

ENERGY WORKFORCE **SECTOR STRATEGY**



2014 Roadmap Recommendations

Commercial Energy Efficiency

April 28, 2014

Agenda

- 2013 Accomplishments
- Vision
- Priority Programs
- Program Linkages
- Implementation Model
- Portal: www.eeselectorstrategy.com
- CALCTP / Title 24 program Update
- Alignment with Guidance Documents
- Resources
- Recommendations

EWSS 2013 Accomplishments

Highlights Summary

New Guidance for WE&T Programs

- Consultant – The Don Vial Center at UC Berkeley
- Year-long statewide effort

PG&E 2014 EWSS Implementation Plan

- Integrates Don Vial Center guidance
- Builds on prior years' EWSS research

EWSS 2013 Accomplishments

Highlights Summary

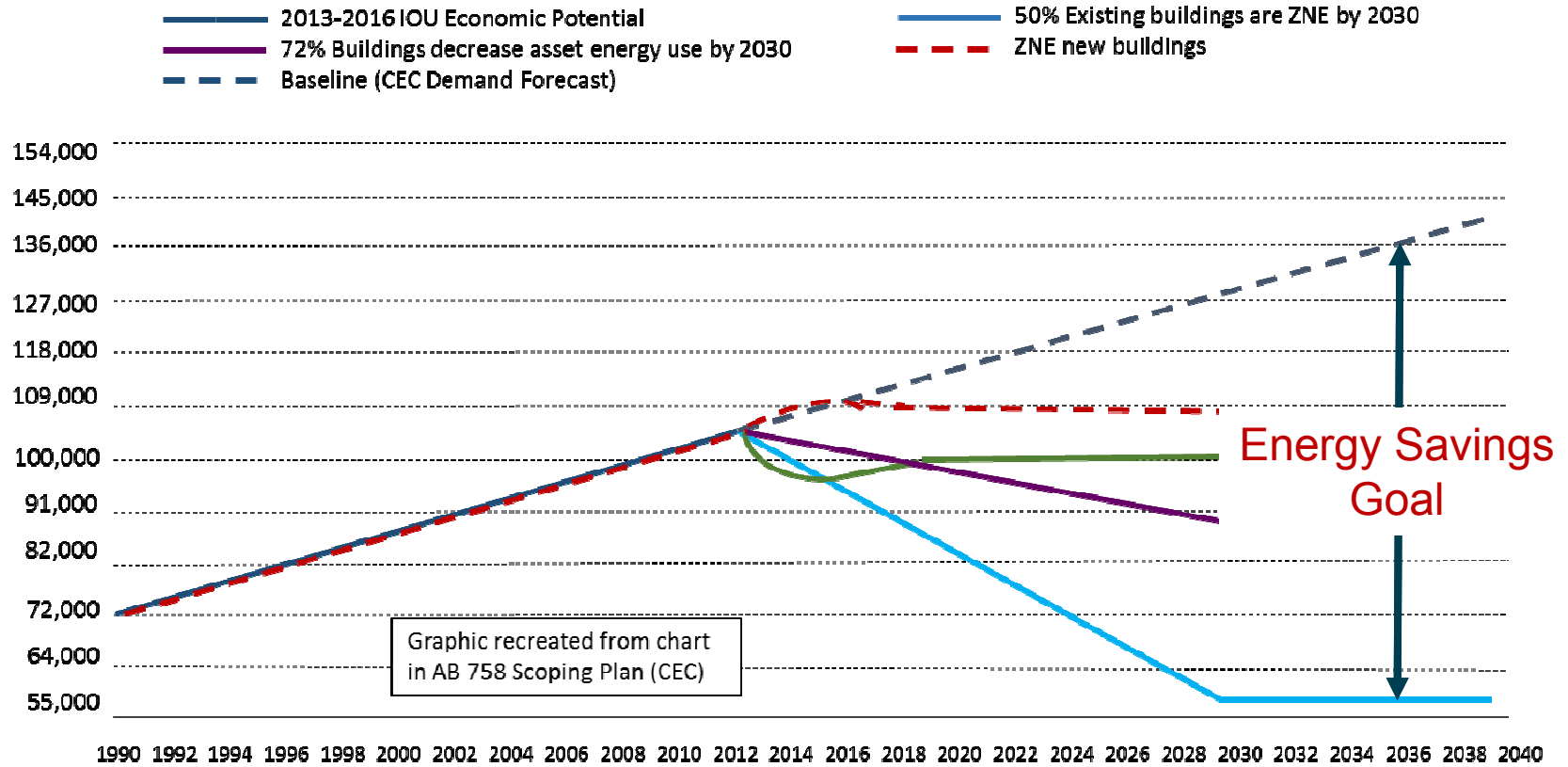
New Activities in 2013

- New Title 24 Code: faculty development
- CALCTP: O&M course collaboration
- High Performance Building Operator course (ZNE)
- Sustainable workforce development model
- Expansion of www.eesectorstrategy.com

- 2013 Accomplishments
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Vision

Commercial Electricity Consumption with Efficiency Scenarios (GWH)

