill College Common	Yes	2018	No	Use Default	Yes	2018
EE976	G67186006 - Daylighting Controls - Merrill College Common	No	Use Default	No	Use Default	No	Use Default
EE973	G67186201 - Demand Based Scheduling - Merrill College Common	No	Use Default	No	Use Default	No	Use Default
EE977	G67186403 - Depp Lighting Retrofit - Merrill College Common	No	Use Default	No	Use Default	No	Use Default
EE975	G67186704 - MBCx - Merrill College Common	No	Use Default	No	Use Default	No	Use Default
EE974	G67186903 - Controls - Merrill College Common	No	Use Default	No	Use Default	No	Use Default
EE778	G67189103 - VFD for HHW pump - Merrill College Academic Building	No	Use Default	No	Use Default	No	Use Default
EE779	G67189104 - MBCx - Merrill College Academic Building	No	Use Default	No	Use Default	No	Use Default
EE776	G67189201 - Demand Based Scheduling - Merrill College Academic Building	No	Use Default	No	Use Default	No	Use Default
EE777	G67189305B - Dual Technology Controls - Merrill College Academic Building	No	Use Default	No	Use Default	No	Use Default
EE775	G67189704A - Condensing HHW/DHW boiler w/ HWST reset - Merrill College Academ	No	Use Default	No	Use Default	No	Use Default
EE978	G67192002A - Replace HHW Boiler with Heat Pump - Merrill College House C	Yes	2018	No	Use Default	Yes	2018
EE982	G67192006 - Daylighting Controls - Merrill College House C	No	Use Default	No	Use Default	No	Use Default
EE979	G67192201 - Demand Based Scheduling - Merrill College House C	No	Use Default	No	Use Default	No	Use Default
EE983	G67192403 - Depp Lighting Retrofit - Merrill College House C	No	Use Default	No	Use Default	No	Use Default
EE981	G67192704 - MBCx - Merrill College House C	No	Use Default	No	Use Default	No	Use Default
EE980	G67192903 - Controls - Merrill College House C	No	Use Default	No	Use Default	No	Use Default
EE984	G67193002A - Replace HHW Boiler with Heat Pump - Merrill College House D	Yes	2018	No	Use Default	Yes	2018
EE988	G67193006 - Daylighting Controls - Merrill College House D	No	Use Default	No	Use Default	No	Use Default
EE985	G67193201 - Demand Based Scheduling - Merrill College House D	No	Use Default	No	Use Default	No	Use Default
EE989	G67193403 - Depp Lighting Retrofit - Merrill College House D	No	Use Default	No	Use Default	No	Use Default
EE987	G67193704 - MBCx - Merrill College House D	No	Use Default	No	Use Default	No	Use Default
EE986	G67193903 - Controls - Merrill College House D	No	Use Default	No	Use Default	No	Use Default
EE802	G67300403 - VFD for HHW pump - Bay Tree Bookstore	No	Use Default	No	Use Default	No	Use Default
EE803	G67300403 - VFD for HHW pump - Bay Tree Bookstore	No	Use Default	No	Use Default	No	Use Default
EE799	G67300407A - Deep HVAC Retrofit - Bay Tree Bookstore	Yes	2017	No	Use Default	Yes	2017
EE798	G67300701A - Condensing Boiler Retrofit - Bay Tree Bookstore	No	Use Default	No	Use Default	No	Use Default
EE800	G67300703 - Demand Based Scheduling - Bay Tree Bookstore	No	Use Default	No	Use Default	No	Use Default
EE801	G67300903 - Controls - Bay Tree Bookstore	No	Use Default	No	Use Default	No	Use Default
EE795	G67306403 - VFD for HHW pump - Porter College Academic	No	Use Default	No	Use Default	No	Use Default
EE793	G67306701 - Demand Based Scheduling - Porter College Academic	No	Use Default	No	Use Default	No	Use Default
EE796	G67306707 - MBCx - Porter College Academic	No	Use Default	No	Use Default	No	Use Default
EE792	G67306708A - Heat Pump for HHW & DHW - Porter College Academic	Yes	2020	No	Use Default	Yes	2020
EE791	G67306901A - Condensing Boiler Retrofit - Porter College Academic	No	Use Default	No	Use Default	No	Use Default
EE794	G67306903 - Controls - Porter College Academic	No	Use Default	No	Use Default	No	Use Default
EE990	G67307002A - Replace HHW Boiler with Heat Pump - Merrill College House	Yes	2018	No	Use Default	Yes	2018
EE994	G67307006 - Daylighting Controls - Merrill College House	No	Use Default	No	Use Default	No	Use Default
EE991	G67307201 - Demand Based Scheduling - Merrill College House	No	Use Default	No	Use Default	No	Use Default
EE995	G67307403 - Depp Lighting Retrofit - Merrill College House	No	Use Default	No	Use Default	No	Use Default
EE993	G67307704 - MBCx - Merrill College House	No	Use Default	No	Use Default	No	Use Default
EE992	G67307903 - Controls - Merrill College House	No	Use Default	No	Use Default	No	Use Default
EE797	G67311407A - Deep HVAC Retrofit - Theater Arts A Main Stage	Yes	2017	No	Use Default	Yes	2017
EE996	G67422002A - Replace HHW Boiler with Heat Pump - Oakes College House	Yes	2019	No	Use Default	Yes	2019
EE1000	G67422006 - Daylighting Controls - Oakes College House	No	Use Default	No	Use Default	No	Use Default
EE997	G67422201 - Demand Based Scheduling - Oakes College House	No	Use Default	No	Use Default	No	Use Default
EE1001	G67422403 - Depp Lighting Retrofit - Oakes College House	No	Use Default	No	Use Default	No	Use Default
EE999	G67422704 - MBCx - Oakes College House	No	Use Default	No	Use Default	No	Use Default
EE998	G67422903 - Controls - Oakes College House	No	Use Default	No	Use Default	No	Use Default
EE1002	G67468002A - Replace HHW Boiler with Heat Pump - Porter College House	Yes	2020	No	Use Default	Yes	2020
EE1006	G67468006 - Daylighting Controls - Porter College House	No	Use Default	No	Use Default	No	Use Default
EE1003	G67468201 - Demand Based Scheduling - Porter College House	No	Use Default	No	Use Default	No	Use Default
EE1007	G67468403 - Depp Lighting Retrofit - Porter College House	No	Use Default	No	Use Default	No	Use Default
EE1005	G67468704 - MBCx - Porter College House	No	Use Default	No	Use Default	No	Use Default
EE1004	G67468903 - Controls - Porter College House	No	Use Default	No	Use Default	No	Use Default
EE1008	G67489002A - Replace HHW Boiler with Heat Pump - RV Park Recreation Building	Yes	2020	No	Use Default	Yes	2020
EE1012	G67489006 - Daylighting Controls - RV Park Recreation Building	No	Use Default	No	Use Default	No	Use Default
EE1009	G67489201 - Demand Based Scheduling - RV Park Recreation Building	No	Use Default	No	Use Default	No	Use Default
EE1013	G67489403 - Depp Lighting Retrofit - RV Park Recreation Building	No	Use Default	No	Use Default	No	Use Default

CES Project ID	SEP ID - Project Type - Building	CW1-2018 AB32 Exit		CW1.1-2018 AB32 Exit- Biogas		CW1.2-2018 AB32 Exit, Aggressive Onsite, Fuel Cells	
		Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year
EE1011	G67489704 - MBCx - RV Park Recreation Building	No	Use Default	No	Use Default	No	Use Default
EE1010	G67489903 - Controls - RV Park Recreation Building	No	Use Default	No	Use Default	No	Use Default
EE1015	G67746002A - Replace HHW Boiler with Heat Pump - Oakes College Dorm 1	Yes	2019	No	Use Default	Yes	2019
EE1019	G67746006 - Daylighting Controls - Oakes College Dorm 1	No	Use Default	No	Use Default	No	Use Default
EE1016	G67746201 - Demand Based Scheduling - Oakes College Dorm 1	No	Use Default	No	Use Default	No	Use Default
EE1020	G67746403 - Depp Lighting Retrofit - Oakes College Dorm 1	No	Use Default	No	Use Default	No	Use Default
EE1014	G67746701A - Condensing Boiler Retrofit - Oakes College Dorm 1	No	Use Default	No	Use Default	No	Use Default
EE1018	G67746704 - MBCx - Oakes College Dorm 1	No	Use Default	No	Use Default	No	Use Default
EE1017	G67746903 - Controls - Oakes College Dorm 1	No	Use Default	No	Use Default	No	Use Default
EE1022	G67747002A - Replace HHW Boiler with Heat Pump - Oakes College Dorm 2	Yes	2019	No	Use Default	Yes	2019
EE1026	G67747006 - Daylighting Controls - Oakes College Dorm 2	No	Use Default	No	Use Default	No	Use Default
EE1023	G67747201 - Demand Based Scheduling - Oakes College Dorm 2	No	Use Default	No	Use Default	No	Use Default
EE1027	G67747403 - Depp Lighting Retrofit - Oakes College Dorm 2	No	Use Default	No	Use Default	No	Use Default
EE1021	G67747701A - Condensing Boiler Retrofit - Oakes College Dorm 2	No	Use Default	No	Use Default	No	Use Default
EE1025	G67747704 - MBCx - Oakes College Dorm 2	No	Use Default	No	Use Default	No	Use Default
EE1024	G67747903 - Controls - Oakes College Dorm 2	No	Use Default	No	Use Default	No	Use Default
EE1029	G67748002A - Replace HHW Boiler with Heat Pump - Oakes College Dorm 3	Yes	2019	No	Use Default	Yes	2019
EE1033	G67748006 - Daylighting Controls - Oakes College Dorm 3	No	Use Default	No	Use Default	No	Use Default
EE1030	G67748201 - Demand Based Scheduling - Oakes College Dorm 3	No	Use Default	No	Use Default	No	Use Default
EE1034	G67748403 - Depp Lighting Retrofit - Oakes College Dorm 3	No	Use Default	No	Use Default	No	Use Default
EE1028	G67748701A - Condensing Boiler Retrofit - Oakes College Dorm 3	No	Use Default	No	Use Default	No	Use Default
EE1032	G67748704 - MBCx - Oakes College Dorm 3	No	Use Default	No	Use Default	No	Use Default
EE1031	G67748903 - Controls - Oakes College Dorm 3	No	Use Default	No	Use Default	No	Use Default
EE1036	G67749002A - Replace HHW Boiler with Heat Pump - Oakes College Dorm 4	Yes	2019	No	Use Default	Yes	2019
EE1040	G67749006 - Daylighting Controls - Oakes College Dorm 4	No	Use Default	No	Use Default	No	Use Default
EE1037	G67749201 - Demand Based Scheduling - Oakes College Dorm 4	No	Use Default	No	Use Default	No	Use Default
EE1041	G67749403 - Depp Lighting Retrofit - Oakes College Dorm 4	No	Use Default	No	Use Default	No	Use Default
EE1035	G67749701A - Condensing Boiler Retrofit - Oakes College Dorm 4	No	Use Default	No	Use Default	No	Use Default
EE1039	G67749704 - MBCx - Oakes College Dorm 4	No	Use Default	No	Use Default	No	Use Default
EE1038	G67749903 - Controls - Oakes College Dorm 4	No	Use Default	No	Use Default	No	Use Default
EE773	G67754103 - VFD for HHW pump - Academic Resource Center	No	Use Default	No	Use Default	No	Use Default
EE774	G67754104 - MBCx - Academic Resource Center	No	Use Default	No	Use Default	No	Use Default
EE771	G67754201 - Demand Based Scheduling - Academic Resource Center	No	Use Default	No	Use Default	No	Use Default
EE772	G67754305B - Dual Technology Controls - Academic Resource Center	No	Use Default	No	Use Default	No	Use Default
EE770	G67754501A - Boiler Upgrade - Academic Resource Center	No	Use Default	No	Use Default	No	Use Default
EE1042	G67757002A - Replace HHW Boiler with Heat Pump - College Eight Dining Room	Yes	2019	No	Use Default	Yes	2019
EE1047	G67757006 - Daylighting Controls - College Eight Dining Room	No	Use Default	No	Use Default	No	Use Default
EE1043	G67757201 - Demand Based Scheduling - College Eight Dining Room	No	Use Default	No	Use Default	No	Use Default
EE1048	G67757403 - Depp Lighting Retrofit - College Eight Dining Room	No	Use Default	No	Use Default	No	Use Default
EE1046	G67757410 - Kitchen Hood DCV - College Eight Dining Room	No	Use Default	No	Use Default	No	Use Default
EE1045	G67757704 - MBCx - College Eight Dining Room	No	Use Default	No	Use Default	No	Use Default
EE1044	G67757903 - Controls - College Eight Dining Room	No	Use Default	No	Use Default	No	Use Default
EE1050	G67758002A - Replace HHW Boiler with Heat Pump - College Eight Dorm A-Garden	Yes	2019	No	Use Default	Yes	2019
EE1054	G67758006 - Daylighting Controls - College Eight Dorm A-Garden	No	Use Default	No	Use Default	No	Use Default
EE1051	G67758201 - Demand Based Scheduling - College Eight Dorm A-Garden	No	Use Default	No	Use Default	No	Use Default
EE1055	G67758403 - Depp Lighting Retrofit - College Eight Dorm A-Garden	No	Use Default	No	Use Default	No	Use Default
EE1049	G67758701A - Condensing Boiler Retrofit - College Eight Dorm A-Garden	No	Use Default	No	Use Default	No	Use Default
EE1053	G67758704 - MBCx - College Eight Dorm A-Garden	No	Use Default	No	Use Default	No	Use Default
EE1052	G67758903 - Controls - College Eight Dorm A-Garden	No	Use Default	No	Use Default	No	Use Default
EE1057	G67760002A - Replace HHW Boiler with Heat Pump - College Eight Dorm B-Garden	Yes	2019	No	Use Default	Yes	2019
EE1061	G67760006 - Daylighting Controls - College Eight Dorm B-Garden	No	Use Default	No	Use Default	No	Use Default
EE1058	G67760201 - Demand Based Scheduling - College Eight Dorm B-Garden	No	Use Default	No	Use Default	No	Use Default
EE1062	G67760403 - Depp Lighting Retrofit - College Eight Dorm B-Garden	No	Use Default	No	Use Default	No	Use Default
EE1056	G67760701A - Condensing Boiler Retrofit - College Eight Dorm B-Garden	No	Use Default	No	Use Default	No	Use Default
EE1060	G67760704 - MBCx - College Eight Dorm B-Garden	No	Use Default	No	Use Default	No	Use Default
EE1059	G67760903 - Controls - College Eight Dorm B-Garden	No	Use Default	No	Use Default	No	Use Default
EE1064	G67762002A - Replace HHW Boiler with Heat Pump - College Eight Dorm C-Garden	Yes	2019	No	Use Default	Yes	2019
EE1068	G67762006 - Daylighting Controls - College Eight Dorm C-Garden	No	Use Default	No	Use Default	No	Use Default
EE1065	G67762201 - Demand Based Scheduling - College Eight Dorm C-Garden	No	Use Default	No	Use Default	No	Use Default
EE1069	G67762403 - Depp Lighting Retrofit - College Eight Dorm C-Garden	No	Use Default	No	Use Default	No	Use Default
EE1063	G67762701A - Condensing Boiler Retrofit - College Eight Dorm C-Garden	No	Use Default	No	Use Default	No	Use Default
EE1067	G67762704 - MBCx - College Eight Dorm C-Garden	No	Use Default	No	Use Default	No	Use Default
EE1066	G67762903 - Controls - College Eight Dorm C-Garden	No	Use Default	No	Use Default	No	Use Default
EE1071	G67764002A - Replace HHW Boiler with Heat Pump - College Eight Dorm D-Garden	Yes	2019	No	Use Default	Yes	2019
EE1075	G67764006 - Daylighting Controls - College Eight Dorm D-Garden	No	Use Default	No	Use Default	No	Use Default
EE1072	G67764201 - Demand Based Scheduling - College Eight Dorm D-Garden	No	Use Default	No	Use Default	No	Use Default
EE1076	G67764403 - Depp Lighting Retrofit - College Eight Dorm D-Garden	No	Use Default	No	Use Default	No	Use Default
EE1070	G67764701A - Condensing Boiler Retrofit - College Eight Dorm D-Garden	No	Use Default	No	Use Default	No	Use Default
EE1074	G67764704 - MBCx - College Eight Dorm D-Garden	No	Use Default	No	Use Default	No	Use Default
EE1073	G67764903 - Controls - College Eight Dorm D-Garden	No	Use Default	No	Use Default	No	Use Default
EE1077	G67767002A - Replace HHW Boiler with Heat Pump - College Eight Cafe Building	Yes	2019	No	Use Default	Yes	2019
EE1082	G67767006 - Daylighting Controls - College Eight Cafe Building	No	Use Default	No	Use Default	No	Use Default
EE1078	G67767201 - Demand Based Scheduling - College Eight Cafe Building	No	Use Default	No	Use Default	No	Use Default
EE1083	G67767403 - Depp Lighting Retrofit - College Eight Cafe Building	No	Use Default	No	Use Default	No	Use Default
EE1081	G67767410 - Kitchen Hood DCV - College Eight Cafe Building	No	Use Default	No	Use Default	No	Use Default
EE1080	G67767704 - MBCx - College Eight Cafe Building	No	Use Default	No	Use Default	No	Use Default
EE1079	G67767903 - Controls - College Eight Cafe Building	No	Use Default	No	Use Default	No	Use Default
EE1084	G67768002A - Replace HHW Boiler with Heat Pump - College Eight Student Commons	Yes	2019	No	Use Default	Yes	2019
EE1088	G67768006 - Daylighting Controls - College Eight Student Commons	No	Use Default	No	Use Default	No	Use Default
EE1085	G67768201 - Demand Based Scheduling - College Eight Student Commons	No	Use Default	No	Use Default	No	Use Default
EE1089	G67768403 - Depp Lighting Retrofit - College Eight Student Commons	No	Use Default	No	Use Default	No	Use Default
EE1087	G67768704 - MBCx - College Eight Student Commons	No	Use Default	No	Use Default	No	Use Default
EE1086	G67768903 - Controls - College Eight Student Commons	No	Use Default	No	Use Default	No	Use Default
EE805	G67782303 - Demand Based Scheduling - Science and Engineering Library	No	Use Default	No	Use Default	No	Use Default
EE808	G67782401 - MBCx - Science and Engineering Library	Yes	2020	No	Use Default	Yes	2020
EE804	G67782602B - Deep HVAC Retrofit - Science and Engineering Library	No	Use Default	No	Use Default	No	Use Default
EE807	G67782604 - Replace Ultra Low Freezers - Science and Engineering Library	No	Use Default	No	Use Default	No	Use Default
EE806	G67782605 - Dining Area Daylighting Controls - Science and Engineering Library	No	Use Default	No	Use Default	No	Use Default
EE1090	REFC001 - KZSC Tower Hill -	No	Use Default	No	Use Default	No	Use Default
EE1091	REFC002 - Engineering -	No	Use Default	No	Use Default	No	Use Default
EE1092	REFC003 - Communications/Fackler Co-Generation Plant/Natural Sciences Woodsho	No	Use Default	No	Use Default	No	Use Default

CES Project ID	SEP ID - Project Type - Building	CW1-2018 AB32 Exit		CW1.1-2018 AB32 Exit- Biogas		CW1.2-2018 AB32 Exit, Aggressive Onsite, Fuel Cells	
		Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year
EE1093	REFC004 - Interdisciplinary Science Bldgs/Earth & Marine Sciences/Science Labs/Natu	No	Use Default	No	Use Default	No	Use Default
EE1094	REFC005 - Physical Sciences/Sinsheimer Labs/Thimann Labs/Kerr Hall -	No	Use Default	No	Use Default	Yes	2019
EE1095	REFC006 - College 9/10 -	No	Use Default	No	Use Default	Yes	2019
EE1096	REFC007 - Crown College/Merrill College/Fire Station -	No	Use Default	No	Use Default	No	Use Default
EE1097	REFC008 - Cowell Health Center/Student Center/Classrooms/Humanities -	No	Use Default	No	Use Default	No	Use Default
EE1098	REFC009 - Cowell College/Stevenson College & Apartments -	No	Use Default	No	Use Default	No	Use Default
EE1099	REFC010 - McHenry Library/Hahn Student Services -	No	Use Default	No	Use Default	No	Use Default
EE1100	REFC011 - The Arts Complex -	No	Use Default	No	Use Default	No	Use Default
EE1101	REFC012 - Kresge College/Porter College & Porter/Kresge Apartments -	No	Use Default	No	Use Default	No	Use Default
EE1102	REFC013 - Kresge Housing East/Graduate Student Housing -	No	Use Default	No	Use Default	No	Use Default
EE1103	REFC014 - College Eight and Oakes College -	No	Use Default	No	Use Default	No	Use Default
EE1104	REFC015 - Family Student Housing -	No	Use Default	No	Use Default	No	Use Default
EE1105	REFC016 - East Field House/Fitness Center -	No	Use Default	No	Use Default	No	Use Default
EE1106	REFC017 - Quarry/Village/Farm/Agroecology -	No	Use Default	No	Use Default	No	Use Default
EE1107	REFC018 - Arboretum -	No	Use Default	No	Use Default	No	Use Default
EE1108	REFC019 - Barn G/Barn H/Central Stores/Carriage House/Cardiff House/Faculty Hous	No	Use Default	No	Use Default	No	Use Default
EE1109	REFC020 - Emergency Response Center -	No	Use Default	No	Use Default	No	Use Default
EE1110	REFC021 - Communications/Fackler Co-Generation Plant/Natural Sciences Woodsho	No	Use Default	No	Use Default	Yes	2017
EE1111	REFC022 - Physical Sciences/Sinsheimer Labs/Thimann Labs/Kerr Hall -	No	Use Default	No	Use Default	Yes	2018
EE1112	REFC023 - College 9/10 -	No	Use Default	No	Use Default	Yes	2018
EE1113	REFC024 - Cowell College/Stevenson College & Apartments -	No	Use Default	No	Use Default	Yes	2018
EE1114	REFC025 - College Eight and Oakes College -	No	Use Default	No	Use Default	Yes	2017

