

Application No.: A.08-
Exhibit No.: SCE-1
Witnesses: G. E. Rodrigues
C. Hawkins
J. F. Nall
G. Ander
N. Jenkins
S. Kiner
S. Galanter
D. P. Arambula
M. V. Brown
J. Holmes



(U 338-E)

***Testimony of Southern California Edison Company In
Support of Its 2009-2011 Application for Approval of
its Energy Efficiency Program Plans and Public
Goods Charge and Procurement Funding Requests***

Before the

Public Utilities Commission of the State of California

Rosemead, California
July 21, 2008

SCE'S TESTIMONY IN SUPPORT OF ITS 2009-2011 APPLICATION

Table Of Contents

	Section	Page	Witness
I.	INTRODUCTION AND EXECUTIVE SUMMARY.....	1	G. Rodrigues
A.	Summary Tables And Pie Charts Of Portfolios And Energy Efficiency Measure Groupings.....	6	
1.	Energy Savings And Demand Reduction.....	6	
2.	End Use Savings.....	6	
3.	Budget.....	7	
B.	Elements Of The 2009-2011 Portfolio Are Designed To Reflect The Strategic Plan.....	8	
C.	Summary Of Initiatives And Activities Proposed To Accomplish The Sector Objectives And Why Program Strategies Will Meet The Stated Goals.....	12	
D.	Estimated Budgets And Savings For New Approaches.....	21	
E.	Charts Summarizing Projected Energy Savings From Each Of The Four Major Sectors For The Program Cycle; And, Charts Of Expected Savings Against Estimated Baseload Consumption, Averaged Over Three Years.....	22	
II.	PROPOSED ENERGY EFFICIENCY POLICIES AND RULES.....	24	
A.	Introduction.....	24	
B.	Joint IOUs Requested Policies.....	26	
1.	Per-Unit Benefit And Cost Assumptions Should Be Adopted For 2009-2011 Portfolio Planning (Ex-Ante) And Also Used For Portfolio Evaluation.....	26	
a)	The Use of Ex Ante Estimates Matches the Commission's Focus on Long-Term Savings and Innovative Portfolio Designs.....	27	
b)	Fully-Vetted Ex Ante Estimates Should Provide Realistic Estimates of Savings and Benefits.....	27	

SCE'S TESTIMONY IN SUPPORT OF ITS 2009-2011 APPLICATION

Table Of Contents (Continued)

Section	Page	Witness
<ul style="list-style-type: none"> c) Using the Same Benchmark Allows for Certainty..... 	28	G. Rodrigues
<ul style="list-style-type: none"> d) Savings Assumptions Should Include Limited IOU-Proposed Revisions To The 2008 Database for Energy Efficiency Resources (DEER) Update Issued by The Energy Division on May 30, 2008 and Should be Adopted by The Commission For Programmatic and Goal-Setting Persons 	30	
<ul style="list-style-type: none"> e) Evaluation Studies of Energy Savings (<i>ex post</i>) Should Inform Future Planning Efforts And Not be Used to Reassess Prior Program Performance 	31	
<ul style="list-style-type: none"> f) The Process for Inclusion of New Measures Should be Altered 	32	
<ul style="list-style-type: none"> 2. Cumulative Savings Should Be Defined As The Sum Of The Annual Savings Goals For The Three-Year Portfolio Period 	33	
<ul style="list-style-type: none"> a) Defining Cumulative Savings To Be Beyond The Three-year Period Is Not Consistent With CPUC Goal Development And Policy..... 	33	
<ul style="list-style-type: none"> b) Defining Cumulative Savings Beyond The Three-year Period Cannot Be Implemented From A Timing Perspective..... 	35	
<ul style="list-style-type: none"> 3. IOUs Should Receive Energy Efficiency Savings Credit For Energy Efficiency Actions Taken By Customers Who May Be Motivated By State Policies or Legislation, Local Codes And Ordinances, or Multiple Sources of “Green” Messaging 	36	
<ul style="list-style-type: none"> 4. Activities In Direct Support Of The California Energy Efficiency Strategic Plan That Do Not Produce Measurable Or Minimal Cost-Effective Savings In 2009-2011 Should Be Exempt From The Shareholder Risk Reward Incentive Mechanism..... 	38	

SCE'S TESTIMONY IN SUPPORT OF ITS 2009-2011 APPLICATION

Table Of Contents (Continued)

Section	Page	Witness	
5.	Gross Metrics Should Be Used For The Calculation Of Performance Toward The Minimum Performance Standard (MPS) And Performance Earnings Basis (PEB) Under The RRIM.	40	G. Rodrigues
a)	The Use of a Performance Earnings Basis based Upon Gross Accomplishments Aligns with the Long-Term, Collaborative Focus of the State for Energy Efficiency.....	41	
b)	Adoption Of Gross Goals For PEB May Warrant Changes To The RRIM, Including The Shared Savings Rates, In Order to Maintain An Appropriate Balance Of Risk And Reward Between Shareholders And Customers	42	
6.	Adopt A Collaborative Process And Commission Review That Allow For Appropriate Evaluation And Vetting Of EM&V Study Design, Implementation And Results.....	43	
a)	The Current Process.....	43	
b)	Past Processes That Addressed These Issues.....	44	
c)	Recommendations.....	44	
C.	Other Policy Issue Modifications To Allow For Successful Implementation Of The 2009-2011 Portfolio	45	
1.	Use Post-Tax Discount Rate For Benefits	45	
2.	Mid-Cycle Funding Augmentation Rules Should be Revised.....	45	
D.	Savings From Codes and Standards Should Count Towards the Commission's Goals	47	
E.	The Role Of The Peer Review Group Should Be Clarified To Ensure Fairness.....	47	
F.	Treatment Of CEESP Costs And Energy Savings.....	48	

SCE'S TESTIMONY IN SUPPORT OF ITS 2009-2011 APPLICATION

Table Of Contents (Continued)

Section	Page	Witness
III. SCE'S PORTFOLIO REFLECTS STATE ENERGY POLICIES AND THE STRATEGIC PLAN.....	50	G. Rodrigues
A. State Energy Policy And Initiatives.....	50	
1. Portfolio Meets the Objectives of the Energy Action Plan	50	
2. AB 32 Goals And Efforts.....	51	
a) Environmental Benefits Projected	51	
b) AB 32 Status Report	52	
3. Governor's Green Building Initiative	52	
a) Energy Savings Projected Towards GBI Goals	52	
B. Coordination With Statewide Energy Efficiency Strategic Plan	53	
1. Portfolios Reflect Regional And Local Variations Complementing The Strategic Plan	53	
2. Portfolios Contain Appropriate Strategies And Program Designs For The Three Statewide Initiatives.....	54	
a) Residential New Construction	54	
b) Commercial New Construction.....	56	
c) Heating, Ventilation And Air Conditioning (HVAC) Industry	59	
C. Strategic Plan Vision For All Sectors	64	
1. Existing Residential	64	
2. Existing Commercial	66	
3. Industrial	70	
4. Agriculture	73	

SCE'S TESTIMONY IN SUPPORT OF ITS 2009-2011 APPLICATION

Table Of Contents (Continued)

Section	Page	Witness
5. Emerging Technologies	75	G. Rodrigues
6. Codes & Standards.....	77	
7. Local And State Governments	78	
8. DSM Integration	81	
9. Marketing, Education, And Outreach	81	
10. Workforce Education and Training	83	
11. Low Income Energy Efficiency	89	
D. Strategic Plan Outlook For Ten Years And Beyond.....	90	
1. Application Includes A Program Line Item And Budget For Strategic Planning Personnel	90	
2. New 2009-2011 Pilot Project Programs, Based On The Strategic Plan	93	
3. Methodologies to Address Programs With Long Term Savings	94	
IV. SCE'S PROPOSED ENERGY EFFICIENCY PORTFOLIO	96	
A. The Proposed Portfolio Meets Or Exceeds The Energy Efficiency Goals.....	96	
1. Portfolios Meet or Exceed 2011 Cumulative Energy Savings Goals.....	96	
2. Portfolios and Funding Levels Appropriately Balance Short-Term and Long-Term Savings	97	
3. Portfolios Reasonably Allocate Funding Among Market Sectors & Applications With Respect to Potential Studies.....	98	
4. Portfolio's Proposed Cost-effectiveness Takes into Account Uncertainty	100	
5. Portfolios Are Designed to Overcome Barriers to Market Transformation and to Advance Integration	103	

SCE'S TESTIMONY IN SUPPORT OF ITS 2009-2011 APPLICATION

Table Of Contents (Continued)

Section	Page	Witness
B. Program Design Achieves Savings Objectives.....	106	G. Rodrigues
1. Strategies To Reduce Critical Peak Loads And Improve System Load Factors	106	
2. Strategies To Minimize Lost Opportunities.....	107	
3. Successful And Cost-Effective Programs Have Been Continued.....	110	
4. Program Design Reflects Cumulative Savings.....	110	
5. How The Potential Inclusion Of Energy Savings From “Spillover” Activities Has Been Reflected In Program Design	111	
6. How Utilities Propose That Potential Energy Savings From Market Transformation Programs Should Be Measured, And How This Will Lead To The Phase Out From Utility Programs Of The Transformed Measures.....	112	
7. Emerging Technologies That Are Anticipated To Increase Savings Potential	113	
8. Portfolios Contribute to the Green Building Initiative	114	
C. Proposed Portfolio Design Reflects Market Strategies, Integration, And Delivery Channels To Enhance Customer Participation In Demand-Side Resources	116	J. Nall
1. Summary of Proposed Programs	116	
a) Residential Programs	116	
(1) Appliance Recycling.....	116	
(2) Home Energy Efficiency Rebate (HEER) Program.....	116	
(3) Business And Consumer Electronics Program (BCEP).....	117	
(4) Plug Load Efficiency Program.....	117	

SCE'S TESTIMONY IN SUPPORT OF ITS 2009-2011 APPLICATION

Table Of Contents (Continued)

Section	Page	Witness
(5) Residential Lighting Incentive Program For Basic CFLs	118	
(6) Advanced Consumer Lighting Program.....	118	
(7) Multi-Family Energy Efficiency Rebate Program.....	119	
(8) Comprehensive Mobile Home Program.....	119	
(9) Comprehensive Home Performance Program.....	120	
(10) Home Energy Efficiency Survey (HEES) Program	120	
(11) Efficient Affordable Housing	121	
(12) On-line Buyer’s Guide.....	121	
(13) California New Homes Program.....	121	C. Hawkins
(14) Manufactured Housing New Construction.....	122	
b) Nonresidential Programs.....	122	
(1) MSP – Industrial Sector	123	
(2) MSP – Agriculture and Water Systems Sector	123	
(3) MSP – Commercial And Small Business	124	
(1) Residential/Light Commercial HVAC Program	124	
(2) Commercial New Construction Quality Assurance (CNCQA)	124	
(3) Business Incentives Element.....	125	

SCE'S TESTIMONY IN SUPPORT OF ITS 2009-2011 APPLICATION

Table Of Contents (Continued)

	Section	Page	Witness
(4)	Industrial Energy Efficiency Program.....	125	
(5)	Agriculture Energy Efficiency Program.....	126	
(6)	Financial Solutions Element	126	
(7)	Business Services Element	127	
(8)	Commercial Energy Efficiency Program.....	128	
(9)	Entertainment Centers Energy Efficiency	128	
(10)	Private College Campus Housing Energy Efficiency Program.....	128	
(11)	Management Affiliates Program.....	128	
(12)	K-12 Private Schools and Colleges Audit and Retrofit Program	129	
(13)	Healthcare Energy Efficiency Program.....	129	
(14)	California Preschool Energy Efficiency Program	129	
(15)	Integrated DSM Food Processing Pilot.....	129	
(16)	Automated Energy Review For Schools.....	130	
(17)	Savings By Design.....	130	
(18)	Sustainable Portfolios	130	
(19)	Monitoring-Based Commissioning Program.....	131	
(20)	Leased Office Space Retrofit Program.....	131	

SCE'S TESTIMONY IN SUPPORT OF ITS 2009-2011 APPLICATION

Table Of Contents (Continued)

Section	Page	Witness
(21) Data Center Energy Efficiency Program.....	132	
(22) Monitoring-Based Persistence Commissioning Program	132	
(23) Data Center Optimization Program	132	
c) Partnerships.....	133	N. Jenkins
(1) Local Government Partnerships.....	133	
(2) Institutional Partnerships	135	
d) Crosscutting Programs	135	G. Ander
(1) Emerging Technologies Program (ET).....	135	
(2) Codes & Standards Program (C&S).....	136	
(3) Sustainable Communities Program.....	136	C. Hawkins
(4) Workforce Education and Training – EARTH	136	J. Nall
(5) Workforce Education and Training Synergies.....	137	
(6) Workforce Education and Training – Strategic Planning and Implementation	137	
(7) Statewide Marketing Education and Outreach.....	137	S. Kiner
(8) Integrated Marketing and Outreach	138	
(9) Marketing Education and Outreach Strategic Plan	138	
e) Solicitations.....	139	D. Arambula
(1) Third Party Solicitations	139	
f) General and Administrative Costs	140	

SCE'S TESTIMONY IN SUPPORT OF ITS 2009-2011 APPLICATION

Table Of Contents (Continued)

	Section	Page	Witness
2.	Third Party Contracts.....	141	
a)	Process, Criteria, and Statewide Consistency.....	141	
(1)	Overview.....	141	
(2)	Statewide General Solicitation.....	142	
(3)	Local General Solicitation	142	
(4)	Targeted - Statewide and Local Solicitations.....	143	
(5)	Local Targeted Solicitations	143	
(6)	Solicitation Process.....	144	
(7)	Proposal Evaluation	145	
(8)	Criteria	146	
b)	Third-Party Programs Continued From 2006-2008	151	
c)	Efforts To Expand Third-party Programs And Results Of Competitive Bid Selection Process	152	
d)	Review with Peer Review Group (PRG)	153	
e)	Implementer Contracts.....	155	
(1)	Pay For Performance Contracting.....	155	
(2)	Timely Execution Of Contracts	155	
(3)	Emphasize Greater Energy Efficiency Comprehensiveness.....	156	
(4)	Promotion Of DSM Coordination And Integration	156	
(5)	Mid-Cycle Program Funding Augmentation And Program Cancellations.....	156	

SCE'S TESTIMONY IN SUPPORT OF ITS 2009-2011 APPLICATION

Table Of Contents (Continued)

Section	Page	Witness
3. Partnerships.....	157	N. Jenkins
a) Proposed Local Government Partnership Structure And Statewide Consistency.....	157	
b) Statewide Consistency	159	
c) Government and Institutional Partnership Opportunities:	159	
d) Local Government Partnership Selection Criteria And Process	160	
e) Review With Peer Review Group.....	162	
f) PRG Recommendations And Responses	162	
g) Partnerships Comply With Energy Efficiency Policy Manual	163	
h) Palm Desert Partnership.....	164	
4. Summary Of Market Transformation Strategies.....	165	G. Rodrigues
5. Proposals For On-Bill Financing	165	C. Hawkins
a) Small Business And Institutional Customers.....	165	
b) Proposal For On-Bill Financing For Residential Customers	166	
6. Proposed Program Delivery And Market Outreach.....	167	S. Kiner
a) Proposed Marketing And Outreach Program.....	167	
b) Discussion Of Context And Funding Integration	169	
(1) Demand Response And Advanced Metering Infrastructure (AMI).....	169	
(2) California Solar Initiative, Including Commission And CEC Programs	170	
(3) Low Income Energy Efficiency	171	

SCE'S TESTIMONY IN SUPPORT OF ITS 2009-2011 APPLICATION

Table Of Contents (Continued)

Section	Page	Witness
(4) Distributed Generation.....	171	
7. Proposed Training Programs.....	171	J. Nall
a) Overview.....	171	
b) Proposed Strategies and Training Programs.....	172	
c) Outreach to Low-Income, Minorities and Disadvantaged Communities	174	
V. PROPOSED FUNDING REQUESTS, POTENTIAL BRIDGE FUNDING, AND FUND-SHIFTING PROPOSALS ARE REASONABLE	176	D. Arambula
A. Funding Request Is Reasonable.....	176	
1. Proposed Funding Levels Are Reasonable And Should Be Adopted.....	176	
2. Certain Costs Not Included In Cost-Effectiveness Calculations Per The Strategic Plan And Commission Direction	176	
B. Proposed Interim Bridge Funding May Be Necessary To Avoid Program Interruption.....	177	
C. Proposed Fund-Shifting And Program Flexibility Proposals Are Reasonable	178	
1. Modify Treatment Of Mid-cycle Funding Augmentation.....	181	
2. Recognize The Elimination Of The Policy Advisory Group For 2009-2011	182	
3. Provide Additional Clarity To Prior Year's Fund Shifting Guidelines To Reduce Confusion	182	
4. Funding Proposal For Rolling Budget Cycle As Set Forth In D.07-10-032.....	183	
5. Proposal For Encumbering Funds From Subsequent Budget Cycles	183	

SCE'S TESTIMONY IN SUPPORT OF ITS 2009-2011 APPLICATION

Table Of Contents (Continued)

Section	Page	Witness
VI. PROPOSED EVALUATION, MEASUREMENT & VERIFICATION PLANS AND BUDGETS.....	184	M. Brown
A. Funding Principles And Overall Funding Request.....	184	
B. Proposed SCE Studies And Activities.....	185	
1. Program-Specific Analyses.....	185	
a) Process Evaluations And Evaluability Assessments.....	185	
b) Program-Linked Market Analysis Studies.....	186	
c) Early Measurement & Verification/Baseline Activities.....	186	
2. SCE's Crosscutting EM&V Activities.....	187	
a) Energy Efficiency Forecasting, Forecasting Model, And Annual Savings Model.....	187	
b) Market Segment Studies.....	187	
c) Basic Data Collection And Analysis: Demographic, Business, And Weather Data.....	188	
d) Portfolio Analysis.....	188	
e) Program Best Practices Updates.....	189	
f) Multi-Client Studies.....	189	
g) Conference/Organization Support.....	189	
h) CALMAC Support And Website.....	190	
i) Statewide Saturation Surveys.....	190	
3. SCE EM&V Staffing.....	190	
VII. REVENUE REQUIREMENTS AND COST RECOVERY.....	192	J. Holmes
A. Overview.....	192	
B. PGC Energy Efficiency Ratemaking.....	193	

SCE'S TESTIMONY IN SUPPORT OF ITS 2009-2011 APPLICATION

Table Of Contents (Continued)

Section	Page	Witness
C. Procurement Energy Efficiency Ratemaking.....	194	
D. On-Bill Financing (OBF) Balancing Account	195	
E. Rate Recovery of Energy Efficiency Program Costs.....	196	
F. Rate And Bill Impact Analysis	197	
G. Revenue Requirements and Cost Recovery	197	
Appendix A Witness Qualifications	198	
Appendix B SCE 2009-2011 Energy Efficiency Program Plan Abbreviations & Acronyms	19	

SCE'S TESTIMONY IN SUPPORT OF ITS 2009-2011 APPLICATION

List Of Tables

Table	Page
Table I-1 Annual Energy Savings and Demand Reduction	6
Table I-2 Energy Savings and Demand Reduction by End Use	7
Table I-3 Annual Budgets	8
Table I-4 Estimated Budgets And Savings For New Approaches	22
Table I-5 Energy Savings And Demand Reduction By Market Sector	23
Table II-6 Proposed SCE Costs To Exclude From 2009-2011 Earnings Mechanism	49
Table IV-7 Forecasted Energy Savings and Demand Reduction Towards 2009-2011 Cumulative Goal	97
Table IV-8 Energy Efficiency Potential by Sector 2009-2011	99
Table IV-9 Comparison of SCE's Portfolio	99
Table IV-10 Total Resource Cost (TRC)	100
Table IV-11 Program Administrator Cost (PAC)	101
Table IV-12 Total Resource Cost (TRC) With Higher Carbon Adder	102
Table IV-13 Program Administrator Cost (PAC) With Higher Carbon Adder	102
Table IV-14 Scenarios Based on Key Parameters Influencing Cost-effectiveness	103
Table IV-15 Abstract Evaluation Criteria	162
Table IV-16 Summary of Marketing Budget	168
Table V-17 Proposed 2009-2011 Energy Efficiency Fundshifting Guidelines	180
Table VII-18 Requested Energy Efficiency Authorized Program Costs Increase (\$000)	192
Table VII-19 Procurement Energy Efficiency Authorized Program Funding (Illustrative (000))	195

1 I.

2 **INTRODUCTION AND EXECUTIVE SUMMARY**

3 In this Application and supporting Testimony, Southern California Edison Company (SCE)
4 requests approval of its 2009-2011 energy efficiency program plans and SCE’s funding requests.
5 Specifically, SCE requests authority to fund these programs through: (1) its existing Energy Efficiency-
6 related Public Goods Charge (PGC); (2) its existing Procurement Energy Efficiency-related Public
7 Purpose Programs Charge (PPPC), and (3) an increase in its Procurement Energy Efficiency-related
8 PPPC.