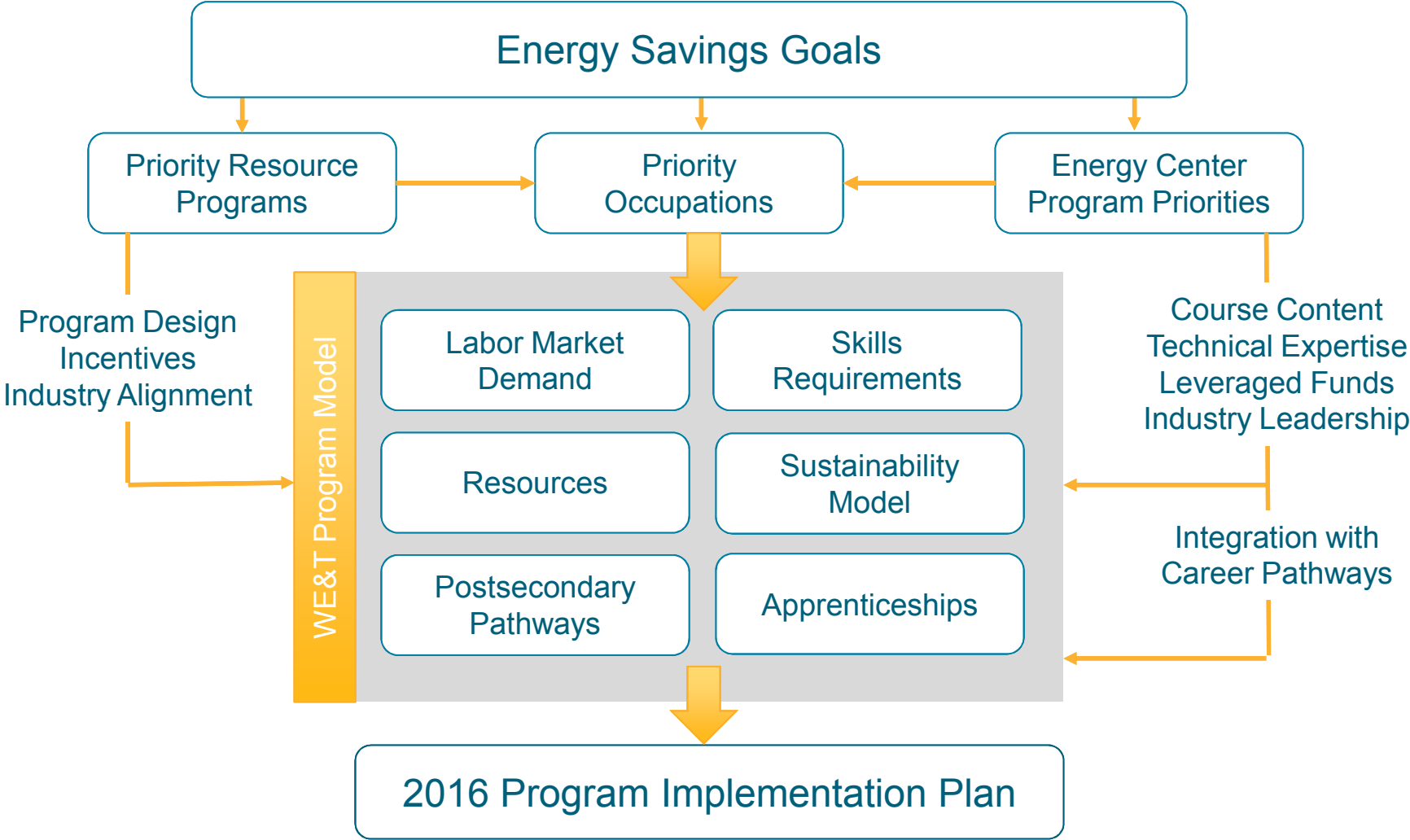


This chart shows the potential impact of different existing and proposed efficiency targets could have on overall consumption in the state.

Vision

- 2016 WE&T Program Implementation Plan
 - WE&T directly mapped to energy savings potential
 - Evidence-based skills-building programs
 - Key linkages between skills- and market-building
 - Integrated pathways – Energy Centers & Postsecondary
 - Sustainable programs
 - Leveraged resources
 - Replicable practices
 - Expanded footprint – postsecondary
 - Demonstrated positive outcomes

Vision



Roadmap Overview

- 15-month preparation for 2016 PIP
 - WE&T program prioritization
 - Pathway development for priority programs
 - Demonstration of success
 - WE&T integration into postsecondary pathways
 - Skills development for priority occupations
 - Sustainable implementation model
 - Leveraged resources
 - Best practices / replicability
 - Positive outcomes for programs and students
 - Viable path to AB 758 Commercial Sector goals

- 2013 Accomplishments
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■ Priority Programs

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Priority Programs

Program	Projects
Building Enclosure	Integrated Design & Construction
	Integrated Design Certification
	Energy Modeling
	ZNE Commercial
Building Performance	Building Commissioning
	Commercial Energy Audits
HVAC	HVAC Technician
	Commercial QM/QI
	Title 24 for Contractors
Lighting	CALCTP
	CALCTP Acceptance Testing
Renewables	Residential Real Estate
	NABCEP CEUs

