



CALIFORNIA IBEW-NECA  
LABOR MANAGEMENT COOPERATION COMMITTEE



November 12, 2013

President Michael R. Peevey  
State of California Public Utilities Commission  
505 Van Ness Avenue, Room 5218  
San Francisco, CA 94102

Dear President Peevey:

It was a pleasure seeing you last week at the CLTC's 10<sup>th</sup> anniversary dinner. Per your request, here is a summary of our discussion.

The California Advanced Lighting Controls Training Program (CALCTP) is an industry-wide non-profit training program for the effective installation and maintenance of advanced lighting controls. CALCTP's hallmarks include:

- Founded in 2008 based on utility experience with substandard lighting controls installation and resulting inadequate energy savings;
- Stakeholders include all three IOUs, SMUD, 14 lighting control manufacturers, the CEC, contractors, electricians, the CLTC at UCD, California Community Colleges, and the National Electrical Manufacturers Association (NEMA);
- SCE lead initial funding with about \$450,000. Additional public funding of CALCTP has exceeded \$7,000,000 of rate-payer and taxpayer dollars from the CEC EW&T, U.S. DoL, PIER, CA ETP. Current, ongoing program costs are funded by PG&E, SCE, and SDG&E;
- Training is open to all qualified electricians and contractors, and offered at utility training centers, community colleges and industry training centers;
- Honors include the UC Berkeley Donald Vial Center on Employment in the Green Economy's selection of CALCTP as the model for future energy efficiency workforce, education and training programs in the *California Workforce Education and Training Needs Assessment*;
- A mature training program which has successfully trained and certified more than 2150 electricians in California.

The heart of the issue is that the IOUs have been promising lighting controls incentives for CALCTP certified installations for more than two years with no substantive results. The IOUs have pledged in writing to the CPUC that they would offer those incentives to

customers who use CALCTP certified installers. (Program Implementation Plan excerpts are attached.)

The IOUs have also filed testimony with the CPUC stating that CALCTP certified installations are 10-30% less expensive than those performed by non-certified contractors. (Excerpted testimony attached.) Even so, nothing substantive in the way of incentives for CALCTP training and certification has yet been offered.

A broad stakeholder group (including environmental organizations, academics, the building trades, and authors of the new Title 24 lighting regulations) believes that comprehensive and robust implementation of CALCTP incentives is a high priority because:

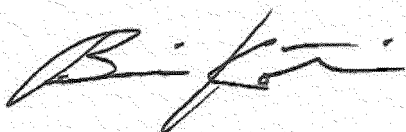
- Advanced lighting controls (ALC) have the potential for enormous energy savings – especially when they are part of a system;
- ALC have developed a bad reputation due to years of poor installation;
- Title 24 requirements will generate a big increase in ALC installations starting Jan. 1, but continued poor ALC installation will undermine state regulation and policy;
- CA energy policy overall will be harmed if customers do not realize a proper ROI;
- Pushback from the marketplace against state policy and regulations is likely; and
- \$7 million in CALCTP public funding has been spent without a reasonable follow-up.

To quote Dr. Michael Siminovitch: *“Without proper lighting controls installation training and certification the new Title 24 will be a train wreck.”*

As more than two years of negotiations with the IOUs have not yielded results, CALCTP leadership has engaged the guidance and expertise of the Energy Division Staff which has been supportive and engaged. Even so, considerable challenges remain in ensuring that the IOUs offer CALCTP incentives in a timely and meaningful manner. This is why your attention to our efforts is greatly appreciated. Your insight, authority and leadership could help bring a statewide CALCTP incentive to the market expeditiously, helping provide ratepayers and property owners the return on investment they expect and deserve.

We would be happy to meet with you to further discuss our concerns and the documentation that we have provided with this letter.