CES Project ID	SEP ID - Project Type - Building	EE1: Energy Efficiency, Current Implementation Pace		EE2: Energy Efficiency, Double Implementation Pace		EE3: Energy Efficiency, All Projects <25 year payback		EE - Do Nothing	
		Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year
EE1	G3709601A - Condensing Boiler Retrofit - Emergency Response Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE2	G3709602A - Replace HHW Boiler with Heat Pump - Emergency Response Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE3	G3709603 - Demand Based Scheduling - Emergency Response Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE4	G3709604 - Raise Server Room Temp Setpoints - Emergency Response Center	No	Use Default	Yes	2024	Yes	2025	No	Use Default
EE5	G3709605 - MBCx - Emergency Response Center	Yes	2024	Yes	2024	Yes	2025	No	Use Default
EE6	G3709606 - Deep Lighting Retrofit - Emergency Response Center	No	Use Default	No	Use Default	Yes	2025	No	Use Default
EE7	G3709801 - Deep HVAC Retrofit - Interdisciplinary Sciences Building	No	Use Default	No	Use Default	Yes	2022	No	Use Default
EE8	G3709802 - Deep Lighting Retrofit - Interdisciplinary Sciences Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE9	G3709803 - MBCx - Interdisciplinary Sciences Building	No	Use Default	Yes	2023	Yes	2022	No	Use Default
EE10	G3711501 - MBCx - Hahn Student Services	No	Use Default	No	Use Default	Yes	2020	No	Use Default
EE11	G3711502 - Deep Lighting Retrofit - Hahn Student Services	No	Use Default	No	Use Default	Yes	2020	No	Use Default
EE12	G3711503 - Boiler Upgrade - Hahn Student Services	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE13	G3711601A - Deep Retrofit_Smart Lab - Thimann Laboratories	No	Use Default	Yes	2022	Yes	2022	No	Use Default
EE14	G3711602 - 2-Way Valve - Thimann Laboratories	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE15	G3711603 - DIWP Pump VFD - Thimann Laboratories	Yes	2025	Yes	2025	No	Use Default	No	Use Default
EE16	G3711604 - Replace Ultra Low Freezers - Thimann Laboratories	No	Use Default	No	Use Default	Yes	2022	No	Use Default
EE17	G3711605 - Deep Lighting - Thimann Laboratories	Yes	2022	Yes	2022	Yes	2022	No	Use Default
EE18	G3711606 - MBCx - Thimann Laboratories	Yes	2022	Yes	2022	Yes	2022	No	Use Default
EE19	G3712401 - MBCx - Cowell College Prescott House	No	Use Default	No	Use Default	Yes	2023	No	Use Default
EE20	G3712402A - Condensing boiler with HHW reset - Cowell College Prescott House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE21	G3712403 - VFD for HHW pump - Cowell College Prescott House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE22	G3712404 - Occupancy based operation for restroom Efs - Cowell College Prescott House	No	Use Default	No	Use Default	Yes	2018	No	Use Default
EE23	G3712405A - Heat Pump for HHW & DHW - Cowell College Prescott House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE24	G3713401A - Boiler Retrofit (Primary) - Cowell College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE25	G3713402A - Boiler Retrofit (alt) - Cowell College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE26	G3713403 - Steam Boiler Retrofit - Cowell College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE27	G3713404 - MBCx - Cowell College Commons	No	Use Default	No	Use Default	Yes	2024	No	Use Default
EE28	G3713405B - Dining Area Daylighting Controls - Cowell College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE29	G3713406B - Deep Lighting Retrofit - Cowell College Commons	No	Use Default	No	Use Default	Yes	2020	No	Use Default
EE30	G3713407A - Deep HVAC Retrofit - Cowell College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE31	G3713408A - Replace HHW Boiler with Heat Pump - Cowell College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE32	G3713409 - Dishwasher Replacement - Cowell College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE33	G3713410 - Kitchen Hood DCV - Cowell College Commons	No	Use Default	No	Use Default	Yes	2020	No	Use Default
EE34	G3713701A - Condensing Boiler Retrofit - Stevenson College House 3	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE35	G3713702A - Replace HHW Boiler with Heat Pump - Stevenson College House 3	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE36	G3713703 - Deep HVAC - Stevenson College House 3	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE37	G3713704 - MBCx - Stevenson College House 3	No	Use Default	No	Use Default	Yes	2020	No	Use Default
EE38	G3713705 - Interlock Danfoss Valves with Windows - Stevenson College House 3	No	Use Default	No	Use Default	Yes	2024	No	Use Default
EE39	G3714401 - Deep HVAC - Stevenson College Commons	No	Use Default	No	Use Default	Yes	2023	No	Use Default
EE40	G3714402 - HVAC Occ Sensor / Demand Based Scheduling for MPR - Stevenson College Commons	No	Use Default	Yes	2024	Yes	2018	No	Use Default
EE41	G3714403 - MBCx - Stevenson College Commons	Yes	2025	Yes	2025	Yes	2018	No	Use Default
EE42	G3714404A - Deep Lighting - Stevenson College Commons	No	Use Default	No	Use Default	Yes	2018	No	Use Default
EE43	G3714405B - MPR LED Lighting Retrofit - Stevenson College Commons	No	Use Default	Yes	2025	Yes	2025	No	Use Default
EE44	G3714501A - Deep HVAC - McHenry Library	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE45	G3714502B - Deep Lighting - McHenry Library	No	Use Default	Yes	2021	Yes	2021	No	Use Default
EE46	G3714503B - Emergency Lighting - McHenry Library	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE47	G3714504A - MBCx - McHenry Library	Yes	2017	Yes	2017	Yes	2017	No	Use Default
EE48	G3715701 - Steam Boiler Retrofit - Crown College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE49	G3715702B - Convert to VAV - Crown College Commons	No	Use Default	No	Use Default	Yes	2018	No	Use Default
EE50	G3715703B - HVAC Occ Sensor / Demand Based Scheduling - Crown College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE51	G3715704 - Convert to 2-Way Valve - Crown College Commons	No	Use Default	No	Use Default	Yes	2018	No	Use Default
EE52	G3715705 - MBCx - Crown College Commons	Yes	2025	Yes	2025	Yes	2019	No	Use Default
EE53	G3715706A - MH to LED Lighting Retrofit with Daylighting - Crown College Commons	No	Use Default	No	Use Default	Yes	2018	No	Use Default
EE54	G3715707B - Deep Lighting - Crown College Commons	Yes	2022	Yes	2022	Yes	2019	No	Use Default
EE55	G3715708 - Air-to-Water Heat Pump - Crown College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE56	G3715709 - Kitchen Hood DCV - Crown College Commons	No	Use Default	No	Use Default	Yes	2019	No	Use Default
EE57	G3717501 - Deep HVAC - Communications Building	Yes	2023	Yes	2023	Yes	2020	No	Use Default
EE58	G3717502 - IT Room - Communications Building	Yes	2024	Yes	2024	Yes	2025	No	Use Default
EE59	G3717503 - Data Center Retrofit - Communications Building	Yes	2017	Yes	2017	Yes	2017	No	Use Default
EE60	G3717504 - Deep Lighting - Communications Building	No	Use Default	No	Use Default	Yes	2025	No	Use Default
EE61	G3717505 - 2-Way Valve - Communications Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE62	G3717506 - MBCx - Communications Building	Yes	2017	Yes	2017	Yes	2017	No	Use Default
EE63	G3717901A - Deep Retrofit_Smart Lab - Natural Sciences 2 Main Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE64	G3717902A - VAV Labs - Natural Sciences 2 Main Building	No	Use Default	No	Use Default	Yes	2023	No	Use Default
EE65	G3717903 - 2-Way Valve - Natural Sciences 2 Main Building	No	Use Default	No	Use Default	Yes	2023	No	Use Default
EE66	G3717904 - Process Water Pump VFD - Natural Sciences 2 Main Building	No	Use Default	Yes	2023	Yes	2023	No	Use Default
EE67	G3717905B - Daylighting - Natural Sciences 2 Main Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE68	G3717906 - Replace Ultra Low Freezers - Natural Sciences 2 Main Building	No	Use Default	No	Use Default	Yes	2023	No	Use Default
EE69	G3717907 - Server Room HVAC - Natural Sciences 2 Main Building	No	Use Default	Yes	2023	Yes	2023	No	Use Default
EE70	G3717908B - Deep Lighting - Natural Sciences 2 Main Building	No	Use Default	Yes	2023	Yes	2023	No	Use Default
EE71	G3717909 - MBCx - Natural Sciences 2 Main Building	No	Use Default	Yes	2023	Yes	2023	No	Use Default
EE72	G3718001 - Demand Based Scheduling - Natural Sciences 2 Annex	No	Use Default	Yes	2017	Yes	2023	No	Use Default
EE73	G3718002 - EF-02 Timeclock - Natural Sciences 2 Annex	No	Use Default	Yes	2017	Yes	2023	No	Use Default
EE74	G3718003 - Deep Lighting - Natural Sciences 2 Annex	No	Use Default	Yes	2017	Yes	2023	No	Use Default
EE75	G3718401 - MBCx - Merrill College House B	No	Use Default	No	Use Default	Yes	2019	No	Use Default
EE76	G3718402 - Occupancy based control on AH-B1/EF-B1, AH-B2/EF-2 - Merrill College	Yes	2022	Yes	2022	Yes	2018	No	Use Default
EE77	G3718403 - Deep Lighting Retrofit - Merrill College House B	Yes	2021	Yes	2021	Yes	2021	No	Use Default
EE78	G3718404 - Seasonal Building Scheduling - Merrill College House B	Yes	2025	Yes	2025	Yes	2019	No	Use Default
EE79	G3718405 - HHW & DHW Heat Pumps - Merrill College House B	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE80	G3718501 - 2638 Merrill Cultural Center Renovations (Deep Lighting) - Merrill College	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE81	G3718502 - 2638 Merrill Cultural Center Renovations (Deep HVAC) - Merrill College	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE82	G3718503A - MBCx - Merrill College Dining Common	No	Use Default	Yes	2023	Yes	2020	No	Use Default
EE83	G3719401A - Deep Retrofit_Smart Lab - Jack Baskin Engineering Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE84	G3719402A - VAV Non-Labs - Jack Baskin Engineering Building	No	Use Default	No	Use Default	Yes	2018	No	Use Default
EE85	G3719403 - 2-Way Valve - Jack Baskin Engineering Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE86	G3719404 - Data Center Retrofit - Jack Baskin Engineering Building	Yes	2017	Yes	2017	Yes	2017	Yes	2017
EE87	G3719405 - Replace Ultra Low Freezers - Jack Baskin Engineering Building	No	Use Default	No	Use Default	Yes	2018	No	Use Default
EE88	G3719406 - Deep Lighting - Jack Baskin Engineering Building	No	Use Default	Yes	2018	Yes	2018	No	Use Default
EE89	G3719407 - MBCx - Jack Baskin Engineering Building	Yes	2017	Yes	2017	Yes	2017	Yes	2017
EE90	G3720001A - Reduce Morning Warmup Setpoints - Cowell Student Health Center	No	Use Default	Yes	2017	Yes	2024	No	Use Default
EE91	G3720002A - Lockout heating when windows are open - Cowell Student Health Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE92	G3720003B - HHW/DHW Boiler Upgrade - Cowell Student Health Center	No	Use Default	No	Use Default	Yes	2024	No	Use Default
EE93	G3720004C - Demand Controlled Ventilation - Cowell Student Health Center	No	Use Default	No	Use Default	Yes	2024	No	Use Default
EE94	G3720005 - Delamp - Cowell Student Health Center	No	Use Default	Yes	2017	Yes	2024	No	Use Default
EE95	G3720006 - Daylighting Controls - Cowell Student Health Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE96	G3720007C - Upgrade AHUs to VAV - Cowell Student Health Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE97	G3720008A - MBCx - Cowell Student Health Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE98	G3720009B - Heat Pump for HHW & DHW - Cowell Student Health Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE99	G3720101 - Reduce Morning Warmup Setpoints - Cowell Student Health Center Addition	No	Use Default	Yes	2017	Yes	2024	No	Use Default
EE100	G3720102 - Lockout heating when windows are open - Cowell Student Health Center Addition	No	Use Default	No	Use Default	Yes	2024	No	Use Default
EE101	G3720103 - Demand Controlled Ventilation - Cowell Student Health Center Addition	No	Use Default	No	Use Default	Yes	2024	No	Use Default
EE102	G3720104 - MBCx - Cowell Student Health Center Addition	No	Use Default	No	Use Default	Yes	2024	No	Use Default
EE103	G3730101 - MBCx - Classroom Unit 1	No	Use Default	No	Use Default	No	Use Default	No	Use Default

CES Project ID	SEP ID - Project Type - Building	EE1: Energy Efficiency, Current Implementation Pace		EE2: Energy Efficiency, Double Implementation Pace		EE3: Energy Efficiency, All Projects <25 year payback		EE - Do Nothing	
		Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year
EE104	G3730102A - Condensing boiler with HHW reset - Classroom Unit 1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE105	G3730103 - VFD for HHW pump - Classroom Unit 1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE106	G3730104 - Occupancy-based AC control for projector room - Classroom Unit 1	Yes	2022	Yes	2022	Yes	2018	No	Use Default
EE107	G3730105 - Deep Lighting Retrofit - Classroom Unit 1	No	Use Default	No	Use Default	No	2018	No	Use Default
EE108	G3730106 - Automatic tstat control for convectors - Classroom Unit 1	Yes	2022	Yes	2022	Yes	2018	No	Use Default
EE109	G3730107 - Add VFDs to SFs - Classroom Unit 1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE110	G3730108A - HHW & DHW Heat Pumps - Classroom Unit 1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE111	G3730401 - MBCx - Porter College House B	No	Use Default	No	Use Default	Yes	2018	No	Use Default
EE112	G3730402 - Window Interlock Controls - Porter College House B	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE113	G3730501 - MBCx - Porter College Dining Common	No	Use Default	No	Use Default	Yes	2020	No	Use Default
EE114	G3730502 - Deep HVAC - Porter College Dining Common	No	Use Default	No	Use Default	Yes	2024	No	Use Default
EE115	G3730503 - Kitchen Hood DCV - Porter College Dining Common	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE116	G3737601A - MBCx - Kerr Hall	No	Use Default	No	Use Default	Yes	2023	No	Use Default
EE117	G3737602B - Deep HVAC Retrofit - Kerr Hall	No	Use Default	No	Use Default	Yes	2023	No	Use Default
EE118	G3737603 - Deep Lighting - Kerr Hall	No	Use Default	No	Use Default	Yes	2023	No	Use Default
EE119	G3737604 - Disconnect/Remove AC4 - Kerr Hall	Yes	2025	Yes	2025	Yes	2023	No	Use Default
EE120	G3737605 - Premium Efficiency Pump Replacement (HWP 02) - Kerr Hall	Yes	2025	Yes	2025	Yes	2023	No	Use Default
EE121	G3737701 - Demand Based Scheduling - Kresge College Academic Building	No	Use Default	No	Use Default	Yes	2021	No	Use Default
EE122	G3737702 - Automatic t-stat control for convectors - Kresge College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE123	G3737703B - Dual Circuit Lighting - Kresge College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE124	G3737704A - Condensing HHW/DHW boiler w/ HWST reset - Kresge College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE125	G3737705 - VAV for WAFs - Kresge College Academic Building	No	Use Default	No	Use Default	Yes	2021	No	Use Default
EE126	G3737706B - Deep Lighting - Kresge College Academic Building	No	Use Default	Yes	2025	Yes	2021	No	Use Default
EE127	G3737707 - MBCx - Kresge College Academic Building	No	Use Default	No	Use Default	Yes	2021	No	Use Default
EE128	G3737708A - Heat Pump for HHW & DHW - Kresge College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE129	G3737901 - Demand Based Scheduling - Kresge College Assembly Building	No	Use Default	No	Use Default	Yes	2021	No	Use Default
EE130	G3737902 - Instantaneous Gas DHW Heater - Kresge College Assembly Building	No	Use Default	No	Use Default	Yes	2021	No	Use Default
EE131	G3737903 - VAV for WAFs - Kresge College Assembly Building	No	Use Default	No	Use Default	Yes	2021	No	Use Default
EE132	G3737904 - MBCx - Kresge College Assembly Building	No	Use Default	No	Use Default	Yes	2021	No	Use Default
EE133	G3737905 - Heat Pump for Heating & DHW - Kresge College Assembly Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE134	G3737906 - Kitchen Hood DCV - Kresge College Assembly Building	No	Use Default	No	Use Default	Yes	2021	No	Use Default
EE135	G3739201 - Demand Based Scheduling - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE136	G3739202 - Instantaneous Gas DHW Heater - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE137	G3739203 - MBCx - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE138	G3739204 - Heat Pump for Heating & DHW - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE139	G3741901A - Condensing Boiler Retrofit - Oakes College Tutorial Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE140	G3741902A - Replace HHW Boiler with Heat Pump - Oakes College Tutorial Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE141	G3741903B - Deep HVAC - Oakes College Tutorial Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE142	G3741904B - MBCx - Oakes College Tutorial Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE143	G3741905 - Kitchen Hood DCV - Oakes College Tutorial Commons	No	Use Default	No	Use Default	Yes	2024	No	Use Default
EE144	G3742101 - MBCx - Oakes College Residence C11-15	No	Use Default	No	Use Default	Yes	2018	No	Use Default
EE145	G3742102 - Install instantaneous GWH - Oakes College Residence C11-15	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE146	G3742103 - Occupancy-based EF control for bathrooms - Oakes College Residence C11-15	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE147	G3742104A - Condensing Furnace w VFD upgrade - Oakes College Residence C11-15	No	Use Default	No	Use Default	Yes	2022	No	Use Default
EE148	G3742105 - Occupancy controlled heating system - Oakes College Residence C11-15	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE149	G3742106A - HHW & DHW Heat Pumps - Oakes College Residence C11-15	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE150	G3743501A - Boiler Retrofit - Fieldhouse West	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE151	G3743502 - MBCx - Fieldhouse West	Yes	2025	Yes	2025	Yes	2019	No	Use Default
EE152	G3743503A - Deep HVAC Retrofit - Fieldhouse West	No	Use Default	No	Use Default	Yes	2019	No	Use Default
EE153	G3743504A - Air-to-Water Heat Pump - Fieldhouse West	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE154	G3743801A - T12 Retrofit - LML William T. Doyle Research Building	No	Use Default	No	Use Default	Yes	2021	No	Use Default
EE155	G3743802B - Deep Lighting Retrofit - LML William T. Doyle Research Building	No	Use Default	No	Use Default	Yes	2021	No	Use Default
EE156	G3743803 - Deep HVAC Retrofit - LML William T. Doyle Research Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE157	G3743804 - MBCx - LML William T. Doyle Research Building	Yes	2021	Yes	2021	Yes	2021	No	Use Default
EE158	G3743805 - ECM Motors - LML William T. Doyle Research Building	Yes	2021	Yes	2021	Yes	2021	No	Use Default
EE159	G3754701 - Exterior Lighting Controls - Crown-Merrill Housing Building 13	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE160	G3754702 - HVAC Occupancy Schedule - Crown-Merrill Housing Building 13	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE161	G3754703A - Condensing Furnace - Crown-Merrill Housing Building 13	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE162	G3754704 - MBCx - Crown-Merrill Housing Building 13	No	Use Default	No	Use Default	Yes	2020	No	Use Default
EE163	G3754705A - HHW & DHW Heat Pumps - Crown-Merrill Housing Building 13	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE164	G3769401A - Condensing Boiler Retrofit - Long Marine Lab Ocean Health Building	No	Use Default	No	Use Default	Yes	2022	No	Use Default
EE165	G3769402A - Replace HHW Boiler with Heat Pump - Long Marine Lab Ocean Health Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE166	G3769403 - Decommission AC1 - Long Marine Lab Ocean Health Building	Yes	2025	Yes	2025	Yes	2022	No	Use Default
EE167	G3769404 - Convert AH1 to VAV - Long Marine Lab Ocean Health Building	No	Use Default	No	Use Default	Yes	2022	No	Use Default
EE168	G3769405 - MBCx - Long Marine Lab Ocean Health Building	Yes	2025	Yes	2025	Yes	2022	No	Use Default
EE169	G3769406 - Deep Lighting Retrofit - Long Marine Lab Ocean Health Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE170	G3769407 - Replace Ultra Low Freezers - Long Marine Lab Ocean Health Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE171	G3770001 - Pool Heat Exchanger - Long Marine Lab Dolphinarium	Yes	2017	Yes	2017	Yes	2017	Yes	2017
EE172	G3770002 - Caisson #2 Pump Replacement - Long Marine Lab Dolphinarium	No	Use Default	No	Use Default	Yes	2023	No	Use Default
EE173	G3770003 - MBCx - Long Marine Lab Dolphinarium	Yes	2024	Yes	2024	Yes	2023	No	Use Default
EE174	G3770004 - Lighting Retrofit - Long Marine Lab Dolphinarium	Yes	2025	Yes	2025	Yes	2023	No	Use Default
EE175	G3770005 - VFDs in Caisson #1 - Long Marine Lab Dolphinarium	No	Use Default	Yes	2025	Yes	2023	No	Use Default
EE176	G3770601 - Demand Controlled Ventilation - Humanities Building 1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE177	G3770602A - Boiler Upgrade - Humanities Building 1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE178	G3770603 - MBCx - Humanities Building 1	No	Use Default	No	Use Default	Yes	2025	No	Use Default
EE179	G3770604A - Heat Pump for HHW & DHW - Humanities Building 1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE180	G3770701A - Boiler Upgrade - Cowell College Apartment Building 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE181	G3770702 - HVAC Occ Sensor - Cowell College Apartment Building 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE182	G3770703 - MBCx - Cowell College Apartment Building 2	No	Use Default	No	Use Default	Yes	2021	No	Use Default
EE183	G3770704 - 2-Way Valve - Cowell College Apartment Building 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE184	G3770705A - HHW & DHW Heat Pumps - Cowell College Apartment Building 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE185	G3771001 - Demand Controlled Ventilation - Humanities & Social Sciences Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE186	G3771002A - Boiler Upgrade - Humanities & Social Sciences Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE187	G3771003 - Improve Southeast Glazing - Humanities & Social Sciences Building	No	Use Default	No	Use Default	Yes	2025	No	Use Default
EE188	G3771004 - Deep Lighting - Humanities & Social Sciences Building	No	Use Default	No	Use Default	Yes	2025	No	Use Default
EE189	G3771005 - MBCx - Humanities & Social Sciences Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE190	G3771006A - Heat Pump for HHW & DHW - Humanities & Social Sciences Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE191	G3771701A - Condensing Boiler Retrofit - Digital Arts Research Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE192	G3771702A - Replace HHW Boiler with Heat Pump - Digital Arts Research Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE193	G3771703 - Demand Based Scheduling - Digital Arts Research Center	No	Use Default	No	Use Default	Yes	2022	No	Use Default
EE194	G3771704B - Eliminate Comfort Cooling - Digital Arts Research Center	Yes	2025	Yes	2025	Yes	2022	No	Use Default
EE195	G3771705B - MBCx - Digital Arts Research Center	Yes	2018	Yes	2018	Yes	0	Yes	2018
EE196	G3771706C - Dining Area Daylighting Controls - Digital Arts Research Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE197	G3771707C - Deep Lighting Retrofit - Digital Arts Research Center	No	Use Default	No	Use Default	Yes	2022	No	Use Default
EE198	G3772601A - Condensing Boiler Retrofit, with 2 Way Valve - OPERS Fitness Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE199	G3772602A - Replace HHW Boiler with Heat Pump - OPERS Fitness Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE200	G3772603B - Window Interlock Sensors - OPERS Fitness Center	Yes	2024	Yes	2024	Yes	2025	No	Use Default
EE201	G3772604B - MBCx - OPERS Fitness Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE202	G3772605 - Dining Area Daylighting Controls - OPERS Fitness Center	No	Use Default	Yes	2024	Yes	2025	No	Use Default
EE203	G3773301A - Boiler Retrofit - Long Marine Lab Seymour Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE204	G3773302A - Air-to-Water Heat Pump - Long Marine Lab Seymour Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE205	G3773303B - Variable Air Volume Conversion for AHUs - Long Marine Lab Seymour Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE206	G3773304B - HVAC Occ Sensor / Demand Based Scheduling - Long Marine Lab Seymour Center	No	Use Default	Yes	2025	Yes	2025	No	Use Default

