

## Workforce, Education, and Training – Centergies Subprogram

	Mission	IOU Recommendations and Comments
SW Program: <b>WE&amp;T</b>	The Statewide IOU Workforce Education and Training (WE&T) Program represents a portfolio of education, training, and workforce development planning and implementation funded by or coordinated with the Investor-Owned Utilities. Education and training are vital components of each of the IOU's energy efficiency portfolio filings for 2009-2011 and are integral in supporting the achievement of IOU energy savings targets and the workforce objectives set forth in the California Long-Term Energy Efficiency Strategic Plan (Strategic Plan). Workforce Education and Training has become an important crosscutting activity for the IOUs in an effort to not only educate and train current workers, but to prepare future workers to be better able to successfully perform the jobs needed to help achieve increased energy savings targets for the IOUs and California's clean energy goals.	OK.
SW Sub-program: <b>Centergies</b>	The WE&T Centergies Sub-Program is generally organized around market sectors and cross-cutting segments to facilitate workforce education and training appropriate for achieving the energy savings, demand reductions and related energy initiatives required of the IOUs. The Energy Centers represent the largest component of this Sub-Program and provide WE&T curriculum and related deliverables—training courses, seminars, workshops, clean energy technology demonstration, equipment efficiency testing, interactive training exhibits and lectures—to promote industry trends and developments for advancing energy efficiency as a professional discipline.	OK.

CA EESP Goals/Strategies Addressed by SW <u>Sub-program</u> :	CA EESP Ref. pp. #
<b>Goal 1:</b> Establish energy Efficiency education and training at all levels of California's educational systems.	p. 74
<b>Goal 2:</b> Ensure that all minority, low-income, and disadvantaged communities fully participate in training and education programs at all levels of the demand side energy management industry.	p. 74
<b>Strategy 1-2:</b> Support the community college and adult education efforts to support students to develop their education based on visible career paths in energy efficiency and related fields.	p. 77
<b>Strategy 1-3:</b> Incorporate EE and demand side energy management skills into traditional contractor and technician training.	p. 77

<b>Strategy 1-4:</b> Create or expand college and university programs with EE focus and foster green campus efforts to apply this knowledge in clear view of students and faculty	p. 77
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<b>Short-term (2010-2012) “SMART” <u>Sub-program</u> Objectives:</b>	<b>Source (SP, AL, DR, PIP, or Staff)*</b>	<b>IOU Recommendations and Comments</b>
1. By 2012, the number of Centergies program educational partnerships within all adult education levels (CCC, CSU, UC, Trade & Labor, Adult Education) increases by X% (identify proportion of partnerships that address low-income participants / communities).	CEESP (see above) / Statewide WE&T PIP p. 22 - 23	Revise to: Using 2011 as the baseline year, by 2012, the IOUs will increase the level of educational collaboration with partners by 10%.  Comment: Definition of educational collaboration includes seminars, outreach events and consultations are needed. These collaborations may include exchanges of monetary or in-kind support and services (i.e., sharing meeting facilities, marketing/promotional services, etc.).  (SC1-minority and disadvantaged communities are addressed in #2)
2. By 2012, the number of identified low-income (pre-determined criteria) Centergies program participants increases by X%.	CEESP (see above) / Statewide WE&T PIP p. 22	Revise to: Using 2011 as the baseline year, by 2012, the IOUs will increase collaboration with organizations that offer educational services to disadvantaged communities by 10%.  Comment: Definition of collaboration is the same as above. We also need to define “organizations serving educational services to disadvantaged communities.”
3. By 2012, the number of high school level continuing education outreach partnerships the IOU Centergies program supports increase by X%.	CEESP (see above) / IOU – Stakeholder	IOUs recommend moving Objective-3 to WET Connections. This was discussed and agreed to on 9/21/2010 ED workshop.