Sincerely,



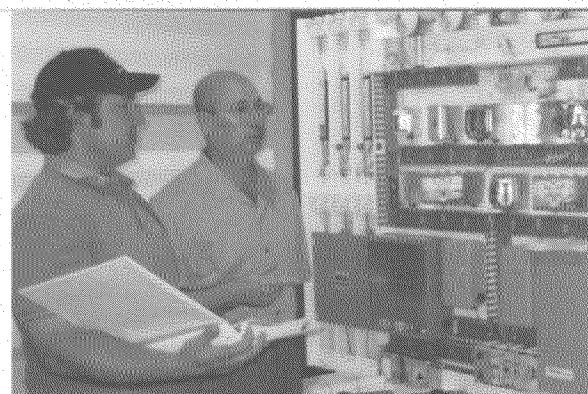
Bernie Kotlier  
Executive Director, IBEW-NECA California  
Labor Management Cooperation Committee

Co-chair, California Advanced Lighting Controls Training Program (CALCTP)

# CALCTP

## Maximizing **Energy Efficiency**, **Sustainability**, and **Return** on **Investment**

CALCTP—the California Advanced Lighting Controls Training Program—helps property owners, managers, architects, engineers, designers, and builders save energy and money by optimizing the operation and efficiency of advanced lighting controls equipment and systems. CALCTP certification is the key to realizing the highest return on your sustainable energy investment.



## What Is CALCTP?

CALCTP is a statewide nonprofit, public/private partnership initiative to increase the effectiveness, efficiency, convenience, and use of lighting controls in commercial, industrial, and institutional facilities. CALCTP educates, trains, and certifies C-10 licensed electrical contractors and state-certified general electricians in the proper installation, calibration, programming, commissioning, and maintenance of advanced lighting controls systems. Advanced lighting controls systems include devices such as dimmers, occupancy sensors, photo-sensors, electronic ballasts, and high-efficiency lamps and fixtures, as well as communication-based control equipment.

## Why Do We Need CALCTP?

Advanced lighting controls systems are sophisticated and complex.

Unfortunately, in the past, many advanced lighting controls were not correctly installed and did not achieve the expected energy savings. CALCTP is correcting that weakness with rigorous comprehensive training and certification that allows you to identify the contractors and electricians who will do the work properly and deliver an advanced lighting controls system that will perform optimally.

California currently has 9 billion square feet of commercial, industrial, and institutional space. Advanced lighting controls present an enormous opportunity to improve energy efficiency and save billions of dollars in energy costs. Your facility could benefit substantially from an advanced lighting controls system. Look for CALCTP certified contractors and electricians. They have the training and expertise to provide you with an advanced lighting controls system that produces value—the functionality, convenience, and return on investment you deserve.

*CALCTP received a \$5 million grant awarded under the American Recovery and Reinvestment Act of 2009: Energy Training and Partnership Grants, as implemented by the U.S. Department of Labor's Employment and Training Administration. One hundred percent of the grant funds are used to support this program.*

## Who Is CALCTP?

CALCTP is a nonprofit collaborative effort of the following organizations:

- University of California-Davis California Lighting Technology Center
- Southern California Edison
- California Energy Commission
- California Community College System
- San Diego Gas and Electric
- 14 Lighting and Control Manufacturers
- California State Labor Management Cooperation Committee
- Pacific Gas and Electric
- Sacramento Municipal Utility District
- National Electrical Manufacturers Association

CALCTP is funded by:

- U.S. Department of Labor
- State of California Employment Training Panel
- Investor-Owned Utilities
- California State Labor Management Cooperation Committee
- TomKat Charitable Foundation
- California Energy Commission Clean Energy Workforce Training Program

## How Is CALCTP Addressing the Challenge and Potential of Advanced Lighting Controls?

At the program's core is a rigorous, comprehensive course developed by the University of California-Davis' California Lighting Technology Center. The training regimen is composed of 10 hours of prerequisite study material, followed by 10 hours of lecture, plus 40 hours of hands-on lab work. Each lecture is followed by a lab segment where participants apply what they have learned by installing the devices on electrical lab boards, under the supervision of CALCTP certified instructors. To be certified, all participants must pass every lab practicum, and a demanding written exam.

CALCTP partner utilities, which serve more than 90 percent of the California market, strongly support the use of CALCTP certified contractors and electricians on all advanced lighting controls projects.