CES Project ID	SEP ID - Project Type - Building	EE1: Energy Efficiency, Current Implementation Pace		EE2: Energy Efficiency, Double Implementation Pace		EE3: Energy Efficiency, All Projects <25 year payback		EE - Do Nothing	
		Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year
EE207	G3773305B - Dual Technology Controls - Long Marine Lab Seymour Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE208	G3773306 - MBCX - Long Marine Lab Seymour Center	No	Use Default	Yes	2025	Yes	2025	No	Use Default
EE209	G3773307C - Deep Lighting - Long Marine Lab Seymour Center	No	Use Default	Yes	2025	Yes	2025	No	Use Default
EE210	G3773308C - Retrofit Highbay Lighting to LED and add Daylighting controls - Long Ma	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE211	G3773309C - Retrofit T12 Lighting with LED - Long Marine Lab Seymour Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE212	G3774301 - HVAC Occ Sensor / Demand Based Scheduling - OPERS Offices & Support	No	Use Default	Yes	2024	Yes	2025	No	Use Default
EE213	G3774302 - MBCX - OPERS Offices & Support Space	Yes	2024	Yes	2024	Yes	2025	No	Use Default
EE214	G3774303 - Pool Cover - OPERS Offices & Support Space	Yes	2017	Yes	2017	Yes	2017	Yes	2017
EE215	G3774304 - Deep Lighting - OPERS Offices & Support Space	Yes	2024	Yes	2024	Yes	2025	No	Use Default
EE216	G3774305A - Air-to-Water Heat Pump - OPERS Offices & Support Space	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE217	G3774401 - Deep Retrofit Smart Lab - Sinsheimer Laboratories	Yes	2019	Yes	2019	Yes	2019	No	Use Default
EE218	G3774402 - Daylighting - Sinsheimer Laboratories	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE219	G3774403 - Replace Ultra Low Freezers - Sinsheimer Laboratories	No	Use Default	No	Use Default	Yes	2019	No	Use Default
EE220	G3774404 - Deep Lighting - Sinsheimer Laboratories	No	Use Default	Yes	2023	Yes	2019	No	Use Default
EE221	G3774405 - MBCX - Sinsheimer Laboratories	Yes	2025	Yes	2025	Yes	2019	No	Use Default
EE222	G3775601A - Boiler Retrofit - College Eight Kitchen	No	Use Default	No	Use Default	Yes	2024	No	Use Default
EE223	G3775602A - Air-to-Water Heat Pump - College Eight Kitchen	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE224	G3775603B - Daylighting - College Eight Kitchen	No	Use Default	No	Use Default	Yes	2020	No	Use Default
EE225	G3775604B - Deep Lighting - College Eight Kitchen	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE226	G3775605 - MBCX - College Eight Kitchen	No	Use Default	Yes	2018	Yes	2018	No	Use Default
EE227	G3775606 - Kitchen Hood DCV - College Eight Kitchen	No	Use Default	No	Use Default	Yes	2019	No	Use Default
EE228	G3775901A - Boiler Retrofit - College Eight Dorm A-L-Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE229	G3775902B - HVAC Tstat & Window Interlock - College Eight Dorm A-L-Building	No	Use Default	No	Use Default	Yes	2022	No	Use Default
EE230	G3775903B - MBCX - College Eight Dorm A-L-Building	No	Use Default	No	Use Default	Yes	2024	No	Use Default
EE231	G3775904A - Air-to-Water Heat Pump - College Eight Dorm A-L-Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE232	G3777501A - Deep Retrofit Smart Labs - Earth & Marine Sciences	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE233	G3777502A - VAV Conversion - Earth & Marine Sciences	No	Use Default	Yes	2020	Yes	2025	No	Use Default
EE234	G3777503 - Improve Glazing - Earth & Marine Sciences	Yes	2025	Yes	2025	Yes	2025	No	Use Default
EE235	G3777504 - DCV with CO2 sensors - Earth & Marine Sciences	Yes	2025	Yes	2025	Yes	2025	No	Use Default
EE236	G3777505 - Deep Lighting - Earth & Marine Sciences	No	Use Default	No	Use Default	Yes	2025	No	Use Default
EE237	G3777506 - Replace Ultra Low Freezers - Earth & Marine Sciences	No	Use Default	No	Use Default	Yes	2024	No	Use Default
EE238	G3777507 - MBCX - Earth & Marine Sciences	Yes	2024	Yes	2024	Yes	2025	No	Use Default
EE239	G3780101A - Condensing Furnace Retrofit - College Eight Apartment Building 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE240	G3780102A - Install Heat Pumps for Heating - College Eight Apartment Building 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE241	G3780103B - Condensing Furnace Retrofit - College Eight Apartment Building 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE242	G3780104B - Energy Star Electric Heat Pump Water Heater - College Eight Apartment	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE243	G3780105 - Smart Thermostat - College Eight Apartment Building 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE244	G3790501A - Boiler Upgrade - Stevenson College Apartment Building 10	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE245	G3790502 - HVAC Occ Sensor - Stevenson College Apartment Building 10	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE246	G3790503 - MBCX - Stevenson College Apartment Building 10	No	Use Default	No	Use Default	Yes	2020	No	Use Default
EE247	G3790504 - 2-Way Valve - Stevenson College Apartment Building 10	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE248	G3790505A - HHW & DHW Heat Pumps - Stevenson College Apartment Building 10	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE249	G3791001A - Condensing Boiler Retrofit - Porter College Apartment Building K	No	Use Default	Yes	2025	Yes	2025	No	Use Default
EE250	G3791002A - Replace HHW Boiler with Heat Pump - Porter College Apartment Buildi	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE251	G3791003 - Smart Thermostat - Porter College Apartment Building K	No	Use Default	Yes	2025	No	Use Default	No	Use Default
EE252	G3791004 - MBCX - Porter College Apartment Building K	No	Use Default	Yes	2025	Yes	2025	No	Use Default
EE253	G3791901A - Deep Retrofit Smart Lab - Physical Sciences Building	No	2018	Yes	2018	Yes	0	Yes	2018
EE254	G3791902A - VAV Lab Exhaust - Physical Sciences Building	Yes	Use Default	Yes	2018	Yes	2018	No	Use Default
EE255	G3791903 - Controls - Physical Sciences Building	No	Use Default	No	Use Default	Yes	2018	No	Use Default
EE256	G3791904 - Replace Ultra Low Freezers - Physical Sciences Building	No	Use Default	No	Use Default	Yes	2018	No	Use Default
EE257	G3791905 - Server Room HVAC - Physical Sciences Building	No	Use Default	No	Use Default	Yes	2018	No	Use Default
EE258	G3791906 - MBCX - Physical Sciences Building	Yes	2018	Yes	2018	Yes	2018	Yes	2018
EE259	G3793201A - Boiler Upgrade - College Nine Residence Hall 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE260	G3793202 - HVAC Occ Sensor - College Nine Residence Hall 2	No	Use Default	No	Use Default	Yes	2018	No	Use Default
EE261	G3793203 - MBCX - College Nine Residence Hall 2	No	Use Default	Yes	2024	No	Use Default	No	Use Default
EE262	G3793204A - HHW & DHW Heat Pumps - College Nine Residence Hall 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE272	G37933010 - Lidded Charboiler - College Nine Dining Hall	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE263	G3793301A - Condensing Boiler Retrofit - College Nine Dining Hall	No	Use Default	Yes	2025	Yes	2025	No	Use Default
EE264	G3793302A - Replace HHW Boiler with Heat Pump - College Nine Dining Hall	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE265	G3793303 - Demand Based Scheduling - College Nine Dining Hall	No	Use Default	No	Use Default	Yes	2020	No	Use Default
EE266	G3793304 - Convert AH4 to VAV with Demand Based Scheduling - College Nine Dini	No	Use Default	Yes	2024	No	Use Default	No	Use Default
EE267	G3793305 - MBCX - College Nine Dining Hall	No	Use Default	No	Use Default	Yes	2019	No	Use Default
EE268	G3793306B - Dining Area Daylighting Controls - College Nine Dining Hall	No	Use Default	Yes	2025	Yes	2025	No	Use Default
EE269	G3793307B - Deep Lighting Retrofit - College Nine Dining Hall	No	Use Default	No	Use Default	Yes	2018	No	Use Default
EE270	G3793308 - Dish room industrial & pre-rinse sprayers - College Nine Dining Hall	Yes	2025	Yes	2025	Yes	2020	No	Use Default
EE271	G3793309 - Dishwasher Replacement - College Nine Dining Hall	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE273	G3794001 - MBCX - Engineering Building 2	No	Use Default	Yes	2021	Yes	2021	No	Use Default
EE274	G3794002 - HVAC Occ Sensor / Demand Based Scheduling - Engineering Building 2	No	Use Default	No	Use Default	Yes	2021	No	Use Default
EE275	G3794003 - Server Room HVAC Includes Rooms 208 and 594 - Engineering Building	Yes	2021	Yes	2021	Yes	2021	No	Use Default
EE276	G3794004 - Server Room UPS Rm 208 and 594 - Engineering Building 2	No	Use Default	Yes	2021	Yes	2021	No	Use Default
EE277	G3794005 - Deep Lighting - Engineering Building 2	No	Use Default	Yes	2021	Yes	2021	No	Use Default
EE278	G3794401 - Parking Lot LED Retrofit - 2300 Delaware Avenue A/B	No	Use Default	No	Use Default	Yes	2024	No	Use Default
EE279	G3794402 - MBCX - 2300 Delaware Avenue A/B	No	Use Default	Yes	2022	Yes	2024	No	Use Default
EE280	G3794403 - Raise Server Room Temp Setpoints - 2300 Delaware Avenue A/B	Yes	2025	Yes	2025	Yes	2024	No	Use Default
EE281	G3794701 - Vivarium Lighting Control - Biomedical Sciences	No	Use Default	Yes	2024	Yes	2024	No	Use Default
EE282	G3794702 - Replace Ultra Low Freezers - Biomedical Sciences	No	Use Default	Yes	2024	Yes	2024	No	Use Default
EE283	G3794703 - Monitoring Based Commissioning - Biomedical Sciences	Yes	2024	Yes	2024	Yes	2024	No	Use Default
EE293	G3D1ST01A - Pre-Cool Cooling Tower Air - Campuswide	No	Use Default	Yes	Use Default	Yes	2019	No	Use Default
EE294	G3D1ST02 - PVThermal at OPERS Pool - Campuswide	No	Use Default	Yes	2018	Yes	0	No	Use Default
EE297	G3D1ST05 - Porter College Mini District Low Temp Heating - Campuswide	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE298	G3D1ST06A - Distributed Resource Optimization - Campuswide	No	Use Default	Yes	Use Default	Yes	2020	No	Use Default
EE299	G3D1ST08 - Low Temp Heating of Ventilation Air - Campuswide	No	Use Default	No	Use Default	Yes	2021	No	Use Default
EE300	G3D1ST09A - Cooling Tower Staging & Optimization - Campuswide	No	Use Default	Yes	2017	Yes	2024	No	Use Default
EE295	G3D1ST4aA - Reduce Condenser Water Temperature with Pony Chillers - Campuswid	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE296	G3D1ST4bA - Reduce Condenser Water Temperature with Pony Chillers - Campuswid	Yes	2025	Yes	2025	Yes	2019	No	Use Default
EE284	G3WIDE01 - Campus Wide Wall Pack Upgrade - Campuswide	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE285	G3WIDE02 - Unplug Refrigerators for Summer Break - Campuswide	No	Use Default	Yes	2017	Yes	2023	No	Use Default
EE286	G3WIDE03 - Eliminate Building Heat on 90°F Days - Campuswide	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE287	G3WIDE04 - Walk-in Cooler & Freezer Optimization - Campuswide	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE288	G3WIDE05 - Campuswide Incandescent/Halogen Lighting Retrofit - Campuswide	Yes	2017	Yes	2017	No	Use Default	Yes	2017
EE289	G3WIDE06 - Porter & Crown Kitchen Shutdown - Campuswide	Yes	2017	Yes	2017	No	Use Default	Yes	2017
EE290	G3WIDE07 - Crown & Porter Kitchen Hood Shutdown - Campuswide	Yes	2018	Yes	2018	No	Use Default	Yes	2018
EE291	G3WIDE08 - Replace Ultra Low Freezers - Campuswide	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE292	G3WIDE09 - Pathway Lighting Retrofit - Campuswide	Yes	2018	Yes	2018	No	Use Default	Yes	2018
EE305	G4711601A - Add VFDs to CHW Pump - Thimann Lab	Yes	2017	Yes	2017	No	Use Default	Yes	2017
EE306	G4711602A - Add VFDs to Process Heating Water Pump - Thimann Lab	Yes	2017	Yes	2017	No	Use Default	Yes	2017
EE301	G4714501A - Lighting Conversion Phase II - McHenry Library	Yes	2017	Yes	2017	No	Use Default	Yes	2017
EE304	G4714601 - Fackler Plant LED & Controls Conversion - Central Heating Plant	Yes	2017	Yes	2017	No	Use Default	Yes	2017
EE303	G4717901A - Hallway Lighting Retrofit - Natural Sciences II	Yes	2017	Yes	2017	No	Use Default	Yes	2017
EE302	G4792101 - Hallway Lighting Retrofit - Social Sciences II	Yes	2017	Yes	2017	No	Use Default	Yes	2017
EE307	G57120401 - MBCX - Cowell College Turner House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE308	G57120402A - Condensing boiler with HHW reset - Cowell College Turner House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE309	G57120403 - VFD for HHW pump - Cowell College Turner House	No	Use Default	No	Use Default	No	Use Default	No	Use Default