9 This Application comes at a very important time for energy efficiency in California and for SCE.
10 Together we are at a turning point in both the importance of efficiency to the state’s energy and
11 environmental future and the commitment of state and utility leaders to pursue innovative and forceful
12 efficiency measures. As the joint *California Energy Efficiency Strategic Plan* (CEESP) states:

13 “California is demanding a next generation of energy efficiency to meet its energy,
14 environmental, and economic goals for 2020 and beyond. This [Strategic Plan] is the first
15 step in a new, ongoing, statewide planning effort. The objective of this effort is to define
16 visions, goals, and strategies for aggressively delivering energy efficiency to homes, offices,
17 factories, and farms and to significantly contribute to the State’s goal of having a reasonably
18 priced, stable, reliable, and clean portfolio of energy.”¹

19 This Application is the first SCE energy efficiency program application to be developed and
20 proposed since several ground-breaking energy efficiency-related developments in California – most
21 notably:

- 22 • Enactment of Assembly Bill 32 (AB 32), and its burgeoning implementation;
- 23 • Adoption by the Commission of a series of important decisions including-
 - 24 • establishing a shareholder incentive mechanism for energy efficiency,
 - 25 • approving Big, Bold Energy Efficiency Strategies (BBEES), and

¹ California Energy Efficiency Strategic Plan, dated June 2, 2008, Executive Summary, p. 1.

- 1 • requiring the Investor Owned Utilities (IOUs)² to develop a first-ever statewide energy
2 efficiency strategic plan to 2020, with a strong emphasis on market transformative
3 actions;
- 4 • Adoption of new approaches in related demand-side resources, including demand response
5 and distributed renewable generation, such as SCE’s proposed 250 megawatts of customer-
6 sited photovoltaics, and
- 7 • Development of that strategic plan by the IOUs with strong input from the Commission and
8 stakeholders.

9 This Application complies with all Commission Decisions related to the 2009-2011 energy
10 efficiency programs, including D.04-09-060, D.05-01-055, D.05-04-051, D.07-10-032, and numerous
11 rulings, including the February 29, 2008, “Assigned Commissioner and Administrative Law Judge’s
12 Ruling Regarding 2009-2011 Energy Efficiency Program Applications.”³ Perhaps more importantly, it
13 adheres to the spirit of those Commission Decisions, the Energy Action Plan, the CEESP, and other
14 important State actions.

15 However, within the framework of the new CEESP, and its call for long term market
16 transformative actions, several selective changes to current policies would enable SCE to more
17 effectively rise to the challenge of meeting the Commission’s aggressive and visionary goals. These
18 proposed policy changes are listed in Chapter II.

19 SCE believes that approval of this Application will promote the Commission’s and the strategic
20 plan’s goals of resource procurement and market transformation from the provision of energy efficiency
21 products and services, and of bold, long-term strategies for efficiency. SCE’s proposed portfolio, with
22 selective proposed policy changes, represents an investment of \$1.344 billion that will generate an
23 unprecedented 6.022 billion kilowatt hours of cumulative gross annualized energy savings, 1,225

² Southern California Edison, Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Gas Company.

³ Other related rulings; Assigned Commissioner and Administrative Law Judge’s Ruling, dated May 5, 2008 and Assigned Commissioner and Administrative Law Judge’s Ruling, dated June 2, 2008.

1 megawatts of gross peak demand reduction, and over \$4.708 billion in gross resource benefits to
2 ratepayers, resulting in \$3.364 billion in gross benefits to ratepayers, after program costs.⁴ This
3 Application and Testimony support this preferred approach. A full detailed showing of this scenario is
4 shown in Exhibit SCE-2.

5 For information purposes, SCE also ran a scenario compliant with the 2009-2011 Commission
6 directives. Under this plan, the portfolio represents an investment of \$1.344 billion that will generate
7 5.666 billion kilowatt hours of cumulative gross⁵ annualized energy savings 1,215 megawatts of gross
8 peak demand reduction, and over \$2.942 billion in gross resource benefits to ratepayers, resulting in
9 \$1.598 billion in gross benefits to ratepayers, after program costs. A full detailed showing of this
10 scenario is shown in Exhibit SCE-2.

11 In D.07-10-032, the Commission concluded the goals adopted for SCE in D.04-09-060 are
12 reasonable and appropriate to use in the 2009-2011 program planning cycle⁶ and suggested that the
13 proposed energy efficiency program portfolio plans and funding levels meet the adopted goals. D.07-
14 10-032 also directed that the goals must be aggressive and must stretch the capabilities and efforts of
15 those involved. The Commission's recent Draft Decision clarifies that the adopted energy efficiency
16 savings goals for 2009-2011 be defined as a "gross" level that includes free riders.⁷ Such a
17 determination is reflective of the latest data on energy efficiency potential and is in line with the
18 promotion of strategic, long term energy efficiency programs, such as those promoted in the
19 Application.⁸ In order to facilitate achievement of the long term goals of the State, the Commission
20 authorized a three-year program implementation and funding cycle.⁹

⁴ Gross savings and benefits are not reduced by an estimate of free-ridership.

⁵ Gross goals were used in compliance with the Proposed Decision Adopting Interim Energy Efficiency Savings Goals For 2012 Through 2020, And Defining Energy Efficiency Savings Goals For 2009 Through 2011, dated July 1, 2008, p.2.

⁶ D.07-10-032, dated October 18, 2007, OP #24 p. 48.

⁷ Draft Decision Adopting Interim Energy Efficiency Savings Goals For 2012 Through 2020, And Defining Energy Efficiency Savings Goals for 2009 Through 2011, OP # 4, p. 35.

⁸ *Id.*, pp. 2-3, and 27.

⁹ D.07-10-032, dated October 18, 2007, p. 11, *also see* D.04-09-060, dated September 23, 2004, p. 22.

1 D.07-10-032 affirmed D.05-01-055, which ordered the IOUs to assume responsibility for
2 program choice and portfolio management functions for post-2005 energy efficiency programs.¹⁰ D.07-
3 10-032 required, among other items, that the IOUs file their Applications no later than May 15, 2008,
4 for development of and Commission approval of a proposed statewide strategic plan, energy efficiency
5 program plans, and funding levels through both the public goods charge and procurement rates, for the
6 three-year program implementation and funding cycle beginning January 1, 2009.¹¹

7 A subsequent Assigned Commissioner's Ruling Regarding Due Dates for 2009-2011 Energy
8 Efficiency Portfolio Plans and Energy Efficiency Strategic Plan Application dated May 5, 2008,
9 extended the deadline for the portfolio plans to June 23, 2008, and the deadline for the strategic plan to
10 June 2, 2008.¹² The deadline for the portfolio plans was subsequently extended to July 21, 2008, by
11 Assigned Commissioner's And Administrative Law Judge's Ruling Resetting Date For 2009-2011
12 Energy Efficiency Program Applications, dated June 2, 2008.¹³

13 D.05-04-051 clarified the goals, policies, and administrative framework and D.07-10-032
14 directed that utility energy efficiency performance should be evaluated on the basis of overall portfolio
15 achievement rather than individual programs.¹⁴ Consistent with these decisions, SCE's Application,
16 with proposed policy changes, presents a portfolio which exceeds the established goals.

17 To meet D.07-10-032's requirement by the IOUs to develop and file a final strategic plan as part
18 of their Applications, the IOUs prepared a Preliminary Energy Efficiency Strategic Plan (PEESP) over a
19 three-month period, involving the guidance of the Commission and bringing together the input of over
20 1,100 participants in over 35 workshops. Based on subsequent input from filed comments, stakeholder
21 public workshops, and discussions with Commission staff, the IOUs revised the PEESP and submitted it

¹⁰ D.07-10-023, dated October 18, 2007, p. 4.

¹¹ D.07-10-032, dated October 18, 2007, OP #4, 10 and 12, pp. 141-144.

¹² Assigned Commissioner's and Administrative Law Judge's Ruling Regarding Due Dates for 2009-2011 Energy Efficiency Portfolio Plans and Energy Efficiency Strategic Plan Application, dated May 5, 2008, pp. 2-3.

¹³ Assigned Commission's and Administrative Law Judge's Resetting Date for 2009-2011 Energy Efficiency Program Application, dated June 2, 2008, p. 2.

¹⁴ D.05-04-051, dated April 21, 2005, p. 7 *see also* D.07-10-032, dated October 18, 2007, p. 12.

1 as the final California Energy Efficiency Strategic Plan (CEESP) on June 2, 2008.¹⁵ The objective of
2 the Strategic Plan is to contribute to the state’s goal of having reasonably priced, stable, reliable, and
3 clean energy resources by bringing energy efficiency efforts – not only those of the utilities, but of the
4 many other essential energy actors – to a “next level”, by identifying and implementing a path of
5 aggressive resource acquisition, market transformation, and innovative, integrated solutions for an ultra-
6 efficient and even zero net energy future.

7 SCE’s 2009-2011 Energy Efficiency Application aspires to fully realize all cost-effective energy
8 efficiency as a reliable, robust, and least-cost resource, fully aligned with the State’s vision of energy
9 efficiency and all activities as communicated in the *Energy Action Plan* (EAP).¹⁶ SCE’s proposed
10 portfolio offers a unified program approach where all programs work together seamlessly to encourage
11 customers to take the appropriate actions towards energy efficiency. SCE relies on a combination of
12 short- and long-term solutions to energy efficiency that will vigorously implement SCE’s commitment
13 to making energy efficiency part of its long-term resource solution.

14 SCE’s portfolio creates a framework for sustainable energy efficiency and other demand
15 reduction programs and a process for achieving extensive energy savings through short-term programs
16 and using long-term planning to sow the seeds of future programs and initiatives. SCE maximizes the
17 benefits of diversity within the portfolio among approaches, measures, markets, delivery channels, and
18 implementers. SCE maximizes the potential of its programs by engaging in collaborative efforts with
19 others in planning and delivering energy efficiency savings. SCE also continues to develop and sustain
20 partnerships as a key element of efforts to build a durable distributed infrastructure of local energy
21 efficiency networks; SCE views partnerships as an effective means to encourage customers, on a local

¹⁵ A.08-06-004.

¹⁶ The Energy Action Plan, most recently updated jointly by the Commission and the California Energy Commission in March 2008, identifies specific goals and actions to ensure that adequate, reliable and reasonably-priced electrical power and natural gas supplies are achieved and provided through cost-effective and environmentally sound strategies. A copy of the Energy Action Plan is posted on the Commission’s website at <http://www.cpuc.ca.gov/static/energy/electric/energy+action+plan/index.htm>. See also, Decision 05-06-043, *mimeo*, p. 15; Energy Efficiency Policy Manual Version 3 (Policy Rules), Rule II.2 (Attachment 3 to D.05-04-051).

1 level, to embrace energy efficiency. Furthermore, SCE looks to new and emerging technologies,
2 promising program designs, and codes and standards to build the future for energy efficiency.

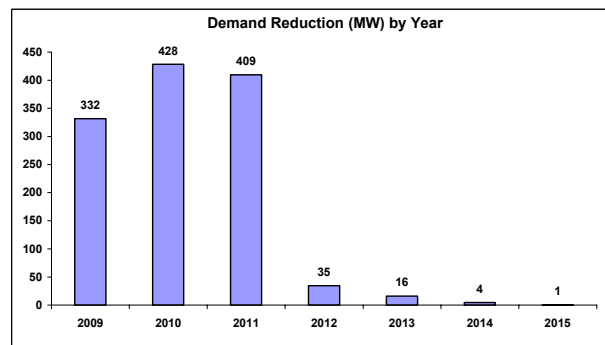
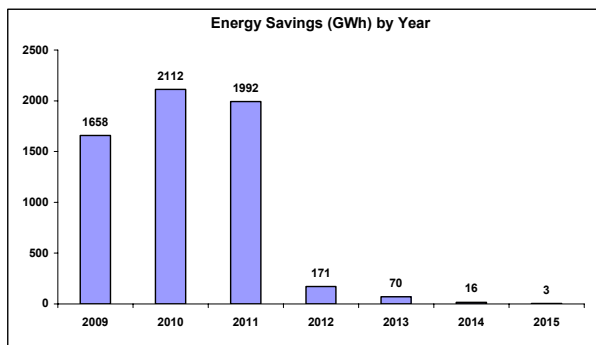
3 It is important to note the magnitude of the task at hand with regard to the state's energy,
4 economic, and environmental future; California's concerns in these regards – skyrocketing oil and
5 natural gas prices, the credit crunch, and projections of climate change-driven heat waves- are serious
6 and stubborn. Energy efficiency and other DSM must play a central, if not leading, role in responding to
7 these challenges, and SCE is committed to contribute vigorously and successfully. This Application and
8 the related strategies laid out in the CEESP are critical in SCE doing so.

9 **A. Summary Tables And Pie Charts Of Portfolios And Energy Efficiency Measure Groupings**

10
11 **1. Energy Savings And Demand Reduction**

12 SCE's 2009-2011 portfolio represents 6.022 billion kilowatt hours of cumulative
13 annualized energy savings and 1,225 megawatts of peak demand reduction. See Table I-1 below for
14 energy savings and demand reduction by year. Exhibit SCE-2, Table 1.1 includes a detailed projection.

***Table I-1
Annual Energy Savings and Demand Reduction***

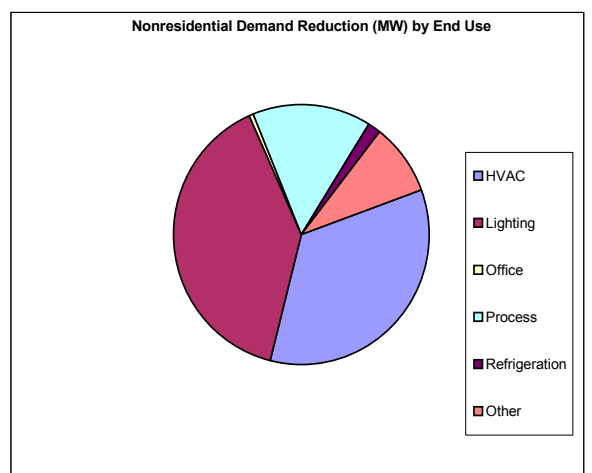
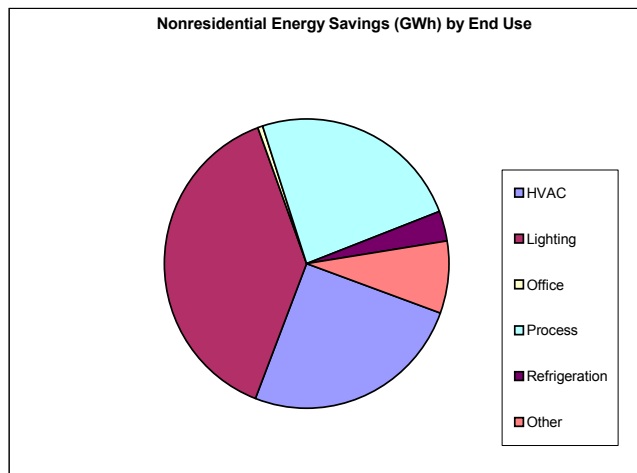
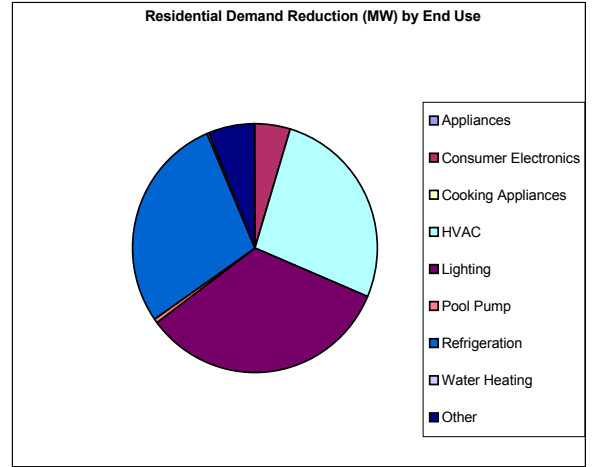
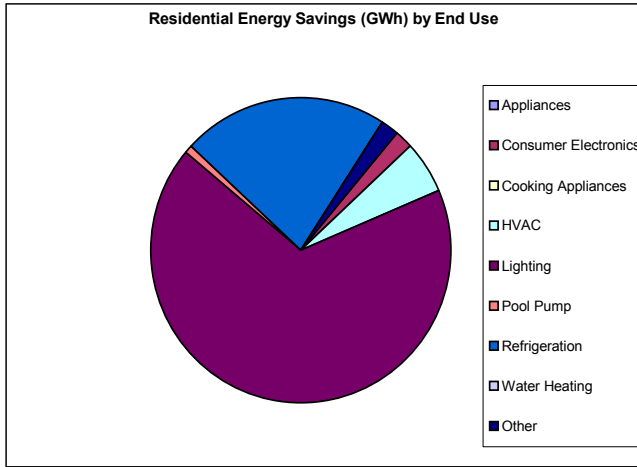


Note: Includes forecast of Low Income Energy Efficiency and Codes and Standards impacts for the 2009-2011 program cycle.

15 **2. End Use Savings**

16 SCE's 2009-2011 portfolio savings is comprised of HVAC, lighting, refrigeration and
17 other miscellaneous end uses. The break out of energy savings and demand reduction among end uses is
18 shown below in Table I-2.

