

IEDRC P11 Building and Energy System Professional Consortia (BESP)

Description

DESCRIPTION: The BESP Consortia project is a response to the Energy Efficiency industry facing serious shortfalls in developing a skilled, trained, and available labor pool. The EC&U sector BESP project responds to sector employer's needs for a trained and employment ready workforce. IE/D regional COE data (project TOP codes to SOC Crosswalk LMI) indicate that demand is high. Currently, there are 7336 annual job openings in construction crafts with 1461 annual openings in the high demand well-paying middle-skill occupations in the energy efficiency related fields. Total annual certificates awarded throughout the region for all EC&U (BESP) TOP codes is 269. Combined the regional training programs have an annual shortfall of at least 7,000 employment/skills ready workers. Median earnings range from a low of \$14.00 to over \$50.00 per hour with a weighted average of \$27.00 per hour. The foundation of the BESP project is the "Expert Network" of willing and engaged ECU faculty champions that fosters a channel for stackable credentials and credit transportability across regional colleges. The expert network develops as a learning community which thru collaboration and innovation transform the regional programs. Advancing student success by aligning content and outcomes with third-party evidence-based benchmarks and assessments leading to industry valued credentials. The project strives to develop solutions, such as outreach campaigns and integrating industry and academia in a campaign to address the shortfall. Aligning objectives and activities with the efforts of the Riverside County EDA/WDB, San Bernardino WDB, WIOA, and partner institutions to best address the issues of attracting, retaining, and successfully graduating students in Energy Efficiency programs. Through engaging: willing Faculty participation and administration support; agreement on Common Outcomes; Third Party-Evidence based assessment toward industry valued credential and industry advisement. Braiding available Perkins, local SWP, Prop 39 and ISPIC funding streams. A focus on developing a workforce "Built to Industry Standards" implies a requisite engagement with employers. The project proposes establishment of "Regional Industry Advisory(ies)" to institute work-based-learning and preferred consideration employment opportunities for program completers. The "consortia" education/industry relationship can inform curriculum content and outcomes aligned to industry expectations and establish relationships enhancing student marketability and opening college resources for incumbent worker lifelong learning opportunities. Target Occupations include: Building Operations Professionals; Advanced lighting and automated control systems; Control systems in commercial and industrial automation; HVACR, Building Science; Energy analysis and auditing; Facilities Management; Systems Installation; Operation & Maintenance; Energy Conservation Methods; Renewable Energy (generation and storage); Construction Management; Green Architecture; Green Construction; Building Inspection Technology; and Commissioning. This proposal is a regional effort to align energy-related certificate programs to meet Title 24, Zero Net Energy, and Industry standards under a single degree program. The program will provide a framework for the coordination of Industry supported work experience, internships, apprenticeships, advisory panels, and the development of expert networks for advanced energy workforce development, faculty professional development, and open access curriculum materials for both credit and noncredit programs. Participating colleges will use their existing Energy, Construction, and Utilities (ECU) related certificates to initiate the BESP program. The innovative structure of the BESP degree program provides 16 occupational pathways (certificates) for students with all required courses as electives, except for the Zero Net Energy (ZNE) core courses. The ZNE core provides all students a foundational understanding of energy efficiency as it relates to buildings and energy systems. A major focus for the first years funding will be the construction-related fields as many colleges have active and inactive programs that need updating and industry support for work experience, internships, and apprenticeships. The BESP Consortia will engage interested and current industry partners to build a coalition of support for students and the related programs throughout the region. NCCER, HVAC Excellence, NABCEP, etc. are to be the primary third-party certifications and the pathway for program alignment to industry standards. They will provide students with valuable industry-recognized credentials i.e. level one core curriculum, Ready to Work, EPA-608. All of these IRC's are nationally recognized credentialing bodies, similar to MC3 used by the trade unions and are supported by building and trade associations like BIA, NECA, DCA and many others. BESP qualifies for ISPIC funding, so each college will also be eligible for matching funds to implement additional BESP specialties (occupations) where LMI indicates a need and there is support from the regional consortia. Successful implementation of the BESP Consortia will increase enrollments in ECU programs and provide more and better CTE.

INDUSTRY SECTORS: Energy, Construction & Utilities;

START DATE: Mon Jan 01 2018

END DATE: Thu Dec 31 2020

LEAD INSTITUTION: College of the Desert

READ THE SWP LEGISLATION: Yes

WHAT NEEDS MOTIVATE THIS PROJECT AND HOW WILL THE PROJECT ADDRESS THESE NEEDS?

Inland Empire/Desert region colleges have a significant portfolio of programs related to the energy market transformation, and a number of mechanical and electrical career pathways, many of which need to be upgraded to address emerging competencies in energy efficiency. This region offers an ideal platform to develop strategies, best practices, and evidence that can be replicated and scaled. The BESP Consortia project is informed by and has evolved through inputs from industry, policymakers, economic development agencies, faculty and Deans across the region. Colleges that are participating in this initiative offer programs in Process Control, HVACR, Environmental Technologies, Water/Wastewater, Building Automation, Architecture Engineering and Technical drafting technologies, Electronics and Systems Automation, Construction Crafts, Inspection, Welding Technologies, Construction Management and Data Analytics. Economic, public policy and labor market research are the primary drivers for this project: •Annual demand for the target occupations in Riverside and San Bernardino County is 7000+ versus 269 •New competencies are needed in all target occupations to accommodate industry trends in Energy Efficiency statutory goals and new/retrofitted building code compliance •Technology is changing the way projects are managed, how materials are produced and the building process itself. The introduction of new technologies has helped to streamline, automate and speed up building design and construction •Policies and incentives arising from California's clean energy and pollution reduction mandates continue to accelerate industry's evolution to automated solutions •Clean Energy and Pollution Reduction Act of 2015. the Governor has called for a new set of objectives in clean energy, clean air, and pollution reduction for 2030 and beyond. 1) To increase from 33 percent to 50 percent, the procurement of our electricity from renewable sources. (2) To double the energy efficiency savings in electricity and natural gas of retail customers through energy efficiency and conservation. •Existing Buildings Energy Efficiency Action Plan (EBEE Action Plan) in September 2015. The plan provides a 10-year roadmap to activate market forces and transform California's existing residential, commercial, and public building stock into high-performing and energy-efficient buildings. •Policies and incentives for adoption of energy efficient systems are at the core of California's strategy for economic growth and competitiveness in the global market Legislation such as Proposition 39 and Title 24 (CA Building Code) continues to create new jobs by infusing hundreds of millions of dollars annually in energy efficient buildings and by incentivizing new private investments. New technologies such as the Internet of Things (IoT), Direct Digital Control, Smart Sensors, Analytics, evolving HVACR and environment and control systems, Automated Building Controls, and Artificial Intelligence dominate the way buildings and processes must respond to these drivers. In addition to the supply/demand and new worker competency gaps, multiple studies show a massive need to upskill the incumbent workforce. The foundation of the EC&U sustainability project is the "Expert Network" of willing and engaged cross-sector Faculty Champions that fosters a channel for industry-driven competencies, common outcomes, stackable credentials and credit transportability across regional colleges. The expert network develops as a learning community which thru collaboration and innovation transform the regional programs. Advancing student success by aligning content and outcomes with third-party evidence-based benchmarks and assessments leading to industry valued credentials. Exploring and implementing work experience and internship programs. Recognizing existing demands on faculty, this project assists in curriculum alignment and development by funding consultants to work at the direction of faculty. It also provides funding for adjunct instructors and guest lecturers to deliver specialized content modules that are infused into existing courses and programs. Professional development opportunities and access to available online and virtual training and assessment program augmentation tools. The Sustainability Pathways has a primary focus of engaging and expanding an existing Industry Advisory comprised of the Association Energy Engineers, Siemens, Johnson Controls, Honeywell, ABM, Association of Air Conditioning Contractors (ACCA) ASHRAE, International Facilities Management Association, So California Edison, UA250, Operating Engineers local 501, and others with a strong presence in the county. Significant contributions to this advisory are being made by UC Davis, the Southern California HVACR Collaborative, and the National Science Foundation BEST Center. This initiative includes: •Alignment of student learning outcomes across the region's programs •Transfer of certificate or degree-level credits across participating colleges •Convening and sustaining an Expert Network that engages industry in faculty planning •Professional development for faculty, aligned with industry priorities •A community of practice for sharing curricula and building evidence for replication and scaling •Engagement of consultants to support faculty in curriculum alignment and development •Assessment of outcomes and continuous improvement of processes •Opportunities for braided funding enhancement thru Prop 39, Projects in Common and SWP Local share investments and leveraging multiple funding streams for investment i.e equipment, etc. What is BESP? There are sixteen BESP specialties

