



CALIFORNIA CLEAN ENERGY JOBS ACT (PROPOSITION 39)

Strategies for the Successful Prop 39 Program

October 29, 2015

Panel Members

Christine Marez

Director of Energy

Cumming Corp (Moderator)

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Senior Director

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Energy Manager

*Santa Ana Unified School
District*

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Proposition 39 Energy Measures

- Nov 6, 2012 *California Clean Energy Jobs Act (Prop 39)*
- **\$550 Million** Annually for 5-Years (2013 – 2018)
 - ✓ **\$381M** to Local Educational Agencies (LEAs)
 - ✓ **\$47M** to Community College Districts
 - ✓ **\$28M** for Low-Interest and No-Interest Revolving Loans
 - ✓ **\$3M** to **California Workforce Investment Board (CWIB)**
 - ✓ **\$5M** to California Conservation Corps (CCC) for Energy Surveys

Proposition 39 Background

- LEA-Wide SIR Calculation: Multiple school sites allowed in one expenditure plan.
- Multi-year expenditure plan awards will be issued annually in January.
- Department of Industrial Relations (DIR) clarifications.
- Online CEC EEP and post-project reporting tool to be posted.
- Prohibition against demolishing Energy Conservation Measure's (ECM) before simple payback is achieved.

Proposition 39 Background

- Competitive bidding may be sought again by legislative action or guideline/rules change.
- Post-project online reporting not yet available.
- Year Three, Only Two to Go:
 - Year 3 Allocations due in November 2015 or sooner.
 - Need to get funding approved and out and we need successful school projects to showcase so state focus continues to be on K-14.

***Get your EEPs in to the CEC – Don't wait.
CCs have 90% authorized.***

1 PROP 39 LOCAL EDUCATIONAL AGENCIES

Prop 39 Funding Summary

	Year 1 2013-14	Year 2 2014-15	Year 3 2015-16	Change from 2014-15 to 2015-16
Proposition 39 Funding Allocation	\$381 M	\$279 M	\$313 M	+ 12%
LEA Funding Approved	\$154 M* \$16 M	\$253 M	\$148 M	\$571 M

*Planning Funds allocated for Planning Services, Energy Audits, or Rollover to Energy Project Installations

Prop 39 Program Impact

Estimated Annual Energy Savings

Total kWh Savings	170,230,555 kWh
Total Therm Savings	1,264,528 Therms
Total Propane Savings	122,834 Gallons
Total Fuel Oil Savings	7,357 Gallons
Estimated Annual Energy Cost Savings	\$30,729,382
Estimated Greenhouse Gas (GHG) Emission Reductions	132,190,834 lbs. Carbon Dioxide Emissions

Prop 39 Program Approved Energy Measures

Energy Measure Category	Total No. Measures Approved	% Total No. Measures Approved	# Approved for Fiscal Year 2013-14	# Approved for Fiscal Year 2014-15	# Approved for Fiscal Year 2015-16
Lighting	3610	47%	1238	2155	217
Lighting Controls	822	11%	230	549	43
HVAC	1343	17%	389	870	84
HVAC Controls	756	10%	229	489	38
Plug Loads	539	7%	138	372	29
Pumps, Motors, Drives	180	2%	62	107	11
Generation (PV)	178	2%	48	116	14
Domestic Hot Water	114	1%	39	69	6
Building Envelope	113	1%	22	84	7
Kitchen	27	0.3%	8	16	3
Electrical	13	0.2%	0	13	0
Energy Storage	8	0.1%	0	8	0
Power Purchase Agreement (PPA)	7	0.1%	0	5	0
Pool	5	0.1%	3	2	0
Irrigation	3	0.0%	0	1	2
	7718	100%	2406	4856	454