See Scorecard and Program Evaluation Matrix

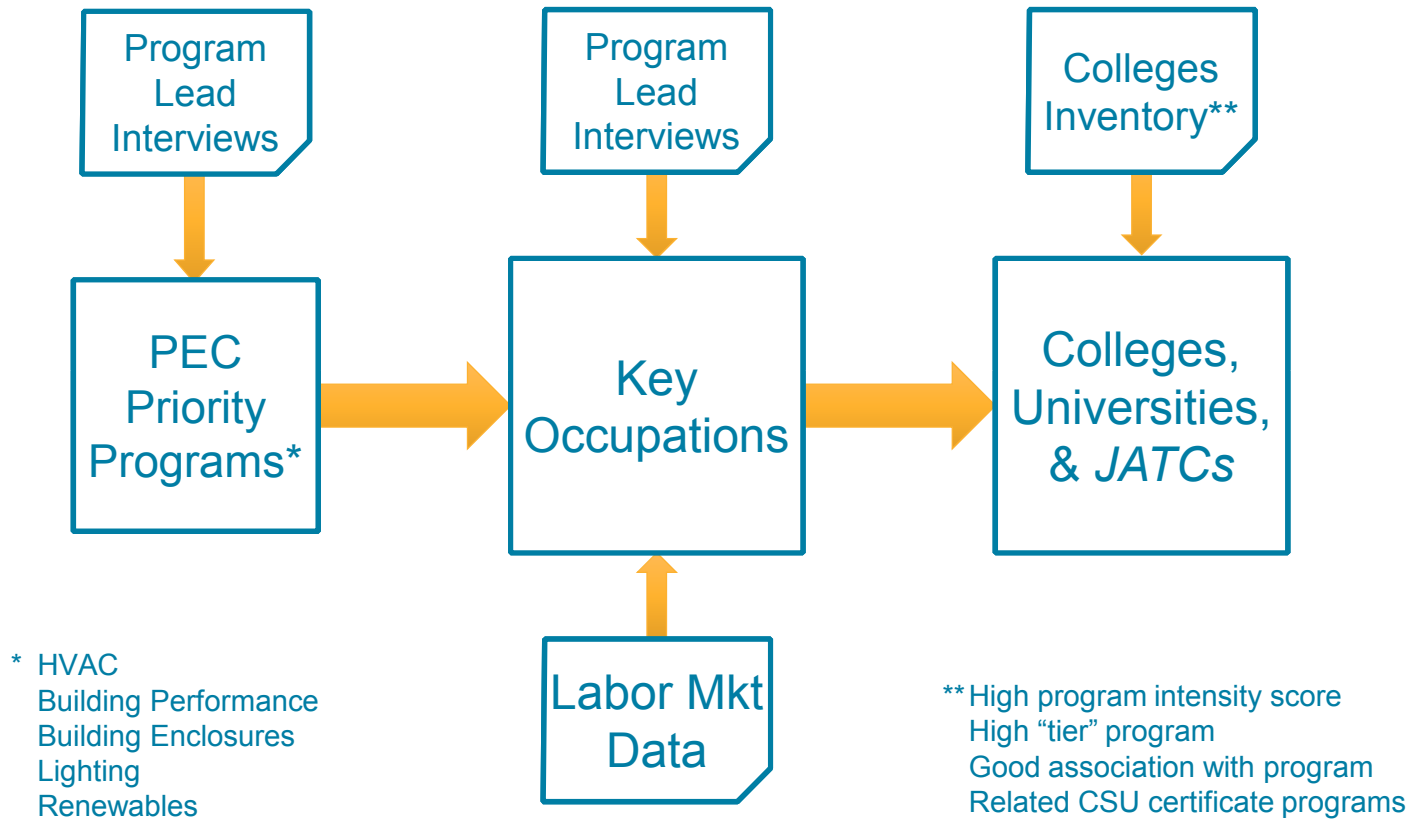
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■ Implementation Model