MEETS REQUIREMENTS OF SWP LEGISLATION: Yes

that are directly related to high demand jobs for California's advanced energy workforce. The names for the specialties should be consistent, but do not necessarily need to be the same as the individual certificate names. This is important because every college will have different names for similar energy efficiency related certificates and the courses will vary by name, number, and scope. To control this, program learning outcomes (PLO's) will be tied to a select IRC for each specialty with those competencies reflected in the student learning outcomes (SLO's) for the individual courses. All courses outside of the ZNE core are elective and provide students the ability to pick the courses they need for their specialty, career, job upgrade, or other need while completing their degree. Additionally, the courses are overlaid to encourage stacking. Many of the advanced energy related certificates contain duplicate courses depending on each college's curriculum, so providing the overlay helps students decide the most efficient and effective approach to multiple certificates within the BESP program. The state recognized BESP program model has an unlimited number of available courses including entrepreneurial courses which make up the (18 unit) BESP Entrepreneurship Track. This degree track is for energy students who want to start a business in their field of study. Ideally any college could adopt all or some of these existing courses and begin instruction immediately if they have existing courses already on the books for similar certificates. This would be accomplished by aligning SLO's and PLO's to meet the industry standards and then adding their course to the elective list under each specialty. The goal for the Building and Energy Systems Professional, Associate of Science Degree (BESP) is to provide the student with the entry level skills, knowledge, and industry driven competencies to successfully enter and succeed in the Building Science and Advanced Energy Systems fields. BESP specialties and their related IRC's 1. Alternative Energy Technician/NABCEP, CSPV-I, CPVT-S, NCCER 2. Building Operator/BPI, NCI, NCCER 3. Green HVACR Commercial Technician/NATE, HVAC Excellence, EPA 608, BPI, NCI, NCCER 4. Green HVAC Residential Technician/NATE, HVAC Excellence, EPA 608, BPI, NCI, NCCER 5. Control Systems Specialist/NCI, GBA, NCCER 6. Advanced Lighting Technician/CALCTP-AT, NCCER 7. Building Energy Consultant/CEA, HERS, BPI, CABEC, NCCER 8. Construction Manager/CSLB, LEED-AP, NCCER 9. Building Inspector/PBI, ASHI, NCCER 10. Commissioning Technician/ACG, BPI, CABEC, CxT, NCCER 11. Zero Net Energy Technician/LEED-GA, NCI, BPI, NCCER 12. Power Generation and Distribution/NECA/IBEW, NCCER 13. Applied Construction Technology/CSLB, NCCER 14. Water Technology/SCATA, NCCER 15. Welding Technology/AWS, NCCER 16. Facilities Management/IFMA Incumbent Workers (Skills Builders) The TAACCCT funded BESP program includes non-credit offerings for all students including incumbent workers at no tuition cost. These courses are designed to help workers elevate their skills and gain knowledge about ZNE and energy efficiency practices and methods. Additionally, these courses are made up of three 18-hour modules (A,B,&C) that can be imbedded in the credit courses schedule. Students completing all three modules can request to take the final exam for college credit, if desired. Non-Credit Certificates (in Progress): 1.Solar Photovoltaic 2. Energy Storage 3. Welding 4. Air Conditioning 5. Commercial Qlty. Maint. (Standard 180) 6. Energy Systems Technology 7. Industrial Calculations 8. Employability Skills 9. Residential Heat Pumps Certificate 10. Building Automation Controls Certificate 11. Commercial Gas Heating Certificate 12. Residential Gas & Heating Certificate 13. Residential HVACR Certificate 14. Commercial HVACR Certificate 15. Building Inspection Tech Certificate 16. Applied Construction Tech Certificate The Zero Net Energy (ZNE) Core is six courses totaling 17 units. These are the foundational ZNE courses and should be replicated throughout the Region/State to ensure continuity and degree reliability. The courses are as follows: Industrial Calculations (3 unit) This contextualized math course provides CTE specific applications of basic math skills. It is intended for CTE students seeking a certificate. Topics include adding, subtracting, multiplying, and dividing rational numbers, percentages, ratios and proportions, measurement, and career applications. ZNE Building Science (4 unit) Zero Net Energy (ZNE) Building Science includes an overview of many progressive measures that improve the energy performance of buildings. Studies focus on architectural design of building, construction methodology, green HVAC systems, renewable energy systems and the terminology used in the ZNE Industry. A survey of projects, policies and programs driving ZNE performance in residential and non-residential buildings will be studied. Blueprint Reading (3 unit) This course is a study of basic information for reading blueprints and construction drawings. It is designed for those who must assimilate information found in working drawings and specifications. CA Energy Codes (3 unit) This course covers California's Building Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24, Part 6), which establishes a minimum level of building energy efficiency to ensure that building construction, system design, and installation achieves energy efficiency and preserves the quality of both indoor and outdoor environments. It emphasizes the understanding and application of the Building Energy Efficiency Standards and supporting documents, the Reference Appendices, Residential Compliance Manual, and the Nonresidential Compliance Manual. BESP Work Experience (1 unit) This work experience course of supervised employment is designed to assist students to acquire desirable work habits, attitudes and skills so as to enable them to become productive employees. This course also provides students with career awareness for their BESP specialty. Typically an internship within their specialization. Employability Skills (3 unit) Topics covered in this course include basic administrative support skills and applied procedures; practical application of office technologies; applied records management; meeting, travel, and conference planning; management and supervision skills; human relations, job attitudes, and public relations; company politics and ethics; and changing job roles.

Contacts

Institution Lead Contact

Jon Caffery M.Ed

Director, TAACCCT & Prop. 39 Grants
jcaffery@collegeofthedesert.edu
7908621393

Institution Lead Contact

Sandi Thomas

sthomas2@barstow.edu
760.252.2411 X 7283

Institution Lead Contact

Joy Haerens

joy.haerens@chaffey.edu

Institution Lead Contact

Dr. Melody Graveen

Dean of Instruction, Career Technical Education
melody.graveen@mvc.edu
(951) 571-6291

Institution Lead Contact

Ms. Colleen Molko M.A., C.R.C.

Associate Dean, CTE
colleen.molko@norcocollege.edu
951-739-7808

Institution Lead Contact

Kristine DiMemmo

Dean of Career and Technical Education
kristine.dimemmo@rcc.edu
951-222-8265

Institution Lead Contact

Mr. Albert Maniaol

Dean of Applied Technology, Transportation and
Culinary Arts
amaniaol@valleycollege.edu
909-384-8904