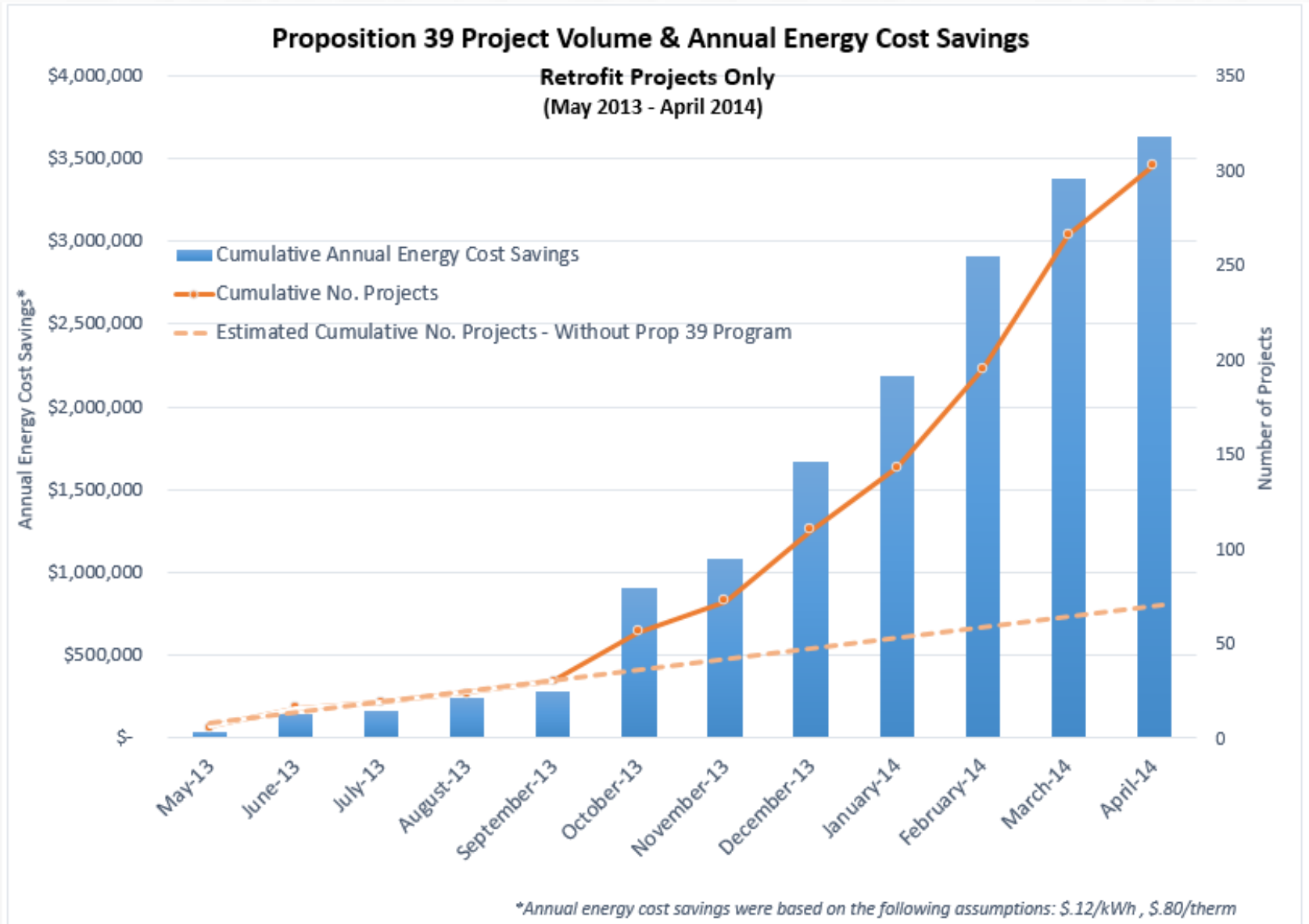
2 PROP 39 COMMUNITY COLLEGES



Year 1: Project Types

Project Type	Count	% of Total Projects
Lighting	171	54.63%
HVAC	59	18.85%
Controls	48	15.34%
Other	15	4.79%
RCx	14	4.47%
Technical Assistance	3	0.96%
Self- Generation	2	0.64%
MBCx	1	0.32%
Total Projects	313	