CES Project ID	SEP ID - Project Type - Building	EE1: Energy Efficiency, Current Implementation Pace		EE2: Energy Efficiency, Double Implementation Pace		EE3: Energy Efficiency, All Projects <25 year payback		EE - Do Nothing	
		Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year
EE1038	G67749903 - Controls - Oakes College Dorm 4	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE773	G67754103 - VFD for HHW pump - Academic Resource Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE774	G67754104 - MBcX - Academic Resource Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE771	G67754201 - Demand Based Scheduling - Academic Resource Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE772	G67754305B - Dual Technology Controls - Academic Resource Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE770	G67754501A - Boiler Upgrade - Academic Resource Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1042	G67757002A - Replace HHW Boiler with Heat Pump - College Eight Dining Room	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1047	G67757006 - Daylighting Controls - College Eight Dining Room	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1043	G67757201 - Demand Based Scheduling - College Eight Dining Room	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1048	G67757403 - Depp Lighting Retrofit - College Eight Dining Room	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1046	G67757410 - Kitchen Hood DCV - College Eight Dining Room	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1045	G67757704 - MBcX - College Eight Dining Room	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1044	G67757903 - Controls - College Eight Dining Room	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1050	G67758002A - Replace HHW Boiler with Heat Pump - College Eight Dorm A-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1054	G67758006 - Daylighting Controls - College Eight Dorm A-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1051	G67758201 - Demand Based Scheduling - College Eight Dorm A-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1055	G67758403 - Depp Lighting Retrofit - College Eight Dorm A-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1049	G67758701A - Condensing Boiler Retrofit - College Eight Dorm A-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1053	G67758704 - MBcX - College Eight Dorm A-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1052	G67758903 - Controls - College Eight Dorm A-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1057	G67760002A - Replace HHW Boiler with Heat Pump - College Eight Dorm B-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1061	G67760006 - Daylighting Controls - College Eight Dorm B-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1058	G67760201 - Demand Based Scheduling - College Eight Dorm B-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1062	G67760403 - Depp Lighting Retrofit - College Eight Dorm B-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1056	G67760701A - Condensing Boiler Retrofit - College Eight Dorm B-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1060	G67760704 - MBcX - College Eight Dorm B-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1059	G67760903 - Controls - College Eight Dorm B-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1064	G67762002A - Replace HHW Boiler with Heat Pump - College Eight Dorm C-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1068	G67762006 - Daylighting Controls - College Eight Dorm C-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1065	G67762201 - Demand Based Scheduling - College Eight Dorm C-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1069	G67762403 - Depp Lighting Retrofit - College Eight Dorm C-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1063	G67762701A - Condensing Boiler Retrofit - College Eight Dorm C-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1067	G67762704 - MBcX - College Eight Dorm C-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1066	G67762903 - Controls - College Eight Dorm C-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1071	G67764002A - Replace HHW Boiler with Heat Pump - College Eight Dorm D-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1075	G67764006 - Daylighting Controls - College Eight Dorm D-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1072	G67764201 - Demand Based Scheduling - College Eight Dorm D-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1076	G67764403 - Depp Lighting Retrofit - College Eight Dorm D-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1070	G67764701A - Condensing Boiler Retrofit - College Eight Dorm D-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1074	G67764704 - MBcX - College Eight Dorm D-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1073	G67764903 - Controls - College Eight Dorm D-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1077	G67767002A - Replace HHW Boiler with Heat Pump - College Eight Cafe Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1082	G67767006 - Daylighting Controls - College Eight Cafe Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1078	G67767201 - Demand Based Scheduling - College Eight Cafe Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1083	G67767403 - Depp Lighting Retrofit - College Eight Cafe Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1081	G67767410 - Kitchen Hood DCV - College Eight Cafe Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1080	G67767704 - MBcX - College Eight Cafe Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1079	G67767903 - Controls - College Eight Cafe Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1084	G67768002A - Replace HHW Boiler with Heat Pump - College Eight Student Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1088	G67768006 - Daylighting Controls - College Eight Student Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1085	G67768201 - Demand Based Scheduling - College Eight Student Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1089	G67768403 - Depp Lighting Retrofit - College Eight Student Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1087	G67768704 - MBcX - College Eight Student Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1086	G67768903 - Controls - College Eight Student Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE805	G67782303 - Demand Based Scheduling - Science and Engineering Library	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE808	G67782401 - MBcX - Science and Engineering Library	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE804	G67782602B - Deep HVAC Retrofit - Science and Engineering Library	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE807	G67782604 - Replace Ultra Low Freezers - Science and Engineering Library	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE806	G67782605 - Dining Area Daylighting Controls - Science and Engineering Library	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1090	REFC001 - KZSC Tower Hill -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1091	REFC002 - Engineering -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1092	REFC003 - Communications/Fackler Co-Generation Plant/Natural Sciences Woodsho	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1093	REFC004 - Interdisciplinary Science Bldgs/Earth & Marine Sciences/Science Labs/Nat	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1094	REFC005 - Physical Sciences/Sinsheimer Labs/Thimann Labs/Kerr Hall -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1095	REFC006 - College 9/10 -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1096	REFC007 - Crown College/Merrill College/Fire Station -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1097	REFC008 - Cowell Health Center/Student Center/Classrooms/Humanities -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1098	REFC009 - Cowell College/Stevenson College & Apartments -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1099	REFC010 - McHenry Library/Hahn Student Services -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1100	REFC011 - The Arts Complex -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1101	REFC012 - Kresge College/Porter College & Porter/Kresge Apartments -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1102	REFC013 - Kresge Housing East/Graduate Student Housing -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1103	REFC014 - College Eight and Oakes College -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1104	REFC015 - Family Student Housing -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1105	REFC016 - East Field House/Fitness Center -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1106	REFC017 - Quarry/Village/Farm/Agroecology -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1107	REFC018 - Arboretum -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1108	REFC019 - Barn G/Barn H/Central Stores/Carriage House/Cardiff House/Faculty Hous	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1109	REFC020 - Emergency Response Center -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1110	REFC021 - Communications/Fackler Co-Generation Plant/Natural Sciences Woodsho	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1111	REFC022 - Physical Sciences/Sinsheimer Labs/Thimann Labs/Kerr Hall -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1112	REFC023 - College 9/10 -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1113	REFC024 - Cowell College/Stevenson College & Apartments -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1114	REFC025 - College Eight and Oakes College -	No	Use Default	No	Use Default	No	Use Default	No	Use Default

CES Project ID	SEP ID - Project Type - Building	EE4: Deep Therm-Savings Measures (2020)		EE4.1: Deep Therm-Savings Measures (2025)		EE5: Heat Pump Measures Only (2020)		EE5.1: Heat Pump Measures Only (2025)	
		Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year
EE1	G3709601A - Condensing Boiler Retrofit - Emergency Response Center	Yes	2017	Yes	2017	No	Use Default	No	Use Default
EE2	G3709602A - Replace HHW Boiler with Heat Pump - Emergency Response Center	No	Use Default	No	Use Default	Yes	2019	Yes	2019
EE3	G3709603 - Demand Based Scheduling - Emergency Response Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE4	G3709604 - Raise Server Room Temp Setpoints - Emergency Response Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE5	G3709605 - MBCx - Emergency Response Center	Yes	2019	Yes	2022	No	Use Default	No	Use Default
EE6	G3709606 - Deep Lighting Retrofit - Emergency Response Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE7	G3709801 - Deep HVAC Retrofit - Interdisciplinary Sciences Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE8	G3709802 - Deep Lighting Retrofit - Interdisciplinary Sciences Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE9	G3709803 - MBCx - Interdisciplinary Sciences Building	Yes	2020	Yes	2024	No	Use Default	No	Use Default
EE10	G3711501 - MBCx - Hahn Student Services	Yes	2017	Yes	2017	No	Use Default	No	Use Default
EE11	G3711502 - Deep Lighting Retrofit - Hahn Student Services	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE12	G3711503 - Boiler Upgrade - Hahn Student Services	Yes	2017	Yes	2017	No	Use Default	No	Use Default
EE13	G3711601A - Deep Retrofit - Smart Lab - Thimann Laboratories	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE14	G3711602 - 2-Way Valve - Thimann Laboratories	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE15	G3711603 - DIWP Pump VFD - Thimann Laboratories	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE16	G3711604 - Replace Ultra Low Freezers - Thimann Laboratories	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE17	G3711605 - Deep Lighting - Thimann Laboratories	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE18	G3711606 - MBCx - Thimann Laboratories	Yes	2020	Yes	2024	No	Use Default	No	Use Default
EE19	G3712401 - MBCx - Cowell College Prescott House	Yes	2017	Yes	2017	No	Use Default	No	Use Default
EE20	G3712402A - Condensing boiler with HHW reset - Cowell College Prescott House	Yes	2018	Yes	2019	No	Use Default	No	Use Default
EE21	G3712403 - VFD for HHW pump - Cowell College Prescott House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE22	G3712404 - Occupancy based operation for restroom Efs - Cowell College Prescott House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE23	G3712405A - Heat Pump for HHW & DHW - Cowell College Prescott House	No	Use Default	No	Use Default	Yes	2017	Yes	2021
EE24	G3713401A - Boiler Retrofit (Primary) - Cowell College Commons	Yes	2017	Yes	2017	No	Use Default	No	Use Default
EE25	G3713402A - Boiler Retrofit (alt) - Cowell College Commons	Yes	2018	Yes	2019	No	Use Default	No	Use Default
EE26	G3713403 - Steam Boiler Retrofit - Cowell College Commons	Yes	2017	Yes	2017	No	Use Default	No	Use Default
EE27	G3713404 - MBCx - Cowell College Commons	Yes	2017	Yes	2017	No	Use Default	No	Use Default
EE28	G3713405B - Dining Area Daylighting Controls - Cowell College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE29	G3713406B - Deep Lighting Retrofit - Cowell College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE30	G3713407A - Deep HVAC Retrofit - Cowell College Commons	Yes	2017	Yes	2017	No	Use Default	No	Use Default
EE31	G3713408A - Replace HHW Boiler with Heat Pump - Cowell College Commons	No	Use Default	No	Use Default	Yes	2017	Yes	2021
EE32	G3713409 - Dishwasher Replacement - Cowell College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE33	G3713410 - Kitchen Hood DCV - Cowell College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE34	G3713701A - Condensing Boiler Retrofit - Stevenson College House 3	Yes	2018	Yes	2019	No	Use Default	No	Use Default
EE35	G3713702A - Replace HHW Boiler with Heat Pump - Stevenson College House 3	No	Use Default	No	Use Default	Yes	2017	Yes	2021
EE36	G3713703 - Deep HVAC - Stevenson College House 3	Yes	2017	Yes	2017	No	Use Default	No	Use Default
EE37	G3713704 - MBCx - Stevenson College House 3	Yes	2017	Yes	2017	No	Use Default	No	Use Default
EE38	G3713705 - Interlock Danfoss Valves with Windows - Stevenson College House 3	Yes	2017	Yes	2017	No	Use Default	No	Use Default
EE39	G3714401 - Deep HVAC - Stevenson College Commons	Yes	2017	Yes	2017	No	Use Default	No	Use Default
EE40	G3714402 - HVAC Occ Sensor / Demand Based Scheduling for MPR - Stevenson College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE41	G3714403 - MBCx - Stevenson College Commons	Yes	2017	Yes	2017	No	Use Default	No	Use Default
EE42	G3714404A - Deep Lighting - Stevenson College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE43	G3714405B - MPR LED Lighting Retrofit - Stevenson College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE44	G3714501A - Deep HVAC - McHenry Library	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE45	G3714502B - Deep Lighting - McHenry Library	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE46	G3714503B - Emergency Lighting - McHenry Library	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE47	G3714504A - MBCx - McHenry Library	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE48	G3715701 - Steam Boiler Retrofit - Crown College Commons	Yes	2018	Yes	2020	No	Use Default	No	Use Default
EE49	G3715702B - Convert to VAV - Crown College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE50	G3715703B - HVAC Occ Sensor / Demand Based Scheduling - Crown College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE51	G3715704 - Convert to 2-Way Valve - Crown College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE52	G3715705 - MBCx - Crown College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE53	G3715706A - MH to LED Lighting Retrofit with Daylighting - Crown College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE54	G3715707B - Deep Lighting - Crown College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE55	G3715708 - Air-to-Water Heat Pump - Crown College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE56	G3715709 - Kitchen Hood DCV - Crown College Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE57	G3717501 - Deep HVAC - Communications Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE58	G3717502 - IT Room - Communications Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE59	G3717503 - Data Center Retrofit - Communications Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE60	G3717504 - Deep Lighting - Communications Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE61	G3717505 - 2-Way Valve - Communications Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE62	G3717506 - MBCx - Communications Building	Yes	2019	Yes	2022	No	Use Default	No	Use Default
EE63	G3717901A - Deep Retrofit - Smart Lab - Natural Sciences 2 Main Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE64	G3717902A - VAV Labs - Natural Sciences 2 Main Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE65	G3717903 - 2-Way Valve - Natural Sciences 2 Main Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE66	G3717904 - Process Water Pump VFD - Natural Sciences 2 Main Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE67	G3717905B - Daylighting - Natural Sciences 2 Main Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE68	G3717906 - Replace Ultra Low Freezers - Natural Sciences 2 Main Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE69	G3717907 - Server Room HVAC - Natural Sciences 2 Main Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE70	G3717908B - Deep Lighting - Natural Sciences 2 Main Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE71	G3717909 - MBCx - Natural Sciences 2 Main Building	Yes	2020	Yes	2024	No	Use Default	No	Use Default
EE72	G3718001 - Demand Based Scheduling - Natural Sciences 2 Annex	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE73	G3718002 - EF-Q2 Timeclock - Natural Sciences 2 Annex	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE74	G3718003 - Deep Lighting - Natural Sciences 2 Annex	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE75	G3718401 - MBCx - Merrill College House B	Yes	2018	Yes	2020	No	Use Default	No	Use Default
EE76	G3718402 - Occupancy based control on AH-B1/EF-B1, AH-B2/EF-2 - Merrill College House B	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE77	G3718403 - Deep Lighting Retrofit - Merrill College House B	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE78	G3718404 - Seasonal Building Scheduling - Merrill College House B	Yes	2018	Yes	2020	No	Use Default	No	Use Default
EE79	G3718405 - HHW & DHW Heat Pumps - Merrill College House B	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE80	G3718501 - 2638 Merrill Cultural Center Renovations (Deep Lighting) - Merrill College House B	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE81	G3718502 - 2638 Merrill Cultural Center Renovations (Deep HVAC) - Merrill College House B	Yes	2018	Yes	2020	No	Use Default	No	Use Default
EE82	G3718503A - MBCx - Merrill College Dining Common	Yes	2018	Yes	2020	No	Use Default	No	Use Default
EE83	G3719401A - Deep Retrofit - Smart Lab - Jack Baskin Engineering Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE84	G3719402A - VAV Non-Labs - Jack Baskin Engineering Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE85	G3719403 - 2-Way Valve - Jack Baskin Engineering Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE86	G3719404 - Data Center Retrofit - Jack Baskin Engineering Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE87	G3719405 - Replace Ultra Low Freezers - Jack Baskin Engineering Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE88	G3719406 - Deep Lighting - Jack Baskin Engineering Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE89	G3719407 - MBCx - Jack Baskin Engineering Building	Yes	2019	Yes	2022	No	Use Default	No	Use Default
EE90	G3720001A - Reduce Morning Warmup Setpoints - Cowell Student Health Center	Yes	2017	Yes	2017	No	Use Default	No	Use Default
EE91	G3720002A - Lockout heating when windows are open - Cowell Student Health Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE92	G3720003B - HHW/DHW Boiler Upgrade - Cowell Student Health Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE93	G3720004C - Demand Controlled Ventilation - Cowell Student Health Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE94	G3720005 - Delamp - Cowell Student Health Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE95	G3720006 - Daylighting Controls - Cowell Student Health Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE96	G3720007C - Upgrade AHUs to VAV - Cowell Student Health Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE97	G3720008A - MBCx - Cowell Student Health Center	Yes	2017	Yes	2017	No	Use Default	No	Use Default
EE98	G3720009B - Heat Pump for HHW & DHW - Cowell Student Health Center	No	Use Default	No	Use Default	Yes	2017	Yes	2017

CES Project ID	SEP ID - Project Type - Building	EE4: Deep Therm-Savings Measures (2020)		EE4.1: Deep Therm-Savings Measures (2025)		EE5: Heat Pump Measures Only (2020)		EE5.1: Heat Pump Measures Only (2025)	
		Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year
EE99	G3720101 - Reduce Morning Warmup Setpoints - Cowell Student Health Center Addition	Yes	2017	Yes	2017	No	Use Default	No	Use Default
EE100	G3720102 - Lockout heating when windows are open - Cowell Student Health Center Addition	Yes	2017	Yes	2017	No	Use Default	No	Use Default
EE101	G3720103 - Demand Controlled Ventilation - Cowell Student Health Center Addition	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE102	G3720104 - MBCx - Cowell Student Health Center Addition	Yes	2017	Yes	2017	No	Use Default	No	Use Default
EE103	G3730101 - MBCx - Classroom Unit 1	Yes	2017	Yes	2017	No	Use Default	No	Use Default
EE104	G3730102A - Condensing boiler with HHW reset - Classroom Unit 1	Yes	2019	Yes	2022	No	Use Default	No	Use Default
EE105	G3730103 - VFD for HHW pump - Classroom Unit 1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE106	G3730104 - Occupancy-based AC control for projector room - Classroom Unit 1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE107	G3730105 - Deep Lighting Retrofit - Classroom Unit 1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE108	G3730106 - Automatic tstat control for convectors - Classroom Unit 1	Yes	2017	Yes	2017	No	Use Default	No	Use Default
EE109	G3730107 - Add VFDs to SFs - Classroom Unit 1	Yes	2017	Yes	2017	No	Use Default	No	Use Default
EE110	G3730108A - HHW & DHW Heat Pumps - Classroom Unit 1	No	Use Default	No	Use Default	Yes	2017	Yes	2017
EE111	G3730401 - MBCx - Porter College House B	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE112	G3730402 - Window Interlock Controls - Porter College House B	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE113	G3730501 - MBCx - Porter College Dining Common	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE114	G3730502 - Deep HVAC - Porter College Dining Common	Yes	2020	Yes	2024	No	Use Default	No	Use Default
EE115	G3730503 - Kitchen Hood DCV - Porter College Dining Common	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE116	G3737601A - MBCx - Kerr Hall	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE117	G3737602B - Deep HVAC Retrofit - Kerr Hall	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE118	G3737603 - Deep Lighting - Kerr Hall	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE119	G3737604 - Disconnect/Remove AC4 - Kerr Hall	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE120	G3737605 - Premium Efficiency Pump Replacement (HWP 02) - Kerr Hall	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE121	G3737701 - Demand Based Scheduling - Kresge College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE122	G3737702 - Automatic t-stat control for convectors - Kresge College Academic Building	Yes	2020	Yes	2025	No	Use Default	No	Use Default
EE123	G3737703B - Dual Circuit Lighting - Kresge College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE124	G3737704A - Condensing HHW/DHW boiler w/ HWST reset - Kresge College Academic Building	Yes	2017	Yes	2017	No	Use Default	No	Use Default
EE125	G3737705 - VAV for WAFs - Kresge College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE126	G3737706B - Deep Lighting - Kresge College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE127	G3737707 - MBCx - Kresge College Academic Building	Yes	2020	Yes	2025	No	Use Default	No	Use Default
EE128	G3737708A - Heat Pump for HHW & DHW - Kresge College Academic Building	No	Use Default	No	Use Default	Yes	2020	Yes	2024
EE129	G3737901 - Demand Based Scheduling - Kresge College Assembly Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE130	G3737902 - Instantaneous Gas DHW Heater - Kresge College Assembly Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE131	G3737903 - VAV for WAFs - Kresge College Assembly Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE132	G3737904 - MBCx - Kresge College Assembly Building	Yes	2020	Yes	2025	No	Use Default	No	Use Default
EE133	G3737905 - Heat Pump for Heating & DHW - Kresge College Assembly Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE134	G3737906 - Kitchen Hood DCV - Kresge College Assembly Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE135	G3739201 - Demand Based Scheduling - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE136	G3739202 - Instantaneous Gas DHW Heater - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE137	G3739203 - MBCx - Kresge College House 11	Yes	2020	Yes	2025	No	Use Default	No	Use Default
EE138	G3739204 - Heat Pump for Heating & DHW - Kresge College House 11	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE139	G3741901A - Condensing Boiler Retrofit - Oakes College Tutorial Commons	Yes	2020	Yes	2025	No	Use Default	No	Use Default
EE140	G3741902A - Replace HHW Boiler with Heat Pump - Oakes College Tutorial Commons	No	Use Default	No	Use Default	Yes	2019	Yes	2019
EE141	G3741903B - Deep HVAC - Oakes College Tutorial Commons	Yes	2018	Yes	2020	No	Use Default	No	Use Default
EE142	G3741904B - MBCx - Oakes College Tutorial Commons	Yes	2018	Yes	2020	No	Use Default	No	Use Default
EE143	G3741905 - Kitchen Hood DCV - Oakes College Tutorial Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE144	G3742101 - MBCx - Oakes College Residence C11-15	Yes	2018	Yes	2020	No	Use Default	No	Use Default
EE145	G3742102 - Install instantaneous GWH - Oakes College Residence C11-15	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE146	G3742103 - Occupancy-based EF control for bathrooms - Oakes College Residence C11-15	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE147	G3742104A - Condensing Furnace w VFD upgrade - Oakes College Residence C11-15	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE148	G3742105 - Occupancy controlled heating system - Oakes College Residence C11-15	Yes	2018	Yes	2020	No	Use Default	No	Use Default
EE149	G3742106A - HHW & DHW Heat Pumps - Oakes College Residence C11-15	No	Use Default	No	Use Default	Yes	2019	Yes	2019
EE150	G3743501A - Boiler Retrofit - Fieldhouse West	Yes	2020	Yes	2025	No	Use Default	No	Use Default
EE151	G3743502 - MBCx - Fieldhouse West	Yes	2019	Yes	2023	No	Use Default	No	Use Default
EE152	G3743503A - Deep HVAC Retrofit - Fieldhouse West	Yes	2019	Yes	2023	No	Use Default	No	Use Default
EE153	G3743504A - Air-to-Water Heat Pump - Fieldhouse West	No	Use Default	No	Use Default	Yes	2019	Yes	2019
EE154	G3743801A - T12 Retrofit - LML William T. Doyle Research Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE155	G3743802B - Deep Lighting Retrofit - LML William T. Doyle Research Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE156	G3743803 - Deep HVAC Retrofit - LML William T. Doyle Research Building	Yes	2019	Yes	2023	No	Use Default	No	Use Default
EE157	G3743804 - MBCx - LML William T. Doyle Research Building	Yes	2019	Yes	2023	No	Use Default	No	Use Default
EE158	G3743805 - ECM Motors - LML William T. Doyle Research Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE159	G3754701 - Exterior Lighting Controls - Crown-Merrill Housing Building 13	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE160	G3754702 - HVAC Occupancy Schedule - Crown-Merrill Housing Building 13	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE161	G3754703A - Condensing Furnace - Crown-Merrill Housing Building 13	Yes	2018	Yes	2020	No	Use Default	No	Use Default
EE162	G3754704 - MBCx - Crown-Merrill Housing Building 13	Yes	2018	Yes	2020	No	Use Default	No	Use Default
EE163	G3754705A - HHW & DHW Heat Pumps - Crown-Merrill Housing Building 13	No	Use Default	No	Use Default	Yes	2018	Yes	2022
EE164	G3769401A - Condensing Boiler Retrofit - Long Marine Lab Ocean Health Building	Yes	2017	Yes	2017	No	Use Default	No	Use Default
EE165	G3769402A - Replace HHW Boiler with Heat Pump - Long Marine Lab Ocean Health Building	No	Use Default	No	Use Default	Yes	2019	Yes	2019
EE166	G3769403 - Decommission AC1 - Long Marine Lab Ocean Health Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE167	G3769404 - Convert AH1 to VAV - Long Marine Lab Ocean Health Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE168	G3769405 - MBCx - Long Marine Lab Ocean Health Building	Yes	2019	Yes	2023	No	Use Default	No	Use Default
EE169	G3769406 - Deep Lighting Retrofit - Long Marine Lab Ocean Health Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE170	G3769407 - Replace Ultra Low Freezers - Long Marine Lab Ocean Health Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE171	G3770001 - Pool Heat Exchanger - Long Marine Lab Dolphinarium	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE172	G3770002 - Caisson #2 Pump Replacement - Long Marine Lab Dolphinarium	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE173	G3770003 - MBCx - Long Marine Lab Dolphinarium	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE174	G3770004 - Lighting Retrofit - Long Marine Lab Dolphinarium	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE175	G3770005 - VFDs in Caisson #1 - Long Marine Lab Dolphinarium	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE176	G3770601 - Demand Controlled Ventilation - Humanities Building 1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE177	G3770602A - Boiler Upgrade - Humanities Building 1	Yes	2017	Yes	2017	No	Use Default	No	Use Default
EE178	G3770603 - MBCx - Humanities Building 1	Yes	2017	Yes	2017	No	Use Default	No	Use Default
EE179	G3770604A - Heat Pump for HHW & DHW - Humanities Building 1	No	Use Default	No	Use Default	Yes	2017	Yes	2017
EE180	G3770701A - Boiler Upgrade - Cowell College Apartment Building 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE181	G3770702 - HVAC Occ Sensor - Cowell College Apartment Building 2	Yes	2017	Yes	2018	No	Use Default	No	Use Default
EE182	G3770703 - MBCx - Cowell College Apartment Building 2	Yes	2017	Yes	2018	No	Use Default	No	Use Default
EE183	G3770704 - 2-Way Valve - Cowell College Apartment Building 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE184	G3770705A - HHW & DHW Heat Pumps - Cowell College Apartment Building 2	No	Use Default	No	Use Default	Yes	2017	Yes	2021
EE185	G3771001 - Demand Controlled Ventilation - Humanities & Social Sciences Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE186	G3771002A - Boiler Upgrade - Humanities & Social Sciences Building	Yes	2017	Yes	2018	No	Use Default	No	Use Default
EE187	G3771003 - Improve Southeast Glazing - Humanities & Social Sciences Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE188	G3771004 - Deep Lighting - Humanities & Social Sciences Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE189	G3771005 - MBCx - Humanities & Social Sciences Building	Yes	2017	Yes	2018	No	Use Default	No	Use Default
EE190	G3771006A - Heat Pump for HHW & DHW - Humanities & Social Sciences Building	No	Use Default	No	Use Default	Yes	2017	Yes	2017
EE191	G3771701A - Condensing Boiler Retrofit - Digital Arts Research Center	Yes	2017	Yes	2018	No	Use Default	No	Use Default
EE192	G3771702A - Replace HHW Boiler with Heat Pump - Digital Arts Research Center	No	Use Default	No	Use Default	Yes	2017	Yes	2017
EE193	G3771703 - Demand Based Scheduling - Digital Arts Research Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE194	G3771704B - Eliminate Comfort Cooling - Digital Arts Research Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE195	G3771705B - MBCx - Digital Arts Research Center	Yes	2017	Yes	2018	No	Use Default	No	Use Default
EE196	G3771706C - Dining Area Daylighting Controls - Digital Arts Research Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default