Proposal Lead Contact

Jon Caffery M.Ed

Director, TAACCCT & Prop. 39 Grants
jcaffery@collegeofthedesert.edu
7908621393

Labor Market Information

Building And Energy Systems Professionals**OCCUPATIONS:**

17-3023 Electrical and Electronic Engineering Technicians
 49-2095 Electrical and Electronics Repairers, Powerhouse, Substation, and Relay
 49-9051 Electrical Power-Line Installers and Repairers
 49-1011 First-Line Supervisors of Mechanics, Installers, and Repairers
 51-8012 Power Distributors and Dispatchers
 49-2092 Electric Motor, Power Tool, and Related Repairers
 51-2022 Electrical and Electronic Equipment Assemblers
 49-2093 Electrical and Electronics Installers and Repairers, Transportation Equipment
 49-2094 Electrical and Electronics Repairers, Commercial and Industrial Equipment
 17-2072 Electronics Engineers, Except Computer
 49-9021 Heating, Air Conditioning, and Refrigeration Mechanics and Installers
 11-1021 General and Operations Managers
 47-4099 Construction and Related Workers, All Other
 47-2231 Solar Photovoltaic Installers
 47-2031 Carpenters
 13-1051 Cost Estimators
 47-1011 First-Line Supervisors of Construction Trades and Extraction Workers
 47-2111 Electricians
 47-2152 Plumbers, Pipefitters, and Steamfitters
 47-2121 Glaziers
 51-7011 Cabinetmakers and Bench Carpenters
 47-2021 Brickmasons and Blockmasons
 47-2161 Plasterers and Stucco Masons
 47-2022 Stonemasons
 47-2044 Tile and Marble Setters
 47-2141 Painters, Construction and Maintenance
 47-2081 Drywall and Ceiling Tile Installers
 47-2181 Roofers
 41-4012 Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products
 51-4011 Computer-Controlled Machine Tool Operators, Metal and Plastic
 51-4031 Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic
 51-4032 Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic
 51-4022 Forging Machine Setters, Operators, and Tenders, Metal and Plastic
 51-4033 Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic
 51-4191 Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic
 17-3026 Industrial Engineering Technicians
 51-9061 Inspectors, Testers, Sorters, Samplers, and Weighers
 51-4034 Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic
 51-4192 Layout Workers, Metal and Plastic
 51-4041 Machinists
 51-4199 Metal Workers and Plastic Workers, All Other
 51-4035 Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic
 51-4081 Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic
 29-9011 Occupational Health and Safety Specialists
 51-4023 Rolling Machine Setters, Operators, and Tenders, Metal and Plastic
 17-3013 Mechanical Drafters
 17-3011 Architectural and Civil Drafters
 51-4121 Welders, Cutters, Solderers, and Brazers
 51-4122 Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders
 11-9021 Construction Managers
 47-4011 Construction and Building Inspectors
 51-8031 Water and Wastewater Treatment Plant and System Operators

REGION: Inland Empire/Desert**COUNTY:** Riverside, San Bernardino**PROGRAMS:**

Chaffey College - Electrical Systems and Power Transmission (093440)
 San Bernardino Valley College - Electrical Systems and Power Transmission (093440)
 College of the Desert - Architecture and Architectural Technology (020100)
 Norco College - Architecture and Architectural Technology (020100)
 Barstow College - Electronics and Electric Technology (093400)
 Norco College - Electronics and Electric Technology (093400)
 San Bernardino Valley College - Electronics and Electric Technology (093400)
 Barstow College - Industrial Systems Technology and Maintenance (094500)
 College of the Desert - Environmental Control Technology (HVAC) (094600)
 Riverside City College - Environmental Control Technology (HVAC) (094600)
 San Bernardino Valley College - Environmental Control Technology (HVAC) (094600)
 College of the Desert - Energy Systems Technology (094610)
 Norco College - Electrical (095220)
 College of the Desert - Drafting Technology (095300)
 Norco College - Drafting Technology (095300)
 Chaffey College - Architectural Drafting (095310)
 Chaffey College - Mechanical Drafting (095340)
 Norco College - Manufacturing and Industrial Technology (095600)
 San Bernardino Valley College - Manufacturing and Industrial Technology (095600)
 Barstow College - Welding Technology (095650)
 Riverside City College - Welding Technology (095650)
 San Bernardino Valley College - Welding Technology (095650)
 College of the Desert - Civil and Construction Management Technology (095700)
 Norco College - Construction Inspection (095720)
 San Bernardino Valley College - Construction Inspection (095720)
 College of the Desert - Construction Inspection (095720)
 San Bernardino Valley College - Water and Wastewater Technology (095800)
 Norco College - Construction Crafts Technology (095200)
 Moreno Valley College - Business Management (050600)

LMI LIBRARY REPORTS DATA: [Energy_Construction_Utilities_LMI_IED.pdf](#)**LMI LIBRARY REPORTS DATA:**[Top_100_MiddleSkill_Occupations_in_the_Inland_Empire_Desert_Region..pdf](#)**Outcomes**

Investment Plan

The objective of the BESP Consortia Project is for Bigger AND Better Energy Construction and Utility sector programs with investment in activities, content and outcomes which will create pathways and remove structural barriers to; increase enrollment, improve the number and quality of program completers, provide the technical and employability skills for entry level employment, incumbent workers and career transitions, career advancement and earning potential, life-long learning and advanced education opportunities. 1) Convening's, networking events – a. Regional Advisories - The community colleges cannot provide this required training alone. Community colleges will need industry to participate and provide support both in leadership and participation in defining, developing and implementing the necessary curriculum content and outcomes. To complement local college program advisories, the BESP initiative will convene at least 1 regional advisory each year. Outcomes from the regional advisory convening's are documented and action plans are established with timelines and defined outcomes including; review and alignment of curriculum, common outcomes based on agreed completer skills, knowledge and abilities, competencies, and assessment. Industry participation in guest lecturers/speakers, field trips, equipment donations, meeting hosting, work experience/internships. b. Experts Network - The "Expert Network" of willing and engaged cross-sector Faculty Champions will analyze and synthesize the inputs from the Regional Advisories and other stakeholders to transform the regional EC&U project target programs. The Faculty Experts Network will meet at least four times a year and program sub-committees as required. The project will make investments in faculty professional development opportunities. Recognizing existing demands on faculty, this project assists in curriculum alignment and development by funding adjuncts/consultants to work at the direction of faculty. 2) Student Success- BESP will improve student success by removing barriers to multiple career pathway exploration and provide opportunity for work-based learning through internships and apprenticeships. Additionally, BESP is a degree program that will receive increased support from parents and counselors with full financial aid available to qualified students. Students are able to explore the occupations within BESP which will increase the likelihood of completion in a preferred pathway or with multiple stackable certificates. 3) Career Pathways- the Expert Network of faculty and industry stakeholders will initiate and participate in career pathways outreach programs e.g.; High School academies and boot camps, align efforts parallel regional SWP pathways and career development initiatives, explore and encourage related program articulation, prior learning assessments, and dual enrollment opportunities. 4) CTE Faculty- BESP Consortia provides at least two annual professional development opportunities for faculty that utilize industry experts to provide training and cutting-edge updates for program review and revisions. 5) Regional Coordination- Continuously expand and develop industry, college, community, and workforce development partner relationships through annual recognition events to establish reliable support for the BESP program 6) Investments – The EC&U regional project is designed to increase the utility and efficiency of existing college resources to meet the current and emerging demands and expectation(s) of industry and employers. This could include: a. Project Management –workplan monitoring and reporting - Regional Coordination: Dedicated project management will monitor and facilitate faculty engagement with each other and major employers in a regional Expert Network toward cultivating best practices, replication and scaling, and provides for innovation and adoption of curriculum for new and emerging technologies. b. Professional development for faculty - Faculty: Enhance professional development opportunities for CTE faculty to maintain industry and program relevance c. Curriculum development aligning content and outcomes to industry needs - Student Success: A common core of student learning outcomes creates alignment with industry-recognized credentials, making it easier for students to land their first job and to continue career development through credit toward stackable credentials at multiple colleges. d. Analysis/assessment of existing curriculum content and outcomes (course outlines and SLOs) alignment with agreed to industry valued credential competencies. Career Pathways: An integrated set of EC&U / Energy Efficiency career pathways map to industry priorities for high wage, high skill, high income jobs, offering entry points into multiple certificate programs aligned with cross sector occupations. e. Funding for faculty release time or support of adjunct/consultants - Curriculum: funds are made available for consultants to assist faculty in curriculum alignment and development, plus additional funds for adjunct instructors to teach specialized modules or courses and laboratory equipment to accompany changes in curriculum. f. Licensing, subscription and pre-purchase of third party provided program content i.e. NCCER, delivery (on-line/VR...) and assessments for employability and certification. g. Coordination and implementation of work experience and internships - Student Success: Broaden and enhance career exploration and planning, work-based learning opportunities

Occupational Clusters

Chaffey College – Electrical Systems And Power Transmission (093440)

METRIC	BASELINE	BASELINE YEAR
Number of Enrollments	615	2015-16
Number of Students Who Got a Degree or Certificate	26	2015-16