Impact of Prop 39



A Catalyst for Energy Investment

PROP 39 is a catalyst for:

- **Energy Capital Investment**
- **Energy Awareness (Schools, Colleges, Stakeholders)**
- **Energy Development**
 - Renewable Energy Projects (SolarPV)
 - Job Creation
 - Workforce Development
 - Educational Programs (STEM, Apprenticeships, etc.)
 - Reinvest energy cost savings to promote further energy investment and awareness



**3 PROP 39
K12 OWNER CASE STUDIES**

DALE MCCURRY

**SANTA ANA UNIFIED SCHOOL
DISTRICT**

Santa Ana Unified School District

- **Year 1 and 2 EEP Plan APPROVAL \$3,800,000 in Eligible Energy Projects**
- Performed ASHRAE Level I and II Audits
- Identifying Over \$1 Utility Rebates and Incentives
- FASTRAK 7-Week Schedule for CEC Submission



Prop 39 & HVAC

- Plan, Design, & Bid Early
- Utility Rebates
- Construction Considerations
- Expenditure Plans



HVAC Costs

Summer 2014

- 7 Mz's Total 234 Tons
Avg. Cost \$4,327 per Ton
- 29 Each 4 Ton Split
Systems Cost \$3,825 per
Ton
- All Sites New EMS
- 1 Site Duct Cleaned
- All Sites Plenums Cleaned
- 2 Sites Duct Sealed
- \$1.46M Hard Costs

Summer 2015

- 4 Mz's Total 96 Tons
Avg. Cost \$5,930 per Ton
- 19 Each Split Systems
Cost \$4,170 per Ton
- 58 Each Rtu's Cost \$4,031
per Ton
- All Sites New EMS
- All Sites Plenums Cleaned
- \$1.696M Hard Costs

\$153,566 in Utility Incentives

Construction

- Pre-Read Air to Establish Baseline
- Fix Leaks/Clean Duct if \$\$ Available
- EMS Choices – Try Not to Single Source
- EMS Programming is Proprietary – Choose Wisely
- Carefully Consider EMS Service Contracts – They Can Be Costly
- Demand Control Ventilation Issues



4 PROP 39 K12 OWNER CASE STUDIES

DAVID MIRANDA

**TUSTIN UNIFIED SCHOOL
DISTRICT**

Tustin Unified School District

- **Year 1 and 2 EEP Plan APPROVAL \$1,554,984 in Eligible Energy Projects**
- Performed ASHRAE Level I and II Audits
- Completed Lighting Retrofits Projects in Year 1 and 2
- Major Solar PV Project Underway 2016



Prop 39 Funding Snapshot

Prop 39 Year Annual Total Allocation	Year 1	Year 2	Year 3	Year 4	Year 5
Annual Allocation	\$1,062,999	\$932,649	\$932,649	\$932,649	\$932,649
ANNUAL Energy Expenditure Plan (EEP) Projects	Project Costs Year 1	Project Costs Year 2	Project Costs Year 3	Project Costs Year 4	Project Costs Year 5
YEAR 1: EEP PROJECTS	\$1,197,654				
YEAR 2: EEP PROJECTS		\$770,600			
Other Funds (BOND)	\$487,000				
PROP 39 FUNDS REQUIRED	\$705,879.00	\$748,984			
Energy Manager Salary		\$100,000			
TOTAL GRANT FUNDS APPROVED	\$705,879	\$848,984			
Annual Prop 39 Rollover Balance	\$357,120	\$440,785			