More information is available  
on the CALCTP website at:

[www.calctp.org](http://www.calctp.org)

**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA**

Application of Pacific Gas and Electric Company  
for Approval of 2013-2014 Energy Efficiency  
Programs and Budgets (U39M).

Application 12-07-001  
(Filed July 2, 2012)

And Consolidated Matters.

Application 12-07-002  
Application 12-07-003  
Application 12-07-004

**JOINT RESPONSE OF SAN DIEGO GAS & ELECTRIC COMPANY (U 902 M)  
AND SOUTHERN CALIFORNIA GAS COMPANY (U 904 G) TO SCOPING  
MEMO AND RULING OF ASSIGNED COMMISSIONER AND  
ADMINISTRATIVE LAW JUDGE**

**STEVEN D. PATRICK**

*Attorney for*

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SOUTHERN CALIFORNIA GAS COMPANY**

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September 5, 2012

**Attachment A—San Diego Gas & Electric Company’s Response to  
Ruling Attachment A: Utilities and A.2. Specific Questions for SDG&E**

residential support for Whole House Upgrade programs will focus on peripheral industries, including realtors, appraisers and construction trade contractors who could help with the expansion and promotion of the program from a collaborative education and training effort.

- Energy Education Sector Strategy efforts will increase student engagement in energy-related coursework and programs, positioning them for successful careers and a life-long appreciation of energy conservation and efficiency. The IOUs will work to facilitate the linking and leveraging of stakeholders, resources and existing programs to increase our overall ability to cultivate the next generation of energy workers.
- Other efforts prioritized among the WE&T program, giving consideration to the long-term strategic plan and IOU energy efficiency goals, include collaboration on workforce education to expedite adoption of emerging technologies once approved for market rollout, coordination with the Energy Savings Assistance Program (ESAP), increased training to help increase code and installation standards compliance, as well as integration of continuous energy improvement curriculum into higher education institutions.

Furthermore, other educational opportunities for various professional sectors that are not part of a formal certificate or series program will be influenced by what the IOUs learn through their more formal sector strategy efforts and partnerships.

**Approximate Sector Strategy Timelines.**

The timelines below reflect IOU efforts on a statewide and local/IOU level. Times and deliverables/action items are approximations that are subject to change.

<b>California Advanced Lighting Controls Training Program (Statewide Program)</b>	
Q3 & Q4 2012	<p>Continue Offering CALCTP Courses for Contractors and Electricians at all-three IOUs Energy Centers, JATC’s, ATTE Campuses leading to the following training targets:</p> <p>75 CALCTP Certified Contractors</p> <p>2,000 CALCTP Certified Electricians</p> <p>Expand CALCTP model to 1 additional state to diversify program funding.</p> <p>Release new CALCTP model, version 5</p>

**Attachment A—San Diego Gas & Electric Company's Response to  
Ruling Attachment A: Utilities and A.2. Specific Questions for SDG&E**

	Market CALCTP program to electrical contractors at various events and webinars.
Q1 & Q2 2013	<p>Training Targets as a result of trainings conducted at IOU Energy Centers and other training sites:</p> <p>90 CALCTP Certified Contractors</p> <p>2,400 CALCTP Certified Electricians</p> <p>New IOU incentives for businesses that work conducted by CALCTP certified contractors and electricians.</p> <p>Develop new CALCTP module based on technology changes</p> <p>Educate municipal owned utilities and cities about CALCTP program.</p> <p>Include CALCTP in at least 3 cities municipal codes.</p>
Q3 & Q4 2013	<p>Training Targets as a result of trainings conducted at IOU Energy Centers and other training sites: 120 CALCTP Certified Contractors</p> <p>2,800 CALCTP Certified Electricians</p> <p>Expand CALCTP Model to 1 additional state to diversify program funding.</p> <p>Initiate study which demonstrates the energy savings and customer satisfaction when work is conducted by CALCTP certified electricians and contractors.</p> <p>Release additional CALCTP model, version 6</p>
Q1 & Q2 2014	<p>Training Targets:</p> <p>150 CALCTP Certified Contractors</p> <p>3,200 CALCTP Certified Electricians</p> <p>Initial study findings is released on customer satisfaction with CALCTP certified electricians and contractors</p>
Q3 & Q4 2014	<p>Training Targets:</p> <p>180 CALCTP Certified Contractors</p>

**Attachment A—San Diego Gas & Electric Company’s Response to  
Ruling Attachment A: Utilities and A.2. Specific Questions for SDG&E**

	3,600 CALCTP Certified Electricians
	Expand CALCTP Model to 1 additional state to diversify program funding.