San Bernardino Valley College – Electrical Systems And Power Transmission (093440)

METRIC	BASELINE	BASELINE YEAR
Number of Enrollments	70	2015-16
Number of Students Who Got a Degree or Certificate	10	2015-16

College Of The Desert – Architecture And Architectural Technology (020100)

METRIC	BASELINE	BASELINE YEAR
Number of Enrollments	441	2015-16
Number of Students Who Got a Degree or Certificate	9	2015-16

Norco College – Architecture And Architectural Technology (020100)

METRIC	BASELINE	BASELINE YEAR
Number of Enrollments	40	2015-16
Number of Students Who Got a Degree or Certificate	10	2015-16

Barstow College - Electronics And Electric Technology (093400)

METRIC	BASELINE	BASELINE YEAR
Number of Enrollments	121	2015-16

Norco College - Electronics And Electric Technology (093400)

METRIC	BASELINE	BASELINE YEAR
Number of Enrollments	320	2015-16
Number of Students Who Got a Degree or Certificate	16	2015-16

San Bernardino Valley College - Electronics And Electric Technology (093400)

METRIC	BASELINE	BASELINE YEAR
Number of Enrollments	457	2015-16
Number of Students Who Got a Degree or Certificate	21	2015-16

Barstow College - Industrial Systems Technology And Maintenance (094500)

METRIC	BASELINE	BASELINE YEAR
Number of Enrollments	225	2015-16

College Of The Desert - Environmental Control Technology (HVAC) (094600)

METRIC	BASELINE	BASELINE YEAR
Number of Enrollments	420	2015-16
Number of Students Who Got a Degree or Certificate	20	2015-16

Riverside City College - Environmental Control Technology (HVAC) (094600)

METRIC	BASELINE	BASELINE YEAR
Number of Enrollments	381	2015-16
Number of Students Who Got a Degree or Certificate	29	2015-16

San Bernardino Valley College - Environmental Control Technology (HVAC) (094600)

METRIC	BASELINE	BASELINE YEAR
Number of Enrollments	275	2015-16
Number of Students Who Got a Degree or Certificate	20	2015-16

College Of The Desert - Energy Systems Technology (094610)

METRIC	BASELINE	BASELINE YEAR
Number of Enrollments	47	2015-16

Norco College - Electrical (095220)

METRIC	BASELINE	BASELINE YEAR
Number of Enrollments	762	2015-16

College Of The Desert - Drafting Technology (095300)

METRIC	BASELINE	BASELINE YEAR
Number of Enrollments	119	2015-16
Number of Students Who Got a Degree or Certificate	4	2015-16

Norco College - Drafting Technology (095300)

METRIC	BASELINE	BASELINE YEAR
Number of Enrollments	473	2015-16
Number of Students Who Got a Degree or Certificate	21	2015-16

Chaffey College - Architectural Drafting (095310)

METRIC	BASELINE	BASELINE YEAR
Number of Enrollments	14	2015-16

Chaffey College - Mechanical Drafting (095340)

METRIC	BASELINE	BASELINE YEAR
Number of Enrollments	16	2015-16
Number of Students Who Got a Degree or Certificate	1	2015-16

Norco College - Manufacturing And Industrial Technology (095600)

METRIC	BASELINE	BASELINE YEAR
Number of Enrollments	148	2015-16
Number of Students Who Got a Degree or Certificate	10	2015-16

San Bernardino Valley College - Manufacturing And Industrial Technology (095600)

METRIC	BASELINE	BASELINE YEAR
Number of Enrollments	12	2015-16
Number of Students Who Got a Degree or Certificate	2	2015-16

Barstow College - Welding Technology (095650)

METRIC	BASELINE	BASELINE YEAR
Number of Enrollments	287	2015-16
Number of Students Who Got a Degree or Certificate	7	2015-16

Riverside City College - Welding Technology (095650)

METRIC	BASELINE	BASELINE YEAR
Number of Enrollments	555	2015-16
Number of Students Who Got a Degree or Certificate	12	2015-16

San Bernardino Valley College - Welding Technology (095650)

METRIC	BASELINE	BASELINE YEAR
Number of Enrollments	339	2015-16
Number of Students Who Got a Degree or Certificate	3	2015-16

College Of The Desert - Civil And Construction Management Technology (095700)

METRIC	BASELINE	BASELINE YEAR
Number of Enrollments	47	2015-16
Number of Students Who Got a Degree or Certificate	6	2015-16

Norco College - Construction Inspection (095720)

METRIC	BASELINE	BASELINE YEAR
Number of Enrollments	210	2015-16
Number of Students Who Got a Degree or Certificate	10	2015-16

San Bernardino Valley College - Construction Inspection (095720)

METRIC	BASELINE	BASELINE YEAR
Number of Enrollments	88	2015-16
Number of Students Who Got a Degree or Certificate	2	2015-16

College Of The Desert - Construction Inspection (095720)

METRIC	BASELINE	BASELINE YEAR
Number of Enrollments	64	2015-16
Number of Students Who Got a Degree or Certificate	2	2015-16

San Bernardino Valley College - Water And Wastewater Technology (095800)

METRIC	BASELINE	BASELINE YEAR
Number of Enrollments	654	2015-16
Number of Students Who Got a Degree or Certificate	22	2015-16

Norco College - Construction Crafts Technology (095200)

METRIC	BASELINE	BASELINE YEAR
Number of Enrollments	126	2015-16

Moreno Valley College - Business Management (050600)

METRIC	BASELINE	BASELINE YEAR
Number of Enrollments	50	2015-16
Number of Students Who Got a Degree or Certificate	6	2015-16

Task Force Recommendations

Student Success

1. Broaden and enhance career exploration and planning, work-based learning opportunities, and other supports for students.
2. Improve CTE student progress and outcomes.

Career Pathway

3. Develop and broadly publicize industry-informed career pathways that prepare students for jobs needed within the regional labor market.

Curriculum

9. Improve program review, evaluation, and revision processes to ensure program relevance to students, business, and industry as reflected in labor market data.
10. Facilitate curricular portability across institutions.

CTE Faculty

15. Enhance professional development opportunities for CTE faculty to maintain industry and program relevance.

Regional Coordination

20. Develop robust connections between community colleges, business and industry representatives, labor and other regional workforce development partners to align college programs with regional and industry needs and provide support for CTE programs.

Workplan

Risks

BESP Consortia is a relatively low-risk project that augments and enhances existing programs at the participating colleges through a common approach to curriculum alignment and development. It benefits from lessons learned from the Southern California HVACR Collaborative, in which College of the Desert, San Bernardino Valley, and Riverside City college participate. An industry advisory council already provided initial inputs on labor market demand and priority student outcomes to form the basis for this project. Some risks do exist, however: • The project relies on support for faculty from consultants and adjunct instructors. This minimizes the risk of excessive faculty overload, but also creates uncertainty about coordination with faculty. • Any project involving collaboration among multiple colleges runs the risk of uneven participation and uneven outcomes. • Costs for a full implementation of BESP regionally will likely exceed the budget for this project because of equipment needs and updates which are not part of the regional plan. Therefore, the project lead is exploring complementary funding streams including: Prop 39 funds, Projects in Common matching funds, participating college local SWP funding support, California Energy Commission and other institutional grants and support.

RESPONSIBLE PERSON: Jon Caffery (jcaffery@collegeofthedesert.edu)

LEAD INSTITUTION OR PARTNER: College of the Desert

PARTICIPATING INSTITUTIONS: Moreno Valley College, Norco College, Riverside City College, Barstow College, San Bernardino Valley College, Chaffey College

ACTIVITY TIMEFRAME: Year 1, Year 2, Year 3

MAJOR ACTIVITIES: Work-based learning (WBL) opportunities: apprenticeships, internships and work experience: - Integration of regional work experience/internship/apprenticeship model - Colleges will develop and register new apprenticeship programs in applicable occupations where work-based learning can be provided by regional employers. - Colleges will serve as program sponsors and administrators for applicable programs and/or - Colleges will serve as education providers in newly formed work experience programs.