APPROVED
\$1,554,984

Tustin EEMs - Year 1

EEM Number	YEAR 2 EEP - Table 2	Project Costs Year 1	Annual Electrical Savings (kWh)	Annual Cost Energy Savings (\$)	SIR
	Currie Middle School				
EEM 7	Lighting- Interior/Exterior Fixture Retrofit	\$128,647	119,376	\$21,222	2.64
EEM 8	Boiler Retrofit	\$46,040		\$881	0.66
	Total	\$174,687	119,376	\$22,103	2.11
	Guin Foss Elementary School				
EEM 9	Lighting- Interior/Exterior Retrofit	\$46,279	39,794	\$7,040	2.45
EEM 10	HVAC- Packaged/Split Replacement (20 Units)	\$408,808	70,096	\$12,400	0.85
EEM 11	Install Cool Roof	\$567,880	1,714	\$396	1.06
	Total	\$1,022,967	111,604	\$19,837	1.06
ANNUAL EEP COSTS		\$1,197,654	230,980	\$41,939	

TUSTIN EEMs – Year 2

EEM Number	YEAR 2 EEP - Table 2	Projects Costs Estimate Year 2	Annual Electrical Savings (kWh)	Annual Cost Energy Savings (\$)	SIR
Beckman High School					
EEM 1	Lighting Interior LED Retrofit (2,521)	\$264,510	\$254,458	\$39,695	9.70
EEM 1	Lighting Exterior LED Retrofit (Gym & Exterior)	\$64,051	\$85,517	\$13,641	9.70
	Total	\$328,561	339,975.00	\$53,336	
Foothill High School					
EEM 2	Lighting- Interior LED Retrofit (2418)	\$267,899	252,881	\$42,484	2.93
EEM 2	Lighting-Exterior LED Retrofit (537)	\$174,140	184,697	\$31,029	2.93
	Total	\$442,040	437,578.00	\$73,513	
ANNUAL EEP COSTS		\$770,601	777,553.00	\$126,849	

Prop 39 Bid and Construction

- **Completed Prop 39 Projects (Year 1)**
 - HVAC Project Part of Larger Bond Project in Construction
 - Lighting Retrofit Projects Installed Utilizing In-House Labor and CA Conservation Corps Labor
- **Year 2 Project Installations Starting Oct 2015**
- Lighting Project Procurement Adhered to “Best Value (AB4217)”
 - Shorter Bid Time
 - Selection from Qualified Bidders
 - Evaluation of Factors Other than Price:
 - Safety – Experience Modification Rate (EMR)
 - Previous Lighting Project Experience
 - Project Team Qualifications
 - Price

2 PROP 39 Workforce Development & Job Creation

**Veronica Soto, Program Manager, Emerald Cities Collaborative
CAWIB Technical Assistance and Capacity Building Team**

Prop 39 Job Creation Goals

- EE Skills Training Linked to Broader Occupational Program
- Hands-on Work Experience on Clean Energy Projects
- Industry Recognized Credentials
- High Probability of Placement in Industry Track Careers
- Partnership with State-Recognized Apprenticeship Programs

CWIB Goals for Prop 39 Training

- 1) Train 500 disadvantaged youth, veterans, and other disadvantaged jobseekers in green job skills;
- 2) Create structured paths to apprenticeship;
- 3) Diversify green job opportunities (beyond Prop 39 creation options); and
- 4) Align systems and leverage funding to optimize results and reduce duplication.

Approach & Grants

Technical Assistance and Capacity Building

- California Labor Federation WED Program
- Emerald Cities Collaborative

Development

- Workforce Investment Board of Santa Cruz County
- Six Regional Programs

Training Implementation

- Six Regional Programs

Training Project Snapshot

Regional Pilot	Training Goal	Placement Goals
Sacramento Valley (SETA)	65	<ul style="list-style-type: none"> ▪ 100% - Enrollment, , 90% (Completion) - Receive MC3 Certificate ▪ 71% - Placement in Registered Apprenticeship ▪ 31% - Placement in post-secondary education ▪ 70% - Placement in construction or energy efficiency employment
Central Valley (Fresno WIB)	125	<ul style="list-style-type: none"> ▪ 100% Enrollment, 95% (Completion) - Receive MC3 Certificate ▪ 67% - Placement in Registered Apprenticeship ▪ 10% - Placement in post-secondary education ▪ 10% - Placement in construction or energy efficiency employment
East Bay Area (Richmond Works)	125	<ul style="list-style-type: none"> ▪ 100% Enrollment, 90% (Completion) – Receive MC3 Certificate ▪ 60% - Placement in Registered Apprenticeship ▪ 12% - Placement in post-secondary education ▪ 88% - Placement in construction or energy efficiency employment