**Q79. Why is the Green Pathways program transitioning into a local program offered only in PG&E’s territory for 2013 – 2014? Explain the rationale for the other IOUs not pursuing this program.**

**SDG&E Response:**

The Green Pathways program represents a PG&E proof of concept that was initiated in the 2010-2012. In 2013-2014, PG&E plans to scale up the Green Pathways K-12 program in 2013-2014. . An important goal for 2013 is to identify the tools and strategies that support cost-effective scale in order to expand beyond PG&E’s territory.

Green Pathways provides not only the envisioned online community, but also an online course with more than 15 sessions that provide information about the importance of and the need for green work. In addition, the program develops students’ ability to productively interact with adults and peers in the envisioned online community on green issues, a requisite skill in which we found students to be very deficient. .

SDG&E, SCE, and SoCalGas currently offer programs that target similar demographics using similar approaches as Green Pathways’, such as PEAK. At this time, SDG&E is meeting regional needs by leveraging existing programs to incorporate local flavors into programs that serve K-12 students, but will evaluate restructuring current programs to more closely match the Green Pathways’ model as PG&E demonstrates continued success. The other IOUs will consider this program, as well as current and other programs for the 2015 program cycle and beyond, based on demonstrated program effectiveness and cost effectiveness. The other IOUs presently serve –students through the following programs:

**SCE, SDG&E, SoCalGas:**

PEAK (3 - 12 grade) – a comprehensive standards-based educational program designed to empower students with the knowledge to manage energy use in their homes, schools and communities.

**Q80. What are the lessons learned resulting from the existing WE&T process evaluation? Provide a table or attachment listing the findings, lessons learned, and recommendations resulting from this evaluation. Include in the table a column indicating how the IOUs will address these recommendations.**



Application No: A.12-07-003

Errata Exhibit No: SCG

Application of Southern California Company  
(U-904-G) for Approval of Natural Gas Energy  
Efficiency Programs and Budgets for Years  
2013 and 2014

Application 12-07-003  
(Filed July 2, 2012)

**AMENDMENT TO TESTIMONY DESCRIBING  
PROGRAM IMPLEMENTATION PLANS AND RESPONSES TO THE RULING  
OF ASSIGNED COMMISSIONER AND ADMINISTRATIVE LAW JUDGE  
ON BEHALF OF SOUTHERN CALIFORNIA GAS COMPANY**

**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA**

**OCTOBER 4, 2012**

The following table corrects information in the table found on pages 1725-1726 of SCG's 2013-2014 WE&T PIP dated July 2, 2012:

Request	CALCTP Information
(1) data or estimation of the incremental customer cost, if any, of requiring skill standards;	(1) There is no comprehensive current research on the cost of labor to install advanced lighting controls by a CALCTP certified contractor versus a non-certified contractor. However, evidence from six CALCTP pilot studies indicates savings in the range of 10 - 30% <sup>1</sup> . An overall savings estimate of 15% is reasonable. Lower costs are due to CALCTP training, which enables more accurate bids, faster installation, and higher initial system performance as a result of greater familiarity and expertise with advanced lighting controls <sup>2</sup> .
(2) data or estimation of the average and range of permitting/compliance costs across permitting jurisdictions in the IOUs' service territories;	(2) Currently, no cities, towns, counties, or other governmental agencies in California require CALCTP certification so there are not permitting or compliance costs related to CALCTP installations.
(3) data or estimation of impacts, if any, mandatory skill standards would have on program participation rates;	(3) Over the years, IOU incentive programs for lighting controls have had relatively low participation rates, in large part due to the poor performance of the control systems which has been linked to substandard installation, inadequate commissioning, and lack of proper maintenance. As a result of the poor performance, many customers were not willing to invest in the systems - even with an incentive. With proper incentive levels and education of the segment, it is anticipated that adoption/participation could increase significantly because CALCTP installed systems work properly and enable customers to realize expected energy and cost savings. The optimum performance of CALCTP installed systems is already