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	workshops	
<p>4. By 2012, a significant number of Centergies training courses includes the subject of Integrated Demand Side Energy Management skillsets (EE, DR, DG) in a way that promotes understanding of all these resources and how they interact as well as the career and educational paths associated with them (Yes / No Metric)</p> <p>-The number of Centergies training courses offered that include substantial coverage (ie approximately 50% or more) IDSM subject matter (EE, DR, DG).</p> <p>-ED wants to include technical. IOUs are concerned about funding; caveats to technical are "subject to funding." IOUs should be working towards collaboration.</p> <p>-SCE doesn't think "substantial" is appropriate for WE&amp;T Connections. ED thinks removing "substantial" represents opportunities lost. "Significant" is defined as 25% in Connections.</p>	<p>CEESP (see above) / Statewide WE&amp;T PIP p. 39</p>	<p>Revise to: By 2012, the IOUs will offer IDSM educational services with substantial IDSM content. (Y/N metric)</p> <p>Comment: Definition of "substantial" is that approximately 50% or more of class content must address IDSM subject matter,</p>

<b>Short-term <u>Sub-program</u> PPMs:</b>	<b>Source (SP, AL, DR, PIP, or Staff)*</b>	<b>Metric Type (2a or 2b)**</b>	<b>Baseline Study Required (Y/N)</b>	<b>IOU Recommendations and Comments</b>
<p>1. Number of Centergies program educational partnerships collaboration (in kind or monetary support) within all adult education levels (CCC, CSU, UC, Trade &amp; Labor, Adult Education)</p> <p>-Partnership/collaborative approach: schools usually provide a place, support, and/or marketing and IOUs provide money and/or resources</p> <p>-Tracking should identify who the IOUs are collaborating with</p>	<p>CEESP (see above) / Statewide WE&amp;T PIP p. 22 - 23</p>	<p>2B</p>	<p>N</p>	<p>Revise to: % increase in educational collaboration with partners from 2011 baseline</p> <p>(2b metric)</p>
<p>2. Number of outreach events, technical consultations, and seminars targeted to disadvantaged communities or done in partnership with disadvantaged organizations identified low-income (pre-determined criteria) Centergies program participants</p> <p>-Pre-determined criteria: Low-income should be defined</p>	<p>CEESP (see above) / Statewide WET PIP p. 22</p>	<p>2A</p>	<p>N</p>	<p>Revise to: % increase in educational collaboration with organizations serving disadvantaged communities</p> <p>(2b metric)</p>

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<p>3. Number of high school level continuing education outreach partnerships the IOU Centergies program supports -Not called out in PIPs; may be more appropriate to be placed in WE&amp;T Connections</p>	<p>CEESP (see above) / IOU – Stakeholder workshops</p>	<p>2A</p>	<p>N</p>	<p>Delete. There is no objective 3.</p>
<p>4. Number of Centergies training courses that include the subject of Integrated Demand Side Energy Management skillsets (EE, DR, DG) in a way that promotes understanding of all these resources and how they interact as well as the career and educational paths associated with them (Y/N) -Need definition of significant (listed in objective, not metric) -Definition of integrated/integration: Integration can be used in more than one way -Need to consider how this fits in with the IDSM piece</p>	<p>CEESP (see above) / Statewide WET PIP p. 39</p>	<p>2A</p>	<p>N</p>	<p>Revise to: # of IDSM educational classes with substantial IDSM content.  (2b metric)</p>

\*SP=Strategic Plan, AL=Advice Letter, DR=Data Request Response, PIP=program plans, Staff=ED proposed. [Include page reference when applicable.]

\*\*Metric type: 2a = reported annually, 2b = reported by end of cycle.

<p><b>Long-Term (2013-2020) “SMART” <u>Sub-program Objectives:</u></b></p>	<p><b>Source (SP, AL, DR, PIP, or Staff)*</b></p>	<p><b>IOU Recommendations and Comments</b></p>
<p>1. By 2015, X% of Centergies past program participants state an interest in pursuing green careers as a result of program participation (identify figures for low-income participants).</p>	<p>CEESP (see above) / Statewide WE&amp;T PIP p. 30</p>	<p>Revise to: By 2015, increase or maintain (use 2010as baseline), X% Centergy participants stating an interest in pursuing green careers as a result of program participation (directional)</p> <p>Comment: This objective, as stated by ED, may also present measurement problems since past participants may be difficult and costly to track and monitor. IOUs would like to revisit these LT-Objectives with ED once the WET needs assessment results are published.</p>
<p>2. By 2015, utilized job knowledge and skill sets that past participants received by participating in the</p>	<p>CEESP (see</p>	<p>Revise to: By 2015, increase and/or maintain (use 2010 as baseline), X%</p>