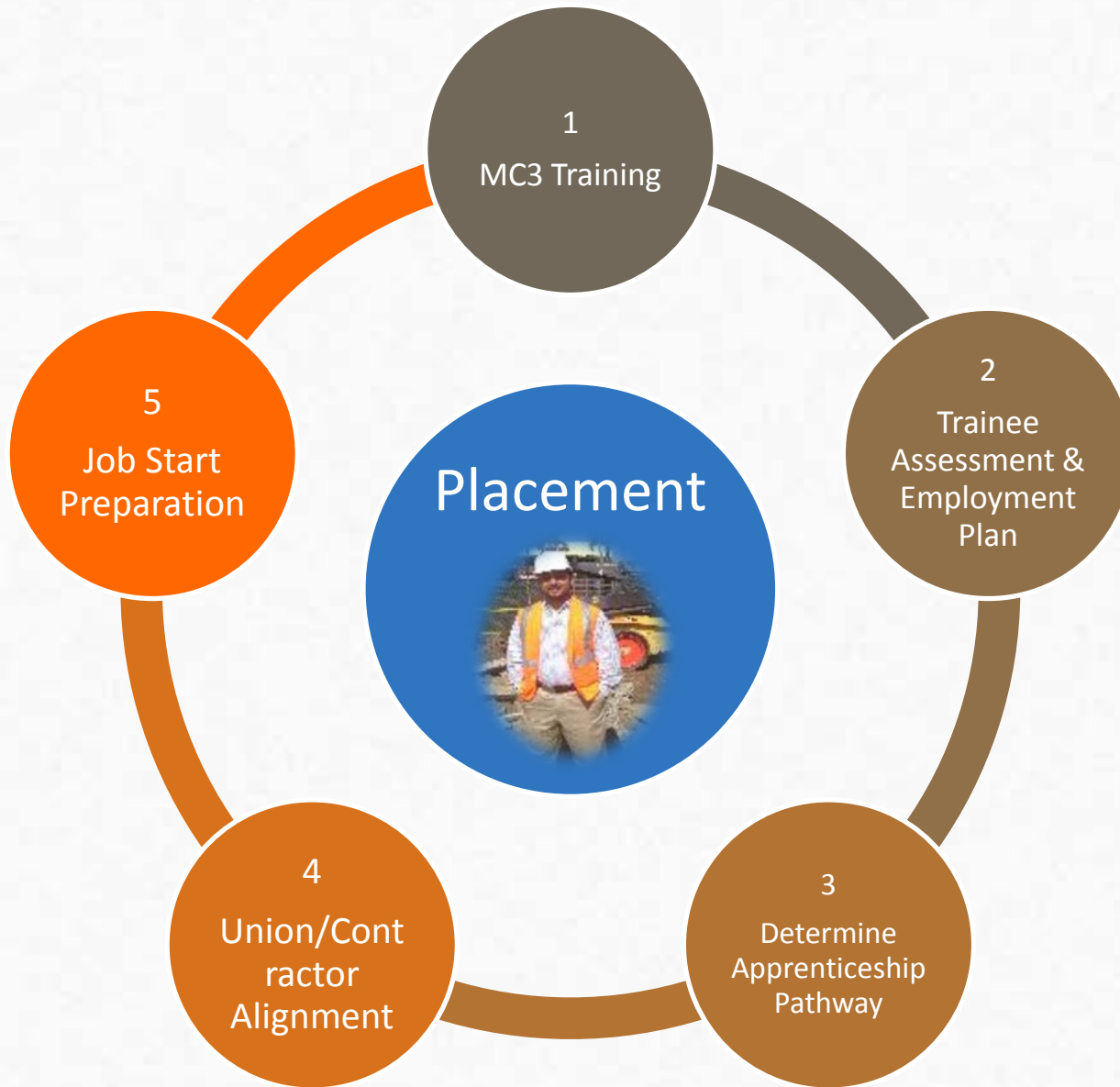
Training Project Snapshot

Regional Pilot	Training Goal	Placement Goals
San Francisco (SF Conservation Corps)	75	<ul style="list-style-type: none"> ▪ 100% Enrollment, 80% (Completion) - Receive MC3 Certificate ▪ 50% - Placement in Registered Apprenticeship – (Laborers - 18, Carpenters - 8 , and Painters – 4) ▪ 11% - Placement in post-secondary education ▪ 50% - Placement in construction or energy efficiency employment
San Mateo & Santa Clara (Work2Future)	120	<ul style="list-style-type: none"> ▪ 100% Enrollment, 88% (Completion) - Receive MC3 Certificate ▪ 90% - Placement in Registered Apprenticeship ▪ 3% - Placement in post-secondary education ▪ 79% - Placement in construction or energy efficiency employment
Los Angeles County (LA Trade Tech)	250	<ul style="list-style-type: none"> ▪ 95% Enrollment, 90% (Completion) - Receive MC3 Certificate ▪ 26% - Placement in Registered Apprenticeship ▪ 80% - Placement in post-secondary education ▪ 39% - Placement in construction or energy efficiency employment

Tracking Metrics

Workforce Issue Area	Data Being Tracked to Measure Progress
Training Investments	<ul style="list-style-type: none"> ▪ Completion rates and certificate attainment ▪ Placements in joint- apprenticeship, and industry-related job placements ▪ Retention in employment
Workforce Diversity	<ul style="list-style-type: none"> ▪ Tracking recruitment numbers of target populations enrolled in training ▪ Tracking recruitment methods for achieving diversity
Training Delivery	<ul style="list-style-type: none"> ▪ What type of entity is performing the training (CBO, Labor, etc.) ▪ Methods for delivering training (classroom instruction, hands-on, etc.) ▪ Supplemental instruction – assistance with remediation; soft skills; physical fitness ▪ Quality – can it meet the highest trade standard (i.e. math of the mechanical trades)