<sup>1</sup> Office of the Future Landmark Square Pilot Results (Design and Engineering Services, SCE, October 2010; Office of the Future 25% Solution Assessment (Emerging Technology Solutions, December 2010); Advanced Office Lighting Systems (Energy Research and Development, SMUD); High Efficiency Office, Low Ambient/Task Lighting Pilot Project (Large Office) Heschong Mahone Group; Low Ambient/Task Lighting Pilot Project (Small Office) Emerging Technologies Associates; Advanced Lighting Controls System Assessment (Emerging Technology Associates)

<sup>2</sup> Brookfield Properties, SCE Engineering Services for Case Study

	<p>beginning to change customer perception of the value of investing in advanced lighting control systems. IOU incentives based on mandatory skill standards could drive up control system performance, which would have a major impact on the reputation of the systems, which in turn would likely push participation rates to a much higher level<sup>3</sup>.</p>
<p>(4) data or estimates of the incremental energy savings and customer cost savings over the life of the equipment;</p>	<p>(4) A literature review by Lawrence Berkeley Lab indicates that customers who install advanced lighting controls will achieve a minimum savings of 25%<sup>4</sup> over traditional lighting efficiency measures. Depending on the level of control, and the comprehensiveness of the lighting control system, savings may increase an additional 5% - 10%. Actual dollar values will be determined as incentive program adoption occurs, customer site performance is monitored, and data is collected.</p>

<sup>3</sup> IBID

<sup>4</sup> Leukos, Volume 8, Number 3 (Lawrence Berkeley Labs) Lighting Controls in Commercial Buildings, (Williams, Atkinson, et. al)

(5) any other potential benefits associated with higher standards, such as fewer call-backs, lower frequency of customers overriding control systems, lower life-cycle costs, and increased consumer uptake of measures based on higher quality and certainty.

(5) Additional benefits include:

Because CALCTP training translates into high performance operation and maintenance, operational data on CALCTP installed systems, to date, indicates an extremely low rate of installation difficulties, callbacks, re-works, changes, etc. CALCTP training also enables contractors and electricians to properly train facility managers in the effective operation of the control systems<sup>5</sup>. Therefore, CALCTP installed lighting control systems installed to date have not been overridden. Long term expectations are that the frequency of customers overriding control systems would be extremely low<sup>6</sup>.

IOU assessments have shown that fewer, if any, callbacks will be experienced when the system is installed by a CALCTP certified installer. This positive experience is in marked contrast to non-CALCTP certified installations where numerous call backs, change orders, and other problems have been experienced.

Optimum energy saving operation and increased proper maintenance both contribute to lower lifecycle costs. Energy, long term maintenance, and lamp replacement costs are all lowered because of reduced loads and hours of operation as well as lower system stress.

Additional system related benefits will accrue when graphic interfaces and other higher visibility applications are utilized to report actual lighting energy use, and track GHG emission reductions.

Finally, all the above benefits and advantages will combine to create a positive industry "buzz" as customers begin talking about how well their advanced lighting control systems perform and how much money they are saving. That buzz will fuel even higher rates of participation for the mandatory skill standards incentive program.