MAJOR OUTCOMES: Year 1 - Host industry and education partner meetings to develop regional common pathways for work experience programs and establish guidelines/procedures for college and industry. - Work with established apprenticeship committee(s) where possible Year 2 - Have at least one new WBL program approved at each college. Year 3 - Increase the number of indentured apprentices or interns by 25.

RESPONSIBLE PERSON: Jon Caffery (jcaffery@collegeofthedesert.edu)

LEAD INSTITUTION OR PARTNER: College of the Desert

PARTICIPATING INSTITUTIONS: Chaffey College, Moreno Valley College, Norco College, Riverside City College, San Bernardino Valley College, Barstow College

ACTIVITY TIMEFRAME: Year 1, Year 2, Year 3

MAJOR ACTIVITIES: Curriculum Sharing: Background information-College of the Desert (COD) possesses fully developed curricula to support the Building and Energy Systems (BEST) AS Degree program. This situation facilitates the regional development of a BEST program through the mechanism of curriculum sharing. Six institutions within the Inland Empire/Desert Region agree to proceed with new program development by adoption of selected curricula with minimal course revision. This permits accelerated program launch with only limited faculty and administration effort. Broadly speaking, the exchange of curricula must be accomplished through the collaboration of individual faculty experts with appropriate technical knowledge and suitable awareness of institution instructional policy and philosophy. To accommodate the latter, involvement of institution administrative staff will be required to some extent. The structure of the proposed program, featuring a Director and an institution Faculty Champion for each member, supports the formal sharing of course materials. Under supervision of the Director, the Faculty Champion at each institution will identify faculty experts, arrange for workshop sessions with COD counterparts, participate in (and referee) workshop sessions aiming to secure firm agreement on exchange of course content (or equivalence of existing course content at the local institution), and with local faculty assistance accomplish such tasks as are necessary to incorporate new curricula formally into the course offerings of the institution. Customary processes for curriculum maintenance will ensure consistency of course content for the regional BEST program among all the member institutions. This consistency permits a level of regional student mobility that could not otherwise exist. Activities: - Set a schedule for adoption of selected new curricula by member institutions. - Assign local Faculty Champions to identify experts and administrators to participate in workshop sessions to facilitate adoption of curricula. - Provide objectives and guidelines for such sessions. - Perform an annual review on the state of sharing and the extent of equivalence of shared courses.

MAJOR OUTCOMES: Year 1 - Offering of selected BEST Program courses, or their equivalent, by Program member institutions. Repository for access to available course materials. Year 2&3 - Ongoing implementation of a process for maintenance of these common offerings.

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MAJOR ACTIVITIES: Regional Advisory: This project builds on prior regional

LEAD INSTITUTION OR PARTNER: College of the Desert

PARTICIPATING INSTITUTIONS: Barstow College, Chaffey College, Moreno Valley College, Norco College, Riverside City College, San Bernardino Valley College

ACTIVITY TIMEFRAME: Year 1, Year 2, Year 3

investments, including Enhancement Funds and SWP Round 1 investments. Although there is significantly more range in the plans as compared to objectives in the initial SWP Round 1 proposals. The project emphasis for SWP Round 2 continues to be directly responsive to employer needs through Regional Industry Advisory contacts created and information gathered and begin to address workforce impacts of national, state and local government energy and environmental policy and regulatory actions. With the broad participation of regional community colleges faculty champions and a vast inventory of intellectual property and physical resources (curriculum & labs), the project is transformational and can encompass HVACR, Construction Crafts, Architecture & Building Science/ Engineering Technologies, Drafting and documentation Technologies, Construction and Project Management & Inspection, Building Auditing and Analytics, Energy Systems Technologies, Facilities Management, Resource and Environmental Management Technologies including renewables and water. Opening opportunities for student advancement along defined career pathways. -Planning and implementation of a regional advisory to include a networking dinner and awards event highlighting industry partnerships and commitment to supporting and hiring available BESE workforce.

MAJOR OUTCOMES: Year 1 - Establish a Regional Industry Advisory Council on "Energy Workforce Training" that includes Utilities, Contractors, Building Owners, Third Party Engineering Services, Facilities Management, Building and Energy Systems Designers and Engineers, Economic Development and Community College Energy Efficiency Program Leaders. This group will inform and advise on: •The development and amplification of an energy efficiency training program that expands the Energy Efficiency Workforce. •Establish a data based portfolio on demand for workers with entry-level energy efficiency competencies. •Prioritized list of KSAs required by employers. •Develop an employer pipeline for employment ready workforce. •Expand course and program offering to include incumbent, under-served populations, veterans, and displaced workers. Year 2 - Regional employer partners will network and receive recognition for their partnership resulting in strengthened relationships and exposure to additional colleagues/employer partners in order to grow the program. Year 3 - Ongoing

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ACTIVITY TIMEFRAME: Year 1, Year 2, Year 3

MAJOR ACTIVITIES: Faculty Expert Network for program/course (SLO) Alignment: The foundation of the EC&U sustainability project is the "Expert Network" of willing and engaged cross-sector faculty champions that fosters a channel for stackable credentials and credit transportability across regional colleges. The expert network develops as a learning community which thru collaboration and innovation transform the regional programs. Advancing student success by aligning content and outcomes with third party evidence based benchmarks and assessments leading to industry valued credentials. - Convene expert networks with industry to determine Third-party Credential (IRC) for each BESE specialty. - Faculty champions provide their program SLO's for review and alignment with appropriate IRC. - Individual college certificate programs are cross-walked for BESE articulation to provide consistency and program reliability across all colleges.

MAJOR OUTCOMES: Thru the Faculty Experts Network, participating colleges working together to establish a "learning community" to create common student learning outcomes and streamlining pathways for stackable credentials and robust credit transfer possibilities. Explore and expand work experience and internship opportunities Year 1 - Colleges identify their BESE specialties and adopt common IRC alignment. Year 2 - Program and Course SLO's aligned with IRC competencies. Year 3 - Crosswalk for BESE courses and programs with articulation agreements developed.

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ACTIVITY TIMEFRAME: Year 1, Year 2, Year 3

MAJOR ACTIVITIES: Zero Net Energy (ZNE) Core: - Convening of faculty champions for ZNE Core discussion and relevance to BESE program. - Existing ZNE core curriculum adopted or aligned with existing courses by partner colleges. - Instructors identified and courses scheduled. - Outreach to high schools for possible ZNE Core articulation or dual enrollment.

MAJOR OUTCOMES: Year 1 - Faculty champion meeting held and ZNE Core accepted. Courses submitted for approval or existing revised. Instructors identified. Year 2 - ZNE Core courses scheduled. Year 3 - At least one high school articulation or dual enrollment course offered in every college district.

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ACTIVITY TIMEFRAME: Year 1, Year 2, Year 3

MAJOR ACTIVITIES: Accelerated Schedule (8-week courses): COD implemented an accelerated schedule for HVAC students as a pilot for BESE. The new schedule has been in effect for a year and students are experiencing improved outcomes. This is most due to a more flexible schedule of day and evening courses with four entry points per year spring, summer, fall and winter. Additionally, the course were compressed into 8-week complimentary courses which increased student success because they were able to focus on two subjects at a time while accomplishing 12 units of credit in the semester. -Establish workable 8-week schedules in BESE program specialties where possible. -Expand accelerated program across the region in EC&U.

MAJOR OUTCOMES: Year 1 - Provide accelerated schedule template for partner colleges and assist with course revision. Year 2 - Have at least one accelerated BESE specialty at each consortia college. Year 3 - Expand accelerated offering across region.

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ACTIVITY TIMEFRAME: Year 1, Year 2, Year 3

MAJOR ACTIVITIES: Non-Credit Courses for BSP: The development of non-credit courses from existing BSP courses has provided a pathway for disadvantaged and undeserved youth and adults to enter the workforce. By removing perceived financial and educational barriers to workforce training many in the community and region can learn valuable workplace skills and receive specialized entry level training in BSP occupations. Additionally, these programs offer incumbent workers a no risk, flexible learning opportunity to build skills in the rapidly changing advanced energy sector. Existing credit courses have been converted to 18 hr. modules (A,B,C) as stand alone courses and overlays to the credit courses to augment enrollments. At faculty discretion, students that complete all three modules are then eligible to take the credit course final exam for articulated credit if they choose. - Provide material assistance to faculty champions that wish to convert courses for non-credit. - Create non-credit offerings for BSP program specialties.