CES Project ID	SEP ID - Project Type - Building	EE4: Deep Therm-Savings Measures (2020)		EE4.1: Deep Therm-Savings Measures (2025)		EE5: Heat Pump Measures Only (2020)		EE5.1: Heat Pump Measures Only (2025)	
		Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year
EE197	G3771707C - Deep Lighting Retrofit - Digital Arts Research Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE198	G3772601A - Condensing Boiler Retrofit, with 2 Way Valve - OPERS Fitness Center	Yes	2017	Yes	2018	No	Use Default	No	Use Default
EE199	G3772602A - Replace HHW Boiler with Heat Pump - OPERS Fitness Center	No	Use Default	No	Use Default	Yes	2017	Yes	2017
EE200	G3772603B - Window Interlock Sensors - OPERS Fitness Center	Yes	2017	Yes	2018	No	Use Default	No	Use Default
EE201	G3772604B - MBCx - OPERS Fitness Center	Yes	2017	Yes	2018	No	Use Default	No	Use Default
EE202	G3772605 - Dining Area Daylighting Controls - OPERS Fitness Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE203	G3773301A - Boiler Retrofit - Long Marine Lab Seymour Center	Yes	2017	Yes	2018	No	Use Default	No	Use Default
EE204	G3773302A - Air-to-Water Heat Pump - Long Marine Lab Seymour Center	No	Use Default	No	Use Default	Yes	2019	Yes	2019
EE205	G3773303B - Variable Air Volume Conversion for AHUs - Long Marine Lab Seymour C	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE206	G3773304B - HVAC Occ Sensor / Demand Based Scheduling - Long Marine Lab Seymc	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE207	G3773305B - Dual Technology Controls - Long Marine Lab Seymour Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE208	G3773306 - MBCx - Long Marine Lab Seymour Center	Yes	2019	Yes	2023	No	Use Default	No	Use Default
EE209	G3773307C - Deep Lighting - Long Marine Lab Seymour Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE210	G3773308C - Retrofit Highbay Lighting to LED and add Daylighting controls - Long Ma	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE211	G3773309C - Retrofit T12 Lighting with LED - Long Marine Lab Seymour Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE212	G3774301 - HVAC Occ Sensor / Demand Based Scheduling - OPERS Offices & Support	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE213	G3774302 - MBCx - OPERS Offices & Support Space	Yes	2017	Yes	2018	No	Use Default	No	Use Default
EE214	G3774303 - Pool Cover - OPERS Offices & Support Space	Yes	2017	Yes	2018	No	Use Default	No	Use Default
EE215	G3774304 - Deep Lighting - OPERS Offices & Support Space	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE216	G3774305A - Air-to-Water Heat Pump - OPERS Offices & Support Space	No	Use Default	No	Use Default	Yes	2017	Yes	2017
EE217	G3774401 - Deep Retrofit - Smart Lab - Sinsheimer Laboratories	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE218	G3774402 - Daylighting - Sinsheimer Laboratories	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE219	G3774403 - Replace Ultra Low Freezers - Sinsheimer Laboratories	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE220	G3774404 - Deep Lighting - Sinsheimer Laboratories	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE221	G3774405 - MBCx - Sinsheimer Laboratories	Yes	2020	Yes	2025	No	Use Default	No	Use Default
EE222	G3775601A - Boiler Retrofit - College Eight Kitchen	Yes	2019	Yes	2023	No	Use Default	No	Use Default
EE223	G3775602A - Air-to-Water Heat Pump - College Eight Kitchen	No	Use Default	No	Use Default	Yes	2019	Yes	2019
EE224	G3775603B - Daylighting - College Eight Kitchen	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE225	G3775604B - Deep Lighting - College Eight Kitchen	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE226	G3775605 - MBCx - College Eight Kitchen	Yes	2019	Yes	2023	No	Use Default	No	Use Default
EE227	G3775606 - Kitchen Hood DCV - College Eight Kitchen	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE228	G3775901A - Boiler Retrofit - College Eight Dorm A-L-Building	Yes	2017	Yes	2018	No	Use Default	No	Use Default
EE229	G3775902B - HVAC Tstat & Window Interlock - College Eight Dorm A-L-Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE230	G3775903B - MBCx - College Eight Dorm A-L-Building	Yes	2019	Yes	2023	No	Use Default	No	Use Default
EE231	G3775904A - Air-to-Water Heat Pump - College Eight Dorm A-L-Building	No	Use Default	No	Use Default	Yes	2020	Yes	2024
EE232	G377501A - Deep Retrofit - Smart Labs - Earth & Marine Sciences	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE233	G377502A - VAV Conversion - Earth & Marine Sciences	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE234	G377503 - Improve Glazing - Earth & Marine Sciences	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE235	G377504 - DCV with CO2 sensors - Earth & Marine Sciences	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE236	G377505 - Deep Lighting - Earth & Marine Sciences	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE237	G377506 - Replace Ultra Low Freezers - Earth & Marine Sciences	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE238	G377507 - MBCx - Earth & Marine Sciences	Yes	2020	Yes	2025	No	Use Default	No	Use Default
EE239	G3780101A - Condensing Furnace Retrofit - College Eight Apartment Building 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE240	G3780102A - Install Heat Pumps for Heating - College Eight Apartment Building 2	No	Use Default	No	Use Default	Yes	2020	Yes	2024
EE241	G3780103B - Condensing Furnace Retrofit - College Eight Apartment Building 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE242	G3780104B - Energy Star Electric Heat Pump Water Heater - College Eight Apartment	No	Use Default	No	Use Default	Yes	2020	Yes	2024
EE243	G3780105 - Smart Thermostat - College Eight Apartment Building 2	Yes	2020	Yes	2025	No	Use Default	No	Use Default
EE244	G3790501A - Boiler Upgrade - Stevenson College Apartment Building 10	Yes	2017	Yes	2018	No	Use Default	No	Use Default
EE245	G3790502 - HVAC Occ Sensor - Stevenson College Apartment Building 10	Yes	2017	Yes	2018	No	Use Default	No	Use Default
EE246	G3790503 - MBCx - Stevenson College Apartment Building 10	Yes	2017	Yes	2018	No	Use Default	No	Use Default
EE247	G3790504 - 2-Way Valve - Stevenson College Apartment Building 10	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE248	G3790505A - HHW & DHW Heat Pumps - Stevenson College Apartment Building 10	No	Use Default	No	Use Default	Yes	2017	Yes	2021
EE249	G3791001A - Condensing Boiler Retrofit - Porter College Apartment Building K	Yes	2017	Yes	2018	No	Use Default	No	Use Default
EE250	G3791002A - Replace HHW Boiler with Heat Pump - Porter College Apartment Buildi	No	Use Default	No	Use Default	Yes	2020	Yes	2024
EE251	G3791003 - Smart Thermostat - Porter College Apartment Building K	Yes	2020	Yes	2025	No	Use Default	No	Use Default
EE252	G3791004 - MBCx - Porter College Apartment Building K	Yes	2020	Yes	2025	No	Use Default	No	Use Default
EE253	G3791901A - Deep Retrofit - Smart Lab - Physical Sciences Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE254	G3791902A - VAV Lab Exhaust - Physical Sciences Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE255	G3791903 - Controls - Physical Sciences Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE256	G3791904 - Replace Ultra Low Freezers - Physical Sciences Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE257	G3791905 - Server Room HVAC - Physical Sciences Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE258	G3791906 - MBCx - Physical Sciences Building	Yes	2020	Yes	2025	No	Use Default	No	Use Default
EE259	G3793201A - Boiler Upgrade - College Nine Residence Hall 2	Yes	2017	Yes	2019	No	Use Default	No	Use Default
EE260	G3793202 - HVAC Occ Sensor - College Nine Residence Hall 2	Yes	2019	Yes	2024	No	Use Default	No	Use Default
EE261	G3793203 - MBCx - College Nine Residence Hall 2	Yes	2019	Yes	2024	No	Use Default	No	Use Default
EE262	G3793204A - HHW & DHW Heat Pumps - College Nine Residence Hall 2	No	Use Default	No	Use Default	Yes	2019	Yes	2020
EE272	G37933010 - Lidded Charboiler - College Nine Dining Hall	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE263	G3793301A - Condensing Boiler Retrofit - College Nine Dining Hall	Yes	2017	Yes	2019	No	Use Default	No	Use Default
EE264	G3793302A - Replace HHW Boiler with Heat Pump - College Nine Dining Hall	No	Use Default	No	Use Default	Yes	2020	Yes	2020
EE265	G3793303 - Demand Based Scheduling - College Nine Dining Hall	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE266	G3793304 - Convert AH4 to VAV with Demand Based Scheduling - College Nine Dinir	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE267	G3793305 - MBCx - College Nine Dining Hall	Yes	2020	Yes	2025	No	Use Default	No	Use Default
EE268	G3793306B - Dining Area Daylighting Controls - College Nine Dining Hall	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE269	G3793307B - Deep Lighting Retrofit - College Nine Dining Hall	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE270	G3793308 - Dish room industrial & pre-rinse sprayers - College Nine Dining Hall	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE271	G3793309 - Dishwasher Replacement - College Nine Dining Hall	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE273	G3794001 - MBCx - Engineering Building 2	Yes	2019	Yes	2024	No	Use Default	No	Use Default
EE274	G3794002 - HVAC Occ Sensor / Demand Based Scheduling - Engineering Building 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE275	G3794003 - Server Room HVAC. Includes Rooms 208 and 594 - Engineering Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE276	G3794004 - Server Room UPS Rm 208 and 594 - Engineering Building 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE277	G3794005 - Deep Lighting - Engineering Building 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE278	G3794401 - Parking Lot LED Retrofit - 2300 Delaware Avenue A/B	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE279	G3794402 - MBCx - 2300 Delaware Avenue A/B	Yes	2017	Yes	2019	No	Use Default	No	Use Default
EE280	G3794403 - Raise Server Room Temp Setpoints - 2300 Delaware Avenue A/B	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE281	G3794701 - Vitarium Lighting Control - Biomedical Sciences	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE282	G3794702 - Replace Ultra Low Freezers - Biomedical Sciences	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE283	G3794703 - Monitoring Based Commissioning - Biomedical Sciences	Yes	2020	Yes	2025	No	Use Default	No	Use Default
EE293	G3DIST01A - Pre-Cool Cooling Tower Air - Campuswide	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE294	G3DIST02 - PVThermal at OPERS Pool - Campuswide	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE297	G3DIST05 - Porter College Mini District Low Temp Heating - Campuswide	Yes	2017	Yes	2019	No	Use Default	No	Use Default
EE298	G3DIST06A - Distributed Resource Optimization - Campuswide	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE299	G3DIST08 - Low Temp Heating of Ventilation Air - Campuswide	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE300	G3DIST09A - Cooling Temp Staging & Optimization - Campuswide	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE295	G3DIST4Aa - Reduce Condenser Water Temperature with Pony Chillers - Campuswide	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE296	G3DIST4Ba - Reduce Condenser Water Temperature with Pony Chillers - Campuswide	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE284	G3WIDE01 - Campus Wide Walk Pack Upgrade - Campuswide	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE285	G3WIDE02 - Unplug Refrigerators for Summer Break - Campuswide	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE286	G3WIDE03 - Eliminate Building Heat on 90°F Days - Campuswide	Yes	2017	Yes	2019	No	Use Default	No	Use Default