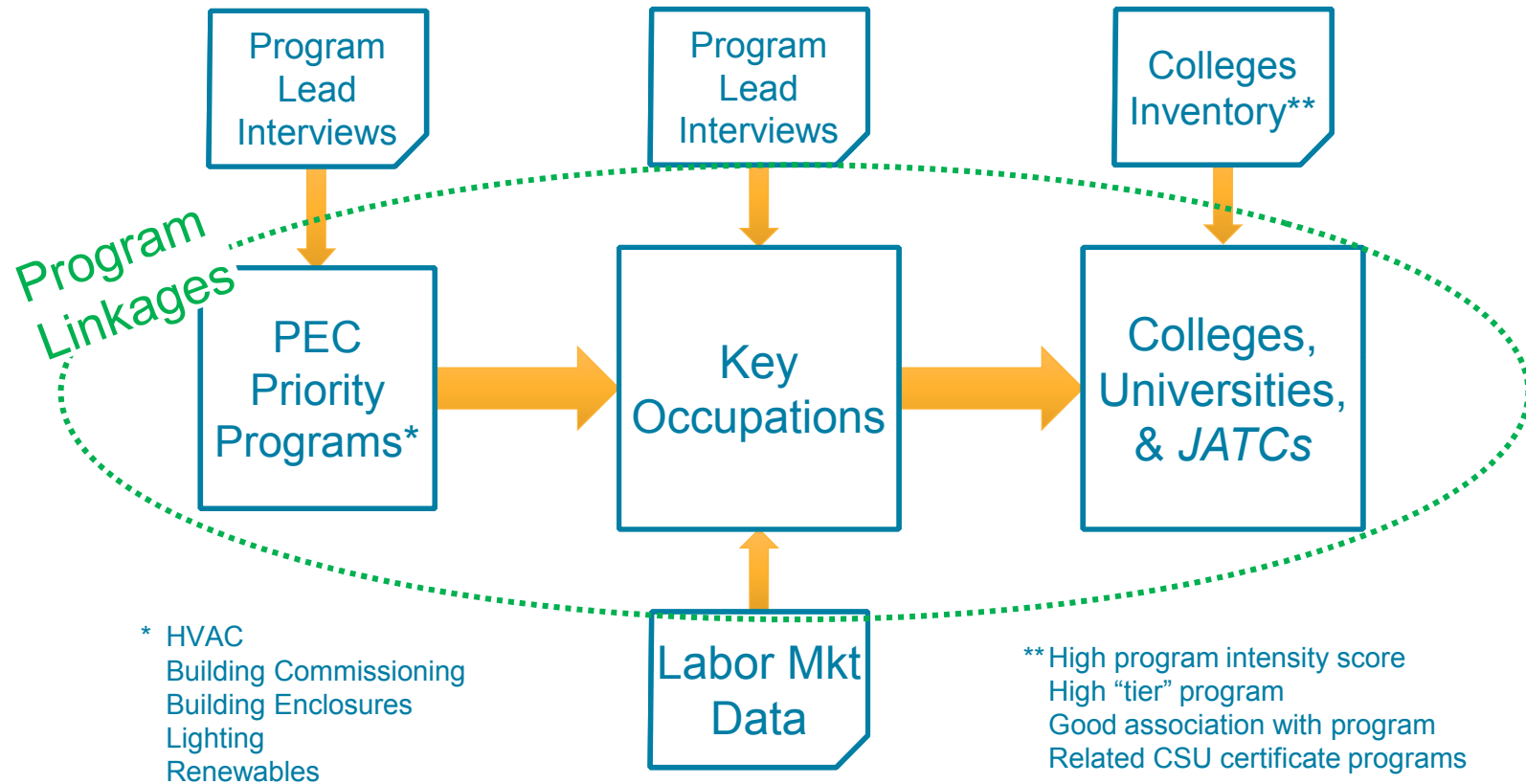
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Program Linkages Methodology