Table I-2
Energy Savings and Demand Reduction by End Use



3. Budget

SCE's 2009-2011 portfolio represents \$1.344 billion. Table I-3 below represents SCE's proposed annual budget. Exhibit SCE-2, Table 4.1 contains SCE's proposed yearly and total budget by program

**Table I-3
Annual Budgets**

	2009 Budget	2010 Budget	2011 Budget	Total 2009-2011 Program Cycle Budget
Total SCE Program Budget	\$ 366,666,000	\$ 428,377,000	\$ 460,257,520	\$ 1,255,300,520
Total SCE/CPUC EM&V Budget	\$ 22,118,000	\$ 33,177,000	\$ 33,083,480	\$ 88,378,480
Total SCE Portfolio Budget	\$ 388,784,000	\$ 461,554,000	\$ 493,341,000	\$ 1,343,679,000

B. Elements Of The 2009-2011 Portfolio Are Designed To Reflect The Strategic Plan

In D.07-10-032, the Commission approved a ground-breaking new requirement for the State’s IOUs to prepare a single strategic plan for energy efficiency through 2020 and beyond, as “a directed, statewide strategic planning effort [that] will deliver more savings from existing measures, create new savings opportunities for the future, and afford efficiencies in the development and delivery of programs.”¹⁷

SCE strongly supports the development of a single statewide strategic plan for energy efficiency, as outlined by the Commission in the Decision. Since that Decision, over 1,100 participants, including the Commission and IOU staffs and other key stakeholders, have invested significant time, resources, and effort in this process. SCE and the other IOUs submitted a supplemented draft California Energy Efficiency Strategic Plan (CEESP) on March 8, 2008 and the final version by the IOUs, on June 2, 2008.

As a foundation for continued strategic planning and implementation during 2009-2011 and beyond, SCE proposes establishing a dedicated and substantial energy efficiency Strategic Planning Team (Team). This dedicated Team will help lead SCE’s strategic planning, including collaboration with the Commission and other key actors towards the goals, strategies, actions, and results put forward in the CEESP.

Additionally, SCE’s entire portfolio is both guided by the goals and strategies of the CEESP and launches its implementation. CEESP-guided programs permeate this Application; examples include:

¹⁷ D.07-10-032 dated October 18, 2007, p. 20

- 1 • Comprehensive Home Performance Program – this program advances comprehensive energy
2 efficiency measures, including whole house solutions, plug load efficiency, visual monitoring
3 and displays, performance standards, local government opportunities, and DSM integration.
4 The program addresses the key “whole house” residential strategy¹⁸ of the CEESP by
5 influencing homeowner “decision triggers” to improving home energy efficiency and
6 understand advantages to expand participation to reach savings goals. Additionally, the
7 program supports the HVAC sector strategy¹⁹ to promote whole-building performance to
8 improve space conditioning.
- 9 • Savings By Design – this program advances comprehensive energy efficiency including
10 integrated design approach, support of commissioning and M&V, and support of training
11 activities, in alignment with the CEESP’s commercial sector strategy²⁰ to promote integrated
12 design knowledge for zero net and ultra-low energy commercial buildings.
- 13 • Sustainable Communities (including Advanced Homes component) – this program stimulates
14 demand for lower energy, and eventually, zero net energy new homes and buildings. The
15 program aligns with the CEESP’s residential sector strategy²¹ to mount an effort to deliver
16 zero net energy new homes by 2020 and the CEESP’s commercial sector strategy²² to
17 promote integrated design knowledge for zero net and ultra-low energy commercial
18 buildings.
- 19 • Residential/Light Commercial HVAC Program – this program accelerates market penetration
20 of advanced technologies by updating/expanding current programs to include new
21 technologies. Program activities also include Quality Installation and Maintenance
22 Initiatives (QI/QM), a comprehensive training needs assessment to identify and address

¹⁸ California Energy Efficiency Strategic Plan, dated June 2, 2008, p. 2-17.

¹⁹ *Id.* p. 6-11.

²⁰ California Energy Efficiency Strategic Plan, dated June 2, 2008, p 3-16 to 3-17.

²¹ *Id.* pp. 2-16 to 2-17.

²² *Id.* pp. 3-16 to 3-17.

1 industry skill gaps, statewide HVAC efficiency branding, and development of an Advisory
2 Group involving high-level industry stakeholders, such as manufacturers, distributors,
3 contractors, and other key players. This program aligns with the CEESP’s HVAC sector
4 strategies²³ to charter an HVAC Advisory Group, develop new California-oriented HVAC
5 technologies, and promote quality HVAC installation/maintenance.

- 6 • Emerging Technologies Program – this program continues to expand its efforts to increase
7 demand for new energy efficiency technologies, ramp up targeted market intelligence-
8 gathering, and expand energy efficiency related R&D activities to create market pull for
9 energy efficient technologies. Additionally, the new TRIO Program leverages private
10 industry technology research and investment by seeking to enable the progress of identified
11 promising technologies. This program also includes evaluation of products that integrate
12 various DSM offerings. The Emerging Technologies Program aligns with the CEESP’s
13 research and technology sector strategies²⁴ to enhance market intelligence, expand activities
14 to create market pull for efficient technologies, leverage private industry, drive product
15 improvement, and focus on the leading edge.
- 16 • Local Government & Institutional Partnerships – the partnership portfolio partners with
17 cities, counties, and other local government organizations that have a vision for sustainability
18 and a desire to provide leadership to their communities. Partners are required to lead by
19 example, take action in their own facilities, and provide opportunities for constituents to take
20 action in their homes and businesses. Additionally, the 2009-2011 partnerships include an
21 increased emphasis on integration with demand response and other DSM offerings. SCE’s
22 partnerships align with the CEESP’s local government sector strategies²⁵ including local
23 governments leading by example and local governments supporting clean energy goals.

²³ *Id.* pp. 6-7 to 6-10.

²⁴ California Energy Efficiency Strategic Plan, dated June 2, 2008, pp. 11-9 to 11-11.

²⁵ California Energy Efficiency Strategic Plan, dated June 2, 2008, pp. 12-11 to 12-17.

- 1 • Marketing, Education & Outreach – in accordance with the CEESP,²⁶ this program includes
2 exploration of a statewide EE/DSM brand for California, utilization of statewide
3 segmentation and social marketing techniques to develop appropriately shaped marketing
4 campaigns and messages that facilitate awareness and long-term behavior change, and
5 development of a statewide EE/DSM web portal.
- 6 • Codes & Standards Program – this program strives to promote more comprehensive
7 standards, move to a zero energy based methodology, and focus on improved Title 24 and 20
8 code compliance. It also seeks to address the pre-emption of California appliance efficiency
9 standards by the federal government. The program aligns with the CEESP codes and
10 standards sector strategies²⁷ including development of more stringent and comprehensive
11 codes and standards, and improved code compliance and enforcement.
- 12 • On-Line Buyer’s Guide – this program provides SCE’s residential customers with one web-
13 based source for information and tools needed to overcome market barriers that prevent
14 customers from purchasing energy efficient products and participating in energy efficiency
15 programs. The program aligns with the CEESP’s residential sector strategy²⁸ to encourage
16 development and penetration of more energy efficient products, particularly plug load
17 devices.
- 18 • Industrial Energy Efficiency Program – this program advances comprehensive energy
19 efficiency, including integrating approaches to better maximize savings and minimize lost
20 opportunities, planning and recruiting sites for a pilot certification program in industrial
21 facilities, analyzing and identifying resulting process improvements, investigating financing
22 options, benchmarking, and promoting advances in equipment efficiency and operations
23 through process improvements. The program aligns with the CEESP’s industrial sector

²⁶ *Id.* pp. 10-7 to 10-8.

²⁷ California Energy Efficiency Strategic Plan, dated June 2, 2008, pp. 7-7 to 7-11.

²⁸ *Id.* p. 2-18.

1 strategy²⁹ to leverage the marketing and competitive benefits of energy efficiency branding,
2 certification, and continuous improvement methods.

- 3 • Proposed California Energy Efficiency Alliance – as proposed in the CEESP,³⁰ SCE, with the
4 other IOUs, proposes to establish and contribute to a California Energy Efficiency Alliance
5 (CEEA). The CEEA is a forum for market transformation for energy efficiency program
6 administrators in California that are willing to devote substantial resources and coordinate
7 activities to further the market transformation objectives and strategies in the CEESP.

8 There are numerous initiatives throughout this Application that are designed to better integrate
9 the energy efficiency activities and goals with those of the other demand side resources, including
10 demand response, advanced metering, low income, California Solar Initiative (CSI), *etc.* See Exhibit
11 SCE-5, Demand Side Management Integration and Coordination for more detail.

12 For a complete “crosswalk” between SCE’s 2009-2011 portfolio and the CEESP’s sector-
13 specific strategies, see Exhibit SCE-6.

14 **C. Summary Of Initiatives And Activities Proposed To Accomplish The Sector Objectives**
15 **And Why Program Strategies Will Meet The Stated Goals**

16 One of the most important aspects of the regulatory and business environment guiding the design
17 of the 2009-2011 energy efficiency portfolio is the need to be strategic, comprehensive, and “big and
18 bold”. This Application makes essential steps in that direction. Below are examples of the proposed
19 initiatives and activities that will help accomplish the goals.

20 BBEES 1: All new residential construction in California will be zero net energy (ZNE) by 2020.

21 The portfolio includes both residential new construction and crosscutting initiatives, programs,
22 and activities to accomplish the goals of the residential new construction ZNE BBEES, as they are laid
23 out in D.07-10-032 and the CEESP.³¹ Residential new construction activities include:

²⁹ California Energy Efficiency Strategic Plan, dated June 2, 2008, pp. 4-16 to 4-18.

³⁰ California Energy Efficiency Strategic Plan, dated June 2, 2008, p.13-4.

³¹ D.07-10-032, dated October 18, 2007, pp. 42-44, see also California Energy Efficiency Strategic Plan, dated June 2, 2008, pp. 2-1 to 2-20.

1 • California New Homes Program (CANHP) – CANHP offers financial incentives (as well as
2 training opportunities, technical support, and marketing resources) to homebuilders who
3 construct homes that exceed Title 24 standards. SCE proposes two important steps to
4 enhance the program and put it directly on a path to support ZNE new construction:

- 5 • Switching to performance-based incentives
- 6 • Establishing a Service Planning “fast track” for qualifying new construction projects.

7 The incentive structure will further promote the BBEES and related goals by incenting
8 homes that are green, compact, and/or zero peak.

9 Crosscutting activities that significantly help meet the residential ZNE BBEES include:

- 10 • Sustainable Communities Program (SCP) – SCP is the step beyond CANHP, offering
11 integrated design assistance and financial incentives to encourage builders to use sustainable
12 energy efficient building design and construction practices for homes, buildings, and
13 communities. Additionally, SCP promotes the integration of energy efficiency, demand
14 response, advanced metering, and clean distributed generation, while facilitating the most
15 appropriate package of services. SCE proposes piloting ZNE strategies and communities (as
16 a non-resource program) that will mainstream over time into core programs (*e.g.* CANHP
17 and Savings By Design) as they become cost-effective.
- 18 • Codes & Standards (C&S) Program – C&S strives to promote more comprehensive standards
19 and move to a zero energy based methodology. Also, C&S focuses on improved Title 24 and
20 code compliance and on addressing the pre-emption of California appliance efficiency
21 standards by the federal government.
- 22 • Emerging Technologies Program (ETP) – ETP works to encourage new technology and
23 product development and facilitate the accelerated adoption that is necessary for widespread
24 development of ZNE new homes.
- 25 • Local Government & Institutional Partnerships – the Partnership Program strives to
26 increasingly focus on the residential new construction ZNE goal.

- Additional contributory programs – these include the Business & Consumer Electronics Program, Marketing, Education, & Outreach, Workforce Education & Training, and the proposed California Energy Efficiency Alliance.

BBEES 2: All new commercial construction in California will be zero net energy by 2030.

The portfolio includes both commercial new construction, and crosscutting initiatives, programs, and activities to accomplish the goals of the commercial new construction ZNE BBEES, as laid out in D.07-10-032 and the CEESP.³² Commercial new construction activities include:

- Savings By Design (SBD) – SBD is a statewide program that targets new and expanding commercial, industrial, governmental and institutional facilities, offering a full spectrum of support to building owners, architects, engineers, and others. SBD provides multi-level design and technical and financial assistance to influence basic design. The program aims to minimize lost opportunities that result when a building’s energy performance is not a primary consideration in a project’s design. SBD is promoting zero net and very low energy efficiency through three complementary components – Whole Building Approach (Integrated Design), Systems Approach, and a Simplified Approach for Small Projects. Guided by the CEESP, SBD now offers additional financial incentives beyond direct energy savings and demand reduction incentives to qualifying projects that achieve green building certification, in support of enhanced energy efficiency, perform building commissioning during design and construction, and/or establish and follow a building measurement and verification (M&V) plan after occupancy. In addition, SBD offers design firms extensive technical support to build their in-house integrated design and energy modeling capability.

Crosscutting actions that significantly help meet the commercial ZNE BBEES include:

- Sustainable Communities Program (SCP) – SCP addresses commercial and residential construction practices that affect energy use, and is also coordinated with any incentives offered by Air Quality Management District (AQMD) and others to promote water

³² D. 07-10-032, dated October 18, 2007, pp. 46-48, see also California Energy Efficiency Strategic Plan, dated June 2, 2008, pp. 3-1 to 3-17.

1 efficiency, occupant health, and environmental well-being. SCP recognizes that the
2 integration of Demand Side Management (DSM) approaches and integrated design is
3 important to achieving ZNE new construction. SCP will help commercialize ZNE
4 approaches for incorporation into the 2012-2014 cycle and beyond and is an important
5 component of implementing the CEESP.

- 6 • Other programs that advance specific commercial sub-sectors toward zero net and very low
7 energy performance, such as the Automated Energy Review for Schools Program.
- 8 • Codes & Standards Program – C&S strives to promote more comprehensive standards for
9 Title 24-jurisdictional commercial buildings, and move to a zero energy based methodology.
10 Also, C&S focuses on improved Title 24 and 20 code compliance and on addressing the pre-
11 emption of California appliance efficiency standards by the federal government.
- 12 • Emerging Technologies Program – ETP encourages new technology and product
13 development and facilitates the accelerated adoption that is necessary for widespread
14 development of ZNE new buildings.
- 15 • Additional contributory programs – these include Marketing, Education & Outreach, Local
16 Government & Institutional Partnerships, Workforce Education & Training, and the proposed
17 California Energy Efficiency Alliance.

18 BBEES 3: Heating, Ventilation, and Air Conditioning (HVAC) will be reshaped to ensure
19 optimal equipment performance.

20 The portfolio includes both specifically targeted and crosscutting initiatives, programs and
21 activities to accomplish the goals of the HVAC BBEES, as laid out in D.07-10-032 and the CEESP.³³

22 HVAC specific initiatives include:

- 23 • Implementing a variety of downstream, midstream, and upstream strategies designed to
24 positively influence the overall behavior of all stakeholders in both the residential and light
25 commercial HVAC markets. Upstream strategies will be used to increase shipments of

³³ D. 07-10-032, dated October 18, 2007, pp. 50-52, see also California Energy Efficiency Strategic Plan, dated June 2, 2008, pp. 6-1 to 6-13.

1 innovative HVAC equipment that offers better peak demand and energy efficient
2 performance in California’s hot, dry climate. Increased emphasis will be placed on statewide
3 marketing and branding efforts to create market pull, and contractor training and education to
4 create market push. The proposed strategies include comprehensive midstream activities
5 (that differ between residential and non-residential applications) and significant downstream
6 customer incentives for quality installed and code compliant air conditioning systems.

7 Crosscutting actions that help meet the HVAC BBEES include:

- 8 • Codes & Standards Program – C&S strives to promote more comprehensive standards,
9 including the development of HVAC standards better suited for hot, dry climates, and move
10 to a zero energy based methodology. C&S also focuses on improved code compliance and
11 addressing the pre-emption of California HVAC efficiency standards by the federal
12 government.
- 13 • Emerging Technologies Program – ETP encourages new technology and product
14 development and facilitate the accelerated adoption that is necessary for widespread
15 transformation of HVAC (especially hot/dry oriented air conditioning) in California.
- 16 • Additional contributory programs – these include the Local Government & Institutional
17 Partnerships, Financial Solutions, Workforce Education & Training, Marketing, Education,
18 & Outreach, and the proposed California Energy Efficiency Alliance.

19 Local Government

20 Recognizing the key role played by local governments to provide energy efficiency,
21 conservation, distributed renewable generation and other DSM resources, SCE embraces the vision of
22 the CEESP to strengthen and capitalize on the capacity of local governments. Local governments’ role
23 includes improving codes and standards compliance, providing energy efficiency and other DSM
24 incentives and regulations, reaching out to their communities, and leading by example in their own
25 facilities.

26 The Local Government Partnerships (LGPs) in this Application work with the Sustainable
27 Communities Program and Codes and Standards Program to provide support to local governments to

1 adopt and support relevant policies, ordinances and building codes. Peer-to-peer support is considered a
2 key part of this strategy; the partnerships provide forums for local governments to come together and
3 share best practices and to learn from and support each other. In addition, SCE includes local
4 government organizations such as Councils of Government (COG) and other Joint Powers Associations
5 in the partnership portfolio.

- 6 • As recognized by the CEESP,³⁴ code compliance is a challenge for many local governments.
7 The program supports local government Title 24 compliance activities with energy code
8 training for plan checkers and building inspectors.
- 9 • Local governments also provide venues for the piloting of new technologies, many of which
10 are zero net or ultra low energy related. SCE will explore opportunities to test technologies
11 that could be coordinated statewide.
- 12 • SCE provides assistance for cities and counties to identify energy efficiency retrofit projects,
13 as well as technical assistance including audits to help overcome barriers to implementation
14 of energy efficiency projects.
- 15 • To help local governments mobilize their communities and set community-wide goals and
16 strategies, SCE is enhancing its partnership offering to support and reward such initiative.
17 Furthermore, SCE strongly supports and promotes the integration of DSM efforts by local
18 governments.

19 Marketing, Education & Outreach (ME&O)

20 This Application includes an integrated portfolio of Marketing, Education, and Outreach
21 (ME&O) actions designed to educate consumers about energy efficiency and other DSM offerings, a
22 need discussed in both D.07-10-032 and the CEESP.³⁵ SCE continues to develop integrated marketing
23 campaigns, using customer segmentation research and techniques, to efficiently and successfully move
24 consumers through a continuum from awareness to attitude change to action. ME&O materials leverage

³⁴ California Energy Efficiency Strategic Plan, dated June 2, 2008, p. 12-5 and 12-11 to 12-12.

³⁵ D.07-10-032, dated October 18, 2007, pp. 55-64, *see also* California Energy Efficiency Strategic Plan, dated June 2, 2008, pp. 10-1 to 10-8.

1 statewide branding to maximize participation, market transformation, and adoption of long term energy
2 efficiency behaviors. Emphasis will be placed on program bundling, to coordinate and pull together
3 relevant energy efficiency, demand response, low income, California Solar Initiative, and
4 SmartConnect™ (AMI) enabled offerings.

5 For example, SCE plans to launch three marketing campaigns each year featuring holistic,
6 relevant solutions to common consumer issues, such as managing cooling costs. Efforts include
7 activities such as point-of-sale, direct response, outbound calling, trade journals, sce.com, on-line and
8 electronic advertising, bill messaging and inserts.