CES Project ID	SEP ID - Project Type - Building	EE4: Deep Therm-Savings Measures (2020)		EE4.1: Deep Therm-Savings Measures (2025)		EE5: Heat Pump Measures Only (2020)		EE5.1: Heat Pump Measures Only (2025)	
		Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year
EE287	G3WIDE04 - Walk-in Cooler & Freezer Optimization - Campuswide	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE288	G3WIDE05 - Campuswide Incandescent/Halogen Lighting Retrofit - Campuswide	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE289	G3WIDE06 - Porter & Crown Kitchen Shutdown - Campuswide	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE290	G3WIDE07 - Crown & Porter Kitchen Hood Shutdown - Campuswide	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE291	G3WIDE08 - Replace Ultra Low Freezers - Campuswide	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE292	G3WIDE09 - Pathway Lighting Retrofit - Campuswide	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE305	G4711601A - Add VFDs to CHW Pump - Thimann Lab	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE306	G4711602A - Add VFDs to Process Heating Water Pump - Thimann Lab	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE301	G4714501A - Lighting Conversion Phase II - McHenry Library	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE304	G4714601 - Fackler Plant LED & Controls Conversion - Central Heating Plant	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE303	G4717901A - Hallway Lighting Retrofit - Natural Sciences II	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE302	G4792101 - Hallway Lighting Retrofit - Social Sciences II	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE307	G57120401 - MBCx - Cowell College Turner House	Yes	2017	Yes	2019	No	Use Default	No	Use Default
EE308	G57120402A - Condensing boiler with HHW reset - Cowell College Turner House	Yes	2018	Yes	2021	No	Use Default	No	Use Default
EE309	G57120403 - VFD for HHW pump - Cowell College Turner House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE310	G57120404 - Occupancy based operation for restroom Efs - Cowell College Turner H	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE311	G57120405A - Heat Pump for HHW & DHW - Cowell College Turner House	No	Use Default	No	Use Default	Yes	2017	Yes	2021
EE327	G57121401 - MBCx - Cowell College Parrington House	Yes	2017	Yes	2019	No	Use Default	No	Use Default
EE328	G57121402A - Condensing boiler with HHW reset - Cowell College Parrington House	Yes	2018	Yes	2021	No	Use Default	No	Use Default
EE329	G57121403 - VFD for HHW pump - Cowell College Parrington House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE330	G57121404 - Occupancy based operation for restroom Efs - Cowell College Parrington	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE331	G57121405A - Heat Pump for HHW & DHW - Cowell College Parrington House	No	Use Default	No	Use Default	Yes	2017	Yes	2021
EE322	G57122401 - MBCx - Cowell College Beard House	Yes	2017	Yes	2019	No	Use Default	No	Use Default
EE323	G57122402A - Condensing boiler with HHW reset - Cowell College Beard House	Yes	2018	Yes	2021	No	Use Default	No	Use Default
EE324	G57122403 - VFD for HHW pump - Cowell College Beard House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE325	G57122404 - Occupancy based operation for restroom Efs - Cowell College Beard Ho	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE326	G57122405A - Heat Pump for HHW & DHW - Cowell College Beard House	No	Use Default	No	Use Default	Yes	2017	Yes	2021
EE332	G57123401 - MBCx - Cowell College Morison House	Yes	2017	Yes	2019	No	Use Default	No	Use Default
EE333	G57123402A - Condensing boiler with HHW reset - Cowell College Morison House	Yes	2018	Yes	2021	No	Use Default	No	Use Default
EE334	G57123403 - VFD for HHW pump - Cowell College Morison House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE335	G57123404 - Occupancy based operation for restroom Efs - Cowell College Morison	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE336	G57123405A - Heat Pump for HHW & DHW - Cowell College Morison House	No	Use Default	No	Use Default	Yes	2017	Yes	2021
EE312	G57125401 - MBCx - Cowell College Parkman House	Yes	2017	Yes	2019	No	Use Default	No	Use Default
EE313	G57125402A - Condensing boiler with HHW reset - Cowell College Parkman House	Yes	2018	Yes	2021	No	Use Default	No	Use Default
EE314	G57125403 - VFD for HHW pump - Cowell College Parkman House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE315	G57125404 - Occupancy based operation for restroom Efs - Cowell College Parkman	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE316	G57125405A - Heat Pump for HHW & DHW - Cowell College Parkman House	No	Use Default	No	Use Default	Yes	2017	Yes	2021
EE317	G57126401 - MBCx - Cowell College Adams House	Yes	2017	Yes	2019	No	Use Default	No	Use Default
EE318	G57126402A - Condensing boiler with HHW reset - Cowell College Adams House	Yes	2018	Yes	2021	No	Use Default	No	Use Default
EE319	G57126403 - VFD for HHW pump - Cowell College Adams House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE320	G57126404 - Occupancy based operation for restroom Efs - Cowell College Adams H	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE321	G57126405A - Heat Pump for HHW & DHW - Cowell College Adams House	No	Use Default	No	Use Default	Yes	2017	Yes	2021
EE367	G57135701A - Condensing Boiler Retrofit - Stevenson College House 1	Yes	2019	Yes	2024	No	Use Default	No	Use Default
EE368	G57135702A - Replace HHW Boiler with Heat Pump - Stevenson College House 1	No	Use Default	No	Use Default	Yes	2017	Yes	2021
EE369	G57135703 - Deep HVAC - Stevenson College House 1	Yes	2017	Yes	2019	No	Use Default	No	Use Default
EE370	G57135704 - MBCx - Stevenson College House 1	Yes	2017	Yes	2019	No	Use Default	No	Use Default
EE371	G57135705 - Interlock Danfoss Valves with Windows - Stevenson College House 1	Yes	2018	Yes	2021	No	Use Default	No	Use Default
EE362	G57136701A - Condensing Boiler Retrofit - Stevenson College House 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE363	G57136702A - Replace HHW Boiler with Heat Pump - Stevenson College House 2	No	Use Default	No	Use Default	Yes	2017	Yes	2021
EE364	G57136703 - Deep HVAC - Stevenson College House 2	Yes	2018	Yes	2021	No	Use Default	No	Use Default
EE365	G57136704 - MBCx - Stevenson College House 2	Yes	2018	Yes	2021	No	Use Default	No	Use Default
EE366	G57136705 - Interlock Danfoss Valves with Windows - Stevenson College House 2	Yes	2018	Yes	2021	No	Use Default	No	Use Default
EE357	G57138701A - Condensing Boiler Retrofit - Stevenson College House 4	Yes	2019	Yes	2024	No	Use Default	No	Use Default
EE358	G57138702A - Replace HHW Boiler with Heat Pump - Stevenson College House 4	No	Use Default	No	Use Default	Yes	2017	Yes	2021
EE359	G57138703 - Deep HVAC - Stevenson College House 4	Yes	2018	Yes	2021	No	Use Default	No	Use Default
EE360	G57138704 - MBCx - Stevenson College House 4	Yes	2018	Yes	2021	No	Use Default	No	Use Default
EE361	G57138705 - Interlock Danfoss Valves with Windows - Stevenson College House 4	Yes	2018	Yes	2021	No	Use Default	No	Use Default
EE342	G57139701A - Condensing Boiler Retrofit - Stevenson College House 5	Yes	2018	Yes	2021	No	Use Default	No	Use Default
EE343	G57139702A - Replace HHW Boiler with Heat Pump - Stevenson College House 5	No	Use Default	No	Use Default	Yes	2017	Yes	2021
EE344	G57139703 - Deep HVAC - Stevenson College House 5	Yes	2018	Yes	2021	No	Use Default	No	Use Default
EE345	G57139704 - MBCx - Stevenson College House 5	Yes	2018	Yes	2021	No	Use Default	No	Use Default
EE346	G57139705 - Interlock Danfoss Valves with Windows - Stevenson College House 5	Yes	2018	Yes	2021	No	Use Default	No	Use Default
EE347	G57140701A - Condensing Boiler Retrofit - Stevenson College House 6	Yes	2018	Yes	2022	No	Use Default	No	Use Default
EE348	G57140702A - Replace HHW Boiler with Heat Pump - Stevenson College House 6	No	Use Default	No	Use Default	Yes	2017	Yes	2021
EE349	G57140703 - Deep HVAC - Stevenson College House 6	Yes	2018	Yes	2022	No	Use Default	No	Use Default
EE350	G57140704 - MBCx - Stevenson College House 6	Yes	2018	Yes	2022	No	Use Default	No	Use Default
EE351	G57140705 - Interlock Danfoss Valves with Windows - Stevenson College House 6	Yes	2018	Yes	2022	No	Use Default	No	Use Default
EE352	G57141701A - Condensing Boiler Retrofit - Stevenson College House 7	Yes	2019	Yes	2024	No	Use Default	No	Use Default
EE353	G57141702A - Replace HHW Boiler with Heat Pump - Stevenson College House 7	No	Use Default	No	Use Default	Yes	2017	Yes	2021
EE354	G57141703 - Deep HVAC - Stevenson College House 7	Yes	2018	Yes	2022	No	Use Default	No	Use Default
EE355	G57141704 - MBCx - Stevenson College House 7	Yes	2018	Yes	2022	No	Use Default	No	Use Default
EE356	G57141705 - Interlock Danfoss Valves with Windows - Stevenson College House 7	Yes	2018	Yes	2022	No	Use Default	No	Use Default
EE337	G57142701A - Condensing Boiler Retrofit - Stevenson College House 8	Yes	2018	Yes	2022	No	Use Default	No	Use Default
EE338	G57142702A - Replace HHW Boiler with Heat Pump - Stevenson College House 8	No	Use Default	No	Use Default	Yes	2017	Yes	2021
EE339	G57142703 - Deep HVAC - Stevenson College House 8	Yes	2018	Yes	2022	No	Use Default	No	Use Default
EE340	G57142704 - MBCx - Stevenson College House 8	Yes	2018	Yes	2022	No	Use Default	No	Use Default
EE341	G57142705 - Interlock Danfoss Valves with Windows - Stevenson College House 8	Yes	2018	Yes	2022	No	Use Default	No	Use Default
EE372	G57147701A - Condensing Boiler Retrofit - Crown College Leonardo House	Yes	2019	Yes	2022	No	Use Default	No	Use Default
EE373	G57147702A - Replace HHW Boiler with Heat Pump - Crown College Leonardo House	No	Use Default	No	Use Default	Yes	2018	Yes	2018
EE374	G57147703 - Deep HVAC - Crown College Leonardo House	Yes	2018	Yes	2019	No	Use Default	No	Use Default
EE375	G57147704 - MBCx - Crown College Leonardo House	Yes	2018	Yes	2019	No	Use Default	No	Use Default
EE376	G57147705 - Interlock Danfoss Valves with Windows - Crown College Leonardo Hou	Yes	2018	Yes	2019	No	Use Default	No	Use Default
EE377	G57148701A - Condensing Boiler Retrofit - Crown College Maxwell House	Yes	2019	Yes	2022	No	Use Default	No	Use Default
EE378	G57148702A - Replace HHW Boiler with Heat Pump - Crown College Maxwell House	No	Use Default	No	Use Default	Yes	2018	Yes	2018
EE379	G57148703 - Deep HVAC - Crown College Maxwell House	Yes	2018	Yes	2019	No	Use Default	No	Use Default
EE380	G57148704 - MBCx - Crown College Maxwell House	Yes	2018	Yes	2019	No	Use Default	No	Use Default
EE381	G57148705 - Interlock Danfoss Valves with Windows - Crown College Maxwell House	Yes	2018	Yes	2019	No	Use Default	No	Use Default
EE382	G57149701A - Condensing Boiler Retrofit - Crown College Harvey House	Yes	2018	Yes	2019	No	Use Default	No	Use Default
EE383	G57149702A - Replace HHW Boiler with Heat Pump - Crown College Harvey House	No	Use Default	No	Use Default	Yes	2018	Yes	2018
EE384	G57149703 - Deep HVAC - Crown College Harvey House	Yes	2018	Yes	2019	No	Use Default	No	Use Default
EE385	G57149704 - MBCx - Crown College Harvey House	Yes	2018	Yes	2019	No	Use Default	No	Use Default
EE386	G57149705 - Interlock Danfoss Valves with Windows - Crown College Harvey House	Yes	2018	Yes	2020	No	Use Default	No	Use Default
EE387	G57150701A - Condensing Boiler Retrofit - Crown College Galen House	Yes	2019	Yes	2022	No	Use Default	No	Use Default
EE388	G57150702A - Replace HHW Boiler with Heat Pump - Crown College Galen House	No	Use Default	No	Use Default	Yes	2018	Yes	2018
EE389	G57150703 - Deep HVAC - Crown College Galen House	Yes	2018	Yes	2020	No	Use Default	No	Use Default
EE390	G57150704 - MBCx - Crown College Galen House	Yes	2018	Yes	2020	No	Use Default	No	Use Default
EE391	G57150705 - Interlock Danfoss Valves with Windows - Crown College Galen House	Yes	2018	Yes	2020	No	Use Default	No	Use Default
EE392	G57151701A - Condensing Boiler Retrofit - Crown College Gauss House	Yes	2019	Yes	2022	No	Use Default	No	Use Default

CES Project ID	SEP ID - Project Type - Building	EE4: Deep Therm-Savings Measures (2020)		EE4.1: Deep Therm-Savings Measures (2025)		EE5: Heat Pump Measures Only (2020)		EE5.1: Heat Pump Measures Only (2025)	
		Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year
EE783	G67110403 - VFD for HHW pump - Barn G	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE782	G67110605 - Dining Area Daylighting Controls - Barn G	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE780	G67110708 - Air-to-Water Heat Pump - Barn G	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE768	G67111201 - Demand Based Scheduling - Receiving Barn	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE769	G67111305B - Dual Technology Controls - Receiving Barn	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE767	G67111902A - Replace HHW Boiler with Heat Pump - Receiving Barn	No	Use Default	No	Use Default	Yes	2019	Yes	2019
EE930	G67127002A - Replace HHW Boiler with Heat Pump - Cowell College Scholars House	No	Use Default	No	Use Default	Yes	2017	Yes	2021
EE934	G67127006 - Daylighting Controls - Cowell College Scholars House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE931	G67127201 - Demand Based Scheduling - Cowell College Scholars House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE935	G67127403 - Depp Lighting Retrofit - Cowell College Scholars House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE929	G67127701A - Condensing Boiler Retrofit - Cowell College Scholars House	Yes	2019	Yes	2022	No	Use Default	No	Use Default
EE933	G67127704 - MBCx - Cowell College Scholars House	Yes	2017	Yes	2017	No	Use Default	No	Use Default
EE932	G67127903 - Controls - Cowell College Scholars House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE936	G67128002A - Replace HHW Boiler with Heat Pump - Cowell College House	No	Use Default	No	Use Default	Yes	2017	Yes	2021
EE940	G67128006 - Daylighting Controls - Cowell College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE937	G67128201 - Demand Based Scheduling - Cowell College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE941	G67128403 - Depp Lighting Retrofit - Cowell College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE939	G67128704 - MBCx - Cowell College House	Yes	2017	Yes	2017	No	Use Default	No	Use Default
EE938	G67128903 - Controls - Cowell College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE765	G67130103 - VFD for HHW pump - Cowell College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE766	G67130104 - MBCx - Cowell College Academic Building	Yes	2017	Yes	2017	No	Use Default	No	Use Default
EE763	G67130603 - Demand Based Scheduling - Cowell College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE764	G67130605 - Dining Area Daylighting Controls - Cowell College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE761	G67130902A - Replace HHW Boiler with Heat Pump - Cowell College Academic Building	No	Use Default	No	Use Default	Yes	2017	Yes	2021
EE762	G67130903B - Deep HVAC - Cowell College Academic Building	Yes	2017	Yes	2017	No	Use Default	No	Use Default
EE789	G67143403 - VFD for HHW pump - Stevenson College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE787	G67143701 - Demand Based Scheduling - Stevenson College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE790	G67143707 - MBCx - Stevenson College Academic Building	Yes	2017	Yes	2017	No	Use Default	No	Use Default
EE785	G67143901A - Condensing Boiler Retrofit - Stevenson College Academic Building	Yes	2019	Yes	2022	No	Use Default	No	Use Default
EE788	G67143903 - Controls - Stevenson College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE786	G67143903B - Deep HVAC - Stevenson College Academic Building	Yes	2017	Yes	2017	No	Use Default	No	Use Default
EE942	G67160002A - Replace HHW Boiler with Heat Pump - Crown College House	No	Use Default	No	Use Default	Yes	2018	Yes	2018
EE946	G67160006 - Daylighting Controls - Crown College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE943	G67160201 - Demand Based Scheduling - Crown College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE947	G67160403 - Depp Lighting Retrofit - Crown College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE945	G67160704 - MBCx - Crown College House	Yes	2018	Yes	2020	No	Use Default	No	Use Default
EE944	G67160903 - Controls - Crown College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE948	G67161002A - Replace HHW Boiler with Heat Pump - Crown College Preceptors Apartments	No	Use Default	No	Use Default	Yes	2018	Yes	2018
EE952	G67161006 - Daylighting Controls - Crown College Preceptors Apartments	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE949	G67161201 - Demand Based Scheduling - Crown College Preceptors Apartments	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE953	G67161403 - Depp Lighting Retrofit - Crown College Preceptors Apartments	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE951	G67161704 - MBCx - Crown College Preceptors Apartments	Yes	2018	Yes	2020	No	Use Default	No	Use Default
EE950	G67161903 - Controls - Crown College Preceptors Apartments	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE954	G67173002A - Replace HHW Boiler with Heat Pump - Stevenson College House	No	Use Default	No	Use Default	Yes	2017	Yes	2021
EE958	G67173006 - Daylighting Controls - Stevenson College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE955	G67173201 - Demand Based Scheduling - Stevenson College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE959	G67173403 - Depp Lighting Retrofit - Stevenson College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE957	G67173704 - MBCx - Stevenson College House	Yes	2017	Yes	2017	No	Use Default	No	Use Default
EE956	G67173903 - Controls - Stevenson College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE960	G67174002A - Replace HHW Boiler with Heat Pump - Stevenson Preceptor House	No	Use Default	No	Use Default	Yes	2017	Yes	2021
EE964	G67174006 - Daylighting Controls - Stevenson Preceptor House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE961	G67174201 - Demand Based Scheduling - Stevenson Preceptor House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE965	G67174403 - Depp Lighting Retrofit - Stevenson Preceptor House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE963	G67174704 - MBCx - Stevenson Preceptor House	Yes	2017	Yes	2017	No	Use Default	No	Use Default
EE962	G67174903 - Controls - Stevenson Preceptor House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE966	G67183002A - Replace HHW Boiler with Heat Pump - Merrill College House A	No	Use Default	No	Use Default	Yes	2018	Yes	2018
EE970	G67183006 - Daylighting Controls - Merrill College House A	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE967	G67183201 - Demand Based Scheduling - Merrill College House A	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE971	G67183403 - Depp Lighting Retrofit - Merrill College House A	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE969	G67183704 - MBCx - Merrill College House A	Yes	2018	Yes	2020	No	Use Default	No	Use Default
EE968	G67183903 - Controls - Merrill College House A	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE972	G67186002A - Replace HHW Boiler with Heat Pump - Merrill College Common	No	Use Default	No	Use Default	Yes	2018	Yes	2018
EE976	G67186006 - Daylighting Controls - Merrill College Common	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE973	G67186201 - Demand Based Scheduling - Merrill College Common	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE977	G67186403 - Depp Lighting Retrofit - Merrill College Common	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE975	G67186704 - MBCx - Merrill College Common	Yes	2018	Yes	2020	No	Use Default	No	Use Default
EE974	G67186903 - Controls - Merrill College Common	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE778	G67189103 - VFD for HHW pump - Merrill College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE779	G67189104 - MBCx - Merrill College Academic Building	Yes	2018	Yes	2020	No	Use Default	No	Use Default
EE776	G67189201 - Demand Based Scheduling - Merrill College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE777	G67189305B - Dual Technology Controls - Merrill College Academic Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE775	G67189704A - Condensing HHW/DHW boiler w/ HWST reset - Merrill College Academic Building	Yes	2020	Yes	2024	No	Use Default	No	Use Default
EE978	G67192002A - Replace HHW Boiler with Heat Pump - Merrill College House C	No	Use Default	No	Use Default	Yes	2018	Yes	2018
EE982	G67192006 - Daylighting Controls - Merrill College House C	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE979	G67192201 - Demand Based Scheduling - Merrill College House C	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE983	G67192403 - Depp Lighting Retrofit - Merrill College House C	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE981	G67192704 - MBCx - Merrill College House C	Yes	2018	Yes	2020	No	Use Default	No	Use Default
EE980	G67192903 - Controls - Merrill College House C	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE984	G67193002A - Replace HHW Boiler with Heat Pump - Merrill College House D	No	Use Default	No	Use Default	Yes	2018	Yes	2018
EE988	G67193006 - Daylighting Controls - Merrill College House D	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE985	G67193201 - Demand Based Scheduling - Merrill College House D	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE989	G67193403 - Depp Lighting Retrofit - Merrill College House D	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE987	G67193704 - MBCx - Merrill College House D	Yes	2018	Yes	2020	No	Use Default	No	Use Default
EE986	G67193903 - Controls - Merrill College House D	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE802	G67300403 - VFD for HHW pump - Bay Tree Bookstore	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE803	G67300403 - VFD for HHW pump - Bay Tree Bookstore	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE799	G67300407A - Deep HVAC Retrofit - Bay Tree Bookstore	Yes	2017	Yes	2017	No	Use Default	No	Use Default
EE798	G67300701A - Condensing Boiler Retrofit - Bay Tree Bookstore	Yes	2017	Yes	2017	No	Use Default	No	Use Default
EE800	G67300703 - Demand Based Scheduling - Bay Tree Bookstore	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE801	G67300903 - Controls - Bay Tree Bookstore	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE795	G67306403 - VFD for HHW pump - Porter College Academic	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE793	G67306701 - Demand Based Scheduling - Porter College Academic	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE796	G67306707 - MBCx - Porter College Academic	Yes	2020	Yes	2024	No	Use Default	No	Use Default
EE792	G67306708A - Heat Pump for HHW & DHW - Porter College Academic	No	Use Default	No	Use Default	Yes	2020	Yes	2020
EE791	G67306901A - Condensing Boiler Retrofit - Porter College Academic	Yes	2017	Yes	2017	No	Use Default	No	Use Default
EE794	G67306903 - Controls - Porter College Academic	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE990	G67307002A - Replace HHW Boiler with Heat Pump - Merrill College House	No	Use Default	No	Use Default	Yes	2018	Yes	2018
EE994	G67307006 - Daylighting Controls - Merrill College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default