Program Leads include WE&T and Resource Program Managers

Roadmap for PEC Program Linkages

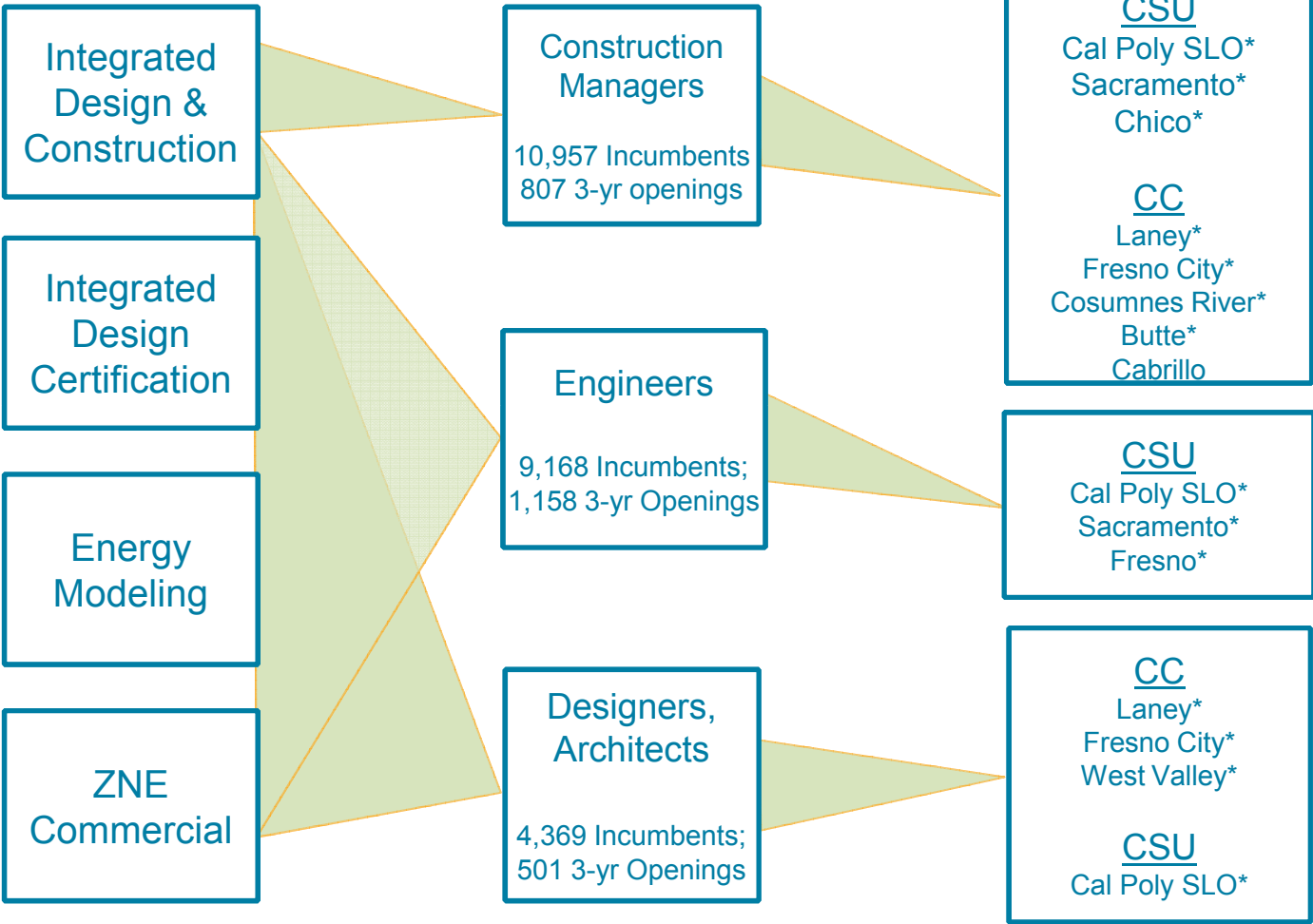


Building Enclosure Linkages

PEC Priority Programs

Occupations