9 Accomplishing the long-term goal of dramatically changing consumer energy-related behavior
10 requires, as is taken up in the CEESP,³⁶ is a coordinated effort that includes:

- 11 • Statewide branding;
- 12 • Coordination among IOUs, and
- 13 • Utilizing a spectrum of market actors, including but not limited to –
 - 14 • Retailers
 - 15 • Builders, manufacturers, and other key market players
 - 16 • Local governments
 - 17 • Trade associations
 - 18 • Non-profit/community-based organizations

19 Workforce Education & Training

20 This Application strongly supports the Workforce Education & Training (WE&T) activities and
21 goals laid out in the CEESP that focus on educating and training Californians to perform the jobs needed
22 to achieve the State’s clean energy goals. SCE is proposing a collaborative and comprehensive
23 approach to education and training. This program will develop new types of energy efficiency jobs, and
24 increase awareness and demand for these careers. The program coordinates with other utilities and key

³⁶ California Energy Efficiency Strategic Plan, dated June 2, 2008, pp. 10-1 to 10-8.

1 players on a statewide basis and addresses energy efficiency WE&T needs with those of other DSM
2 resources, to achieve streamlined, accessible programs with cost-effective economies of scale.

3 SCE's 2009-2011 WE&T program includes three important core delivery components: WE&T
4 Strategic Planning & Implementation, WE&T Synergies, and WE&T EARTH Education and Training.
5 Each component is designed to target specific market segments, and accomplish the larger education and
6 training CEESP goals and objectives. In aggregate they will target key workforce (and potential
7 workforce) areas including: community colleges and adult education, K-12 students, technicians and
8 contractors, Green Campuses, and minority, low-income, and disadvantaged communities.

9 The WE&T Strategic Planning & Implementation component is a statewide program that serves
10 as the planning and support function to the greater CEESP WE&T long range activities. This
11 component facilitates implementation and completion of the five key activities identified in the CEESP
12 as needed to drive long term WE&T development and strategic planning.

13 The WE&T Synergies Program component utilizes SCE's Energy Centers, Technology Test
14 Centers, and other information and training venues and program implementation strategies to provide
15 comprehensive education and training offerings across all market sectors. This program is dynamically
16 designed to focus training on specific market sector needs.

17 The WE&T EARTH Education and Training Program is a three-fold program. First, the
18 program promotes green careers to K-12 and university students through energy and environmental
19 curriculum, relevant degree programs, courses, and internships. Second, the program educates students
20 on energy, water, and the environment, with the goal of influencing day-to-day decisions of students and
21 their households. Third, the program educates schools on energy efficiency and demand response
22 programs³⁷ and benefits and helps schools overcome barriers to adopting energy efficiency in their
23 facilities.

³⁷ Funding for these demand response activities is identified in A.08-06-001.

Industrial Sector

SCE's industrial sector strategy is designed to overcome identified barriers (or limits) to the adoption of energy efficiency and has a clear vision and strategy that is aligned with the CEESP. The Industrial Sector plan includes both proven and new programs and services. The goal is to capture greater energy efficiency potential by integrating resources to overcome customer barriers to action. The energy efficiency programs proposed and implemented in the Industrial Sector are delivered through existing, new, and expanded programs and services including the Industrial Energy Efficiency Program, retrocommissioning, energy audits, pump tests, project management assistance, energy benchmarking, education and assistance, financing and incentives, and targeted vertical niche markets and pilot programs.

The industrial sector strategy targets industrial processes and systems (plus appropriate buildings measures) and is structured to reflect industrial consumers' reluctance to alter elements of a working production system for reasons other than production output or quality. SCE's industrial sector energy efficiency programs are designed to increase industrial consumers' awareness and participation in energy efficiency, demand response, and/or renewable self-generation opportunities.

The industrial energy efficiency programs build on and incorporate other energy efficiency programs that focus on key end-use initiatives such as motors, variable speed drives, and process improvement hardware that result in decreased energy usage per unit produced, waste, and operating delays.

The industrial energy efficiency programs offer both calculated and deemed incentives, in addition to other services as part of a more integrated bundling of energy efficiency options. These bundled solutions provide:

- Robust economic returns measured by payback period, net present value, and/or return on investment, and
- Important project learning, by market sub-segment, thereby reducing program adoption cycle times on new projects.

1 The SCE Industrial Program is coordinated with those of the other IOUs to ensure consistent
2 incentive levels and information. In addition, the IOUs plan to offer a joint audit and recommendation
3 package to facilities in shared service territories.

4 Agriculture And Water System Sector

5 The agriculture and water systems market strategy for 2009-2011 is designed to enhance
6 adoption of energy efficient equipment and practices among agriculture and water systems customers,
7 while considering historical barriers to adoption. Barriers include economics, a fragmented and diverse
8 customer base, limited customer energy management resources, and the relatively small proportion of
9 electricity costs compared with total costs.

10 The agriculture and water systems strategy includes a comprehensive set of strategies and tactics
11 to produce energy, environmental, and economic benefits in all sub-segments within the sector.
12 Initiatives include energy audits, pump tests, project management assistance, energy benchmarking,
13 education and assistance, financing and incentives, and targeted vertical niche markets and pilot
14 programs. In addition to energy efficiency, programs address distributed generation, demand response,
15 and water efficiency.

16 **D. Estimated Budgets And Savings For New Approaches**

17 The proposed budgets and savings for the program activities listed above in Section C are
18 included in Table I-4 below.

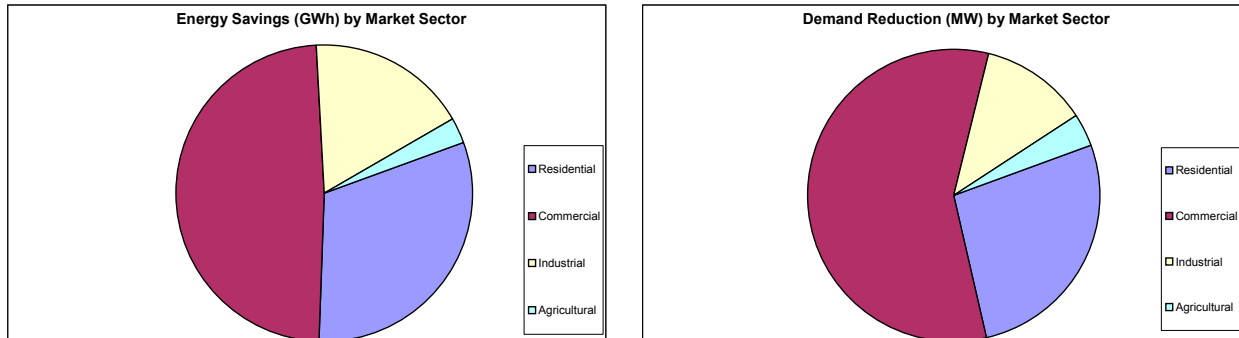
Table I-4
Estimated Budgets And Savings For New Approaches

SCE Program	Total 2009-2011 Program Cycle Budget	Total kWh	Total kW
Residential/Light Commercial HVAC	\$ 75,575,000	125,810,327	89,092
California New Homes Program	\$ 31,562,000	18,325,987	17,396
Manufactured Housing New Construction Program	\$ 3,477,000	2,827,100	1,807
Commercial New Construction Quality Assurance	\$ 4,992,000	-	-
Automatic Energy Review for Schools Program	\$ 1,992,000	2,900,732	650
Savings by Design	\$ 46,776,000	210,761,425	43,912
Local Government Partnership Program – An Energy Leader Model for the Future	\$ 6,363,000	16,270,899	3,259
Community Energy Partnership	\$ 3,848,000	10,000,000	1,986
Beaumont Energy Leader Partnership	\$ 567,000	1,250,000	251
Desert Cities Energy Leader Partnership	\$ 1,470,000	3,750,000	728
Eastern Sierra Energy Leader Partnership Program	\$ 949,000	2,250,000	487
Kern County Energy Watch Partnership	\$ 2,618,000	6,743,750	1,354
Long Beach Energy Leader Partnership	\$ 1,841,000	4,619,795	907
Orange County Cities Energy Leader Partnership	\$ 2,198,000	5,625,000	1,104
Ridgecrest Energy Leader Partnership	\$ 781,000	1,856,250	376
Santa Ana Energy Leader Partnership	\$ 1,842,000	4,750,000	943
Simi Valley Energy Leader Partnership	\$ 390,000	625,000	126
Ventura County Energy Leader Partnership	\$ 4,766,000	12,500,000	2,454
South County Energy Leader Partnership	\$ 2,930,000	7,500,000	1,472
South Bay Energy Leader Partnership	\$ 2,935,000	7,500,000	1,490
South Gate Energy Leader Partnership	\$ 793,000	1,875,000	372
San Gabriel Valley Energy Leader Partnership	\$ 1,979,000	5,000,000	1,011
San Joaquin Valley Partnership	\$ 2,205,000	5,625,000	1,129
Palm Desert Partnership	\$ 20,597,000	61,185,110	16,118
California Community Colleges Energy Efficiency Partnership	\$ 11,915,000	38,926,292	5,774
California Department of Corrections and Rehabilitation/IOU Partnership Energy Efficiency	\$ 3,207,000	7,188,089	1,066
SCE/SCG/County of Los Angeles Partnership-Energy Efficiency	\$ 2,708,000	7,188,096	1,140
Riverside/SCE/SCG Partnership Program	\$ 3,688,000	8,042,578	1,425
UC/CSU/IOU Partnership	\$ 13,872,000	45,516,901	6,705
San Bernardino County Partnership	\$ 2,163,000	5,466,335	874
State of California/IOU Partnership	\$ 3,630,000	7,982,776	1,184
Institutional and Government Resource for Energy Efficiency Now (IGREEN) Program for New Partnership	\$ 4,249,000	9,384,376	1,392
Sustainable Communities Program	\$ 14,965,000	-	-
Codes and Standards Program	\$ 8,463,000	372,565,322	91,517
Emerging Technologies Program	\$ 18,313,000	-	-
Financial Solutions	\$ 30,381,000	-	-
Business and Consumer Electronics Program	\$ 11,925,000	44,211,905	14,994
Statewide Marketing, Education and Outreach	\$ 20,213,514	-	-
Statewide Marketing, Education & Outreach Strategic Plan	\$ 2,941,000	-	-
Workforce Education and Training – EARTH Education & Training Program	\$ 9,012,000	4,508,372	755
Workforce Education and Training Synergies	\$ 35,877,000	-	-
Workforce Education and Training Strategic Planning	\$ 3,462,000	-	-
Strategic Planning Team	\$ 7,780,000	-	-
Industrial Energy Efficiency Program	\$ 60,811,000	-	-
Agriculture Energy Efficiency Program	\$ 17,198,000	-	-
Total	\$ 510,219,514	1,070,532,417	315,252

E. Charts Summarizing Projected Energy Savings From Each Of The Four Major Sectors For The Program Cycle; And, Charts Of Expected Savings Against Estimated Baseload Consumption, Averaged Over Three Years

Table I-5 below shows projected energy savings and demand reduction from each of the four major sectors (Residential, Commercial, Agricultural, and Industrial). Exhibit SCE-2, Table 1.3 includes a detailed break down by sector of SCE’s proposed budget, energy saving, and demand reduction. Exhibit SCE-2, Table 1.4 also includes a break down of energy efficiency measures.

Table I-5
Energy Savings And Demand Reduction By Market Sector



Note: Does not include forecast of Low Income Energy Efficiency and Codes and Standards impacts for the 2009-2011 program cycle.

1 **II.**

2 **PROPOSED ENERGY EFFICIENCY POLICIES AND RULES**

3 **A. Introduction**

4 In this chapter, the four California investor-owned utilities (Pacific Gas and Electric Company,
5 Southern California Edison Company, San Diego Gas and Electric Company, and Southern California
6 Gas Company, jointly known as the Joint IOUs) regulated by the Commission propose necessary and
7 key policy modifications enabling the success of energy efficiency in the 2009-2011 period and beyond.
8 Adoption of these policies is essential to both Assembly Bill 32 (AB 32) goal achievement and the big,
9 bold visions laid out by the Commission in D.07-10-032. The Joint IOUs' proposal focuses on
10 maximizing the gross energy savings necessary to meet California's aggressive vision for energy
11 efficiency. The Joint IOUs request that these policy recommendations be adopted concurrent with the
12 adoption of each IOU's recommended portfolio.

13 The Joint IOUs recommend these policy changes in order to achieve a more workable system of
14 assumptions that allows the IOUs to focus on execution of energy efficiency portfolios that support all
15 of the State's energy efficiency goals articulated in the California Energy Efficiency Strategic Plan
16 (CEESP), including the Big, Bold Energy Efficiency Strategies; AB 32 - The California Global
17 Warming Solutions Act of 2006; and the state's Energy Action Plan (EAP).

18 The Joint IOUs request these policy changes in order to allow for and encourage real
19 collaboration, cooperation, and innovation among all the parties that the Commission asks to join
20 together to make energy efficiency a way of life in California. The Joint IOUs are concerned that if
21 these policy changes are not made, the Joint IOUs will not be able to implement energy efficiency
22 portfolios that achieve the energy savings and demand reduction goals and adequately support the
23 CEESP, AB 32 Greenhouse Gas (GHG) reduction, and EAP goals.

24 Specifically, the Joint IOUs request the following policy changes:

- 25 1. Benefit and measure cost assumptions that are adopted for 2009-2011 Portfolio planning (ex-
26 ante) should also be used for Portfolio evaluation.

- 1 • Benefit and measure cost assumptions should include limited IOU-proposed revisions to
2 the 2008 Database for Energy Efficiency Resources (DEER) update issued by the Energy
3 Division on May 30, 2008.
- 4 • Evaluation studies of energy savings (*ex post*) should inform future planning efforts and
5 not be used to reassess prior program year performance.
- 6 • The process for adding measures to a portfolio should be modified to match the use of *ex*
7 *ante* estimates.
- 8 2. Cumulative savings should be defined as the sum of the annual savings goals for the three-
9 year portfolio period upon which the proposed budget is based.
- 10 3. IOUs should receive energy efficiency savings credit for energy efficiency actions taken by
11 customers who may be motivated by state policies or legislation, local codes and ordinances,
12 or multiple sources of “green” messaging.
- 13 4. Activities in direct support of the Strategic Plan that do not produce measurable, cost-
14 effective savings in 2009-2011 should be exempt from the risk/reward incentive mechanism
15 (RRIM) and included in a new performance earnings mechanism.
- 16 5. Gross metrics should be used for the calculation of performance toward the minimum
17 performance standard (MPS) and performance earnings basis (PEB) under the RRIM.
 - 18 • Adoption of gross goals for PEB may warrant changes to the RRIM, potentially including
19 the shared-savings rates, in order to maintain an appropriate balance of risk and reward
20 between shareholders and customers.
- 21 6. A collaborative process should be adopted to allow for appropriate review and vetting of
22 EM&V study design, implementation, and results. The process should also allow for a full
23 Commission review and approval of issues.

24 The IOUs proposed energy efficiency portfolios for 2009-2011 are developed contingent upon
25 the Commission adoption of the above-described policy changes. The energy savings and cost
26 effectiveness of the recommended portfolios are summarized in the IOUs’ individual testimony and
27 tables. The individual IOU testimony also includes results for a base scenario that employs the May 30,

1 2008, DEER updates and current other Commission policy positions. The IOUs are not able to develop
2 and implement reasonable portfolios that meet all the Commission adopted energy savings goals if the
3 IOU recommended policies are not adopted. Accordingly, to ensure that IOUs are able to implement
4 portfolios that maximize energy efficiency and greenhouse gas reductions and support the Commission’s
5 long-term vision for efficiency as presented in the CEESP, the Joint IOUs urge the Commission to adopt
6 the proposed policy changes.

7 **B. Joint IOUs Requested Policies**

8 **1. Per-Unit Benefit And Cost Assumptions Should Be Adopted For 2009-2011**
9 **Portfolio Planning (Ex-Ante) And Also Used For Portfolio Evaluation**

10 This Application supports the Commission’s goals for both short-term and long-term
11 resource benefits to the State, focusing on a mix of both existing and emerging technologies and
12 programs. The benefits and measure costs supporting this Application are based upon a combination of
13 the DEER data and Joint IOU-recommended modifications with regard to the benefits and costs of the
14 underlying measures promoted. The Commission should increase the certainty around the estimates of
15 benefits and measure costs utilized throughout the cycle and reduce the mystification around the
16 numbers utilized during the cycle by adopting per-unit benefit metrics (including, but not limited to
17 kWh, KW, EUL and measure costs) in this proceeding as the basis of measuring performance
18 throughout this proceeding

19 As the Commission can recall, the goals for the period 2004-2013 set forth in D.04-09-
20 060 were created using a set of facts regarding benefits and measure costs available at that time. The
21 energy savings potential, from which the goals are derived, is achievable when the underlying inputs
22 (energy savings, costs, effective useful lives, *etc.*) remain consistent. Variations in the underlying inputs
23 call into question whether the energy savings potential, upon which the goals are based, continues to
24 exist. In Rulemaking 06-04-010, the Commission examines the goals for 2009-2011 and notes “that the
25 currently-adopted numeric goals for 2009-2011 are consistent with, and in most cases higher than, recent
26 analysis of maximum achievable utility gross savings potential during these years” (July 1, 2008
27 Proposed Decision). Accordingly, the Joint IOUs are being requested by the Commission to produce

1 energy savings that are higher than the achievable potential in 2009-2011, even using gross metrics,
2 based on recent estimates of benefits and measure costs. While each of the Joint IOUs have designed
3 2009-2011 portfolios to meet these aggressive goals as presented in this Application, it is essential that
4 measurement of the portfolio be done on an ex ante basis to allow the IOUs to implement their portfolios
5 as filed and to maximize the short-term and long-term energy savings and benefits for California.

6 a) [The Use of Ex Ante Estimates Matches the Commission's Focus on Long-Term](#)
7 [Savings and Innovative Portfolio Designs](#)

8 The focus of this 2009-2011 Application is for a portfolio which provides long-
9 term resource benefits through the promotion of both current and future energy efficiency technologies.
10 The use of *ex ante* estimates in both the planning and evaluation of portfolio results will allow the
11 administrators to focus on delivering the portfolios adopted in this proceeding. The ability to deliver the
12 portfolios designed in this Application will be based upon the ability of the utilities to use new,
13 innovative measures and programs. However, the risk of *ex post* measurement will hamper the ability to
14 achieve the Commission-established targets in the short- and long-term. The continued use of *ex post*
15 estimates will unnecessarily expose the portfolios to second-guessing and after-the-fact adjustments,
16 which will ultimately stifle creativity and innovation, and promote use of only tried-and-true measures
17 and programs. *Ex post* uncertainty provides the inherent message that in order to reduce the risk of
18 changes in savings assumptions, it is necessary to only offer measures whose savings are known. As
19 such, the use of *ex ante* savings estimates will inherently promote innovation in the portfolios.