<sup>5</sup> "Lighting Controls: Savings, Solutions, Payback and Vendor Profiles" CleanTech Article

<sup>6</sup> "Advanced Lighting Control Can Reduce Operating Costs and Improve Worker Satisfaction" Encelium Technologies article, March 2010

**Workforce Education & Training: WE&T Centergies**

	<p>of CALCTP installed systems is already beginning to change customer perception of the value of investing in advanced lighting control systems. IOU incentives based on mandatory skill standards could drive up control system performance, which would have a major impact on the reputation of the systems, which in turn would likely push participation rates to a much higher level<sup>3</sup>.</p>
<p>(4) data or estimates of the incremental energy savings and customer cost savings over the life of the equipment;</p>	<p>(4) A literature review by Lawrence Berkeley Lab indicates that customers who install advanced lighting controls will achieve a minimum savings of 25%<sup>4</sup> over traditional lighting efficiency measures. Depending on the level of control, and the comprehensiveness of the lighting control system, savings may increase an additional 5% - 10%. Actual dollar values will be determined as incentive program adoption occurs, customer site performance is monitored, and data is collected.</p>
<p>(5) any other potential benefits associated with higher standards, such as fewer call-backs, lower frequency of customers over-riding control systems, lower life-cycle costs, and increased consumer uptake of measures based on higher quality and certainty.</p>	<p>(5) Additional benefits include: Because CALCTP training translates into high performance operation and maintenance, operational data on CALCTP installed systems, to date, indicates an extremely low rate of installation difficulties, callbacks, re-works, changes, etc. CALCTP training also enables contractors and electricians to properly train facility managers in the effective operation of the control systems<sup>5</sup>. Therefore, CALCTP installed</p>

<sup>3</sup> Ibid

<sup>4</sup> Leukos, Volume 8, Number 3 (Lawrence Berkeley Labs) Lighting Controls in Commercial Buildings. (Williams, Atkinson, et al)

<sup>5</sup> "Lighting Controls: Savings, Solutions, Payback and Vendor Profiles" CleanTech Article

Workforce Education & Training: WE&T Centergies

	<p><u>lighting control systems installed to date have not been overridden.</u></p> <p><u>Long term expectations are that the frequency of customers overriding control systems would be extremely low<sup>6</sup>.</u></p> <p><u>IOU assessments have shown that fewer, if any, callbacks will be experienced when the system is installed by a CALCTP certified installer. This positive experience is in marked contrast to non-CALCTP certified installations where numerous call backs, change orders, and other problems have been experienced.</u></p> <p><u>Optimum energy saving operation and increased proper maintenance both contribute to lower lifecycle costs. Energy, long term maintenance, and lamp replacement costs are all lowered because of reduced loads and hours of operation as well as lower system stress.</u></p> <p><u>Additional system related benefits will accrue when graphic interfaces and other higher visibility applications are utilized to report actual lighting energy use, and track GHG emission reductions.</u></p> <p><u>Finally, all the above benefits and advantages will combine to create a positive industry "buzz" as customers begin talking about how well their advanced lighting control systems perform and how much money they are saving. That buzz will fuel even higher rates of participation for the mandatory skill standards incentive program.</u></p>
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<sup>6</sup>"Advanced Lighting Control Can Reduce Operating Costs and Improve Worker Satisfaction" Excellium Technologies article, March 2010.

**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA**

Application of Pacific Gas and Electric  
Company for Approval of 2013-2014 Energy  
Efficiency Programs and Budget (U 39 M)

Application 12-07-001  
(Filed July 2, 2012)

And Related Matters

Application 12-07-002  
Application 12-07-003  
Application 12-07-004

**PACIFIC GAS AND ELECTRIC COMPANY'S (U 39 M)  
REPLY COMMENTS**

ANN H. KIM  
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Attorneys for  
PACIFIC GAS AND ELECTRIC COMPANY

Dated: September 21, 2012

**Attachment B**  
**Pacific Gas and Electric Company**  
**2013-2014 Energy Efficiency Portfolio**  
**Statewide Workforce Education and Training**  
**Program Implementation Plan Revision**  
**PGE2107**  
**September 21, 2012**

The following table replaces the table found on pages 32-33 of PG&E's 2013-2014 WE&T PIP dated July 2, 2012:

**Replacement Table**

Request	CALCTP Information
(1) data or estimation of the incremental customer cost, if any, of requiring skill standards;	(1) There is no comprehensive current research on the cost of labor to install advanced lighting controls by a CALCTP certified contractor versus a non-certified contractor. However, evidence from six CALCTP pilot studies indicate savings in the range of 10 - 30% <sup>1/</sup> . An overall savings estimate of 15% is reasonable. Lower costs are due to CALCTP training, which enables more accurate bids, faster installation, and higher initial system performance as a result of greater familiarity and expertise with advanced lighting controls <sup>2/</sup> .
(2) data or estimation of the average and range of permitting/compliance costs across permitting jurisdictions in the IOUs' service territories;	(2) Currently, no cities, towns, counties, or other governmental agencies in California require CALCTP certification so there are no permitting or compliance costs related to CALCTP installations.
(3) data or estimation of impacts, if any, mandatory skill standards would have on program participation rates;	(3) Over the years, IOU incentive programs for lighting controls have had relatively low participation rates, in large part due to the poor performance of the control systems which has been linked to substandard installation, inadequate commissioning, and lack of proper maintenance. As a result of the poor

1/ Office of the Future Landmark Square Pilot Results (Design and Engineering Services, SCE, October 2010); Office of the Future 25% Solution Assessment (Emerging Technology Solutions, December 2010); Advanced Office Lighting Systems (Energy Research and Development, SMUD); High Efficiency Office, Low Ambient/Task Lighting Pilot Project (Large Office) Heschong Mahone Group; Low Ambient/Task Lighting Pilot Project (Small Office) Emerging Technologies Associates; Advanced Lighting Controls System Assessment (Emerging Technology Associates)

2/ Brookfield Properties, SCE Engineering Services for Case Study



	<p>performance, many customers were not willing to invest in the systems - even with an incentive.</p> <p>With proper incentive levels and education of the segment, it is anticipated that adoption/participation could increase significantly because CALCTP installed systems work properly and enable customers to realize expected energy and cost savings. The optimum performance of CALCTP installed systems is already beginning to change customer perception of the value of investing in advanced lighting control systems. IOU incentives based on mandatory skill standards could drive up control system performance, which would have a major impact on the reputation of the systems, which in turn would likely push participation rates to a much higher level<sup>3/</sup>.</p>
<p>(4) data or estimates of the incremental energy savings and customer cost savings over the life of the equipment;</p>	<p>(4) A literature review by Lawrence Berkeley Lab indicates that customers who install advanced lighting controls will achieve a minimum savings of 25%<sup>4/</sup>over traditional lighting efficiency measures. Depending on the level of control, and the comprehensiveness of the lighting control system, savings may increase an additional 5% - 10%. Actual dollar values will be determined as incentive program adoption occurs, customer site performance is monitored, and data is collected.</p>

3/ IBID

4/ Leukos, Volume 8, Number 3 (Lawrence Berkeley Labs) Lighting Controls in Commercial Buildings, (Williams, Atkinson, et. al)

(5) any other potential benefits associated with higher standards, such as fewer call-backs, lower frequency of customers over-riding control systems, lower life-cycle costs, and increased consumer uptake of measures based on higher quality and certainty.

(5) Additional benefits include:

Because CALCTP training translates into high performance operation and maintenance, operational data on CALCTP installed systems, to date, indicates an extremely low rate of installation difficulties, callbacks, re-works, changes, etc. CALCTP training also enables contractors and electricians to properly train facility managers in the effective operation of the control systems<sup>5/</sup>. Therefore, CALCTP installed lighting control systems installed to date have not been overridden. Long term expectations are that the frequency of customers overriding control systems would be extremely low<sup>6/</sup>.

IOU assessments have shown that fewer, if any, callbacks will be experienced when the system is installed by a CALCTP certified installer. This positive experience is in marked contrast to non-CALCTP certified installations where numerous call backs, change orders, and other problems have been experienced.

Optimum energy saving operation and increased proper maintenance both contribute to lower lifecycle costs. Energy, long term maintenance, and lamp replacement costs are all lowered because of reduced loads and hours of operation as well as lower system stress.

Additional system related benefits will accrue when graphic interfaces and other higher visibility applications are utilized to report actual lighting energy use, and track GHG emission reductions.