Colleges w/Pathway Programs

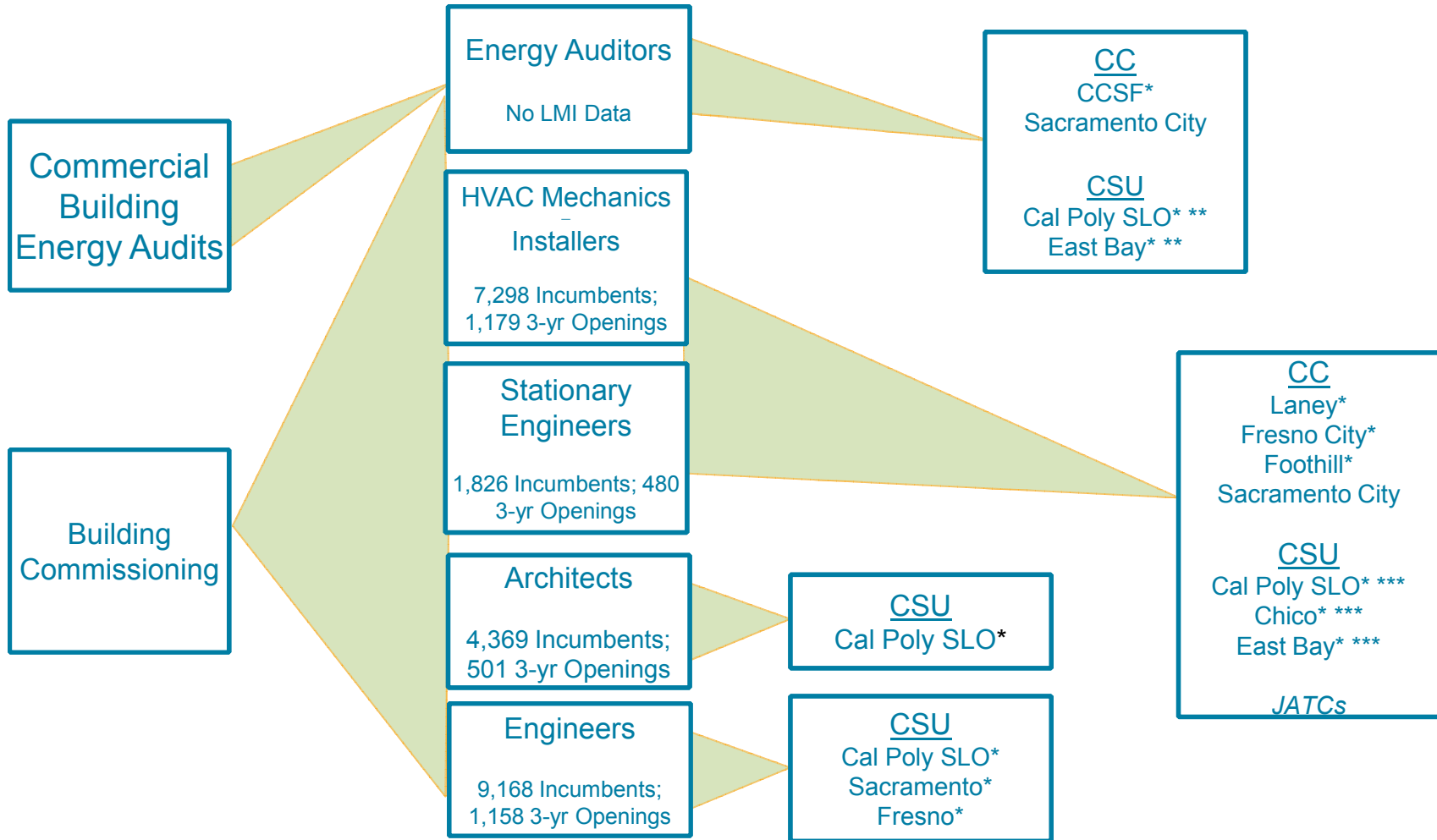


Building Performance Linkages

PEC Priority Programs

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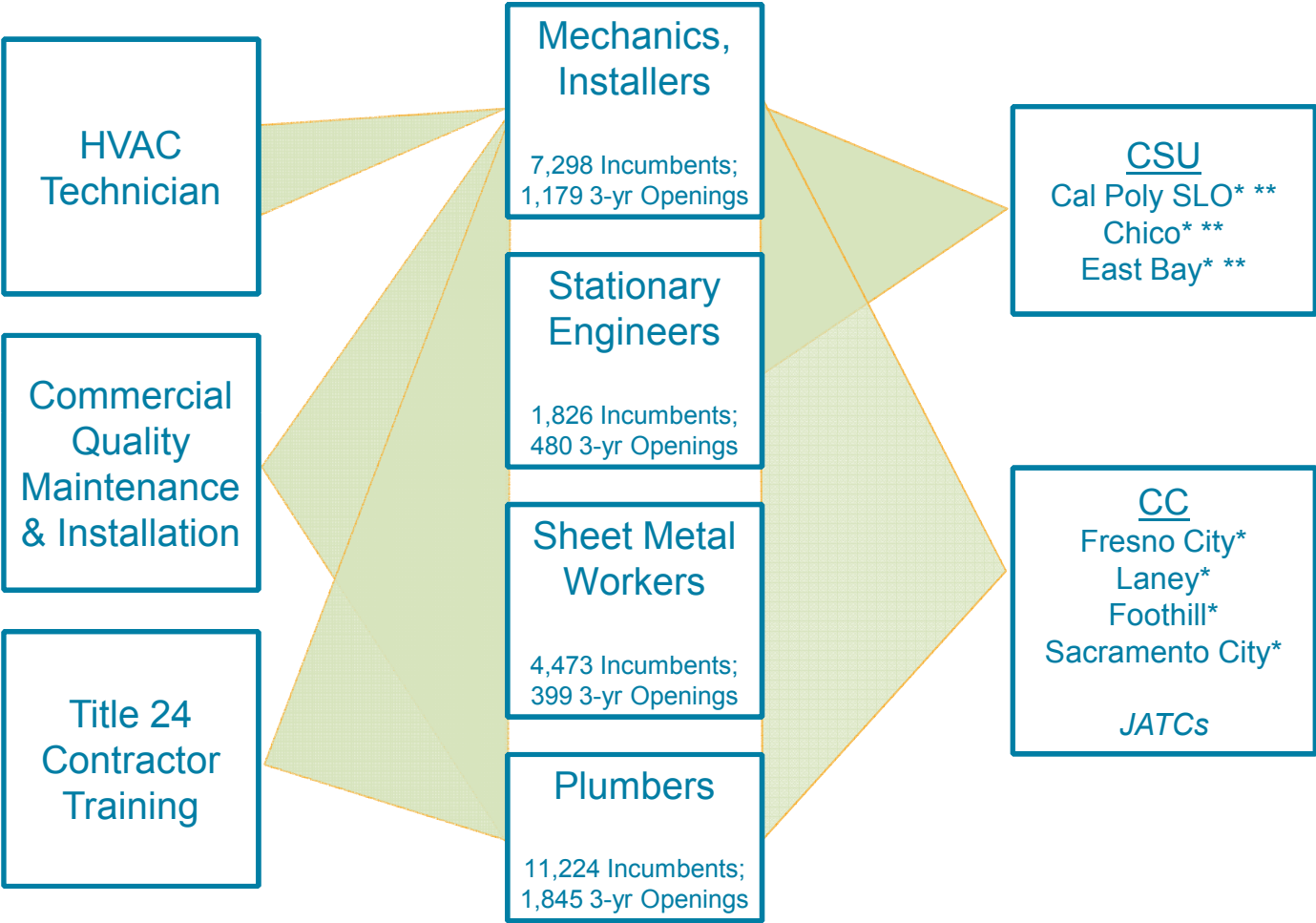