CES Project ID	SEP ID - Project Type - Building	EE4: Deep Therm-Savings Measures (2020)		EE4.1: Deep Therm-Savings Measures (2025)		EE5: Heat Pump Measures Only (2020)		EE5.1: Heat Pump Measures Only (2025)	
		Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year
EE991	G67307201 - Demand Based Scheduling - Merrill College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE995	G67307403 - Depp Lighting Retrofit - Merrill College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE993	G67307704 - MBCx - Merrill College House	Yes	2018	Yes	2020	No	Use Default	No	Use Default
EE992	G67307903 - Controls - Merrill College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE997	G67311407A - Deep HVAC Retrofit - Theater Arts A Main Stage	Yes	2017	Yes	2017	No	Use Default	No	Use Default
EE996	G67422002A - Replace HHW Boiler with Heat Pump - Oakes College House	No	Use Default	No	Use Default	Yes	2019	Yes	2019
EE1000	G67422006 - Daylighting Controls - Oakes College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE997	G67422201 - Demand Based Scheduling - Oakes College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1001	G67422403 - Depp Lighting Retrofit - Oakes College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE999	G67422704 - MBCx - Oakes College House	Yes	2019	Yes	2023	No	Use Default	No	Use Default
EE998	G67422903 - Controls - Oakes College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1002	G67468002A - Replace HHW Boiler with Heat Pump - Porter College House	No	Use Default	No	Use Default	Yes	2020	Yes	2024
EE1006	G67468006 - Daylighting Controls - Porter College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1003	G67468201 - Demand Based Scheduling - Porter College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1007	G67468403 - Depp Lighting Retrofit - Porter College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1005	G67468704 - MBCx - Porter College House	Yes	2020	Yes	2025	No	Use Default	No	Use Default
EE1004	G67468903 - Controls - Porter College House	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1008	G67489002A - Replace HHW Boiler with Heat Pump - RV Park Recreation Building	No	Use Default	No	Use Default	Yes	2020	Yes	2024
EE1012	G67489006 - Daylighting Controls - RV Park Recreation Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1009	G67489201 - Demand Based Scheduling - RV Park Recreation Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1013	G67489403 - Depp Lighting Retrofit - RV Park Recreation Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1011	G67489704 - MBCx - RV Park Recreation Building	Yes	2020	Yes	2025	No	Use Default	No	Use Default
EE1010	G67489903 - Controls - RV Park Recreation Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1015	G67746002A - Replace HHW Boiler with Heat Pump - Oakes College Dorm 1	No	Use Default	No	Use Default	Yes	2019	Yes	2019
EE1019	G67746006 - Daylighting Controls - Oakes College Dorm 1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1016	G67746201 - Demand Based Scheduling - Oakes College Dorm 1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1020	G67746403 - Depp Lighting Retrofit - Oakes College Dorm 1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1014	G67746701A - Condensing Boiler Retrofit - Oakes College Dorm 1	Yes	2017	Yes	2018	No	Use Default	No	Use Default
EE1018	G67746704 - MBCx - Oakes College Dorm 1	Yes	2019	Yes	2023	No	Use Default	No	Use Default
EE1017	G67746903 - Controls - Oakes College Dorm 1	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1022	G67747002A - Replace HHW Boiler with Heat Pump - Oakes College Dorm 2	No	Use Default	No	Use Default	Yes	2019	Yes	2019
EE1026	G67747006 - Daylighting Controls - Oakes College Dorm 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1023	G67747201 - Demand Based Scheduling - Oakes College Dorm 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1027	G67747403 - Depp Lighting Retrofit - Oakes College Dorm 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1021	G67747701A - Condensing Boiler Retrofit - Oakes College Dorm 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1025	G67747704 - MBCx - Oakes College Dorm 2	Yes	2019	Yes	2023	No	Use Default	No	Use Default
EE1024	G67747903 - Controls - Oakes College Dorm 2	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1029	G67748002A - Replace HHW Boiler with Heat Pump - Oakes College Dorm 3	No	Use Default	No	Use Default	Yes	2019	Yes	2019
EE1033	G67748006 - Daylighting Controls - Oakes College Dorm 3	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1030	G67748201 - Demand Based Scheduling - Oakes College Dorm 3	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1034	G67748403 - Depp Lighting Retrofit - Oakes College Dorm 3	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1028	G67748701A - Condensing Boiler Retrofit - Oakes College Dorm 3	Yes	2017	Yes	2018	No	Use Default	No	Use Default
EE1032	G67748704 - MBCx - Oakes College Dorm 3	Yes	2019	Yes	2023	No	Use Default	No	Use Default
EE1031	G67748903 - Controls - Oakes College Dorm 3	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1036	G67749002A - Replace HHW Boiler with Heat Pump - Oakes College Dorm 4	No	Use Default	No	Use Default	Yes	2019	Yes	2019
EE1040	G67749006 - Daylighting Controls - Oakes College Dorm 4	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1037	G67749201 - Demand Based Scheduling - Oakes College Dorm 4	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1041	G67749403 - Depp Lighting Retrofit - Oakes College Dorm 4	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1035	G67749701A - Condensing Boiler Retrofit - Oakes College Dorm 4	Yes	2017	Yes	2018	No	Use Default	No	Use Default
EE1039	G67749704 - MBCx - Oakes College Dorm 4	Yes	2019	Yes	2023	No	Use Default	No	Use Default
EE1038	G67749903 - Controls - Oakes College Dorm 4	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE773	G67754103 - VFD for HHW pump - Academic Resource Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE774	G67754104 - MBCx - Academic Resource Center	Yes	2017	Yes	2018	No	Use Default	No	Use Default
EE771	G67754201 - Demand Based Scheduling - Academic Resource Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE772	G67754305B - Dual Technology Controls - Academic Resource Center	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE770	G67754501A - Boiler Upgrade - Academic Resource Center	Yes	2017	Yes	2018	No	Use Default	No	Use Default
EE1042	G67757002A - Replace HHW Boiler with Heat Pump - College Eight Dining Room	No	Use Default	No	Use Default	Yes	2019	Yes	2019
EE1047	G67757006 - Daylighting Controls - College Eight Dining Room	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1043	G67757201 - Demand Based Scheduling - College Eight Dining Room	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1048	G67757403 - Depp Lighting Retrofit - College Eight Dining Room	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1046	G67757410 - Kitchen Hood DCV - College Eight Dining Room	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1045	G67757704 - MBCx - College Eight Dining Room	Yes	2019	Yes	2023	No	Use Default	No	Use Default
EE1044	G67757903 - Controls - College Eight Dining Room	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1050	G67758002A - Replace HHW Boiler with Heat Pump - College Eight Dorm A-Garden	No	Use Default	No	Use Default	Yes	2019	Yes	2019
EE1054	G67758006 - Daylighting Controls - College Eight Dorm A-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1051	G67758201 - Demand Based Scheduling - College Eight Dorm A-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1055	G67758403 - Depp Lighting Retrofit - College Eight Dorm A-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1049	G67758701A - Condensing Boiler Retrofit - College Eight Dorm A-Garden	Yes	2017	Yes	2018	No	Use Default	No	Use Default
EE1053	G67758704 - MBCx - College Eight Dorm A-Garden	Yes	2019	Yes	2023	No	Use Default	No	Use Default
EE1052	G67758903 - Controls - College Eight Dorm A-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1057	G67760002A - Replace HHW Boiler with Heat Pump - College Eight Dorm B-Garden	No	Use Default	No	Use Default	Yes	2019	Yes	2019
EE1061	G67760006 - Daylighting Controls - College Eight Dorm B-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1058	G67760201 - Demand Based Scheduling - College Eight Dorm B-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1062	G67760403 - Depp Lighting Retrofit - College Eight Dorm B-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1056	G67760701A - Condensing Boiler Retrofit - College Eight Dorm B-Garden	Yes	2017	Yes	2018	No	Use Default	No	Use Default
EE1060	G67760704 - MBCx - College Eight Dorm B-Garden	Yes	2019	Yes	2023	No	Use Default	No	Use Default
EE1059	G67760903 - Controls - College Eight Dorm B-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1064	G67762002A - Replace HHW Boiler with Heat Pump - College Eight Dorm C-Garden	No	Use Default	No	Use Default	Yes	2019	Yes	2019
EE1068	G67762006 - Daylighting Controls - College Eight Dorm C-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1065	G67762201 - Demand Based Scheduling - College Eight Dorm C-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1069	G67762403 - Depp Lighting Retrofit - College Eight Dorm C-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1063	G67762701A - Condensing Boiler Retrofit - College Eight Dorm C-Garden	Yes	2017	Yes	2018	No	Use Default	No	Use Default
EE1067	G67762704 - MBCx - College Eight Dorm C-Garden	Yes	2019	Yes	2023	No	Use Default	No	Use Default
EE1066	G67762903 - Controls - College Eight Dorm C-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1071	G67764002A - Replace HHW Boiler with Heat Pump - College Eight Dorm D-Garden	No	Use Default	No	Use Default	Yes	2019	Yes	2019
EE1075	G67764006 - Daylighting Controls - College Eight Dorm D-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1072	G67764201 - Demand Based Scheduling - College Eight Dorm D-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1076	G67764403 - Depp Lighting Retrofit - College Eight Dorm D-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1070	G67764701A - Condensing Boiler Retrofit - College Eight Dorm D-Garden	Yes	2017	Yes	2018	No	Use Default	No	Use Default
EE1074	G67764704 - MBCx - College Eight Dorm D-Garden	Yes	2019	Yes	2023	No	Use Default	No	Use Default
EE1073	G67764903 - Controls - College Eight Dorm D-Garden	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1077	G67767002A - Replace HHW Boiler with Heat Pump - College Eight Cafe Building	No	Use Default	No	Use Default	Yes	2019	Yes	2019
EE1082	G67767006 - Daylighting Controls - College Eight Cafe Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1078	G67767201 - Demand Based Scheduling - College Eight Cafe Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1083	G67767403 - Depp Lighting Retrofit - College Eight Cafe Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1081	G67767410 - Kitchen Hood DCV - College Eight Cafe Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1080	G67767704 - MBCx - College Eight Cafe Building	Yes	2019	Yes	2023	No	Use Default	No	Use Default
EE1079	G67767903 - Controls - College Eight Cafe Building	No	Use Default	No	Use Default	No	Use Default	No	Use Default

CES Project ID	SEP ID - Project Type - Building	EE4: Deep Therm-Savings Measures (2020)		EE4.1: Deep Therm-Savings Measures (2025)		EE5: Heat Pump Measures Only (2020)		EE5.1: Heat Pump Measures Only (2025)	
		Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year	Include in Scenario?	Implementation Year
EE1084	G67768002A - Replace HHW Boiler with Heat Pump - College Eight Student Commons	No	Use Default	No	Use Default	Yes	2019	Yes	2019
EE1088	G67768006 - Daylighting Controls - College Eight Student Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1085	G67768201 - Demand Based Scheduling - College Eight Student Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1089	G67768403 - Depp Lightng Retrofit - College Eight Student Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1087	G67768704 - MBCx - College Eight Student Commons	Yes	2019	Yes	2023	No	Use Default	No	Use Default
EE1086	G67768903 - Controls - College Eight Student Commons	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE805	G67782303 - Demand Based Scheduling - Science and Engineering Library	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE808	G67782401 - MBCx - Science and Engineering Library	Yes	2020	Yes	2025	No	Use Default	No	Use Default
EE804	G67782602B - Deep HVAC Retrofit - Science and Engineering Library	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE807	G67782604 - Replace Ultra Low Freezers - Science and Engineering Library	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE806	G67782605 - Dining Area Daylighting Controls - Science and Engineering Library	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1090	REFC001 - KZSC Tower Hill -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1091	REFC002 - Engineering -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1092	REFC003 - Communications/Fackler Co-Generation Plant/Natural Sciences Woodshop	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1093	REFC004 - Interdisciplinary/Sinsheimer Bldgs/Earth & Marine Sciences/Science Labs/Nat	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1094	REFC005 - Physical Sciences/Sinsheimer Labs/Thimann Labs/Kerr Hall -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1095	REFC006 - College 9/10 -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1096	REFC007 - Crown College/Merrill College/Fire Station -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1097	REFC008 - Cowell Health Center/Student Center/Classrooms/Humanities -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1098	REFC009 - Cowell College/Stevenson College & Apartments -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1099	REFC010 - McHenry Library/Hahn Student Services -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1100	REFC011 - The Arts Complex -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1101	REFC012 - Kresge College/Porter College & Porter/Kresge Apartments -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1102	REFC013 - Kresge Housing East/Graduate Student Housing -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1103	REFC014 - College Eight and Oakes College -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1104	REFC015 - Family Student Housing -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1105	REFC016 - East Field House/Fitness Center -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1106	REFC017 - Quarry/Village/Farm/Agroecology -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1107	REFC018 - Arboretum -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1108	REFC019 - Barn G/Barn H/Central Stores/Carriage House/Cardiff House/Faculty Hous	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1109	REFC020 - Emergency Response Center -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1110	REFC021 - Communications/Fackler Co-Generation Plant/Natural Sciences Woodshop	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1111	REFC022 - Physical Sciences/Sinsheimer Labs/Thimann Labs/Kerr Hall -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1112	REFC023 - College 9/10 -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1113	REFC024 - Cowell College/Stevenson College & Apartments -	No	Use Default	No	Use Default	No	Use Default	No	Use Default
EE1114	REFC025 - College Eight and Oakes College -	No	Use Default	No	Use Default	No	Use Default	No	Use Default

UC Santa Cruz Climate & Energy Strategy
Renewable Energy Project Inclusion Template

CES Project ID	Project Name	RE1 Include in Scenario? Year?	RE2 Include in Scenario? Year?	RE2.1 Include in Scenario? Year?	RE3 Include in Scenario? Year?	CP2 - Net Zero Site Energy Include in Scenario? Year?
RE1	East Meadow 1.2MW GM - PPA Available	Yes	No	No	No	Yes
RE2	East Meadow 0.95 MW GM - PPA Available	Yes	Yes	Yes	No	No
RE3	East Remote Parking SS - PPA Available	Yes	Yes	Yes	No	Yes
RE4	West Remote Parking SS - PPA Available	Yes	Yes	Yes	No	No
RE5	College Eight Parking SS - PPA Available	No	Yes	Yes	No	No
RE6	West Field House RT - PPA Available	No	No	No	No	No
RE7	Music Center RT - PPA Available	No	No	No	No	No
RE8	Theater Arts Center-Main Stage RT - PPA Available	No	No	No	No	No
RE9	Classroom Unit RT - PPA Available	No	No	No	No	No
RE10	Stevenson Infill Apartments RT - PPA Available	No	No	No	No	No
RE11	2300 Delaware SS - PPA Available	Yes	Yes	Yes	No	No
RE12	2300 Delaware RT - PPA Available	No	No	No	Yes	No
RE13	Coastal Biology Building SS - PPA Available	No	No	No	Yes	No
RE14	Ocean Health & Seymour Center SS - PPA Available	Yes	Yes	Yes	Yes	No
RE15	West Field House RT Solar Thermal	No	No	No	No	No
RE16	Stevenson Infill Apartments RT Solar Thermal	No	No	No	No	No
RE17	OPERS Pool PVT	Yes	No	Yes	No	Yes
RE18	LML Dolphin Pool	Yes	No	Yes	Yes	No

UC Santa Cruz Climate & Energy Strategy
Capital Project Improvement NPVs under Various \$/SF/EUI Reduced Costs*

		50% Better Than Design EUI Improvement												
		\$/SF/EUI Reduced		\$0.00		\$0.25		\$0.50		\$0.75		\$1.00		
Capital Project	Name	Building Type	NPV	\$/SF	NPV	\$/SF	NPV	\$/SF	NPV	\$/SF	NPV	\$/SF	NPV	\$/SF
CP2	Hay Barn Phase 2 BAS/CHES	Complex	\$19,983	\$0	\$14,705	\$1.25	\$9,428	\$2.50	\$4,151	\$3.75	-\$1,126	\$5.00		
CP3	Kresge Housing Redevelopment 97XXXX BAS/CHES	Housing	\$409,871	\$0	\$236,104	\$1.87	\$62,336	\$3.73	-\$111,431	\$5.60	-\$285,199	\$7.47		
CP4	Kresge Academic Redevelopment 97XXXX BAS/CHES	Administration	\$128,966	\$0	\$74,290	\$2.10	\$19,614	\$4.19	-\$35,062	\$6.29	-\$89,738	\$8.38		
CP5	Merrill Cultural Center Improvements Full Budget Approval 976326	Complex	\$28,696	\$0	\$15,942	\$1.25	\$3,188	\$2.50	-\$9,566	\$3.75	-\$22,320	\$5.00		
CP7	Chancellor's Office University House Renovations 971060	Housing	\$61,457	\$0	\$29,971	\$4.88	-\$1,516	\$9.75	-\$33,003	\$14.63	-\$64,490	\$19.50		
CP8	Students and Campus Life OPERS Pool Filtration & Piping 97XXXX	Complex	\$523,748	\$0	\$137,395	\$23.13	-\$248,958	\$46.25	-\$635,311	\$69.38	-\$1,021,664	\$92.50		
CP9	BAS/Physical Plant Cooling Tower 2 Replacement BAS/CHES	Complex	\$60,330	\$0	\$44,397	\$31.63	\$28,465	\$63.25	\$12,532	\$94.88	-\$3,400	\$126.51		
CP13	West Campus Dining Expansion 97XXXX BAS/CHES	Complex	\$1,349,348	\$0	\$736,902	\$17.38	\$124,456	\$34.75	-\$487,990	\$52.13	-\$1,100,435	\$69.50		
CP14	Student Housing West 97XXXX	Housing	\$1,927,555	\$0	\$1,110,356	\$3.75	\$293,156	\$7.50	-\$524,043	\$11.25	-\$1,341,242	\$15.00		
CP15	Central Campus Alterations for Academic Programs Phase 2 (2300 Delaware) 973997	Complex	\$2,128,866	\$0	\$1,194,771	\$11.13	\$260,675	\$22.25	-\$673,420	\$33.38	-\$1,607,516	\$44.50		
CP16	PBSci Material Sciences Research Laboratories Phase 2 970356	Lab	\$4,592,611	\$0	\$2,577,483	\$37.50	\$562,356	\$75.00	-\$1,452,772	\$112.50	-\$3,467,900	\$150.00		
CP17	Full Budget Approval B5OE Building C Modifications for Various Programs 97xxxx/FPR 58607.	Complex	\$4,592,611	\$0	\$2,577,483	\$37.50	\$562,356	\$75.00	-\$1,452,772	\$112.50	-\$3,467,900	\$150.00		
CP19	ARTS / Building C Upgrades													
CP19	CFR #xxxxx Library/Central Campus Science and Engineering Library Renovation	Complex	\$1,389,733	\$0	\$677,725	\$12.50	-\$34,284	\$25.00	-\$746,293	\$37.50	-\$1,458,302	\$50.00		
CP24	97XXXX BAS	Complex	\$430,220	\$0	\$284,364	\$2.50	\$138,509	\$5.00	-\$7,347	\$7.50	-\$153,203	\$10.00		
CP28	Fire Station Renovation BAS	Complex	\$36,831	\$0	\$21,516	\$5.00	\$6,201	\$10.00	-\$9,115	\$15.00	-\$24,430	\$20.00		
CP30	Campus Child Care Center Marine Science Campus COH Expansion	Complex	\$80,862	\$0	\$53,138	\$2.50	\$25,414	\$5.00	-\$2,310	\$7.50	-\$30,035	\$10.00		
CP31	97xxxx PBSci/UCO Lick Instrumentation Facility	Complex	\$334,405	\$0	\$163,077	\$12.50	-\$8,250	\$25.00	-\$179,577	\$37.50	-\$350,904	\$50.00		
CP32	972025 Biomedical Sciences Facility Improvements	Complex	\$475,169	\$0	\$261,132	\$15.13	\$47,094	\$30.25	-\$166,943	\$45.38	-\$380,981	\$60.50		
CP33	971529 CHES Granary	Complex	\$2,180,192	\$0	\$1,211,201	\$11.13	\$242,209	\$22.25	-\$726,783	\$33.38	-\$1,695,775	\$44.50		
CP34	97XXXX	Complex	\$17,626	\$0	\$11,826	\$3.75	\$6,026	\$7.50	\$226	\$11.25	-\$5,573	\$15.00		
CP35	Coastal Biology Building	Complex	\$985,875	\$0	\$487,343	\$12.50	-\$11,189	\$25.00	-\$509,722	\$37.50	-\$1,008,254	\$50.00		
CP36	Environmental Health and Safety Facility	Complex	\$95,351	\$0	\$49,906	\$6.25	\$4,461	\$12.50	-\$40,984	\$18.75	-\$86,430	\$25.00		
CP37	Instructional Facilities	Complex	\$6,086,391	\$0	\$3,046,682	\$12.50	\$6,972	\$25.00	-\$3,032,737	\$37.50	-\$6,072,446	\$50.00		
CP39	Social Sciences 3	Administration	\$835,024	\$0	\$441,926	\$6.25	\$48,827	\$12.50	-\$344,271	\$18.75	-\$737,370	\$25.00		
CP41	Alterations for Physical, Biological, and Social Sciences	Complex	\$743,207	\$0	\$464,829	\$10.13	\$186,450	\$20.25	-\$91,928	\$30.38	-\$370,306	\$40.50		
CP42	Instruction and Research Building	Complex	\$743,207	\$0	\$464,829	\$10.13	\$186,450	\$20.25	-\$91,928	\$30.38	-\$370,306	\$40.50		

*The \$/SF listed in the table is the additional cost per square foot to improve EUIs and does not include the cost of the building built under design EUIs. The high cost per square foot for some buildings is explained by the high EUI of the building.