20 b) [Fully-Vetted Ex Ante Estimates Should Provide Realistic Estimates of Savings](#)
21 [and Benefits](#)

22 The Commission extended the deadline for the submittal of these Applications to
23 include the incorporation of new portfolio cost and benefit estimates. In the adoption of the final
24 portfolios for 2009-2011 the Commission should utilize the time spent during the submittal and review
25 of these Applications to fully receive comments on the cost and benefit estimates and use these reviewed
26 numbers in the evaluation of 2009-2011 portfolio performance. In the development of policy rules for
27 the 2006-2008 portfolios the Commission collected information with regard to the accuracy of *ex ante*

1 estimates in California. The Commission concluded that the *ex post* evaluation of lifecycle energy
2 savings and demand reduction conducted for the pre-1998 programs did not produce significant
3 adjustments to *ex ante* forecasts of net resource benefits once the actual program costs and program
4 participation had been verified.³⁸

5 The use of *ex ante* estimates throughout the program cycle is an extension of the
6 previous policy adopted by the Commission in the current Energy Efficiency Policy Rules (Policy
7 Rules). That is, to allow for exemptions from *ex post* measurement for measures that have: (1) *ex ante*
8 per unit savings assumptions that are already estimated with a high degree of certainty and updated on a
9 regular basis; and (2) low external variability.³⁹ In the adoption of the current Policy Rules the
10 Commission allowed for the use of *ex ante* estimates and determined that under such circumstances
11 where the *ex ante* assumptions were updated on a schedule, it would not be necessary to tie
12 compensation to *ex post* load impact evaluations. The Commission should utilize the *ex ante* estimates
13 of per-measure savings and measure costs in lieu of *ex post* savings.

14 c) [Using the Same Benchmark Allows for Certainty](#)

15 The use of *ex post* studies to inform future planning efforts, and not to reassess
16 prior program year performance, will reduce potential controversy over measurement results. As a
17 matter of policy, it is undesirable to adopt a benchmark for performance which relies upon factors which
18 are not under the control of the participants. For example, it is difficult to measure and even harder to
19 control, the attribution of program effects, calculated using net-to-gross ratios. It would be unfair to the
20 administrators to continue to alter the benefit and cost metrics which were utilized to establish the goals
21 and portfolios and to change these metrics after program implementation. The administrators should be
22 able to implement the portfolios in good faith using established standards to achieve the energy savings
23 targets. They should only have their results adjusted for matters under their control (*i.e.*, number of
24 measures installed and program costs.)

³⁸ Administrative Law Judge's Ruling Issuing Compilation Of E-Table Data For Pre-1998 Energy Efficiency Programs
And Requesting Further Comment, January 27, 2005.

³⁹ D.05-04-051, OP# 8, p.93.

1 Rewarding performance for savings computed on the basis of an ex post
2 measurement study of that program year has two relative shortcomings. First, when earnings are
3 directly attached to a study's results, the system creates an inappropriate and avoidable perverse
4 incentive for parties to focus their attention on studies because of their earnings impacts. Instead, parties
5 should look seriously at study results with a sole focus on their importance for developing the best
6 estimates of measure and program savings that will affect future portfolio decisions. Second, the
7 performance incentive becomes less directly related to the administrator's efforts, because it necessarily
8 introduces uncertainty related to after-the-fact second-guessing of study design and conduct – issues that
9 have nothing to do with the effectiveness of the administrator's management of the program portfolio.
10 Resource acquisition energy efficiency programs provide long-lasting and verifiable energy and capacity
11 savings. As discussed further below, the continued use of California's rigorous, reasonable protocols for
12 measuring program energy and demand savings will ensure the quality and validity of the studies
13 performed and the accuracy of the resulting energy savings and demand reduction benefits continue to
14 be updated each cycle. These energy savings and demand reduction estimates and algorithms should be
15 approved prior to the beginning of each program year and would be utilized along with the verified
16 installations and costs in the computation of performance. This approach provides the best means of
17 ensuring the reliability of energy savings estimates.

18 The performance earnings basis should focus program administrators on the
19 desired performance that is directly under their control — assuring correct installations of equipment in
20 areas and facilities where they are expected to provide the forecasted savings. The use of ex post studies
21 of per unit savings to inform future planning efforts, and not to reassess prior program year performance,
22 will reduce potential controversy over measurement results after evaluation has been completed, and
23 instead focus parties' attention on robust values upfront.

1 d) [Savings Assumptions Should Include Limited IOU-Proposed Revisions To The](#)
2 [2008 Database For Energy Efficient Resources \(DEER\) Update Issued By The](#)
3 [Energy Division On May 30, 2008 And Should Be Adopted By The Commission](#)
4 [For Portfolio Planning And Portfolio Evaluation](#)

5 The recommended portfolio of this Application includes modifications to the
6 proposed values from the Database for Energy Efficient Resources (DEER) database, as supported by
7 the workpapers in Exhibit SCE-8. The recommended portfolio is based upon updated cost-effectiveness
8 metrics that the utilities believe are more appropriate for portfolio planning purposes than those
9 currently included in DEER. Although the results of the DEER values are provided in the compliance
10 calculations (base portfolio), there is significant uncertainty as to whether these values are accurate and
11 supported by the most available information. The values utilized in the recommended portfolio
12 represent values which we believe are based upon supportable assumptions and are better estimates of
13 the resource benefits and measure costs of the portfolio and which can be counted on for energy
14 efficiency forecasting and procurement planning purposes. These values are consistent with the goals of
15 the Commission and the State. The recommended assumptions impact the following measures. Not all
16 of these measures are included in each utility portfolio:

17 Electric Measures:

- 18 • Residential compact fluorescent lamps
- 19 • Nonresidential linear fluorescent fixtures and controls
- 20 • Appliance recycling
- 21 • Customized Savings NTG
- 22 • Agricultural Measure NTG
- 23 • Select HVAC measures

24 Gas Measures

- 25 • Nonresidential cooking
- 26 • Nonresidential water heating
- 27 • Attic & Wall insulation

- Greenhouse measures

The updated DEER numbers from the Energy Division significantly alter the amount of feasible energy efficiency savings available from utility programs, but not the energy efficiency savings goals. It is critically important that the portfolio metrics for use in both goal-setting and program evaluation be adopted by the Commission based upon realistic and attainable data and assumptions. As discussed further below, the adoption of inputs through this application process for use in both setting the portfolio estimates and assessing program accomplishments will avoid controversy and inconsistency across proceedings and time periods. Failure to utilize consistent and reasonable energy savings estimates in setting goals and later evaluating goal achievement penalizes the IOUs for good faith efforts to achieve goals based on reviewed and approved program priorities and sets up an unrealistic expectation that IOUs can anticipate customer behavior changes, or more likely, changes in EM&V measurement protocols and effectively react to them late in the program cycle.

Unrealistic and/or changing program assumptions also creates uncertainty and inconsistency in program implementation which negatively impacts the ability and willingness of manufacturers, distributors, retailers, contractors, local government partnerships, and consumers to participate in the programs. This policy-generated uncertainty is certainly not consistent with state objectives to maximize our use of cost effective energy efficiency as a resource.

The energy efficiency values recommended by the IOUs in support of this portfolio are realistic and based upon rigorous analysis and do not so dramatically impact the program results that other market participants are inclined to reduce or abandon their participation. Such values should be the basis for the approval of this Application and in the evaluation of program performance.

e) [Evaluation Studies of Energy Savings \(*ex post*\) Should Inform Future Planning Efforts And Not be Used to Reassess Prior Program Performance](#)

Currently, the protocols adopted for measurement of portfolio impacts include an estimation of the amount of free ridership from a particular program design, in addition to other after-the-fact estimates. While such measurement provides useful information as to the effects of a particular program design, there are issues with the use of such information as an exact point-estimate of the

1 amount of free ridership from a program. Studies performed years after a program may not provide
2 information relevant to current program design. In addition, the ability to discern the exact reasons for
3 an energy efficiency purchase decision or action are limited. However, even if such measurement may
4 not provide an exact estimate, it can provide directional information which is valuable for future
5 program design and portfolio allocations. This information on free riders and other *ex post* information
6 should be compiled, but used for improving program design, and not determining whether a savings
7 metric is met.

8 f) The Process for Inclusion of New Measures Should be Altered

9 The Joint IOUs understand that moving to the proposed *ex ante* framework, where
10 achievements are measured using the same energy savings assumptions approved by the Commission in
11 portfolio planning, will necessitate a change to the current process for adding new measures. In D.05-
12 09-043, the Commission outlines a process for adding new measures that requires informal review from
13 the PRG (and the former Program Advisory Group). In light of the proposed framework, the Joint IOUs
14 request that the process for new measures be altered to allow for proper, more formal review by the
15 Energy Division and the PRG of benefit and measure costs prior to inclusion of that measure in the
16 IOU's portfolio.

17 The Joint IOUs request that new measures be provided to the PRG, which
18 includes the Energy Division, through the currently-approved review process. Along with the new
19 measure, each IOU will also now provide corresponding benefit and measure cost information for
20 Energy Division and PRG review. The Joint IOUs propose a timeline to ensure adequate review without
21 significantly delaying the deployment of a new measure in delivering energy savings to California.

22 Accordingly, the Joint IOUs propose that after new measure information is
23 provided to the PRG, the PRG will then have 10 days to review and respond. If the PRG does not
24 express objection to the *ex ante* benefits and measure costs, then the new measure will be incorporated
25 into the portfolio. If the PRG disputes the proposed benefits and measure costs, the Energy Division
26 will then be given 15 days to resolve any issue. The Executive Director of the Energy Division should
27 send a letter to the PRG and the IOU on their recommended benefit and measure cost values. If the

1 Energy Division does not resolve which values should be used by the 15th day, then the IOU proposed
2 benefit and measure cost data will be used for portfolio reporting and evaluation. If the IOU does not
3 support the Energy Division’s recommendation, the IOU may file Advice Letter seeking a full
4 Commission review and resolution.

5 The Joint IOUs believe this proposed process provides the PRG and the Energy
6 Division ample opportunity to review proposed benefit and measure cost values while facilitating the
7 inclusion of new measures through a timely process.

8 **2. Cumulative Savings Should Be Defined As The Sum Of The Annual Savings Goals**
9 **For The Three-Year Portfolio Period**

10 Cumulative savings goals for the IOUs should be defined as the sum of the annual goals
11 for the three-year period. Defining cumulative savings to include a longer-term period, such as back to
12 2004, cannot be implemented by the Joint IOUs, as it is inconsistent with Commission goal development
13 and is not technically feasible from a timing perspective.

14 Accordingly, the Joint IOUs recommend reconsideration of the current treatment of
15 cumulative savings in determining whether the applications meet the requirement to propose portfolios
16 that ensure the total savings available in a given year are equal to the IOU cumulative savings goals for
17 that year beginning in 2004.⁴⁰

18 a) **Defining Cumulative Savings To Be Beyond The Three-year Period Is Not**
19 **Consistent With CPUC Goal Development And Policy**

20 The Commission created goals for the 2004-2013 period back in 2004 based on
21 available potential and energy savings data. To create cumulative goals, the Commission merely added
22 the annual goals. No party did an assessment or adjustment for decay, the change in energy savings due
23 to ex post measurement, or whether the cumulative goals were defined as “net” or “gross”. Such an
24 assessment would have resulted in a reduction to the cumulative goals or an increase in the annual goals
25 to replace such savings that would “fall away.” For example, let’s say the useful life of a CFL is six

⁴⁰ D.07-10-032, p. 79.

1 years. If the CFL was installed in 2004 and burns out in 2010, then the 2010 annual goal should reflect
2 that decay. However, the potential study underlying the Commission’s goals did not consider such
3 adjustments. This is in spite of the fact that the potential studies on which the goals are based contain a
4 significant amount of measures whose useful life is expected to end during the forecast period. The
5 potential study may have assumed that customers would replace efficient measures with just as efficient
6 measures. It is unclear whether these customers would participate in IOU programs for their next
7 efficient measure installation and thus, whether IOUs should not be held responsible for re-creating
8 these savings that may already exist in the utility’s load forecast.

9 The potential study underlying the Commission’s goals also has not incorporated
10 the rise in appliance standards and building codes, in addition to manufacturer production of more
11 efficient technologies outside of standards and IOU programs. This change to efficiency baselines
12 produces real energy savings and lowers the amount of potential available for IOU programs. However,
13 there is no way to reasonably track or report such savings through IOU programs and it would be
14 unreasonable, if not impossible, for IOUs to make up for savings that have been addressed by other
15 sectors in the marketplace.

16 In addition to the changes in policy on Codes and Standards, there have also been
17 other changes to policy for counting savings, including the variation from commitments and net goals.
18 In the 2004-2005 period, the Commission allowed IOUs to count savings based on “commitments” from
19 customers. In the 2006-2008 period, the Commission requested that savings from “actual” installations
20 only be counted toward the goals. Unfortunately, this inconsistency creates a problem in implementing
21 cumulative savings for a period longer than the three-year program cycle. This is because it is unclear
22 when the useful life of savings committed back in 2004 but not installed until 2007 should start. The
23 Joint IOUs are unsure how to measure the decay period in this example in addition to whether ex post
24 data from 2004 or 2007 should be used in this assessment.

25 The change to gross vs. net in 2009-2011 creates an additional layer of
26 uncertainty in assessing cumulative in addition to not be aligned with the Commission’s current policy.
27 In the proposed decision on 2009-2011 goals and 2012-2020 goals, the Commission states that “2009-

1 2011 savings will be measured as ex-post gross and layered on top of 2004-2008 savings to measure
2 cumulative savings...”⁴¹ This means that the Commission will mix ex-post net achievements for 2004-
3 2008 with ex-post gross achievements for 2009-2011. Layering net and gross achievements further
4 complicates the implementation of cumulative savings as it ignores the savings that are no longer
5 available for IOU programs (since these savings were not incorporated in the accomplishments during
6 the 2004-2008 period which was defined as “net”). Any cumulative savings goals beyond the three-year
7 period need to assess whether those energy savings are, in fact, available for IOU programs or have been
8 addressed through other developments in the marketplace (rising baselines, Codes and Standards, *etc.*).

9 As discussed above, defining cumulative savings back to 2004 would be
10 inconsistent with CPUC goal development and policies on counting savings. Savings reaching the
11 cumulative goals may exist, but the IOUs cannot monitor or report such savings. Accordingly, the Joint
12 IOUs request cumulative savings for which the IOUs are responsible be defined as the sum of the annual
13 goals.

14 b) [Defining Cumulative Savings Beyond The Three-year Period Cannot Be](#)
15 [Implemented From A Timing Perspective](#)

16 Currently the Energy Division and their consultants are working on EM&V
17 activities to both verify first year savings from program year (PY) 2006-2007, and to prepare load
18 impact evaluations that will be not available until 2010, when they complete the EM&V requirements
19 for PY 2006-2008. Additionally, there is disagreement regarding some of the 2008 DEER updates, and
20 the Joint IOUs expect that there will be continued discussion as to what values should be in the DEER
21 database. There is also uncertainty regarding the impacts of these studies on the PY 2004-2005 savings
22 achievements since there is disagreement on the ex post treatment of PY 2004-2005 achievements.
23 These uncertainties and incompleteness of evaluation results creates moving targets as to what is the
24 actual level of cumulative achievement every time new information is released by the Energy Division.

⁴¹ July 1, 2008, Proposed Decision in R.04-06-010, Footnote 28).

1 Portfolios cannot and should not be planned based on moving targets that change from year to year as
2 one can never be sure that budgets and program designs are appropriately set.

3 From a timing perspective, the Joint IOUs would not know what savings would
4 need be made-up for the 2006-2008 program period until 2010. They would not be able to appropriately
5 budget and plan for such savings as the 2009-2011 application had been adopted prior to 2009.
6 Accordingly, the Joint IOUs request that the cumulative savings for which the IOUs are responsible be
7 the sum of the annual goals for the three-year period.

8 **3. IOUs Should Receive Energy Efficiency Savings Credit For Energy Efficiency**
9 **Actions Taken By Customers Who May Be Motivated By State Policies or**
10 **Legislation, Local Codes And Ordinances, or Multiple Sources of “Green”**
11 **Messaging**

12 In D.07-10-032, the CPUC made visionary statements about the future direction of
13 energy efficiency. The CPUC acknowledged that programs need to be leveraged and integrated to
14 ensure maximum energy savings for the State. D.07-10-032 states:

15 In the past, we have emphasized utility programs, utility funding and utility
16 customers.⁴² This is logical given the limits of our legal jurisdiction, but this
17 approach has resulted in fractured energy efficiency program development and
18 delivery. Cost-effective use of resources for maximum reductions in energy demand
19 will require the commitment of the most influential decision-makers who can affect
20 comprehensive change. In order to reach a goal of making energy efficiency an
21 integral part of “business as usual,” we need a pronounced commitment from
22 business and government leaders and a more collaborative approach that involves all
23 key stakeholders. **We emphasize the need for enhanced cooperation and**
24 **collaboration** and commit to a leadership role in reaching out to key leaders to
25 engage participation in this effort and direct the IOUs to do likewise.⁴³ (emphasis
26 added)

⁴² At the same time, we have supported the important role of third parties – e.g., by requiring at least 20% of portfolio funding be competitively bid to third parties, by directing the utilities to assist in the development of the state’s energy efficiency codes and standards, by use of advisory groups, etc. (D.05-01-055). Our directives today build upon this past policy emphasis.

⁴³ In addition to our commitments for this leadership role under the National Action Plan, and the Joint Action Framework on Climate Change, *supra*, our actions today provide for international collaborative efforts and exchange of information on energy efficiency, in accordance with the *Agreement on Cooperation Between the California Public Utilities Commission, the California Energy Commission, and the Jiangsu Provincial Economic and Trade Commission*, entered into on September 2, 2005, and the *United Kingdom and California Announcement on Climate Change & Clean Energy Collaboration*, dated July 31, 2006. We take official notice of these agreements; they can be found at http://www.cpuc.ca.gov/static/energy/electric/energy+efficiency/ee+general+info/california-jiangsumou_final.pdf

(Continued)

1 Unfortunately, the traditional regulatory framework, in which savings can only be applied
2 to the Commission’s goals if they are attributable to the IOU’s energy efficiency program, does not
3 motivate increased cooperation and collaboration. In fact, the current framework does the opposite as
4 the utilities “compete” with other agencies to have energy savings attributable to their programs. To
5 maximize energy savings in support of the State’s aggressive GHG goals, the Commission should
6 explicitly recognize energy efficiency savings credit for energy efficiency actions taken by customers
7 who may be motivated by state policies or legislation, local codes and ordinances, or multiple sources of
8 “green” messaging. These energy efficiency savings credits should be recognized as part of the
9 Commission’s goal achievement. For example, local code enhancements made by a local government,
10 working with an IOU, should be recognized as part of these energy efficiency credits. Energy savings
11 and demand reduction estimates should be developed for these activities and the net-to-gross ratio
12 should be set to 1.0 in the cost-effectiveness calculations

13 Incorporation of energy savings from these programs is consistent with the Commission’s
14 goals for 2009-2011, as adopted in D.04-09-060. The potential study upon which the goals are based
15 did not envision other State initiatives and exclude those customer’s potential savings. Thus, the
16 potential savings from those customers are included in the Commission’s goals. Removing the IOUs’
17 ability to count savings from these customers hampers the IOUs’ ability to design and implement a
18 portfolio that meets Commission’s adopted 2009-2011 goals, and does not promote the Commission’s
19 vision of increased collaboration in the State. The Joint IOUs are requesting the same treatment the
20 Commission provided for the Governor’s Green Building Initiative in D.05-09-043 in which they found
21 that utility support for this State initiative would not be reduced by free ridership reductions. An
22 extension of such treatment for other State initiatives, including GHG reduction, allows for increased
23 collaboration in making energy efficiency a way of life in California.