HVAC Linkages

PEC Priority Programs

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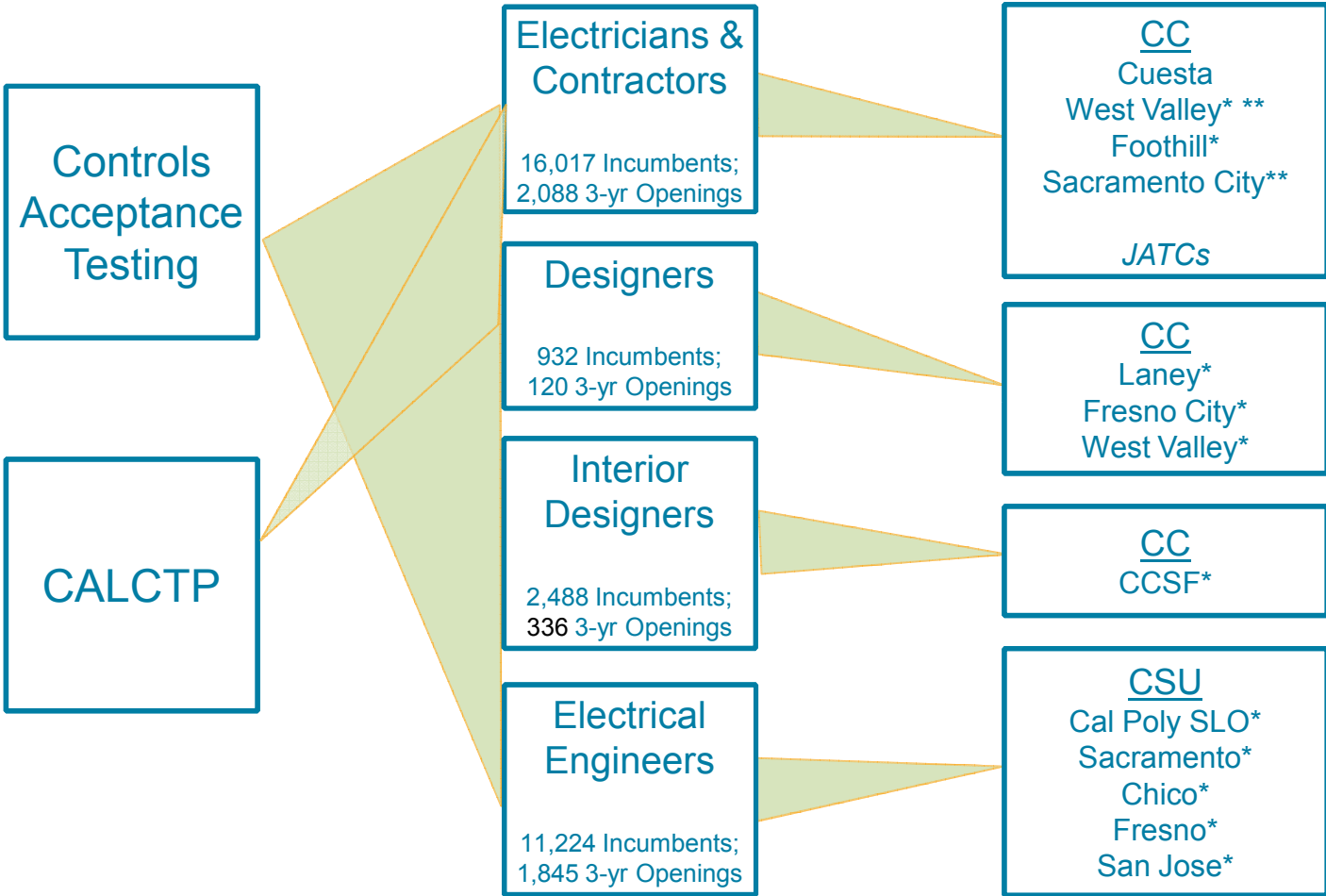


Lighting Linkages

PEC Priority Programs

Occupations

Colleges w/Pathway Programs



*EWSS Advisory Council Participation
 ** CALCTP Program per CALCTP.org

Renewables Linkages?

- Program Lead indicates primarily Residential focus
- No Commercial LMI data available (outside initial scope)
 - Confirmed w/ Sector Navigator and Centers of Excellence
- No Colleges data available (outside initial scope)
 - Residential Programs from DOE Solar Market Transformation Grant
 - Aware of only one Commercial Program (not sustained)