Involvement of Registered Joint-Apprenticeship Programs	<ul style="list-style-type: none"> ▪ Diversity of trades involved in partnership ▪ Creation of clear articulation agreements between training partner and union apprenticeship program ▪ Are trades willing to institutionalize this MC3 program as a permanent form of a pipeline into apprenticeship?

Prop 39 Placement Prep Approach



Prop 39 Placement Preparation Approach

MC3 Training

- National Standard
- Quality Curriculum
- Introduction to Crafts
- Consistent Outcome

Trainee Assessment & Employment Plan

- Identify Strengths & Weaknesses
- Identify and Address Barriers
- Develop Soft Skills
- Set Training Goals/Milestones
- Engage WorkSource Partner

Apprenticeship Pathway

- Intro to Apprenticeship Options
- Prepare for Exam
- Prepare for Boot Camp
- Prepare to Hunt for Work

Union/Contractor Alignment

- Engage Craft Unions Early
- Identify Graduate Pathway
- Solidify Contractor Partnership
- Identify Contractor Manpower Needs & Schedule
- Survey Contractor Satisfaction
- Check-in with Graduate

Job Start Preparation

- Job Readiness Workshop
- Manage Expectations
- Personal Protective Equipment, Boots & Tools
- Union Initiation Fees
- Helmets to Hardhats for Veterans

Prop 39 – Challenges & Opportunities

- Limited or no tracking of job creation data
 - Not required for funding application submission
 - Certified Payroll Reports to be submitted to DIR
 - Self reported worker wage data allowed
 - Limited agency follow-up for data
- No consistent inclusion of workforce goals in LEA/CC bidding docs or solicitations
 - Current agencies may or may not include existing workforce provisions
- No consistent link between Apprenticeship Prep Programs to Prop 39 contractors