Continued from the previous page

<http://www.cpuc.ca.gov/static/energy/electric/energy+efficiency/ee+general+info/west+coast+comm+joint+commitments+on+climate+change+final.pdf>

1 **4. Activity Costs In Direct Support Of The California Energy Efficiency Strategic Plan**
2 **Should Be Exempt From The Shareholder Risk Reward Incentive Mechanism**

3 In D.07-10-032, the CPUC stated that “all parties will agree that California (and likely
4 other regions as well) will achieve far greater savings if the IOUs and Commission actively engage in
5 coordinated, long-term planning.” On June 2, 2008, the joint IOUs jointly filed a proposed CEESP.⁴⁴
6 Contained within the proposed CEESP are various goals for California, both near and long-term. To
7 realize the achievement of the CEESP goals, California will need support from a vast number of market
8 actors. To a certain extent, the IOUs’ energy efficiency activities will play a part in supporting
9 California’s energy efficiency goal achievement.

10 However, many of the CEESP-oriented items may not produce measurable, and/or
11 minimal or non-cost-effective energy savings in the near-term. The CEESP-oriented items include
12 market characterization reports, research, convening of stakeholders to discuss visionary energy
13 efficiency, support of CEC or local government activities, pilots, and workforce development, among
14 other things. While the Joint IOUs look forward to furthering the CEESP for California consumers, it is
15 of concern that the CEESP may not receive adequate financial support in light of existing policy rules.

16 The CEESP highlights this policy challenge in its section entitled “Policy Issues Raised
17 by the California Energy Efficiency Strategic Plan.” In this section, the CEESP states:

18 **“Achievement of the Plan’s vision and goals will entail significant costs, affecting**
19 **cost-effectiveness analysis.** Unfortunately, many of the needed strategies will not
20 present identifiable savings—for example those needed for Market Transformation;
21 Marketing, Education, & Outreach; Workforce Education & Training; and Emerging
22 Technologies—and thus will negatively impact the cost-effectiveness of an IOU’s
23 energy efficiency portfolio. Ensuring adequate financial support for the Plan’s vision
24 and goals presents a challenge in light of this cost-effectiveness sensitivity—and
25 invites considering specialized treatment of these costs in the IOUs’ portfolios.”
26 (emphasis added)

⁴⁴ California Energy Efficiency Strategic Plan And Appendices And Joint Application Of Pacific Gas And Electric Company (U 39 M), Southern California Edison Company, San Diego Gas & Electric Company And Southern California Gas Company Submitting The California Energy Efficiency Strategic Plan, June 2, 2008, Docket No. R06 04 010

1 Given this policy challenge, the Joint IOUs propose specialized treatment of these costs
2 and a new performance mechanism for these discrete CEESP activities. The Joint IOUs request that
3 activities be exempt from the risk/reward mechanism if:

- 4 a) The activity explicitly supports a Plan Strategy; and
- 5 b) The activity will produce minimal or no cost-effective, measurable savings in 2009-
6 2011.

7 The Commission's concurrence with this exemption will ensure there is a policy
8 framework that would support the long-term, innovative activities necessary to achieve the vision in the
9 CEESP. The current risk/reward mechanism bases performance on the portfolio net benefit which is a
10 comparison of savings achieved to costs incurred, thereby placing a premium on delivery of measurable
11 savings within the energy efficiency program cycle and within a specific budget. Strategic Plan
12 activities would be treated similarly to Emerging Technologies costs, which were exempted from
13 risk/reward mechanism calculations, pursuant to D.07-09-043.

14 To ensure that costs for the Strategic Plan do not remove the more wide-scale energy
15 efficiency benefit from utility customers, the Joint IOUs will include all the savings and costs, including
16 those from exempted programs, in its cost-effectiveness showing calculation of this 2009-2011 portfolio.
17 Each of the Joint IOUs will ensure that the portfolios, including exempted programs, also remain cost
18 effective to ensure that utility customers continue to receive a positive benefit from energy efficiency
19 programs. The cost effectiveness showing for this portfolio, with and without exempted programs, is
20 discussed in Chapter 4.

21 The Joint IOUs also propose a new performance earnings mechanism for discrete
22 activities undertaken in support of the CEESP. The Joint IOUs recommend a performance earnings
23 mechanism for Strategic Plan strategies to ensure adequate attention is paid not only to the achievement
24 of the Commission's short-term energy savings goals but also to support various discrete activities that
25 directly support the vision of the CEESP. The Joint IOUs recommend a metric-based performance
26 adder approach for specific programs. The programs are listed at the end of this chapter. Specific

1 performance metrics tied to this mechanism would be developed after the final CEESP is submitted later
2 this year.

3 **5. Gross Metrics Should Be Used For The Calculation Of Performance Toward The**
4 **Minimum Performance Standard (MPS) And Performance Earnings Basis (PEB)**
5 **Under The RRIM.**

6 The utilities support the use of goals and performance basis metrics which are linked
7 together and represent aggressive, yet achievable benchmarks for energy efficiency efforts. In addition,
8 the utilities support the development of goals which are based upon the best available information on the
9 potential for energy efficiency and which align with all of the Commission policies – including the use
10 of energy efficiency as a reliable energy resource, as an important factor in the reduction of greenhouse
11 gases from electricity generation, and in support of the Commission’s long-term, “big, bold” strategies
12 for energy efficiency. The use of gross goals, as recommended in the July 1, 2008 Draft Decision in the
13 Energy Efficiency Rulemaking,⁴⁵ appropriately aligns the potential for energy efficiency in California,
14 the goals set forth by the Commission as a target for the utilities to aim for in the development of
15 portfolios in this proceeding and in the implementation of these portfolios in 2009-2011, and the focus
16 by the utilities for increased collaboration among all stakeholders to meet these goals. The utilization of
17 goals at the “gross” level better reflects the “big, bold” policies being promoted by the State and will
18 promote increased collaboration among all parties towards achievement of these goals and other policy
19 goals being discussed in this Rulemaking. The use of gross goals properly aligns the estimates of energy
20 efficiency program results with the real impacts of reduced load from these programs on the utility
21 systems. This alignment of focus should include the performance basis used to calculate performance
22 incentives for the administrators. It is unnecessary and inappropriate to de-link the use of gross goals
23 from the performance basis which is utilized to calculate shareholder earnings for meeting these goals.
24 Such a mechanism provides the false sense that the IOUs are meeting goals, when in reality they will not
25 due to the use of a point-estimate net-to-gross ratio whose basis will always be in question. The

⁴⁵ Draft Decision Adopting Interim Energy Efficiency Savings Goals For 2012 Through 2020, And Defining Energy Efficiency Savings Goals for 2009 Through 2011, OP#4, p. 35.

1 Commission should continue to align the objectives of the programs – delivery of energy savings to
2 customers – with the performance incentive mechanism. Neither procurement planners nor greenhouse
3 gas reduction calculations need consider net-to-gross ratios. This should be extended to the performance
4 metrics for energy efficiency.

5 a) [The Use Of A Performance Earnings Basis based Upon Gross Accomplishments](#)
6 [Aligns With The Long-Term, Collaborative Focus Of The State For Energy](#)
7 [Efficiency](#)

8 The utilities recommend that the 2009-2011 goals be designated as gross goals, as
9 currently recommended in the July 1 Draft Decision. That is, the 2009-2011 goals would reflect the
10 total savings, inclusive of program free riders. Through this Application and the development of an
11 energy efficiency strategic plan for California, the Commission can take a fresh look at the long-term
12 focus for energy efficiency in light of the “big, bold” steps for being considered in this Rulemaking.
13 Utilizing gross goals and a gross performance earnings basis calculation for the 2009-2011 period can
14 open up the opportunity for more program options which support the long-term goals for energy
15 efficiency than the use of net goals. The use of gross goals should allow for parties to focus less on the
16 attribution of savings and more on maximizing the energy savings potential of energy efficiency
17 programs in California. This focus on customer savings will encourage collaboration among all
18 stakeholders to develop and deliver the most effective and efficient energy savings to California
19 customers.

20 The continued use of net goals and a net performance basis would not embody the
21 “big, bold” concepts being promoted throughout the remainder of the proceeding. Currently, successful
22 energy efficiency programs which increase customer awareness are penalized with after-the-fact
23 changes to attribution. This penalizes the utilities for success in increasing customer awareness of
24 energy efficiency and energy efficient measures, which should not be the object of goal-setting and
25 performance basis calculations. In order to focus on the overarching policies for energy efficiency,
26 including “big, bold” ideas, it is appropriate to remove this inherent penalty included in the use of net-
27 to-gross ratios. The utilities recommend the adoption of gross level goals and a gross performance basis

1 calculation for 2009-2011 which supports the development and delivery of expanded program options
2 and support the long-term policy goals for energy efficiency in California. To do otherwise could
3 adversely affect the Commission’s effort to promote and implement maximum levels of energy
4 efficiency in the state.

5 Ultimately, it is gross savings impacts delivered to customers that affect future
6 resource needs and GHG emissions levels. The use of gross savings and benefits as a metric will align
7 the utility program results with the system impacts and reduced GHG emissions. Consequently, the use
8 of gross savings and benefits is also appropriate to align with resource planning and GHG reduction
9 perspectives.

10 b) [Adoption Of Metrics Goals For PEB May Warrant Changes To The RRIM,](#)
11 [Including The Shared Savings Rates](#)

12 The shared savings rates adopted in D.07-09-043 were adopted to provide utilities
13 with financial incentives sufficient to overcome the disincentives to energy efficiency when compared
14 with supply-side, “steel-in-the-ground” investments. As noted in D.07-09-043:

15 “31. Utility investors are attracted by opportunities to earn returns, and absent
16 energy efficiency incentives, utilities only earn on supply-side investments.
17 Recognition of this fundamental disincentive to energy efficiency has been
18 expressed in prior Commission energy efficiency decisions, the federal
19 Energy Policy Act of 1992, California’s 2003 Energy Action Plan, the
20 National Action Plan for Energy Efficiency and in the Commission’s 2006
21 Procurement Incentive Framework decision, D.06-02-063.”

22 The Decision adopting these 2009-2011 portfolio Applications should include an
23 appropriate shared savings rate to accommodate the recommended change in policy to gross metrics,
24 while still providing incentives which are sufficient to overcome the disincentives of pursuing energy
25 efficiency versus “steel-in-the-ground” investments. The use of gross savings and benefits in the
26 evaluation of performance and in the performance earnings basis calculation will necessitate a re-
27 examination of the shared savings rates previously adopted by the Commission, which were based upon
28 the 2006-2008 portfolios and Policy Rules. In order to continue to meet the Commission’s policy
29 objectives for a performance incentive mechanism, including a level of earnings potential which
30 provides a clear signal to utility investors that achieving and exceeding the Commission’s savings goals

1 (and maximizing ratepayer net benefits in the process) will create meaningful and sustainable
2 shareholder value; the Commission should utilize this proceeding to align the use of gross metrics with
3 an update to the shared savings rate utilized by the IOUs. As part of such a review the Commission
4 should also revisit the estimates of applicable earnings amounts, given the increased resource benefits
5 being provided through each of the Joint IOUs' portfolios submitted in these Applications. The Joint
6 IOUs look forward to working with the Commission in the determination of an appropriate shared
7 savings rate which matches the use of gross savings and which provides an amount of earnings which
8 considers the amount of customer benefits being provided through the recommended portfolios.

9 **6. Adopt A Collaborative Process And Commission Review That Allow For**
10 **Appropriate Evaluation And Vetting Of EM&V Study Design, Implementation And**
11 **Results**

12 a) **The Current Process**

13 The currently mandated process for design, implementation, and use of results of
14 EM&V studies has only minimal requirements and opportunities for utility review and input and no
15 forum for Commission review of disputes over the studies.

16 The mandated opportunities for utility and stakeholder review and comment are at
17 only two stages: broad (not detailed) study designs and the draft final reports. Individual Energy
18 Division staff members make the final decisions on the conduct of the studies and use of study results.
19 In response to utility concerns, ED staff has voluntarily developed a quarterly progress report conference
20 call for impact evaluations and individual staff members have provided additional opportunities, such as
21 meetings with the consultants to gather input on proposed analyses and brief opportunities for review
22 and input on survey instruments. The utilities deeply appreciate these additional opportunities offered
23 by Energy Division staff and find these additional opportunities very valuable and important both for
24 avoiding possible consultant misunderstandings of programs or data and resolving utility concerns.

25 However, there is no Commission requirement for these additional review and
26 input opportunities. In addition, if utilities disagree with the final decisions made by an ED staff

1 member or with the processes used to gather and respond to input for a particular study, there is no
2 forum for addressing this disagreement.

3 In the earnings claim process, either for an interim or final claim, the utilities
4 receive a draft report from the Energy Division on the success of their programs and are allowed only
5 one chance to provide written comments to the Energy Division. A final report is then completed and
6 passed along to the utilities for their Advice Letter submittal of claims. The Advice Letter is to include
7 the decisions made in the Final Report by the Energy Division. The current process has no provision for
8 review by the Commission, even in cases where the framework established in the Commission's energy
9 efficiency earnings decision may not be implemented in accordance with the policies set forth by the
10 Commission.

11 b) [Past Processes That Addressed These Issues](#)

12 From 1998-2005, statewide studies were managed by a single entity (then, a
13 utility), but had ongoing oversight and review by a study advisory group composed of utility and
14 regulatory staff representatives, sometimes also including California Energy Commission and other
15 organizations. Before that, the California DSM Measurement Advisory Committee (CADMAC)
16 performed a similar function, as an ongoing forum for discussion of study methods among utilities,
17 CPUC and CEC staff, and other stakeholders.

18 The process for 1994-97 energy efficiency earnings claims required the utilities to
19 file Applications for shareholder earnings, followed by review and recommendation reports from the
20 independent consultants hired by the Commission's Division of Ratepayer Advocates, hearings, when
21 necessary, and ultimately a decision from the Commission, in the Annual Earnings Assessment
22 Proceeding (AEAP). While hearings were rarely necessary during the time period the AEAP process
23 was in place, they were utilized to settle disputes of fact which were unable to be resolved between the
24 utilities and the Division of Ratepayer Advocates or the Administrative Law Judge's consultants.

25 c) [Recommendations](#)

26 First, SCE recommends a return to statewide advisory groups for statewide
27 studies, whether managed by the Energy Division or the utilities. This structure provides for an

1 ongoing, two-way flow of information for the studies that can prevent misunderstandings about program
2 information, identify and resolve emerging issues as study methodologies are implemented, and reduce
3 the possibilities for final study results to be based on misunderstandings, errors or inferior methods. The
4 benefits are two-fold: better studies and greatly reduced chances of disputes arising, necessitating
5 further Commission action.

6 Secondly, as a last resort, there needs to be an opportunity for Commission
7 review. Only through the availability of a review process can the Commission ensure that the policies
8 set forth in the energy efficiency earnings decision are being properly implemented and provide an
9 appropriate forum for resolution of any unresolved disputes over final reports. SCE supports an
10 earnings process that is efficient, but believes the Commission should allow for a full review and
11 resolution of unresolved disputes.

12 **C. Other Policy Issue Modifications To Allow For Successful Implementation Of The 2009-**
13 **2011 Portfolio**

14 **1. Use Post-Tax Discount Rate For Benefits**

15 The discount rate utilized by SCE in this Application is consistent with Policy Rule IV.2
16 of Decision 05-04-051. That is, the discount rate reflects SCE's Weighted Average Cost of Capital
17 (WACC), as adopted in Decision 07-12-049. SCE's discount rate is "tax-adjusted" and consistent with
18 the treatment of discounting in the current (2006-2008) cycle, utilized in the development of the risk-
19 reward mechanism, and consistent with the methodology being recommended by PG&E concurrently in
20 this proceeding. That is, the discount rate is the weighted average of the common equity cost and the
21 preferred stock cost, plus the weighted average of the long-term debt cost after a tax deduction for
22 interest expense is applied. SCE believes any final determination of the Commission on the appropriate
23 WACC for energy efficiency should be used in the energy efficiency proceeding only.

24 **2. Mid-Cycle Funding Augmentation Rules Should be Revised**

25 SCE proposes to modify the 2006-2008 mid-cycle funding policy rule for 2009-2011 to
26 allow utilities to count all installed energy efficiency results towards the Commission's aggressive
27 energy savings and demand reduction goals. In D.07-10-032, the Commission set a policy rule (Rule

1 12, Section IV) that did not allow IOUs to claim energy savings and demand reductions results towards
2 the achievement of the Commission energy efficiency goals because mid-cycle funding augmentation
3 provides a “bonus” to utilities without any undue risk bestowed upon them.⁴⁶ D.07-10-032 also
4 indicates that “in effect, mid-cycle funding augmentations provide the utilities with additional funding to
5 accomplish a goal that was set with a lower budget.”⁴⁷ As a result of this rule, IOUs are now
6 discouraged from pursuing all cost-effective energy efficiency even though there may be energy
7 efficiency funds available from prior years. The utilities propose the elimination of the 2006-2008 mid-
8 cycle funding augmentation rule for 2009-2011 as it: (1) creates a disincentive to propose new programs
9 with augmented funding; (2) punishes, unnecessarily, IOUs when market conditions change which may
10 require additional funds to incent customers in order to achieve the Commission energy efficiency goals,
11 and (3) creates a contradiction to the California’s Energy Action Policy and Commission policy to
12 pursue all cost-effective energy efficiency.

13 The inability to record results from mid-cycle funding sends the wrong signal to IOUs to
14 stifle program innovation and creation of promising programs. This is contrary to the Commission’s
15 desire to promote innovation and test new program designs. Another key fault of the 2006-2008 mid-
16 cycle funding augmentation rule is it assumes that during the program implementation cycle the
17 marketplace remains static and acts just as assumed during the planning process. This is unrealistic.
18 The marketplace is dynamic with many actors and unforeseen influences which can foreclose expected
19 opportunities as well as create new opportunities. The mid-cycle rule also contradicts California’s
20 Energy Action Plan which calls for the pursuit of all cost-effective energy efficiency by discouraging
21 IOUs to supplement their program portfolios with promising new/enhanced programs. Thus, for 2009-
22 2011, SCE proposes to modify the mid-cycle funding policy rule to allow all utilities to count all
23 installed energy efficiency results towards the Commission’s aggressive energy savings and demand
24 reduction goals.

⁴⁶ D.07-10-032, dated October 18, 2007, OP# 7, p. 143.

⁴⁷ Section 6.7.3. Mid-Cycle Program Funding Augmentations, p. 100.

1 **D. Savings From Codes and Standards Should Count Towards the Commission’s Goals**

2 Energy savings and demand reductions associated with Codes and Standards (C&S) work
3 influenced by IOU efforts over the years should count towards the achievement of the Commission
4 energy efficiency goals. Specifically, SCE proposes that the following C&S program work count
5 towards the achievement of the 2009-2011 energy efficiency goals: (a) 100 percent of savings from
6 post-2006 Codes and Standards Advocacy Programs; and (b) 50 percent of savings from pre-2006 Codes
7 and Standards Advocacy Programs. In the event a C&S effort is initiated during the 2009-2011 cycle
8 and placed into code during the same cycle, 100 percent of the 2009-2011 C&S savings would also
9 count towards the achievement of the 2009-2011 goals.

10 Consistent with the proposal to use the same estimates in both the planning and evaluation of
11 portfolio results, SCE proposes adoption of the energy savings and demand reduction estimates for C&S
12 shown in this Application.