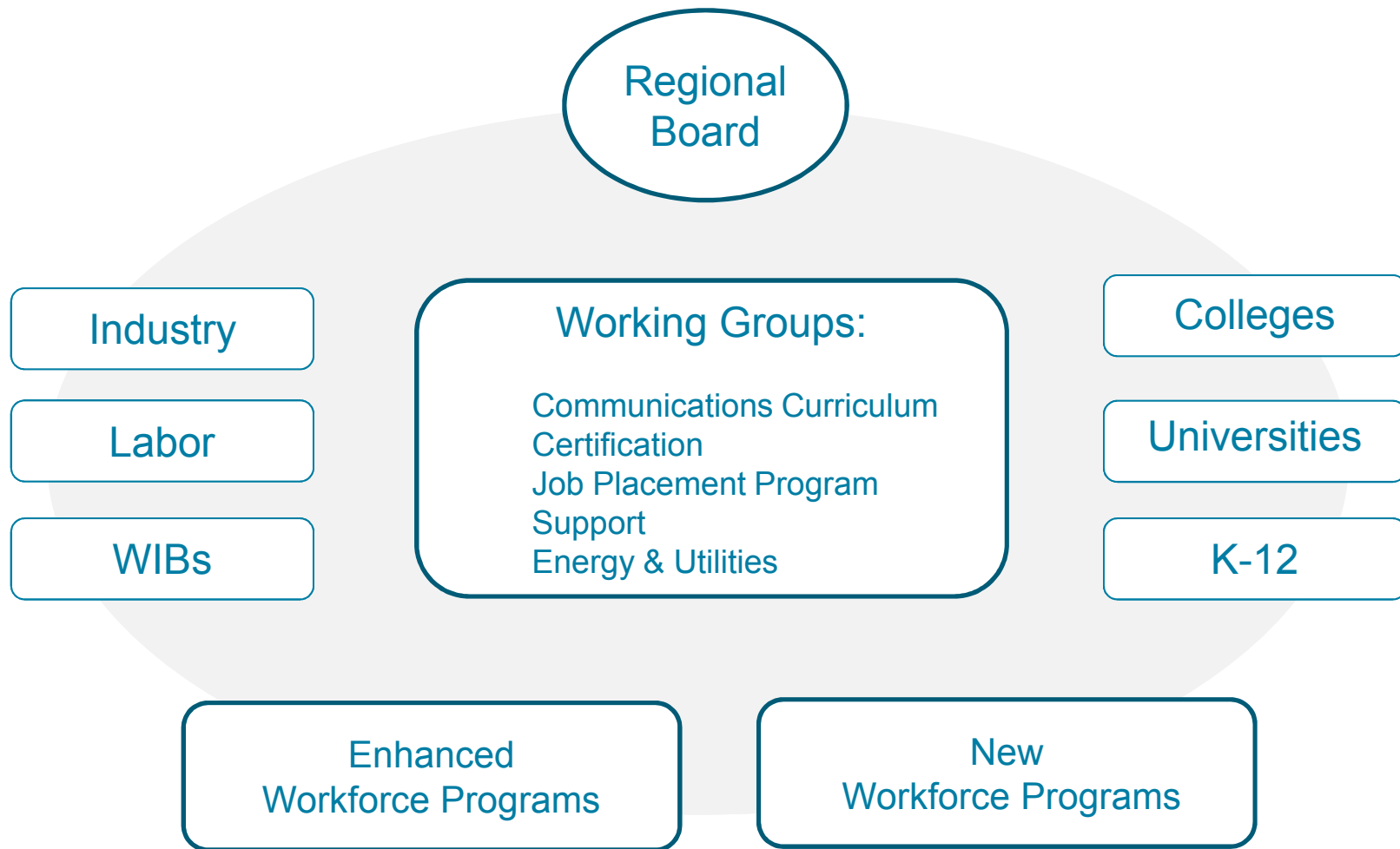
Implementation Model

Sacramento Regional Initiative

- Who: 50+ stakeholder coalition addressing EE workforce needs
- Why: Bridge skills gaps for six priority occupations
- How: Align regional stakeholders in planning, funding, and executing comprehensive workforce programs
- When: Assembled core group September 2013
Launched January 15, 2014 – ongoing
- What: Pre-apprenticeship program(s)
Internships, job placement
Job Fairs
Career pathways mapped to industry workforce needs
Leveraged resources

Sustainable Implementation Model

Sacramento Regional Initiative



Sustainable Implementation Model

Sacramento Regional Initiative

- Success Factors
 - Regional Collaboration
 - Structured Organization
 - Industry Driven
 - WIBs - Funds for Training, Job Placement
 - Employers – Willingness to Hire
 - Educators – Curriculum Alignment

- 2013 Accomplishments
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■ Portal

- CALCTP / Title 24 program Update
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Portal

- New Features
 - Document sharing
 - Database driven filtered search

- Realignment Around Communities of Practice
 - Organize by program
 - Dynamic feedback through user comment
 - Site Search Feature
 - Somewhat modeled after CALCTP.org

- Compliant with Most DVC Recommendations for Statewide Portal



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- **CALCTP / Title 24**
- Alignment with Guidance Documents
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CALCTP / Title 24 Update

- CALCTP
 - New Building Operator Curriculum
 - Advisory Body being formed: Early June
 - Pursuing funding through grants
 - Anticipate ICF will be recruited to administer

- Title 24
 - Prop 39 Project Directors on board for “train-the-trainer”
 - Colleges in all 3 regions (Bay, North, South)
 - Proposal: Recorded webinars with Martyn Dodd
 - Electronic content, tools, templates, case studies, software
 - Faculty funding provided through Prop 39
 - Next step: PG&E funding & scheduling of resources

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Alignment with Guidance Documents

- Needs Assessment
 - Incumbent worker focus
 - More emphasis on construction trades skills-building
 - Sector strategies
 - Energy Center Course modifications
 - Curriculum upgrades / Faculty development
- DVC Draft Recommendations
 - Link to energy savings
 - “Low-hanging fruit”
 - Skills-building
 - Prioritization process
 - Skill certifications
 - Evaluation and iteration
 - Adoption of DOE job task analyses and skills guidelines
 - Portal functionality

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Resources

- Sustainable funding sources
 - Workforce Investment Boards
 - Employment Training Panel
 - Industry contributions
 - Ratepayer funds
 - Community college/CSU budgets
- Human capital availability
 - Community college “Expert Networks”
 - Alignment with Prop 39 implementation plans for K-14 buildings
 - Availability of industry expertise from associations or individual companies
- New methods of developing and executing programs
 - Leveraging DOL/DOE/CEC task analyses and programs
 - Leveraging low-cost/high impact programs (e.g. Campus as a Living Lab)
 - Deep stakeholder engagement / critical mass for student placements



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- **Recommendations**

Draft Recommendations

Top Level Plan for 2014-15

- Enhance the prioritization process
 - Project Scorecard
- Launch five priority projects into postsecondary
 - Based on Project Scorecards
- Integrate Energy Center programs into pathways
 - Five priority projects
- Build a sustainable model
 - Regional collaborative(s)
- Measure Outcomes
 - Energy savings
 - Program results
 - Student success

Draft Recommendations - Sample Project

Top Level Plan for 2014-15

HVAC [Example]

Energy Savings Goal: 50% ZNE in 2030

Workforce targets:

1. Building Operations Professional
2. HVAC Installer
3. HVAC Engineer
4. HVAC Tech

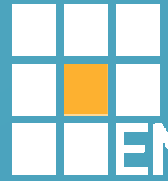
Postsecondary:

1. Laney College (Primary)
2. Sacramento City College
3. CSU San Francisco
4. Fresno City College

Resources:

- IOU expertise and ratepayer seed money
- NSF and NIST funding
- Community college & WHPA resources
- DOE Better Buildings Initiative
- Prop 39 funds
- Regional collaborative(s)

Questions?



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Thank You