Prop 39 Contracting Opportunity to Create Jobs

Public Contracting Principles

- Open and Competitive Process
- Public Bid Opening
- Licensed Contractors
- Subcontractor Protections
- Labor Compliance

Contracting/Project Delivery Methods-Construction

- Low-Bid
- Best Value*
- Design-Build*
- Job Order Contracting (JOC)
- Performance Contracting/ESCO*

Contracting/Project Deliver Methods-Professional Services

- Request for Qualifications (RFQ)*
- Request for Proposals (RFP)*

Prop 39 Contracting Opportunity to Create Jobs

Local Worker Hiring Goals

- 35% to 40% Local Worker hiring goal
- 10% Disadvantaged Local Workers
- 5% Veterans
- Pathway to Union Apprenticeship
- Campus and Community Partnerships

Procurement & Contract Framework

- Project Labor Agreement (PLA)
- Contract specification for Local Worker Hiring Program
- Establish process for implementation, compliance and reporting
- Two-tiers procurement process:
 - RFQ measures past performance
 - RFP measures proposed plan
 - 10% to 15% of overall points assigned to workforce requirements
- Online Certified Payroll System requirement



6 PROP 39 LESSONS LEARNED

Prop 39: Lessons Learned

Administrative:

- Register for Online Portal Access in advance.
- The project description **MUST BE DETAILED**; general one-two sentence statement such as "Various energy efficiency measures will be installed will not be approved".
- Upload all back-up documentation at once. You can send in additional documentation if requested, but the PM's sometimes forget you sent it if it's not in their original package.

Prop 39: Lessons Learned

Administrative (Continued):

- Perform Quality Assurance check to make sure Reports and Backup calculations and worksheets match
- Always follow up with the CEC within a couple days after submitting a plan to make sure they received it.

Hi, CEC...Did you receive our Expenditure Plan?



Prop 39: Lessons Learned

Technical:

- Note that each type of chiller requires a specific custom calculator (ex. air cooled vs. water cooled).
- For measures not specifically covered under the Prop 39 ECM descriptions, custom calculators can be created.

Prop 39: Lessons Learned

Technical (Continued):

- Evaluate savings based on using a blended rate and actual rates to see which produces a greater number. Often times for measures that have large demand savings, using the actual tariff structure from the utility company will show more savings (in lieu of a blended rate).

**Is the actual
rate greater
than the
blended rate?**



Prop 39: Lessons Learned

SIR Calculations:

- Use the CEC Prop 39 SIR calculator for all measures submitted (download from CEC Site).
- SIR is calculated differently for some measures such as Solar between the CEC Calculator workbook and the Form B. This provides inconsistencies in the SIR's in these documents.
- When a particular measure doesn't achieve needed SIR level using "online calculator", may want to utilize custom calculator; often the LEA's actual \$/kWh is higher than the numbers hard-coded into the online calculators.

Prop 39: Lessons Learned

SIR Calculations (Continued):

- If you have a district that has an SIR of 1.05, verify what this number is to a greater number of digits. The forms will round up to 1.05, but the info that is reviewed by the PM's does not, so if a site has an SIR of 1.049, it will not be approved even though the form shows 1.05.
- Using rebates can help increase the SIR but districts are committing themselves to securing those rebates if they are used in the submission. Since rebate programs change regularly, the District may not get their intended rebates and will need to come up with their own money to make up the difference.



Prop 39: Lessons Learned

Improving the SIR:

- Consider including previously implemented projects (completed after 12/19/13) that meet Prop 39 eligibility requirements and funded by local “non-repayable funds” in Expenditure Plan to increase overall LEA SIR.
- With new Prop 39 solar PPA calculator, consider adding this measure to Expenditure Plan to bring up overall LEA SIR.
- With addition of Advanced Energy Storage (“battery storage”) as an eligible Prop 39 measure, consider adding to the Expenditure Plan to reduce demand charges.



PANEL DISCUSSION



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