MAJOR OUTCOMES: Year 1 - Colleges receive material support i.e. curriculum, templates, lesson plans etc. Year 2 - Faculty expert network develops non-credit offerings. Year 3 - At least one BSP non-credit course at each consortia partner college.

RESPONSIBLE PERSON: Jon Caffery (jcaffery@collegeofthedesert.edu)

LEAD INSTITUTION OR PARTNER: College of the Desert

PARTICIPATING INSTITUTIONS: Barstow College, Chaffey College, Moreno Valley College, Norco College, Riverside City College, San Bernardino Valley College

ACTIVITY TIMEFRAME: Year 1, Year 2, Year 3

MAJOR ACTIVITIES: Professional Development: - Train-the-trainer events for BSP faculty i.e. NCCER Master trainer. - Industry skills panels. - Regional networking events for high school teachers, counselors and college faculty.

MAJOR OUTCOMES: Year 1 - Convene regional industry skills panel. Year 2 - Held joint teacher and faculty networking event i.e. articulation training and at least one train-the-trainer workshop. Year 3 - Ongoing.

Budget Breakdown

College of the Desert	SWP Regional Share (40%)	2000 - Non-Instructional Salaries	\$23,167
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AY 17-18 04/18 – 12/18 PT Classified Director to serve as the region's project coordinator.

College of the Desert	SWP Regional Share (40%)	2000 - Non-Instructional Salaries	\$47,500
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AY 17-18 01/19 – 12/19 PT Classified Director to serve as the region's project coordinator.

College of the Desert	SWP Regional Share (40%)	1000 - Instructional Salaries	\$8,000
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AY 17-18 01/18 – 12/18 Faculty release time/stipend to serve as local faculty champion.

College of the Desert	SWP Regional Share (40%)	1000 - Instructional Salaries	\$16,500
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AY 17-18 01/19 – 12/19 Faculty release time/stipend to serve as local faculty champion.

College of the Desert	SWP Regional Share (40%)	3000 - Employee Benefits	\$9,500
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AY 17-18 01/18 – 12/18 Benefits

College of the Desert	SWP Regional Share (40%)	3000 - Employee Benefits	\$24,500
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AY 17-18 AY 17-18 01/19 – 12/19 Benefits

College of the Desert	SWP Regional Share (40%)	4000 - Supplies and Materials	\$2,500
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AY 17-18 01/18 – 12/18 Supplies and Materials for meetings and promotion

College of the Desert	SWP Regional Share (40%)	4000 - Supplies and Materials	\$5,000
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AY 17-18 01/19 – 12/19 Supplies and Materials for meetings and promotion

College of the Desert	SWP Regional Share (40%)	5000 - Other Operating Expenses and Services	\$2,500
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AY 17-18 01/18 – 12/18 Regional Travel for program coordination.

College of the Desert	SWP Regional Share (40%)	5000 - Other Operating Expenses and Services	\$5,000
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AY 17-18 01/19 – 12/19 Regional Travel for program coordination.

College of the Desert	SWP Regional Share (40%)	5000 - Other Operating Expenses and Services	\$10,000
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AY 17-18 01/18 – 12/18 Contracts for annual industry advisory/recognition events and professional development.

College of the Desert	SWP Regional Share (40%)	5000 - Other Operating Expenses and Services	\$35,000
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AY 17-18 01/19 – 12/19 Contracts for annual industry advisory/recognition events and professional development.

Barstow College	SWP Regional Share (40%)	1000 - Instructional Salaries	\$22,500
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AY 17-18 01/18 – 12/18 PT/FT faculty to serve as local faculty champion/coordinator

Barstow College	SWP Regional Share (40%)	1000 - Instructional Salaries	\$50,000
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AY 17-18 01/19 – 12/19 PT/FT faculty to serve as local faculty champion/coordinator

Barstow College	SWP Regional Share (40%)	3000 - Employee Benefits	\$11,250
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AY 17-18 01/18 – 12/18 Benefits

Barstow College	SWP Regional Share (40%)	3000 - Employee Benefits	\$25,000
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AY 17-18 01/19 – 12/19 Benefits

Barstow College	SWP Regional Share (40%)	4000 - Supplies and Materials	\$500
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AY 17-18 01/18 – 12/18 Supplies and Materials for meetings and promotion

Barstow College	SWP Regional Share (40%)	4000 - Supplies and Materials	\$1,500
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AY 17-18 01/19 – 12/19 Supplies and Materials for meetings and promotion

Barstow College	SWP Regional Share (40%)	5000 - Other Operating Expenses and Services	\$750
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AY 17-18 01/18 – 12/18 Regional Travel for program coordination.

Barstow College	SWP Regional Share (40%)	5000 - Other Operating Expenses and Services	\$2,000
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AY 17-18 01/19 – 12/19 Regional Travel for program coordination.

Chaffey College	SWP Regional Share (40%)	1000 - Instructional Salaries	\$22,500
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AY 17-18 01/18 – 12/18 PT/FT faculty to serve as local faculty champion/coordinator

Chaffey College	SWP Regional Share (40%)	1000 - Instructional Salaries	\$50,000
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AY 17-18 01/19 – 12/19 PT/FT faculty to serve as local faculty champion/coordinator

Chaffey College	SWP Regional Share (40%)	3000 - Employee Benefits	\$11,250
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AY 17-18 01/18 – 12/18 Benefits

Chaffey College	SWP Regional Share (40%)	3000 - Employee Benefits	\$25,000
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AY 17-18 01/19 – 12/19 Benefits

Chaffey College	SWP Regional Share (40%)	4000 - Supplies and Materials	\$500
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AY 17-18 01/18 – 12/18 Supplies and Materials for meetings and promotion

Chaffey College	SWP Regional Share (40%)	4000 - Supplies and Materials	\$1,500
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AY 17-18 01/19 – 12/19 Supplies and Materials for meetings and promotion

Chaffey College	SWP Regional Share (40%)	5000 - Other Operating Expenses and Services	\$750
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AY 17-18 01/18 – 12/18 Regional Travel for program coordination.

Chaffey College	SWP Regional Share (40%)	5000 - Other Operating Expenses and Services	\$2,000
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AY 17-18 01/19 – 12/19 Regional Travel for program coordination.

Moreno Valley College	SWP Regional Share (40%)	1000 - Instructional Salaries	\$8,000
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AY 17-18 01/18 – 12/18 PT/FT faculty to serve as local faculty champion/coordinator

Moreno Valley College	SWP Regional Share (40%)	1000 - Instructional Salaries	\$16,500
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AY 17-18 01/19 – 12/19 PT/FT faculty to serve as local faculty champion/coordinator

Moreno Valley College	SWP Regional Share (40%)	3000 - Employee Benefits	\$3,500
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AY 17-18 01/18 – 12/18 Benefits

Moreno Valley College	SWP Regional Share (40%)	3000 - Employee Benefits	\$7,500
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AY 17-18 01/19 – 12/19 Benefits

Moreno Valley College	SWP Regional Share (40%)	4000 - Supplies and Materials	\$500
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AY 17-18 01/18 – 12/18 Supplies and Materials for meetings and promotion

Moreno Valley College	SWP Regional Share (40%)	4000 - Supplies and Materials	\$1,500
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AY 17-18 01/19 – 12/19 Supplies and Materials for meetings and promotion

Moreno Valley College	SWP Regional Share (40%)	5000 - Other Operating Expenses and Services	\$750
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AY 17-18 01/18 – 12/18 Regional Travel for program coordination.

Moreno Valley College	SWP Regional Share (40%)	5000 - Other Operating Expenses and Services	\$2,000
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AY 17-18 01/19 – 12/19 Regional Travel for program coordination.