13 Finally, SCE proposes that any costs associated with the 2009-2011 C&S program be excluded
14 from the calculation of the program portfolio earnings mechanism (*i.e.*, performance earnings basis).
15 Instead, SCE proposes the 2009-2011 C&S program be part of a CEESP earnings mechanism as this
16 work is an essential part to the overall success of many of the strategies envisioned in the CEESP.

17 **E. The Role Of The Peer Review Group Should Be Clarified To Ensure Fairness**

18 The Joint IOUs recommend that the Peer Review Group (PRG) oversight responsibilities be
19 clarified with respect to government partnerships that it be limited to “local” government partnerships.
20 This would mean that the PRG would oversee the development of criteria and selection of local
21 government partnerships, as it does with the competitive program solicitations. Consistent with the
22 current 2006-2008 practices, the utilities should be allowed, without PRG oversight, to develop
23 “partnerships” with other entities who are not “local” governments but with whom it is appropriate to
24 treat the entity on “more equal footing, in terms of involvement in program design and planning,
25 information sharing and program implementation” as described in Policy Rule VI.5.⁴⁸ Examples of

⁴⁸ Assigned Commissioner’s Ruling on Revision 4.0 of the Energy Efficiency Policy Manual, Energy Efficiency Policy Manual Version 3.1, January 8, 2008.

1 these partnerships are the statewide partnerships with University of California/California State
2 University, Department of Corrections; and other local partnerships with other private organizations.
3 Evaluation of these partnerships should be part of the overall evaluation of the utility's portfolio and not
4 require particular PRG consideration similar to that accorded to third party competitive bidding and
5 local government selections.

6 **F. Treatment Of CEESP Costs And Energy Savings**

7 As shown in Exhibit SCE-6, there are a number of areas in which the CEESP calls for studies,
8 market characterization, research, local government initiatives, and development of training materials,
9 among other things, that will not result in cost-effective energy savings in 2009-2011. SCE cannot
10 predict whether and how cost-effective energy savings will materialize in the future from these
11 activities. SCE proposes that costs with a significant commitment to CEESP-related activities not
12 producing measurable and/or cost-effective savings in the 2009-2011 period be removed from the
13 shareholder earnings mechanism (*i.e.*, performance earnings basis) in order to avoid a perverse
14 disincentive for the utilities engaging in such activities. However, SCE proposes to include the costs
15 within the portfolio cost-effectiveness calculation to ensure that the portfolio as a whole delivers positive
16 benefit to customers.

17 In addition, to encourage energy savings from CEESP activities, SCE proposes to count any
18 measurable energy savings of these CEESP program activities towards meeting its energy savings and
19 demand reduction goals and its minimum performance standard requirements.

20 SCE looks forward to furthering the CEESP and working with stakeholders to achieve the long-
21 term vision, but wants to ensure that the CEESP on a going-forward basis receives the appropriate
22 resources and funding to ensure the success that the Commission envisions. The table below showcases
23 the programs and corresponding costs that SCE requests be outside of the shareholder earnings
24 mechanism (*i.e.*, performance earnings basis) but allow measurable energy savings to be counted
25 towards the achievement of the energy efficiency goals (*i.e.*, minimum performance standard):

Table II-6
Proposed SCE Costs To Exclude From 2009-2011 Earnings
Mechanism

Program/Activity	Budget
	<i>(\$ in millions)</i>
Workforce Education & Training ⁴⁹	\$12.474
Statewide Marketing, Education, & Outreach	\$23.155
Strategic Planning Team	\$7.780
Emerging Technologies Program	\$18.313
Sustainable Communities Program	\$14.965
California New Homes Program	\$31.562
Manufactured Housing New Construction Program	\$3.477
Codes & Standards	\$8.463
Financial Solutions	\$30.381
Strategic Plan-Oriented EM&V Studies ⁵⁰	TBD*
Total Budget	\$150.570
Total Portfolio Budget	\$1,344
% of Total Portfolio Budget	11.20%

⁴⁹ Includes WE&T EARTH Education and Training and WE&T Strategic Planning.

⁵⁰ Budgets will be identified as the EM&V plan is developed.

1 **III.**

2 **SCE'S PORTFOLIO REFLECTS STATE ENERGY POLICIES AND THE STRATEGIC PLAN**

3 **A. State Energy Policy And Initiatives**

4 **1. Portfolio Meets the Objectives of the Energy Action Plan**

5 The joint Energy Action Plan 2008 Update builds upon the previous Energy Action
6 Plans, as well as recent statutes and gubernatorial directives, while maintaining energy efficiency and
7 demand-side management as its foundation. The Energy Action Plan Update notes that:

8 “...it will not be enough to replicate current strategies for delivery of energy
9 efficiency options to consumers. To meet the AB 32 goals, we will need to employ
10 new and innovative approaches not yet tried. Toward this end, the Public Utilities
11 Commission launched a strategic planning process to develop comprehensive, long-
12 term strategies for sustainable energy efficiency savings to achieve the ultimate goal
13 of making energy efficiency a way of life for Californians.”⁵¹

14 SCE’s Application is focused on meeting the objectives of the Energy Action Plan. As
15 noted elsewhere in this Testimony, this portfolio is intended to go well beyond existing efficiency efforts
16 and begin a new phase of more strategic, coordinated, and effective activities. These activities are
17 designed to face California’s enormous energy and environmental challenges and over time, change the
18 nature of the utility efficiency activities as envisioned in the Energy Action Plan.

19 SCE’s portfolio of programs is designed to maximize cost-effective energy savings and
20 demand reduction through a combination of resource acquisition and market transformational initiatives
21 that address each consuming sector. This portfolio is designed to improve upon the course of previous
22 programs by increasingly influencing the actions of key non-utility actors, such as local governments,
23 the California Energy Commission (CEC) and manufacturers/builders of energy consuming
24 applications.

25 The Energy Action Plan Update, like D.07-10-032, the CEC’s 2007 Integrated Energy
26 Policy Report (IEPR), and the CEESP, notes the essential role of publicly owned utilities in meeting

⁵¹ Energy Action Plan: 2008 Update, State of California, February 2008, p. 2.

1 California’s energy and environmental goals. SCE is committed to working with the California
2 publicly-owned utilities to mutually improve our efforts and results.

3 **2. AB 32 Goals And Efforts**

4 a) **Environmental Benefits Projected**

5 The passage of AB 32 is arguably the most significant recent change in SCE’s
6 regulatory and business environment. The Energy Action Plan Update states:

7 “The most important development in California energy policy in the past two
8 years, if not the past several decades, is the arrival at consensus that California
9 must act to decrease its greenhouse gas emissions to reduce the impact of
10 climate change.”⁵²

11 Due to the developing nature of the implementation of AB 32, and potential
12 federal actions, there is significant uncertainty regarding the future price of CO₂, which is being
13 addressed in R.08-02-007.

14 Additionally, as required by D.07-10-032, this Application includes Exhibit
15 SCE-7, AB 32 Status Report, which includes a report on “the status of AB 32’s implementation and
16 proposed program changes that would complement rules and policies, if adopted, including and in
17 particular programs targeting energy efficiency measures in the industrial sector.”⁵³

18 While AB 32’s implementation has not yet been finalized, SCE is aware of the
19 nexus between energy efficiency programs and carbon emitters’ obligations, and is taking steps to
20 integrate the two. SCE’s portfolio includes the AB 32 Carbon Emission Reduction (CER) program
21 offering, a new pilot that demonstrates to customers that the indirect emissions savings from their energy
22 efficiency projects have additional economic value that is linked to the demand for carbon allowances in
23 existing and future carbon markets. This could enhance the potential financial value of energy
24 efficiency projects, increasing the level of adoption.

⁵² Energy Action Plan: 2008 Update, State of California, February 2008, p. 2.

⁵³ D.07-10-032, dated October 18, 2007, OP# 13, pp. 144-145.

1 b) AB 32 Status Report

2 SCE's report on the status of AB 32's implementation and proposed program
3 changes that would complement rules and policies is attached as Exhibit SCE-7 to this Testimony. As
4 the California Air Resources Board (CARB), the California Energy Commission (CEC), the
5 Commission, and other AB 32 decision makers are in the midst of key decisions regarding AB 32 (final
6 rules are due January 1, 2012); implementation by SCE and other utilities is only in its earliest stages. It
7 is worth noting that SCE's energy efficiency programs put forward in this Application complement and
8 support the goals of AB 32.

9 SCE is embarking on an aggressive program to reduce greenhouse gas emissions
10 through AB 32's provisions for Voluntary Early Actions (VEA) as proposed on May 16, 2008, to the
11 CARB. If approved, the plan (which calls for independent state validation) could reduce the equivalent
12 of 3.7 million metric tons of carbon dioxide; its cost is estimated to be about \$23 million.⁵⁴ Upon
13 concurrence by CARB, SCE will seek funding of these programs from the Commission through a
14 separate application.

15 **3. Governor's Green Building Initiative**

16 a) Energy Savings Projected Towards GBI Goals

17 SCE's Application provides numerous programs and opportunities for State
18 agencies, departments, and other entities under the direct executive authority of the Governor to take
19 measures to help meet their obligations under the Green Building Initiative (GBI) to reduce grid-based
20 energy purchases for state-owned buildings through the installation of cost-effective efficiency
21 measures.

22 SCE estimates that these programs will help yield 3.558 billion kWh of
23 annualized energy savings and 756 MW of peak demand reductions that contribute to the GBI;
24 additionally, we estimate that carbon dioxide emissions will be reduced by almost two million tons.

⁵⁴ SCE press release at www.edison.com/pressroom/pr.asp?id=7036

1 **B. Coordination With Statewide Energy Efficiency Strategic Plan**

2 **1. Portfolios Reflect Regional And Local Variations Complementing The Strategic**
3 **Plan**

4 The proposed portfolio strongly reflects the CEESP which, among other goals, robustly
5 integrates the energy efficiency activities of the four IOUs as well as non-IOU statewide actors.
6 Nonetheless, as D.07-10-032⁵⁵ recognizes, there are – and should be – regional and local variations in
7 program activities. Even within a single IOU’s service territory, there are regional and local factors that
8 may warrant targeted program activities. These include climate, building stock, building ownership and
9 rental patterns, grid performance issues, local leadership and interest, and commercial and industrial
10 consumer types.

11 Examples of proposed activities that retain regional and/or local variations, even while
12 remaining a component of a statewide, integrated energy efficiency strategy include:

- 13 • Sustainable Communities Program- the program coordinates with localized non-
14 energy offerings such as water agencies and AQMD incentives, if any.
- 15 • Local Government Partnerships- the partnerships vary based upon local conditions
16 including climate, building stock, community leadership, *etc.* The new Energy
17 Leader model⁵⁶ is designed to create energy partnerships with local governments that
18 will vary based upon local effectiveness. Partnerships also include a tiered incentive
19 structure that offers higher levels of support as the city and its community achieves
20 higher levels of installed energy savings.
- 21 • SCE’s SmartConnect™ (AMI) deployment – the deployment of SCE’s advanced
22 metering infrastructure will produce data to more specifically target energy
23 efficiency and DSM measures based on local factors.

⁵⁵ D.07-10-032, dated October 18, 2007, OP# 12, p. 144.

⁵⁶ The Energy Leader Partnership model was previously referred to as the “Affinity” model during the planning phase.

1 **2. Portfolios Contain Appropriate Strategies And Program Designs For The Three**
2 **Statewide Initiatives**

3 The proposed 2009-2011 portfolio contains numerous appropriate strategies and program
4 designs designed to help achieve three BBEES Statewide Initiatives (residential ZNE, commercial ZNE,
5 and transformed HVAC).

6 a) Residential New Construction

7 The 2009-2011 program cycle begins the first three year increment of the 12-year
8 time period covered by the CEESP. To support the market-transforming goals of the CEESP and its
9 implementation, and to begin to advance residential new construction toward the BBEES, SCE plans
10 robust, multifaceted, residential new construction offerings as part of the California New Homes
11 (CANHP) and Sustainable Communities (SCP) programs.

12 CANHP encourages single and multi-family builders of all production volumes to
13 construct homes that exceed California’s Title 24 standards by a minimum of ten percent, reducing
14 energy usage through a combination of incentives, technical education, design assistance, and
15 verification.

16 The pay-for-performance incentive structure for the 2009-2011 CANHP is
17 modified from the previous three-tiered structure to a graduated incentive model closely modeled on
18 Savings By Design’s whole building approach. Starting from ten percent better than Title 24, and
19 ramping up through 35 percent, projects are paid on an ascending scale per annualized kilowatt hour and
20 therm; this structure incentivizes a wide range of technology development and deployment, thereby
21 accelerating their market penetration. SCE will also explore rewarding peak kilowatt reductions.

22 Similarly, CANHP is working to integrate DSM offerings to builders. CANHP
23 will explore coordinating with DR offerings to reward builders for installing programmable
24 communicating thermostats, and is proposing that air conditioning cycling controllers be installed at
25 construction of the new home. CANHP will also look to leverage SmartConnect™ meters as they are
26 deployed.

1 In addition to the direct energy savings incentives, builders will also be eligible
2 for additional “kickers” including:

- 3 • ENERGY STAR homes
- 4 • Homes that meet Build It Green’s GreenPoint rated standards
- 5 • Smaller homes (where the total square footage is less than the median home)

6 Each increase is discrete and independent of the others.

7 For 2009-2011, SCE will offer a “fast track” to builders who participate in
8 CANHP to expedite their project through SCE’s planning process. This new incentive element is
9 designed to increase total resources, and will not simply shift projects that do not participate in energy
10 efficiency programs to a lower priority.

11 SCE is also working with the Metropolitan Water District to promote water
12 conservation in our shared service territory. If the water-energy pilot⁵⁷ is successful, SCE intends
13 facilitate the offers of additional incentives in this area.

14 In addition to CANHP, SCE continues to offer the Sustainable Communities
15 Program (SCP), which includes the Advanced Home Program (AHP) that offers educational
16 opportunities to builders, architects, and other residential construction stakeholders seeking knowledge
17 about emerging technologies and new home design. SCP seeks to expand the traditional focus of utility
18 programs from energy efficiency to sustainable development, addressing commercial and residential
19 construction practices that affect occupant health and environmental well-being. This includes energy
20 use as well as non-traditional sources of energy savings, such as water efficiency.

21 Utility programs have traditionally had an energy focus, but – as discussed in
22 D.07-10-032 and the CEESP – the explosion of “green” into the residential sector and the increased
23 awareness of green benefits in the marketplace have created significant new market opportunities to
24 pursue energy efficiency. SCE will leverage this progress to expand our emphasis upon materials and
25 distributed generation to include an integrated approach to energy efficiency and demand side measures.

⁵⁷ D.07-12-050, dated December 20, 2007, OP#2, p. 100.

1 D.07-10-032⁵⁸ also orders the development of the CEESP and calls out a BBEES
2 goal specifically relevant to the residential new construction industry.

- 3 • 100 percent of the residential new construction market will be zero net
4 energy by 2020.

5 Additionally, D.07-10-032⁵⁹ established an interim goal that 50 percent of the
6 residential new construction market will be 35 percent better than the 2005 Title 24 by 2011.

7 The concerted and coordinated efforts of many stakeholders, including the IOUs,
8 will be necessary to make measurable progress towards the realization of the BBEES and advanced
9 market penetration of ZNE-related technologies and practices. SCE recognizes that the integration of
10 DSM approaches and integrated design is important to achieving ZNE new construction. This can better
11 be accomplished when the entire suite of DSM offerings is at the table (including demand response,
12 energy efficiency, SmartConnect™, and distributed generation). Further, these offerings can only be
13 maximally effective when they are part of an integrated design.

14 SCE plans to use CANHP to contribute to the achievement of the 2011 milestones
15 of the CEESP, while leveraging SCP to lay the groundwork for the 2012-2014 program cycle to
16 contribute to the 2020 milestones of the CEESP.

17 b) Commercial New Construction

18 To implement the CEESP strategies and begin to advance commercial new
19 construction toward the BBEES for the commercial sector, SCE plans a robust, multifaceted commercial
20 new construction program.

21 SCE will continue to offer the statewide Savings By Design (SBD) program,
22 which reduces the electric energy needs of new and expanding commercial, industrial, governmental,
23 and institutional facilities throughout SCE's service territory. SBD will help building owners, architects,
24 engineers, specialized consultants, and other key actors throughout SCE's service territory to achieve

⁵⁸ D.07-10-032, dated October 18, 2007, pp. 42-43.

⁵⁹ *Id.*, p. 43.

1 optimum energy and resource efficiency in their design projects through offerings such as multi-level
2 design and technical and financial assistance.

3 The program’s rationale is to intervene early and aggressively to minimize lost
4 opportunities that may result when a building’s energy performance is not a primary design
5 consideration. SBD promotes energy efficiency in new construction or major remodel/renovation
6 projects through three complementary and coordinated components – Whole Building Approach
7 (Integrated Design), Systems Approach, and the Simplified Approach for Small Projects.

8 The Whole Building Approach (WBA) is the preferred method of promoting
9 energy savings because it enables a design team to consider integrated, optimized, energy efficiency
10 solutions. The Systems Approach (SA) is a straightforward performance-based method that uses a quick
11 energy savings calculation to optimize efficiency choices. The Simplified Approach for Small Projects
12 (SPA), a web-based deliverable, will offer project type specific advice on common energy efficiency
13 strategies.

14 For the 2009-2011 program cycle, SBD offers new financial incentives (beyond
15 direct kilowatt hour and kilowatt) to WBA and SA projects that achieve green building certification,
16 perform building commissioning during design and construction, and/or establish and follow a building
17 measurement and verification plan after occupancy. These sustainability incentives are designed to
18 encourage buildings to be well designed, well built, and well operated. The U.S. Green Building
19 Council’s Leadership in Energy and Environmental Design (LEED™) green building rating system,
20 Build It Green’s GreenPoints, and Collaborative for High Performance Schools (CHPS™) programs
21 represent several ratings systems for which certification can earn the customer the green building
22 certification incentive; others will be used subject to SCE consideration and approval.

23 In addition, SBD offers design firms extensive technical support to build their in-
24 house energy modeling capability. This assistance is intended to help design firms overcome the initial
25 learning-curve barriers that have kept many from undertaking energy modeling for energy efficiency
26 measure alternatives analysis when programming buildings. By forming alliances with design firms to
27 ramp up their internal energy-modeling resources, SCE will achieve increased market penetration for the

1 WBA and encourage the design community to consider energy efficiency as a top-tier component of
2 every building's programming, in support of the long range vision of the CEESP.

3 In addition to SBD, SCE continues to offer the Sustainable Communities Program
4 (SCP), which seeks to expand the traditional focus – and appeal – of utility programs from energy
5 efficiency to sustainable development by addressing commercial and residential construction practices
6 that affect occupant health and environmental well-being. The program encompasses energy use as well
7 as non-traditional sources of energy savings, such as water efficiency.

8 As in the residential sector, utility programs have traditionally had an energy
9 focus, but the explosion of “green” into the nonresidential sector and the increased awareness of green
10 benefits in the marketplace have created significant market opportunities to pursue energy efficiency.
11 SCE will leverage this progress to expand their emphasis upon materials and distributed generation to
12 include an integrated approach to energy efficiency and demand side measures.

13 D.07-10-032⁶⁰ also orders the development of the CEESP and calls out the
14 following BBEES goal specifically relevant to the nonresidential new construction industry.