Finally, all the above benefits and advantages will combine to create a positive industry "buzz" as customers begin talking about how well their advanced lighting control systems perform and how much money they are saving. That buzz will fuel even higher rates of participation for the mandatory skill standards incentive program.

5/ "Lighting Controls: Savings, Solutions, Payback and Vendor Profiles" CleanTech Article

6/ "Advanced Lighting Control Can Reduce Operating Costs and Improve Worker Satisfaction" Encelium Technologies article, March 2010

STATE OF CALIFORNIA  
LEGISLATURE  
COMMITTEE ON TRANSPORTATION

REPORT OF THE COMMITTEE ON TRANSPORTATION  
ON THE SENATE BILL NO. 1000  
AS INTRODUCED IN THE SENATE

### ATTACHMENT C

SECTION 1. Section 1000 of the Vehicle Code is amended to read:

1000. (a) The Department of Transportation shall, in cooperation with the Department of Public Safety, the Department of Industrial Relations, and the Department of Social Services, conduct a study of the economic impact of the proposed legislation on the transportation industry and the general public.

(b) The study shall include, but not be limited to, the following:

1. The impact of the proposed legislation on the transportation industry.
2. The impact of the proposed legislation on the general public.
3. The impact of the proposed legislation on the economy.
4. The impact of the proposed legislation on the environment.
5. The impact of the proposed legislation on the health and safety of the public.

(c) The study shall be completed and reported to the Legislature by the end of the legislative session in which the proposed legislation is introduced.

ALJ/EDF/hl  
1)

**DRAFT**

Agenda ID #11187 (Rev.

Ratesetting  
5/10/2012 Item 30

Decision PROPOSED DECISION OF ALJ FARRAR (Mailed 3/20/2012)

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Examine the  
Commission's Post-2008 Energy Efficiency  
Policies, Programs, Evaluation, Measurement,  
and Verification, and Related Issues.

Rulemaking 09-11-014  
(Filed November 20, 2009)

**DECISION PROVIDING GUIDANCE ON 2013-2014 ENERGY EFFICIENCY  
PORTFOLIOS AND 2012 MARKETING, EDUCATION, AND OUTREACH**

In developing the PIP, prospective local governments should refer to the Strategic Plan Menu of Local Government Strategic Actions.<sup>181</sup> Consistent with this decision's preference for deep retrofit programs, a goal of the pilots should be to achieve deep energy efficiency savings. Further, ex-ante parameters for energy savings and measure costs should be derived from the DEER 2011 Update adopted in this decision.

Commission Staff will conduct and/or oversee the evaluation of any pilots selected, consistent with the process set forth for evaluation of IOU programs in D.10-04-029 and other decisions. If we determine that there are desirable proposals for regional local government energy efficiency pilot programs, the utilities will be directed to contract for selected regional pilots and Commission Staff will serve as a joint contract manager in the contract.<sup>182</sup>

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<sup>181</sup> The menu is contained in SCE Advice Letter 2445-E-A.

<sup>182</sup> ~~This co-contract management structure was employed recently by SCE on behalf of the utilities, for management and oversight of the recent Workforce Education and Training (WE&C) Needs Assessment contract.~~<sup>182</sup> In its opening comments, SCE asserts that the Proposed Decision wrongly encourages local governments to submit proposals to administer regional pilot partnership programs for the 2013-2014 program cycle. According to SCE, "[i]n 2005, the CPUC thoroughly examined the proposal for non-utility administration of EE programs, and in D.05-01-055 concluded that it requires statutory authority to do so, because the public interest in the EE programs dictates that the CPUC must select an administrator over which it exercises jurisdiction." (SCE Opening Comments at 3.) SCE's argument suffers three significant flaws. First, it is premature. Rather than authorize programs, the Proposed Decision only requests proposals. Second, as fully detailed by LGSEC (see LGSEC reply comments at 3-5), SCE's argument misinterprets the relevant law. Finally, contrary to SCE's assumptions, rather than calling for an independent administrator, the proposal set forth in the Proposed Decision provides for utility oversight of the non-utility administrator.