Norco College	SWP Regional Share (40%)	1000 - Instructional Salaries	\$22,500
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AY 17-18 01/18 – 12/18 PT/FT faculty to serve as local faculty champion/coordinator

Norco College	SWP Regional Share (40%)	1000 - Instructional Salaries	\$50,000
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AY 17-18 01/19 – 12/19 PT/FT faculty to serve as local faculty champion/coordinator

Norco College	SWP Regional Share (40%)	3000 - Employee Benefits	\$11,250
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AY 17-18 01/18 – 12/18 Benefits

Norco College	SWP Regional Share (40%)	3000 - Employee Benefits	\$25,000
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AY 17-18 01/19 – 12/19 Benefits

Norco College	SWP Regional Share (40%)	4000 - Supplies and Materials	\$500
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AY 17-18 01/18 – 12/18 Supplies and Materials for meetings and promotion

Norco College	SWP Regional Share (40%)	4000 - Supplies and Materials	\$1,500
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AY 17-18 01/19 – 12/19 Supplies and Materials for meetings and promotion

Norco College	SWP Regional Share (40%)	5000 - Other Operating Expenses and Services	\$750
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AY 17-18 01/18 – 12/18 Regional Travel for program coordination.

Norco College	SWP Regional Share (40%)	5000 - Other Operating Expenses and Services	\$2,000
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AY 17-18 01/19 – 12/19 Regional Travel for program coordination.

Riverside City College	SWP Regional Share (40%)	1000 - Instructional Salaries	\$22,500
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AY 17-18 01/18 – 12/18 PT/FT faculty to serve as local faculty champion/coordinator

Riverside City College	SWP Regional Share (40%)	1000 - Instructional Salaries	\$50,000
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AY 17-18 01/19 – 12/19 PT/FT faculty to serve as local faculty champion/coordinator

Riverside City College	SWP Regional Share (40%)	3000 - Employee Benefits	\$11,250
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AY 17-18 01/18 – 12/18 Benefits

Riverside City College	SWP Regional Share (40%)	3000 - Employee Benefits	\$25,000
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AY 17-18 01/19 – 12/19 Benefits

Riverside City College	SWP Regional Share (40%)	4000 - Supplies and Materials	\$500
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AY 17-18 01/18 – 12/18 Supplies and Materials for meetings and promotion

Riverside City College	SWP Regional Share (40%)	4000 - Supplies and Materials	\$1,500
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AY 17-18 01/19 – 12/19 Supplies and Materials for meetings and promotion

Riverside City College	SWP Regional Share (40%)	5000 - Other Operating Expenses and Services	\$750
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AY 17-18 01/18 – 12/18 Regional Travel for program coordination.

Riverside City College	SWP Regional Share (40%)	5000 - Other Operating Expenses and Services	\$2,000
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AY 17-18 01/19 – 12/19 Regional Travel for program coordination.

San Bernardino Valley College	SWP Regional Share (40%)	1000 - Instructional Salaries	\$22,500
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AY 17-18 01/18 – 12/18 PT/FT faculty to serve as local faculty champion/coordinator

San Bernardino Valley College	SWP Regional Share (40%)	1000 - Instructional Salaries	\$50,000
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AY 17-18 01/19 – 12/19 PT/FT faculty to serve as local faculty champion/coordinator

San Bernardino Valley College	SWP Regional Share (40%)	3000 - Employee Benefits	\$11,250
AY 17-18 01/18 – 12/18 Benefits			
San Bernardino Valley College	SWP Regional Share (40%)	3000 - Employee Benefits	\$25,000
AY 17-18 01/19 – 12/19 Benefits			
San Bernardino Valley College	SWP Regional Share (40%)	4000 - Supplies and Materials	\$500
AY 17-18 01/18 – 12/18 Supplies and Materials for meetings and promotion			
San Bernardino Valley College	SWP Regional Share (40%)	4000 - Supplies and Materials	\$1,500
AY 17-18 01/19 – 12/19 Supplies and Materials for meetings and promotion			
San Bernardino Valley College	SWP Regional Share (40%)	5000 - Other Operating Expenses and Services	\$750
AY 17-18 01/18 – 12/18 Regional Travel for program coordination.			
San Bernardino Valley College	SWP Regional Share (40%)	5000 - Other Operating Expenses and Services	\$2,000
AY 17-18 01/19 – 12/19 Regional Travel for program coordination.			
Barstow College	SWP Regional Share (40%)	1000 - Instructional Salaries	\$55,000
AY 18-19 01/20 – 12/20 PT/FT faculty to serve as local faculty champion/coordinator			
Barstow College	SWP Regional Share (40%)	3000 - Employee Benefits	\$27,500
AY 18-19 01/20 – 12/20 Benefits			
Barstow College	SWP Regional Share (40%)	4000 - Supplies and Materials	\$1,500
AY 18-19 01/20 – 12/20 Supplies and Materials for meetings and promotion			
Barstow College	SWP Regional Share (40%)	5000 - Other Operating Expenses and Services	\$2,000
AY 18-19 01/20 – 12/20 Regional Travel for program coordination.			
Chaffey College	SWP Regional Share (40%)	1000 - Instructional Salaries	\$55,000
AY 18-19 01/20 – 12/20 PT/FT faculty to serve as local faculty champion/coordinator			
Chaffey College	SWP Regional Share (40%)	3000 - Employee Benefits	\$27,500
AY 18-19 01/20 – 12/20 Benefits			
Chaffey College	SWP Regional Share (40%)	4000 - Supplies and Materials	\$1,500
AY 18-19 01/20 – 12/20 Supplies and Materials for meetings and promotion			
Chaffey College	SWP Regional Share (40%)	5000 - Other Operating Expenses and Services	\$2,000
AY 18-19 01/20 – 12/20 Regional Travel for program coordination.			
College of the Desert	SWP Regional Share (40%)	1000 - Instructional Salaries	\$17,000
AY 18-19 01/20 – 12/20 Faculty release time/stipend to serve as local faculty champion.			

College of the Desert	SWP Regional Share (40%)	2000 - Non-Instructional Salaries	\$48,750
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AY 18-19 01/20 – 12/20 PT Classified Director to serve as the region's project coordinator.

College of the Desert	SWP Regional Share (40%)	3000 - Employee Benefits	\$26,250
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AY 18-19 01/20 – 12/20 Benefits

College of the Desert	SWP Regional Share (40%)	4000 - Supplies and Materials	\$5,000
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AY 18-19 01/20 – 12/20 Supplies and Materials for meetings and promotion

College of the Desert	SWP Regional Share (40%)	5000 - Other Operating Expenses and Services	\$4,999
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AY 18-19 01/20 – 12/20 Regional Travel for program coordination.

College of the Desert	SWP Regional Share (40%)	5000 - Other Operating Expenses and Services	\$35,000
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AY 18-19 01/20 – 12/20 Contracts for annual industry advisory/recognition events and professional development.

Moreno Valley College	SWP Regional Share (40%)	1000 - Instructional Salaries	\$17,000
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AY 18-19 01/20 – 12/20 PT/FT faculty to serve as local faculty champion/coordinator

Moreno Valley College	SWP Regional Share (40%)	3000 - Employee Benefits	\$8,000
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AY 18-19 01/20 – 12/20 Benefits

Moreno Valley College	SWP Regional Share (40%)	4000 - Supplies and Materials	\$1,500
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AY 18-19 01/20 – 12/20 Supplies and Materials for meetings and promotion

Moreno Valley College	SWP Regional Share (40%)	5000 - Other Operating Expenses and Services	\$2,000
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AY 18-19 01/20 – 12/20 Regional Travel for program coordination.

Norco College	SWP Regional Share (40%)	1000 - Instructional Salaries	\$55,000
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AY 18-19 01/20 – 12/20 PT/FT faculty to serve as local faculty champion/coordinator

Norco College	SWP Regional Share (40%)	3000 - Employee Benefits	\$27,500
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AY 18-19 01/20 – 12/20 Benefits

Norco College	SWP Regional Share (40%)	4000 - Supplies and Materials	\$1,500
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AY 18-19 01/20 – 12/20 Supplies and Materials for meetings and promotion

Norco College	SWP Regional Share (40%)	5000 - Other Operating Expenses and Services	\$2,000
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AY 18-19 01/20 – 12/20 Regional Travel for program coordination.