UC Santa Cruz Climate & Energy Strategy
Capital Project Assumptions

Project	Project Type (No Energy Impact/New Building/Redevelopment Remodel)	Building Type	CES Project ID	OGSF	Effective OSGF Added	Year Online - 10 Year Cap Plan	Projected Baseline Cost	Design kBtu/SF	Old Usage (kwh)	Old Usage (therms)	kWh Added under Design EUIs	Therm Added Under Design EUIs
EMS 580 Lab Remodel	No energy impact	Lab	CP1	1,500	0	2017	\$1,386,000	300			0	0
Hay Barn Phase 2	New Building	Complex	CP2	5,028	5,028	2017	\$1,000,000	10			14,736	0
BAS/CHES Kresge Housing Redevelopment 97XXXX	Redevelopment/Remodel	Housing	CP3	132,000	65,730	2020	\$128,000,000	30	271,877	160,663	288,965	9,862
BAS/CHES Kresge Academic Redevelopment 97XXXX	Redevelopment/Remodel	Administra	CP4	37,000	20,682	2020	\$0	30	254,083	16,671	90,923	3,103
BAS/CHES Merrill Cultural Center Improvements Full Budget Approval 976326	Redevelopment/Remodel	Complex	CP5	11,464	0	2016	\$3,799,000	10	483,517	108,117	-466,718	-107,544
UE/ITS Upgrade Instructional Facilities 971152	No energy impact	Complex	CP6	1	0	2017	\$3,500,000	50			0	0
Chancellor's Office University House Renovations 971060	Redevelopment/Remodel	Housing	CP7	7,257	0	2016	\$142,000	39	25,320	2,005	7,860	-306
Students and Campus Life OPERS Pool Filtration & Piping 97XXXX	Redevelopment/Remodel	Complex	CP8	18,772	0	2016	\$3,000,000	185		34,925	203,565	-7,136
BAS/Physical Plant Cooling Tower 2 Replacement	Redevelopment/Remodel	Complex	CP9	600	0	2017	\$849,000	253			44,490	0
Students and Campus Life/OPERS OPERS Recreation and Athletic Facilities Expansion Phase 1 (lower field) 97xxx	No energy impact	Complex	CP10	0	0	2017	\$25,000,000	185			0	0
BAS/CHES Crown Res Halls MM & ADA 976331	No energy impact	Housing	CP11	90,565	0	2020	\$38,500,000	40			0	0
BAS/CHES Oakes MM & ADA 97XXXX	No energy impact	Housing	CP12	143,060	0	2020	\$17,000,000	40			0	0
BAS/CHES West Campus Dining Expansion 97XXXX	New Building	Complex	CP13	50,000	50,000	2020	\$36,000,000	139			916,618	38,234
BAS/CHES Student Housing West 97XXXX	New Building	Housing	CP14	309,117	309,117	2020	\$151,500,000	30			1,358,955	46,379
Central Campus Alterations for Academic Programs Phase 2 (2300 Delaware) 973997	Redevelopment/Remodel	Complex	CP15	100,000	0	2017	\$21,000,000	89	1,298,101	15,739	6,119	28,772
PBSci Material Sciences Research Laboratories Phase 2 970356 Full Budget Approval	Redevelopment/Remodel	Lab	CP16	64,000	0	2017	\$1,500,000	300	1,298,101	15,739	1,515,498	80,284
BSOE Building C Modifications for Various Programs 97xxxx/FPR 58607.	Redevelopment/Remodel	Complex	CP17	64,000	0	2017	\$0	300	1,298,101	15,739	1,515,498	80,284
Students and Campus Life Student Life Facilities Upgrades 97xxx	No energy impact	Complex	CP18	3,000	0	2015	\$500,000	100			0	0
ARTS / Building C Upgrades	Redevelopment/Remodel	Complex	CP19	64,000	0	2016	\$0	100	1,298,101	15,739	-547,808	22,670
SOE - JBEB 216 Yanik Lab Upgrades 973945/ CFR 58602 Full Budget Project Summary	No energy impact	Lab	CP20	1,500	0	2017	\$872,000	300			0	0

Project	Code EUI - kWh/sf	UCOP Target EUI - kWh/sf	Stretch EUI - kWh/sf	Design EUI - kWh/sf	50 % Better than Design - kWh/sf	Code EUI - Therms/sf	UCOP Target EUI - therms/sf	Stretch EUI - therms/sf	Design EUI - therms/sf	50 % Better than Design - Therms/sf	Sub Campus Location	Funding Source	Attribution of New Emissions
EMS 580 Lab Remodel	27.00	21.60	16.20	43.96	21.98	1.39	1.11	0.83	1.50	0.75	Science Hill	OMP State Fund	Grid
Hay Barn Phase 2	27.00	21.60	16.20	2.93	1.47	1.39	1.11	0.83	0.00	0.00	Lower Campus	Auxiliary	Grid
BAS/CHES Kresge Housing Redevelopment 97XXXX	5.85	4.29	3.12	4.40	2.20	0.24	0.18	0.13	0.15	0.08	Kresge College	CHES Housing	Grid
BAS/CHES Kresge Academic Redevelopment 97XXXX	8.25	6.11	4.44	4.40	2.20	0.17	0.13	0.09	0.15	0.08	Kresge College	OMP State Fund	Grid
BAS/CHES Merrill Cultural Center Improvements Full Budget Approval 976326	27.00	21.60	16.20	1.47	0.73	1.39	1.11	0.83	0.05	0.03	Merrill College	CHES Housing	Grid
UE/ITS Upgrade Instructional Facilities 971152	27.00	21.60	16.20	6.45	3.22	1.39	1.11	0.83	0.28	0.14	Campus Wide	OMP State Fund	Grid
Chancellor's Office University House Renovations 971060	5.85	4.68	3.51	4.57	2.29	0.24	0.19	0.14	0.23	0.12	University House	OMP State Fund	Grid
Students and Campus Life OPERS Pool Filtration & Piping 97XXXX	27.00	21.60	16.20	10.84	5.42	1.39	1.11	0.83	1.48	0.74	OPERS	Auxiliary	Grid
BAS/Physical Plant Cooling Tower 2 Replacement	27.00	21.60	16.20	74.15	37.08	1.39	1.11	0.83	0.00	0.00	Cogen Plant	OMP State Fund	Grid
Students and Campus Life/ OPERS OPERS Recreation and Athletic Facilities Expansion Phase 1 (lower field) 97xxx	27.00	21.60	16.20	10.84	5.42	1.39	1.11	0.83	1.38	0.69	OPERS	Auxiliary	Grid
BAS/CHES Crown Res Halls MM & ADA 976331	5.85	4.29	3.12	5.86	2.93	0.24	0.18	0.13	0.20	0.10	Crown College	CHES Housing	Grid
BAS/CHES Oakes MM & ADA 97XXXX	5.85	4.29	3.12	5.86	2.93	0.24	0.18	0.13	0.20	0.10	Oakes College	CHES Housing	Grid
BAS/CHES West Campus Dining Expansion 97XXXX	27.00	19.80	14.40	18.33	9.17	1.39	1.02	0.74	0.76	0.38	West Campus	CHES Dining	Grid
BAS/CHES Student Housing West 97XXXX	5.85	4.29	3.12	4.40	2.20	0.24	0.18	0.13	0.15	0.08	West Campus	CHES Housing	Grid
Central Campus Alterations for Academic Programs Phase 2 (2300 Delaware) 973997	27.00	21.60	16.20	13.04	6.52	1.39	1.11	0.83	0.45	0.22	Central Campus	OMP State Fund	Grid
PBSci Material Sciences Research Laboratories Phase 2 970356 Full Budget Approval	27.00	21.60	16.20	43.96	21.98	1.39	1.11	0.83	1.50	0.75	2300 Delaware	OMP State Fund	Grid
B5OE Building C Modifications for Various Programs 97xxxx/FPR 58607.	27.00	21.60	16.20	43.96	21.98	1.39	1.11	0.83	1.50	0.75	2300 Delaware	OMP State Fund	Grid
Students and Campus Life Student Life Facilities Upgrades 97xxx	27.00	21.60	16.20	11.72	5.86	1.39	1.11	0.83	0.60	0.30	Campus Wide	OMP State Fund	Grid
ARTS / Building C Upgrades	27.00	21.60	16.20	11.72	5.86	1.39	1.11	0.83	0.60	0.30	2300 Delaware	OMP State Fund	Grid
CFR #xxxx SOE - JBEB 216 Yanik Lab Upgrades 973945/ CFR 58602 Full Budget Project Summary	27.00	21.60	16.20	43.96	21.98	1.39	1.11	0.83	1.50	0.75	Engineering	OMP State Fund	Grid

Project	Project Type (No Energy Impact/New Building/Redevelopment Remodel)	Building Type	CES Project ID	OGSF	Effective OSGF Added	Year Online - 10 Year Cap Plan	Projected Baseline Cost	Design kBTu/SF	Old Usage (kwh)	Old Usage (therms)	kWh Added under Design EUIs	Therm Added Under Design EUIs
SOE - BME Lab Upgrades-Sinsheimer 977446/ CFR 58606	No energy impact	Lab	CP21	1,500	0	2017	\$500,000	300			0	0
SOE - EE & CE Lab Upgrades- JBE & E2 97xxxx/ CFR 58608/58609/58610	No energy impact	Lab	CP22	1,500	0	2017	\$650,000	300			0	0
PBSci Active Learning Classroom 977595 Prior full budget approval 6/3/14. Resubmitting for P phase approval w/Revised Project Summary (\$4.1-6.3M)	No energy impact	Complex	CP23	3,150	0	2017	\$4,300,000	30			0	0
Library/Central Campus Science and Engineering Library Renovation 97XXXX	Redevelopment/Remodel	Complex	CP24	78,073	0	2019	\$18,000,000	20	382,520		-62,174	4,686
PBSci MCB Lab Renovations 97XXXX	No energy impact	Lab	CP25	1,500	0	2016	\$500,000	81			0	0
Biomed Lab Remodel	No energy impact	Lab	CP26	1,500	0	2016	\$100,000	300			0	0
SOE BE 250 Power and Cooling Upgrades	No energy impact	Lab	CP27	1,500	0	2022	\$0	300			0	0
BAS Fire Station Renovation	Redevelopment/Remodel	Complex	CP28	4,882	0	2022	\$400,000	40	25,925	1,082	2,692	-106
BSOE Engineering Thin Films and Materials - 2nd MOCVD 977130	No energy impact	Lab	CP29	1,500	0	2022	\$0	81			0	0
BAS Campus Child Care Center	New Building	Complex	CP30	14,000	14,000	2018	\$12,487,000	20			57,444	840
Marine Science Campus COH Expansion 97xxxx	New Building	Complex	CP31	15,400	15,400	2016	\$12,603,000	100			180,539	9,242
PBSci/UCO Lick Instrumentation Facility 972025	New Building	Complex	CP32	15,000	15,000	2015	\$11,230,000	121			265,973	9,077
Biomedical Sciences Facility Improvements 971529	Redevelopment/Remodel	Complex	CP33	97,864	0	2016	\$809,000	89	681,411	64,195	594,951	-20,635
CHES Granary 97XXXX	Redevelopment/Remodel	Complex	CP34	2,465	0	2022	\$0	30	0	1,927	15,171	-1,705
Coastal Biology Building	New Building	Complex	CP35	47,500	47,500	2017	\$73,642,000	100			556,858	28,507
Environmental Health and Safety Facility	New Building	Complex	CP36	8,660	8,660	2017	\$19,437,000	50			55,838	2,425
Instructional Facilities	New Building	Complex	CP37	307,000	307,000	2018	\$43,403,000	100			3,599,062	184,244
Silicon Valley Center	No energy impact	Complex	CP38	31,700	0	2019	\$21,431,000	80			0	0
Social Sciences 3	New Building	Administrative	CP39	79,403	79,403	2018	\$73,100,000	50			511,977	22,238
Kresge College Non-Residential ADA and Capital Renewal	No energy impact	Complex	CP40	99,490	0	2019	\$12,259,000	300			0	0
Alterations for Physical, Biological, and Social Sciences	New Building	Complex	CP41	39,000	39,000	2020	\$16,378,000	81			555,510	12,639
Instruction and Research Building	New Building	Complex	CP42		39,000	2020	\$27,922,000				555,510	12,639

Project	Code EUI - kWh/sf	UCOP Target EUI - kWh/sf	Stretch EUI - kWh/sf	Design EUI - kWh/sf	50 % Better than Design - kWh/sf	Code EUI - Therms/sf	UCOP Target EUI - therms/sf	Stretch EUI - therms/sf	Design EUI - therms/sf	50 % Better than Design - Therms/sf	Sub Campus Location	Funding Source	Attribution of New Emissions
SOE - BME Lab Upgrades-Sinshaimer 977446/ CFR 58606	27.00	21.60	16.20	43.96	21.98	1.39	1.11	0.83	1.50	0.75	Engineering Science	OMP State Fund	Grid
SOE - EE & CE Lab Upgrades- JBE & E2 97xxxx/ CFR 58608/58609/58610	27.00	21.60	16.20	43.96	21.98	1.39	1.11	0.83	1.50	0.75	Engineering	OMP State Fund	Grid
PBSci Active Learning Classroom 977595 Prior full budget approval 6/3/14. Resubmitting for P phase approval w/Revised Project Summary (\$4.1-6.3M)	27.00	21.60	16.20	6.15	3.08	1.39	1.11	0.83	0.09	0.05	Science Hill	OMP State Fund	Grid
Library/Central Campus Science and Engineering Library Renovation 97XXXX	27.00	19.80	14.40	4.10	2.05	1.39	1.02	0.74	0.06	0.03	Science Hill	OMP State Fund	Grid
PBSci MCB Lab Renovations 97XXXX	27.00	21.60	16.20	14.24	7.12	1.39	1.11	0.83	0.32	0.16	Science Hill	OMP State Fund	Grid
Biomed Lab Remodel	27.00	21.60	16.20	43.96	21.98	1.39	1.11	0.83	1.50	0.75	Science Hill	OMP State Fund	Grid
SOE BE 250 Power and Cooling Upgrades	27.00	18.00	12.60	43.96	21.98	1.39	0.93	0.65	1.50	0.75	Engineering	OMP State Fund	Grid
BAS Fire Station Renovation	27.00	18.00	12.60	5.86	2.93	1.39	0.93	0.65	0.20	0.10	Fire Station	OMP State Fund	Grid
BSOE Engineering Thin Films and Materials - 2nd MOCVD 977130	27.00	18.00	12.60	14.24	7.12	1.39	0.93	0.65	0.32	0.16	Engineering	OMP State Fund	Grid
BAS Campus Child Care Center	27.00	21.60	16.20	4.10	2.05	1.39	1.11	0.83	0.06	0.03	Early Education	Auxiliary	Grid
Marine Science Campus COH Expansion 97xxxx	27.00	21.60	16.20	11.72	5.86	1.39	1.11	0.83	0.60	0.30	Marine Science	OMP State Fund	Grid
PBSci/UCO Lick Instrumentation Facility 972025	27.00	21.60	16.20	17.73	8.87	1.39	1.11	0.83	0.61	0.30	Off-site	OMP State Fund	Grid
Biomedical Sciences Facility Improvements 971529	27.00	21.60	16.20	13.04	6.52	1.39	1.11	0.83	0.45	0.22	Science Hill	OMP State Fund	Grid
CHES Granary 97XXXX	27.00	18.00	12.60	6.15	3.08	1.39	0.93	0.65	0.09	0.05	Lower Campus	Auxiliary	Grid
Coastal Biology Building	27.00	21.60	16.20	11.72	5.86	1.39	1.11	0.83	0.60	0.30	Marine Science	OMP State Fund	Grid
Environmental Health and Safety Facility	27.00	21.60	16.20	6.45	3.22	1.39	1.11	0.83	0.28	0.14	Central Campus	OMP State Fund	Grid
Instructional Facilities	27.00	21.60	16.20	11.72	5.86	1.39	1.11	0.83	0.60	0.30	Campus Wide	OMP State Fund	Grid
Silicon Valley Center	27.00	19.80	14.40	14.07	7.03	1.39	1.02	0.74	0.32	0.16	Off-site	Auxiliary	Grid
Social Sciences 3	8.25	6.66	5.00	6.45	3.22	0.17	0.14	0.10	0.28	0.14	College Nine	OMP State Fund	Grid
Kresge College Non-Residential ADA and Capital Renewal	27.00	19.80	14.40	43.96	21.98	1.39	1.02	0.74	1.50	0.75	Kresge College	OMP State Fund	Grid
Alterations for Physical, Biological, and Social Sciences	27.00	19.80	14.40	14.24	7.12	1.39	1.02	0.74	0.32	0.16	Science Hill	OMP State Fund	Grid
Instruction and Research Building	27.00	19.80	14.40	14.24	7.12	1.39	1.02	0.74	0.32	0.16	TBD	OMP State Fund	Grid

UC Santa Cruz Climate & Energy Strategy
Summary of results for Campus-wide Scenarios

	CW1-2018 AB32 Exit, Aggressive Onsite	CW1 1-2018 AB32 Exit, Biogas	CW1 2-2018 AB32 Exit, Aggressive Onsite, Fuel Cells	CW2-2021 AB32 Exit, No NEU, BAU	CW3-2021 AB32 Exit, No NEU, Best Onsite Combo	CW4- No AB32 Exit, BAU, NEU	CW5- No AB32 Exit, Best Onsite Combo	CW9- 2025 AB32 Exit, BAU, NEU	CW10- 2025 AB32 Exit, Best Onsite Combo, NEU	CW11- No AB32 Exit, Best Onsite Combo, No NEU	CW12- No AB32 Exit, BAU, No NEU
Description of Scenario		A prioritized combo of best payoff them savings: heat pump & district measures with DSR of 1 or under AB32. Capital Projects undergo electrification at 2030 to get under AB32 threshold. Less Design EUs, EE projects are selected based on aggressive them savings. Much less reliance on biogas than other AB32 Exit strategies.	Adds fuel cells to CW1. Biogas is purchased in 2016-2017 to get under AB32 threshold. Capital Projects undergo electrification at 2030 to get under AB32 threshold. Less Design EUs, EE projects are selected based on aggressive them savings. Much less reliance on biogas than other AB32 Exit strategies.	Capital Project EUs are design, EE projects from scenario EE2, and RE projects from RE1 are implemented. Voluntary offsets are purchased to achieve neutrality from 2025-2055.	Capital Project EUs are design, Biogas is purchased 2018-2030 to exit AB32, EE projects from scenario EE2, and RE projects from RE1 are implemented. Voluntary offsets are purchased from 2025-2055.	Capital Project EUs are design, Biogas is purchased 2018-2030 to exit AB32, EE projects from scenario EE2, and RE projects from RE1 are implemented. Voluntary offsets are purchased from 2025-2055.	Capital Project EUs are design, EE projects from scenario EE2, and RE projects from RE1 are implemented. Voluntary offsets are purchased to achieve neutrality from 2025-2055.	Capital Project EUs are design and the current SEP EE projects are implemented. Biogas is purchased from 2022-2030 to exit AB32.	Capital Project EUs are design, Biogas is purchased 2022-2030 to exit AB32, EE projects from scenario EE2, and RE projects from RE1 are implemented. Voluntary offsets are purchased from 2025-2055.	Capital Project EUs are design, EE projects from scenario EE2, and RE projects from RE1 are implemented. No voluntary offsets are purchased.	Capital Project EUs are design, the current SEP EE projects are implemented, and no voluntary offsets are purchased.
Cost/Ton of measures	\$237	-\$28	\$138	-\$87	-\$138	-\$0	-\$29	-\$40	-\$40	-\$243	-\$175
Total Capital Costs for UCSC Debt Model (EE, RE, CP)	\$4,524,065	\$5,169,948	\$52,123,745	\$11,063,731	\$24,117,718	\$11,063,731	\$24,117,718	\$24,117,718	\$24,117,718	\$24,117,718	\$11,063,731
Compliance Costs	-\$484,485	-\$484,485	-\$484,485	-\$484,485	-\$484,485	-\$484,485	-\$484,485	-\$484,485	-\$484,485	-\$484,485	-\$484,485
EE NPV	-\$19,867,775	\$2,334,201	-\$13,463,808	\$7,289,686	\$11,245,833	\$11,245,833	\$11,245,833	\$11,245,833	\$11,245,833	\$11,245,833	\$11,225,249
CP NPV	-\$269,575	-\$269,575	-\$269,575	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
RE NPV	\$0	\$0	\$0	\$0	\$1,776,378	\$1,776,378	\$1,776,378	\$1,776,378	\$1,776,378	\$1,776,378	\$0
AB32 NPV	\$288,244	\$288,244	\$288,244	\$288,244	\$288,244	-\$5,606,205	-\$5,683,524	-\$1,973,335	-\$1,973,335	-\$5,683,524	-\$5,606,205
Biogas NPV	-\$49,068	-\$48,367	-\$49,068	-\$1,292,143	-\$1,165,340	\$0	\$0	-\$468,364	-\$473,202	\$0	\$0
Voluntary Offsets/RECS NPV	\$0	\$0	\$0	\$0	\$0	-\$1,399,386	-\$1,318,531	-\$1,358,325	-\$1,358,325	\$0	\$0
Scenario NPV	-\$19,898,174	\$1,866,504	-\$13,494,207	\$6,285,788	\$12,145,116	\$94,096	\$6,020,156	\$9,222,187	\$9,217,348	\$7,338,687	\$1,483,533

UC Santa Cruz Climate & Energy Strategy Draft Scenario Analysis Tool User Manual Outline

1.1 Introduction

- 1.1.1 What The Tool Does Do
- 1.1.2 What The Tool Does Not Do
- 1.1.3 Best Practices When Using The Tool (tips and hints for a better user experience)

1.2 Overview of the tool

- 1.2.1 Terminology
- 1.2.2 Tool Architecture (Layout of Features in Spreadsheet)
- 1.2.3 Formatting of Cells, Worksheets and Display Graphs

1.3 Building, running and saving scenarios

- 1.3.1 Climate and Energy Tracker
- 1.3.2 EE
- 1.3.3 RE
- 1.3.4 CP
- 1.3.5 Biogas
- 1.3.6 Cogen Turndown
- 1.3.7 Offset Purchaser
- 1.3.8 Saving the Scenario

1.4 Displaying and comparing scenario output

- 1.4.1 Summary Results
- 1.4.2 Yearly Results
- 1.4.3 Graphs

1.4.4 Vendor Reporting

1.5 Updating Projects and Emissions

1.5.1 Unlocking secure cells and worksheets

1.5.2 Updating assumptions and pricing information

1.5.3 Changing import/export cap limits

1.6 Appendices

1.6.1 Default Assumptions

1.6.2 Cell Legend

1.6.3 List of Calculation Methods

UCSC CES – Pathways to NZE Flow Diagram

(DRAFT – to be updated for 100% Report)

Last Updated - 3/29/2016