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Centergies program represents X%. (identify figures for low-income participants)	above) / Statewide WE&T PIP p. 30	program participants reporting utilization of knowledge and skills received from the program (directional)  Comment: The WET Centergies Program does not require program participants to report their income level. We do not believe this is appropriate to implement due to its intrusive nature.  In addition, tracking past participants could be costly and difficult.
3. By 2015, the number of Centergies participants that credit participation in the program as a significant reason they are currently working in a clean energy job represents X%. (identify figures for low-income participants).	CEESP (see above) / Statewide WE&T PIP p. 30	Delete.  IOU Rationale: It can be rolled up into objective-2. Furthermore, the definition of "clean energy job" would need to be defined.
4. By 2015, most of the IOU WE&T portfolio of training programs address the gaps identified in the statewide WE&T Needs Assessment (includes low-income) and are significantly partnering with all levels of outside educational organizations to address these gaps (Yes / No Metric)	CEESP (see above) Statewide PIP p. 5, 14, 69-74, 87	Revise to: By 2015, the IOU WE&T portfolio of training programs address gaps identified in the statewide WE&T Needs Assessment (includes low-income) and are partnering with applicable outside educational organizations (Yes/No)

\*SP=Strategic Plan, AL=Advice Letter, DR=Data Request Response, PIP=program plans, Staff=ED proposed. [Include page reference when applicable.]

<b>Long-Term Sub-program MT Indicators:</b>	<b>Source (SP, AL, DR, PIP, or Staff)*</b>	<b>Metric Type (3)**</b>	<b>Baseline Study Required (Y/N)</b>	<b>IOU Recommendations and Comments</b>
1. Percent of Centergies past program participants that state an interest in pursuing green careers as a result of program participation (identify figures for low-income participants)	CEESP (see above) / Statewide WE&T PIP p. 30	3	N	Revise to: % program participants stating an interest in pursuing green careers as a result of program participation, relative to baseline
2. Percent of past Centergies participants that attribute the program for the job knowledge and skill sets they currently use in their job. (identify figures for low-income participants)	CEESP (see above) / Statewide WE&T PIP p. 30	3	N	Revise to: % program participants reporting utilization of knowledge and skills received from the program, relative to baseline

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<p>3. Percent of past Centergies participants that attribute the program as a significant reason they are currently working in a clean energy job. (identify figures for low-income participants)</p>	<p>CEESP (see above) / Statewide WE&amp;T PIP p. 30</p>	<p>3</p>	<p>N</p>	<p>Delete.</p>
<p>4. IOU WE&amp;T portfolio of training programs address the gaps identified in the statewide WE&amp;T Needs Assessment (includes low-income) and are significantly partnering with all levels of outside educational organizations to address these gaps (Y/N)</p>	<p>CEESP (see above) / Statewide PIP p. 5, 14, 69-74, 87</p>	<p>3</p>	<p>N</p>	<p>Duplicative of long term objective #4.</p>

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\*\*Metric type: 3 = data collection, tracking, and reporting [by IOUs, CPUC staff, and/or other entities] to be determined later.

## Workforce, Education, and Training – Connections Subprogram

	<b>Mission</b>	<b>IOU Recommendations and Comments</b>
<p>SW Program: <b>WE&amp;T</b></p>	<p>The Statewide IOU Workforce Education and Training (WE&amp;T) Program represents a portfolio of education, training, and workforce development planning and implementation funded by or coordinated with the Investor-Owned Utilities. Education and training are vital components of each of the IOU's energy efficiency portfolio filings for 2009-2011 and are integral in supporting the achievement of IOU energy savings targets and the workforce objectives set forth in the California Long-Term Energy Efficiency Strategic Plan (Strategic Plan). Workforce Education and Training has become an important crosscutting activity for the IOUs in an effort to not only educate and train current workers, but to prepare future workers to be better able to successfully perform the jobs needed to help achieve increased energy savings targets for the IOUs and California's clean energy goals.</p>	<p>OK.</p>
<p>SW Sub-program: <b>Connections</b></p>	<p>The WE&amp;T Connections Sub-Program is organized around downstream and upstream relationships between the IOUs and the educational sector, entry and intro-level community-based training efforts that support workforce development in energy efficiency, energy management, and new emerging green careers. This Sub-Program emphasizes education curriculum and related activities that inspire interest in energy careers, new and emerging technology, and future skills development to advance the energy initiatives and goals of the state. This Sub-Program involves expanded relationship-building to foster curriculum development and related training that result from existing and expanding industry needs. IOUs will work with education institutions, labor and communities to nurture interest in green careers by K-12, community college, occupational, vocational, and major university students, as well as assist in the growth of low-income and transitional workforce targeted clean energy training programs.</p>	<p>OK.</p>