Riverside City College	SWP Regional Share (40%)	1000 - Instructional Salaries	\$55,000
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AY 18-19 01/20 – 12/20 PT/FT faculty to serve as local faculty champion/coordinator

Riverside City College	SWP Regional Share (40%)	3000 - Employee Benefits	\$27,500
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AY 18-19 01/20 – 12/20 Benefits

Riverside City College	SWP Regional Share (40%)	4000 - Supplies and Materials	\$1,500
AY 18-19 01/20 - 12/20 Supplies and Materials for meetings and promotion			
Riverside City College	SWP Regional Share (40%)	5000 - Other Operating Expenses and Services	\$2,000
AY 18-19 01/20 - 12/20 Regional Travel for program coordination.			
San Bernardino Valley College	SWP Regional Share (40%)	1000 - Instructional Salaries	\$55,000
AY 18-19 01/20 - 12/20 PT/FT faculty to serve as local faculty champion/coordinator			
San Bernardino Valley College	SWP Regional Share (40%)	3000 - Employee Benefits	\$27,500
AY 18-19 01/20 - 12/20 Benefits			
San Bernardino Valley College	SWP Regional Share (40%)	4000 - Supplies and Materials	\$1,500
AY 18-19 01/20 - 12/20 Supplies and Materials for meetings and promotion			
San Bernardino Valley College	SWP Regional Share (40%)	5000 - Other Operating Expenses and Services	\$2,000
AY 18-19 01/20 - 12/20 Regional Travel for program coordination.			

Budget Totals

INSTITUTION	CODE	TOTAL
Barstow College	1000 - Instructional Salaries	\$22,500
Barstow College	1000 - Instructional Salaries	\$50,000
Barstow College	3000 - Employee Benefits	\$11,250
Barstow College	3000 - Employee Benefits	\$25,000
Barstow College	4000 - Supplies and Materials	\$500
Barstow College	4000 - Supplies and Materials	\$1,500
Barstow College	5000 - Other Operating Expenses and Services	\$750
Barstow College	5000 - Other Operating Expenses and Services	\$2,000
Barstow College	1000 - Instructional Salaries	\$55,000
Barstow College	3000 - Employee Benefits	\$27,500
Barstow College	4000 - Supplies and Materials	\$1,500
Barstow College	5000 - Other Operating Expenses and Services	\$2,000
Barstow College Total:		\$199,500
Chaffey College	1000 - Instructional Salaries	\$22,500
Chaffey College	1000 - Instructional Salaries	\$50,000
Chaffey College	3000 - Employee Benefits	\$11,250
Chaffey College	3000 - Employee Benefits	\$25,000
Chaffey College	4000 - Supplies and Materials	\$500
Chaffey College	4000 - Supplies and Materials	\$1,500
Chaffey College	5000 - Other Operating Expenses and Services	\$750
Chaffey College	5000 - Other Operating Expenses and Services	\$2,000
Chaffey College	1000 - Instructional Salaries	\$55,000
Chaffey College	3000 - Employee Benefits	\$27,500
Chaffey College	4000 - Supplies and Materials	\$1,500
Chaffey College	5000 - Other Operating Expenses and Services	\$2,000
Chaffey College Total:		\$199,500
College of the Desert	2000 - Non-Instructional Salaries	\$23,167
College of the Desert	2000 - Non-Instructional Salaries	\$47,500
TOTAL PROJECT COST:		\$1,392,416

INSTITUTION	CODE	TOTAL
College of the Desert	1000 - Instructional Salaries	\$8,000
College of the Desert	1000 - Instructional Salaries	\$16,500
College of the Desert	3000 - Employee Benefits	\$9,500
College of the Desert	3000 - Employee Benefits	\$24,500
College of the Desert	4000 - Supplies and Materials	\$2,500
College of the Desert	4000 - Supplies and Materials	\$5,000
College of the Desert	5000 - Other Operating Expenses and Services	\$2,500
College of the Desert	5000 - Other Operating Expenses and Services	\$5,000
College of the Desert	5000 - Other Operating Expenses and Services	\$10,000
College of the Desert	5000 - Other Operating Expenses and Services	\$35,000
College of the Desert	1000 - Instructional Salaries	\$17,000
College of the Desert	2000 - Non-Instructional Salaries	\$48,750
College of the Desert	3000 - Employee Benefits	\$26,250
College of the Desert	4000 - Supplies and Materials	\$5,000
College of the Desert	5000 - Other Operating Expenses and Services	\$4,999
College of the Desert	5000 - Other Operating Expenses and Services	\$35,000
	College of the Desert Total:	\$326,166
Moreno Valley College	1000 - Instructional Salaries	\$8,000
Moreno Valley College	1000 - Instructional Salaries	\$16,500
Moreno Valley College	3000 - Employee Benefits	\$3,500
Moreno Valley College	3000 - Employee Benefits	\$7,500
Moreno Valley College	4000 - Supplies and Materials	\$500
Moreno Valley College	4000 - Supplies and Materials	\$1,500
Moreno Valley College	5000 - Other Operating Expenses and Services	\$750
Moreno Valley College	5000 - Other Operating Expenses and Services	\$2,000
Moreno Valley College	1000 - Instructional Salaries	\$17,000
Moreno Valley College	3000 - Employee Benefits	\$8,000
Moreno Valley College	4000 - Supplies and Materials	\$1,500
Moreno Valley College	5000 - Other Operating Expenses and Services	\$2,000
	Moreno Valley College Total:	\$68,750
Norco College	1000 - Instructional Salaries	\$22,500
Norco College	1000 - Instructional Salaries	\$50,000
Norco College	3000 - Employee Benefits	\$11,250
Norco College	3000 - Employee Benefits	\$25,000
Norco College	4000 - Supplies and Materials	\$500
Norco College	4000 - Supplies and Materials	\$1,500
Norco College	5000 - Other Operating Expenses and Services	\$750
Norco College	5000 - Other Operating Expenses and Services	\$2,000
Norco College	1000 - Instructional Salaries	\$55,000
Norco College	3000 - Employee Benefits	\$27,500
Norco College	4000 - Supplies and Materials	\$1,500
Norco College	5000 - Other Operating Expenses and Services	\$2,000
	Norco College Total:	\$199,500
Riverside City College	1000 - Instructional Salaries	\$22,500
Riverside City College	1000 - Instructional Salaries	\$50,000
Riverside City College	3000 - Employee Benefits	\$11,250
Riverside City College	3000 - Employee Benefits	\$25,000
Riverside City College	4000 - Supplies and Materials	\$500
Riverside City College	4000 - Supplies and Materials	\$1,500
Riverside City College	5000 - Other Operating Expenses and Services	\$750
Riverside City College	5000 - Other Operating Expenses and Services	\$2,000
Riverside City College	1000 - Instructional Salaries	\$55,000
Riverside City College	3000 - Employee Benefits	\$27,500
Riverside City College	4000 - Supplies and Materials	\$1,500
Riverside City College	5000 - Other Operating Expenses and Services	\$2,000
	TOTAL PROJECT COST:	\$1,392,416

INSTITUTION	CODE	TOTAL
		Riverside City College Total: \$199,500
San Bernardino Valley College	1000 - Instructional Salaries	\$22,500
San Bernardino Valley College	1000 - Instructional Salaries	\$50,000
San Bernardino Valley College	3000 - Employee Benefits	\$11,250
San Bernardino Valley College	3000 - Employee Benefits	\$25,000
San Bernardino Valley College	4000 - Supplies and Materials	\$500
San Bernardino Valley College	4000 - Supplies and Materials	\$1,500
San Bernardino Valley College	5000 - Other Operating Expenses and Services	\$750
San Bernardino Valley College	5000 - Other Operating Expenses and Services	\$2,000
San Bernardino Valley College	1000 - Instructional Salaries	\$55,000
San Bernardino Valley College	3000 - Employee Benefits	\$27,500
San Bernardino Valley College	4000 - Supplies and Materials	\$1,500
San Bernardino Valley College	5000 - Other Operating Expenses and Services	\$2,000
		San Bernardino Valley College Total: \$199,500
		TOTAL PROJECT COST: \$1,392,416



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