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<b>CA EESP Goals/Strategies Addressed by SW Sub-program:</b>	<b>CA EESP Ref. pp. #</b>
<b>Goal 1:</b> Establish energy Efficiency education and training at all levels of California’s educational systems.	p. 74
<b>Goal 2:</b> Ensure that all minority, low-income, and disadvantaged communities fully participate in training and education programs at all levels of the demand side energy management industry.	p. 74
<b>Strategy 1-2:</b> Support the community college and adult education efforts to support students to develop their education based on visible career paths in energy efficiency and related fields.	p. 77
<b>Strategy 1-3:</b> Incorporate EE and demand side energy management skills into traditional contractor and technician training.	p. 77
<b>Strategy 1-4:</b> Create or expand college and university programs with EE focus and foster green campus efforts to apply this knowledge in clear view of students and faculty	p. 77
<b>Strategy 1-5:</b> Develop K- 12 curriculum to include EE fundamentals (e.g. math, science, behavior) and identify career options in energy-related fields.	

<b>Short-term (2010-2012) “SMART” Sub-program Objectives:</b>	<b>Source (SP, AL, DR, PIP, or Staff)*</b>	<b>IOU Recommendations and Comments</b>
1. By 2012, the number of Connections program educational partnerships (pre-determined criteria) within all adult education levels (CCC, CSU, UC, Trade & Labor, Adult Education, K - 12) increases by X% (identify proportion of partnerships that address low-income participants / communities).	CEESP (see above) / Statewide WE&T PIP p. 47	Revise to: Using 2011 as the baseline year, by 2012, the IOUs will increase the level of educational collaboration with partners by 10%.  Comment: Definition of educational collaboration includes seminars, outreach events and consultations. These collaborations may include exchanges of monetary or in-kind support and services (i.e., sharing meeting facility, marketing/promotional service, etc.).
2. By 2012, the number of identified low-income (pre-determined criteria) Connections program participants / Schools in low-income communities increases by X%.	CEESP p. 74	Revise to: By 2012, for k-12 WET Connection sub-programs only, increase the # of title-1 school participants to 50% of all participants.
3. By 2012, the number of high school level continuing education outreach partnerships the IOU Connections program supports increase by X%.	CEESP (see above) / IOU – Stakeholder workshops /	Revise to: By 2012, increase the number of high school continuing education outreach partnership in the WET Connection Program by 10%.  IOU Comment: Milestone:



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	Statewide WE&T PIP p. 47	By the end of 2011, IOUs will determine the current number of partnerships and use the WE&T Schools subcommittee as a forum to build these relationships statewide. This information will be used as baseline for Objective-3.
4. By 2012, a significant number of Connections educational courses includes the subject of Integrated Demand Side Energy Management knowledge and awareness (EE, DR, DG) in a way that promotes understanding of how all these resources interact and mitigate GHG environmental impacts as well as the career paths associated with them (Y/N)	CEESP (see above) / Statewide WE&T PIP p. 67	Revise to: By 2012, the Connections educational courses will include educational content for IDSM subject matter to increase awareness (Y/N objective)  Comment: As we have discussed in the ED workshop on 9/21, it is more appropriate for the substantive IDSM classes to be addressed in WET Centergies Program. In WET Connection, the IOUs will focus on integration of IDSM subject matters into the training material.

<b>Short-term <u>Sub-program</u> PPMs:</b>	<b>Source (SP, AL, DR, PIP, or Staff)*</b>	<b>Metric Type (2a or 2b)**</b>	<b>Baseline Study Required (Y/N)</b>	<b>IOU Recommendations and Comments</b>
1. Number of Connections program educational collaborations partnerships (in kind or monetary support) (pre-determined criteria) within all adult education levels (CCC, CSU, UC, Trade & Labor, Adult Education, K - 12) (identify proportion of partnerships that address low-income participants / communities). - Number of high school level continuing education outreach partnerships the IOU Centergies program supports (this was moved from Centergies and is more appropriately) -Educational collaborations are aimed to influence minds	CEESP (see above) / Statewide WE&T PIP p. 47	2B	N	Revise to: By 2012, % increase in educational collaboration with partners from 2011 baseline  (2b metric)
2. Number of identified low-income (pre-determined criteria) Connections program participants / schools in low-income neighborhoods -Ways of determining low-income individuals: -Title 1: 40% of the residents in the community are	CEESP p. 74	2A	N	Revise to: % K-12 WET Connection program participants that are from title-1 schools  (2a metric)

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considered low-income (low-income is defined by Federal poverty definition) -Number of individuals who qualify for school lunches -“Minority” and “low-income” should not be used interchangeably				
3. Number of high school level continuing education outreach partnerships the IOU Connection program supports -Partnerships issue should be addressed similarly to how it will be addressed in Centergies	CEESP (see above) / IOU – Stakeholder workshops / PIP p. 47	2A	N	Revise to: PPM-3a: Complete identified milestones (Y/N) PPM-3b: # of high school continuing education outreach partnerships in WET Connection, relative to baseline  (2a & b metric)
4. Number of Connections educational courses that include the subject of IDSM (EE, DR, DG) in a way that promotes understanding of how all these resources interact and mitigate GHG environmental impacts as well as the career paths associated with them.	CEESP (see above) / PIP p. 67	2A	N	Revise to: Did WET Connection Program integrate IDSM subject matter into its educational material? (Y/N)  (2b metric)

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\*\*Metric type: 2a = reported annually, 2b = reported by end of cycle.

<b>Long-Term (2013-2020) “SMART” Sub-program Objectives:</b>	<b>Source (SP, AL, DR, PIP, or Staff)*</b>	<b>IOU Recommendations and Comments</b>
1. By 2015, X% of past participating schools have continued to offer the programs and curricula originally developed via IOU / educational organization partnerships without continued IOU support.	CEESP (see above)	Revise to: By 2012 the % of prior program cycle participating schools that have continued the WET Connection training activities without program support.  Comment: To make this into a SMART objective, we are recommending limiting the scope of this objective to monitor progress from program cycle to program cycle.
2. By 2015, X% of trainers at all educational levels that participated in Connections sponsored train-	Statewide PIP p. 37,	Delete.

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the-trainer programs continue to utilize this knowledge in their current teaching positions.	45, 76, 92	Comment: This objective can be rolled-up into objective-1 above.
3. By 2015, most of the IOU WE&T portfolio of training programs address the gaps identified in the statewide WE&T Needs Assessment (includes low-income) and are significantly partnering with all levels of outside educational organizations to address these gaps (Y/N)	CEESP (see above) Statewide PIP p. 5, 14, 69-74, 87	Revise to: By 2015, the IOU WE&T portfolio of training programs address the gaps identified in the statewide WE&T Needs Assessment (includes low-income) and are partnering with appropriate levels of outside educational organizations (Yes/No)

*\*SP=Strategic Plan, AL=Advice Letter, DR=Data Request Response, PIP=program plans, Staff=ED proposed. [Include page reference when applicable.]*

<b>Long-Term Sub-program MT Indicators:</b>	<b>Source (SP, AL, DR, PIP, or Staff)*</b>	<b>Metric Type (3)**</b>	<b>Baseline Study Required (Y/N)</b>	<b>IOU Recommendations and Comments</b>
1. Percent of past participating schools that have continued to offer the programs and curricula originally developed via IOU / educational organization partnerships without continued IOU support.	CEESP (see above)	3	N	Revise to: % of prior program cycle participating schools that have continued the WET Connection training activities without program support.  Comment: (2b metric-could be very costly and difficult to measure)  IOU assessment of priority: Low.
2. Percent of trainers at all educational levels that participated in Connections sponsored train-the-trainer programs that continue to utilize this knowledge in their current teaching positions.	Statewide PIP p. 37, 45, 76, 92	3	N	Delete.  MT-2 is duplicative of Objective-2.
3. IOU WE&T portfolio of training programs address the gaps identified in the statewide WE&T Needs Assessment (includes low-income) and are significantly partnering with all levels of outside educational organizations to address these gaps (Y/N)	CEESP (see above) Statewide PIP p. 5, 14, 69-74, 87	3	N	Delete.  MT-3 is duplicative of Objective-3.

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