- 15 • 100 percent of the nonresidential new construction market will be zero net
16 energy by 2030.

17 The concerted efforts of many stakeholders, including the IOUs, will be necessary
18 to make significant progress towards the realization of the BBEES. SCE recognizes that- as laid out in
19 the CEESP- the integration of DSM approaches and integrated design is important to achieving zero net
20 energy new construction. This can better be accomplished when the entire suite of DSM offerings is at
21 the table (including demand response, energy efficiency, SmartConnect™, and distributed generation).
22 Further, these offerings can only be maximally effective when they are part of an integrated design.

23 SCE also intends to leverage other existing offerings, internal and external to
24 SCE, to assist projects that desire a cohesive sense of sustainability beyond the traditional aspects of
25 electric energy efficiency. Such offerings may include coordination with LEED™ certification and

⁶⁰ D.07-10-032, dated October 18, 2007, p.46.

1 ENERGY STAR ratings, connections with demand response, self-generation, and water conservation
2 programs, partnerships with industry organizations to promote acceptance of new program approaches
3 by design professionals, and others as applicable. SCE will leverage SBD and SCP to make progress
4 towards the milestones of the CEESP.

5 c) Heating, Ventilation And Air Conditioning (HVAC) Industry

6 The HVAC market is an extremely diverse, complex, and fragmented market,
7 which presents many challenges to energy efficiency adoption and impedes market transformation.
8 These challenges include a low level of knowledge among end users, inconsistent compliance with
9 energy regulations, and low quality installations. Consequently, high quality contractors suffer from
10 market distortion and are forced to respond by selling their services based on first price, which leads to a
11 limited stock of energy efficient equipment by distributors. Manufacturers further aggravate this
12 situation by producing equipment designed to federal standards that do not accurately reflect the
13 performance characteristics in California. Due to the number of market barriers facing this industry,
14 reshaping this market requires a variety of creative strategies, a broad and engaged stakeholder
15 community, statewide coordination, and a high level of program entrepreneurship.

16 SCE continues to help drive the transformation process of California’s HVAC
17 market to ensure the realization of the CEESP’s HVAC vision that “residential and small commercial
18 HVAC will be transformed to ensure that technology, equipment, installation, and maintenance are of
19 the highest quality to promote energy efficiency and peak load reduction in California’s climate.”⁶¹ SCE
20 proposes building towards this vision by implementing a variety of downstream, midstream, and
21 upstream strategies designed to affect a positive and persistent influence on the overall behavior of all
22 stakeholders.

23 Because energy savings and peak reduction are modest on a per unit basis, a
24 number of comprehensive strategies will address increased market penetration, quality installation and

⁶¹ California Energy Efficiency Strategic Plan, dated June 2, 2008, p. 6-1.

1 maintenance (QI/QM), advancing equipment solutions, and load reduction; these strategies are discussed
2 in detail in the CEESP.⁶²

3 Recent data indicate that as a result of increased equipment efficiency standards
4 and other factors, unitary equipment sales have dropped and repairs to existing systems have increased.
5 SCE will work with industry partners to influence a measurable increase in the shipments of energy
6 efficient and peak demand-reducing HVAC systems with a variety of market-based financial and non-
7 financial incentives designed to stimulate the unique needs of each market actor. The goals of this
8 market penetration strategy include:

- 9 • Increasing the market penetration of above code HVAC systems by offering
10 financial incentives designed to motivate market actors to specify, purchase,
11 and install such equipment;
- 12 • Supporting marketing, education, and outreach strategies using a variety of
13 mass appeal tactics to enhance customer awareness (e.g., statewide HVAC
14 efficiency branding and mass promotion through Flex Your Power and other
15 channels), and
- 16 • Increasing coordination with SCE’s Technology Test Center to test high
17 performance equipment and train industry representatives and delivery
18 organizations.

19 Increases in QI/QM will be achieved through a concerted training effort using
20 existing industry channels and by requiring documented compliance with American National Standard
21 Industry (ANSI) QI/QM standards and Title 24. As discussed in the CEESP,⁶³ desired outcomes
22 include:

⁶² California Energy Efficiency Strategic Plan, dated June 2, 2008, pp. 6-1 to 6-12.

⁶³ *Id.*

- Measurably raising the level of awareness of energy efficiency, peak demand reduction, and QI/QM within the HVAC manufacturer and distributor community through coordinated marketing activities;
- Measurably raising the level of awareness of energy efficiency, peak demand reduction, and QI/QM within the HVAC contractor community by supporting contractors who demonstrate quality practices and industry sponsored QI/QM training activities;
- Measurably raising the level of awareness of energy efficiency, peak demand reduction, and QI/QM with end users by participating in California and national QI branding efforts such as ENERGY STAR and linking customers with these quality brands and contractors;
- Increasing energy code compliance to 100 percent of all systems influenced by the program by requiring all new equipment installations to meet Title 24 and ANSI approved standards for QI, and
- Promoting ongoing system maintenance by partnering with the contractor community to develop comprehensive equipment maintenance and commissioning strategies that ensure existing equipment is operating optimally.

The majority of equipment sold today is standard efficiency unitary equipment that performs inefficiently in California’s hot/dry climate. The CEESP’s HVAC strategy⁶⁴ to develop new California-oriented HVAC technologies and system diagnostics and accelerate their penetration in the marketplace recognizes that opportunities exist for accelerating the deployment of better equipment choices. Desired outcomes include:

⁶⁴ California Energy Efficiency Strategic Plan, dated June 2, 2008, p. 6-7.

- Affecting measurable increases in product shipments of innovative residential and commercial HVAC equipment solutions that are designed for optimal efficiency performance in California’s hot/dry climate zones, and
- Increasing coordination with SCE’s ETP and the CEC’s Public Interest Energy Research (PIER) Program and supporting the commercialization of advanced equipment solutions through coordinated statewide industry and utility HVAC programs.

HVAC systems are a major contributor to peak load, but are typically unconnected to comprehensive load reduction strategies. SCE plans to more closely align load efficiency and demand reduction activities by:

- Piloting innovative service-area strategies to achieve significant market penetration of peak efficient equipment, increasing QI/QM practices (including right-sizing), and leveraging building performance activities and load reduction strategies, and
- Leveraging opportunities, actors, and activities to more closely deliver HVAC solutions in concert with demand response initiatives.

The proposed 2009-2011 HVAC program approach tackles several long-standing market barriers:

- Organizational and market practices have impeded the typical HVAC contractor from fully embracing the value proposition of a high quality, energy efficiency-centered business model. The program addresses this barrier by providing training and sales support to help contractors to actively promote quality services and employ quality trained technicians to provide these services.
- Increased transaction costs result from the requirement that all new equipment is installed to ANSI QI standards and complies with Title 24. This program offers significantly increased incentives to overcome the customer’s hesitance

1 to contract for higher cost options. Additionally, mass market tactics address
2 the benefits of QI and the customer's perception that code compliance has
3 negative consequences.

- 4 • The high first cost of purchasing energy efficient equipment interferes with
5 end users making sound decisions related to retiring old or purchasing new
6 HVAC systems. The program uses a market-based incentive approach that
7 reduces the initial impact of first cost and educational tactics to promote the
8 value of life-cycle cost decisions.
- 9 • Performance uncertainties exist as the energy benefits of QI/QM are neither
10 well documented nor well understood. The program addresses this by actively
11 working with the industry to benchmark and standardize QI/QM practices and
12 methods and assess the energy benefits of these practices.

13 While these strategies will help reshape HVAC, full partnership with the HVAC
14 and building industries and the wider stakeholder community is essential. SCE, in concert with other
15 California IOUs, is facilitating the formation of an HVAC Advisory Group of industry stakeholders, as
16 laid out in the CEESP.⁶⁵ This group should build from the active participation and successes of the
17 strategic planning process and is chartered to provide a program advisory function and leverage existing
18 industry efforts to encourage desired change in the marketplace. Membership is focused on industry,
19 utility, and stakeholders that can represent a variety of points of view and be in a position to effect
20 change within their community.

21 During the 2006-2008 program cycle, California's IOUs spent a considerable
22 amount of resources discussing appropriate statewide program coordination and implementation
23 strategies. The IOUs acknowledge that some regional differences exist that precludes a replication of
24 program models across the state. However, the IOUs are consistent in their approach of targeting the
25 midstream market and QI/QM. This common approach necessitates consistent methodologies for

⁶⁵ California Energy Efficiency Strategic Plan, dated June 2, 2008, pp. 6-2 and 6-7.

1 energy savings, technician training, and data collection and validation. Additionally, consistent
2 approaches, as they relate to engaging manufacturers and other national market actors, will also be
3 explored.

4 In order to accomplish the Commission and CEESP objective⁶⁶ of profoundly
5 transforming the HVAC market in California, sufficient resources and activities (*e.g.*, labor, education,
6 marketing, *etc.*) are required. However, many of these do not produce direct energy benefits. The
7 importance of these activities cannot be overstated as the program objectives cannot be achieved without
8 SCE’s full commitment to these activities. Program management and coordination with measurement
9 and evaluation efforts must be aligned with the program’s market transformation approach to ensure the
10 desired market outcomes are achieved.

11 **C. Strategic Plan Vision For All Sectors**

12 **1. Existing Residential**

13 The CEESP sets forth the following vision for the Residential sector (both new
14 construction and existing homes):

15 “Residential energy use will be transformed to ultra-high levels of energy efficiency by
16 2020. All cost-effective potential for energy efficiency, demand response, and clean energy production
17 will be routinely realized on a fully integrated, site-specific basis. The value of these onsite energy
18 resources will be leveraged through optimization for maximum efficiency of conventional and
19 innovative new channels of energy delivery. Customers will demand and the market will provide highly
20 efficient products and services that will dramatically reduce energy use—with no loss of comfort or
21 equipment efficacy—creating a “win” for the economy, the environment, and society.”

22 SCE’s portfolio of residential programs includes many programs that directly support the
23 CEESP – including the Comprehensive Home Performance Program (CHPP), the Business and
24 Consumer Electronics Program, the Plug Load Efficiency Program, and the On-line Buyer’s Guide- and
25 its goals of coordinated, aggressive, and permanent market transformation.

⁶⁶ D.07-10-032, dated October 18, 2007, p.2, *see also* California Energy Efficiency Strategic Plan, dated June 2, 2008, p. 6-1.

1 The CHPP delivers comprehensive improvement packages tailored to the needs of each
2 existing home and its owner. The program solicits, screens, trains, and mentors qualified residential
3 repair, renovation, and HVAC contractors. Contractors learn to assemble capable contracting teams and
4 perform whole-house diagnostics of energy-related deficiencies, propose comprehensive energy-saving
5 improvement packages, and complete the renovations. The CHPP also includes marketing activities to
6 help educate customers about program services and provide additional customer leads to the trained
7 contractors, in addition to comprehensive energy efficiency measures, whole house solutions,
8 performance standards, local government opportunities, and DSM integration. This program supports
9 the CEESP’s residential sector strategy to transform home improvement markets to apply whole-house
10 solutions to existing homes.⁶⁷

11 The Business and Consumer Electronics Program’s rationale is to bring about midstream
12 market transformation by providing incentives to retailers to increase the stocking and promotion of high
13 efficient electronic products including computers, computer monitors, cable and satellite set-top boxes,
14 televisions, smart power strips, and additional business and consumer electronics as they become
15 available to the market. The Business and Consumer Electronics Program supports the CEESP’s
16 residential and commercial sector’ transformation, including the goal of strategy of revolutionizing the
17 energy efficiency and management of plug load devices by consumers.⁶⁸

18 The Plug Load Efficiency Program takes an active leadership role by engaging
19 stakeholders such as the Department of Energy (DOE), the Environmental Protection Agency (EPA),
20 ENERGY STAR, manufacturers, and retailers to address the energy use issues associated with the
21 increasing demand of plug load devices such as cell phones, small appliances, entertainment (*e.g.*,
22 televisions, cable/satellite boxes), and information technology (*e.g.*, computers).

23 The Plug Load Efficiency Program advances the implementation of the CEESP strategy
24 to revolutionize the energy efficiency and management of plug load devices by consumers⁶⁹ by

⁶⁷ California Energy Efficiency Strategic Plan, dated June 2, 2008, p. 2-17.

⁶⁸ *Id.* p. 2-18.

⁶⁹ California Energy Efficiency Strategic Plan, dated June 2, 2008, p. 2-18.

1 addressing policy issues with the DOE and the EPA and working with retailers through active rebate
2 programs to influence manufacturers to supply energy efficient plug load devices. The program will
3 also advance small systems performance standards and local government opportunities, and will
4 advance comprehensive energy visual monitoring and displays by leveraging opportunities provided by
5 SmartConnect (AMI).

6 The On-line Buyer's Guide is a new service designed to provide residential consumers
7 with instant on-line access (via sce.com) to information and tools designed to overcome barriers to
8 purchasing energy efficient equipment and/or participating in utility programs.

9 The guide consists of:

- 10 • An interactive technology "experience" that introduces consumers to energy
11 efficiency equipment;
- 12 • A database that draws product recommendations from many established sources
13 including the CEC, CEE, AHRI, and ENERGY STAR;
- 14 • A calculation tool to support energy efficiency investment decisions;
- 15 • A shopper's guide to efficiency;
- 16 • A comprehensive guide to rebate and incentive programs, and
- 17 • A list of retailers.

18 The On-Line Buyer's Guide supports several CEESP residential sector strategies,⁷⁰ as
19 well as those in the commercial and HVAC sectors, by expanding the penetration of more efficient
20 products.

21 **2. Existing Commercial**

22 SCE's analysis of the commercial market segment indicates that commercial buildings
23 are one of SCE's largest consumers of electricity, offering a substantial potential market for energy
24 efficiency. This portfolio includes programs that target existing commercial buildings and proposes how

⁷⁰ California Energy Efficiency Strategic Plan, dated June 2, 2008, p. 2-18.

1 to best address this high potential during the 2009-2011 program cycle, while still achieving a cost-
2 effective balance of measures.

3 The CEESP’s vision⁷¹ for the Commercial Sector (both new construction and existing
4 buildings) is that:

5 “Commercial buildings will be put on a path to zero net energy by 2030 for all new
6 buildings and for a substantial proportion of existing ones. HVAC will be transformed for small
7 commercial users to respond to market demand for quality, high-performing systems intelligently
8 integrated with the building shell. Innovative technologies and enhanced building design and operation
9 practices will dramatically grow in use in the coming years through a combination of technology
10 development, market pull, professional education, targeted financing and incentives, and codes and
11 standards.”

12 The following new programmatic concepts and methods are designed to motivate
13 commercial customers to meet energy efficiency and AB 32 emissions reduction goals, while directly
14 implementing the CEESP:

- 15 • Energy Benchmarking Program – the new Business Service Element’s (BSE) Energy
16 Benchmarking offering creates market awareness and demand for more efficient
17 buildings. While this program is not initially expected to yield savings, its strategy is
18 to integrate benchmarking as a core service, exceeds AB 1103 requirements, and
19 serves as the lead-in for other commercial programs. The Energy Benchmarking
20 offering supports multiple CEESP strategies, including the commercial sector
21 strategy to align commercial building benchmarking, labels, and operations and
22 maintenance practices to address energy efficiency.⁷²
- 23 • Retrocommissioning (RCx) Assessment and Repair & Maintenance Program – the
24 new BSE’s RCx Assessment and Repair & Maintenance offering emphasizes a more

⁷¹ California Energy Efficiency Strategic Plan, dated June 2, 2008, p. 3-1.

⁷² *Id.* p. 3-12.

1 comprehensive treatment of RCx and the addition of energy efficiency operation,
2 maintenance, and repair incentives and aims to increase market penetration of RCx.
3 Additionally, it educates building operators and owners about running their facilities
4 more efficiently and leverages enhanced core energy efficiency program offerings
5 including the WE&T's Synergies Building Operator Certification (BOC) offering.
6 This program supports multiple CEESP strategies, including the commercial sector's
7 strategy to align commercial building benchmarking, labels, and operations and
8 maintenance practices to address energy efficiency.⁷³

- 9 • Monitoring-Based Commissioning Program – this new program for 2009-2011
10 provides an integrated process which allows ongoing operations to be evaluated, in
11 addition to RCx activities. This new program supports multiple CEESP strategies,
12 including the commercial sector's strategy to align commercial building
13 benchmarking, labels, and operations and maintenance practices to address energy
14 efficiency.⁷⁴
- 15 • Financial Solutions Program – this new offering includes enhancement of the
16 existing on-bill financing program, development of a new energy efficiency loan
17 program, and solicitation of innovative financing mechanisms to augment the current
18 incentive offerings and encourage increased program participation by removing a
19 key market barrier. This program supports multiple CEESP strategies, including the
20 commercial sector strategy of “targeting financing and incentives to support meeting
21 commercial sector goals.”⁷⁵
- 22 • Comprehensive approach – the Commercial Energy Efficiency Program and related
23 solicitations include a comprehensive approach to existing commercial space. This
24 approach minimizes lost opportunities, and increases energy efficiency adoption.

⁷³ California Energy Efficiency Strategic Plan, dated June 2, 2008, p. 3-12.

⁷⁴ *Id.*

⁷⁵ *Id.* p. 3-15.

- Sub-segment Solutions – due to the dispersed nature of SCE’s commercial customers, there are numerous program offerings available for this sector. This process provides bundled solutions at the customer sub-segment level. Services will also incorporate other DSM offerings. This service supports multiple CEESP strategies, including the commercial sector’s strategy to align commercial building benchmarking, labels, and operations and maintenance practices to address energy efficiency.⁷⁶
- Savings Calculation Tool Development – SCE proposes the development of tools that will help support the quantification of savings for program related purposes and support the sales and marketing messaging aimed at selling energy efficiency savings to potential customers. This is an augmentation and consolidation of existing tools, with new enhancements for measures not currently included. This strategy, by itself, will not yield direct savings; however, it is important because the lack of tools is a key cost issue for RCx and other programs. Additionally, by making these tools more readily available, SCE expects that customers will be able to make better informed decisions, which should encourage them to implement more energy efficiency measures.

Numerous CEESP crosscutting activities are also key to transforming this sector in an integrated and long-lasting way, including HVAC, local government initiatives, workforce education and training, emerging technologies, and codes and standards.

Implementation of these actions requires the identification of key technologies through the CEC’s PIER Program, universities, and the national labs, in coordination with the statewide Emerging Technologies Program. New technologies are also supported by the new Technology Resource Incubator Outreach (TRIO) program and the Innovative Designs for Energy Efficiency

⁷⁶ California Energy Efficiency Strategic Plan, dated June 2, 2008, p. 3-12.

1 Activities (IDEEA) program, designed to incubate, pilot, and quickly mainstream successful
2 technologies into the California marketplace.

3 Coordination within this sector includes statewide planning and program coordination to
4 ensure consistency in incentives, offerings, and services across all IOUs, a key CEESP approach. In
5 addition, common marketing and outreach for statewide and other related programs is coordinated to
6 improve cost-effectiveness and to deliver a common message. Coordination also includes additional
7 outreach that aligns with major sub-segment elements with specific needs and/or barriers. Sub-segments
8 are addressed through a comprehensive team approach which may include stakeholders such as building
9 owners, PIER, Building Owners and Managers Association, CEC, and others, as identified in the
10 CEESP.

11 **3. Industrial**

12 SCE's industrial sector strategy will build upon the 2006-2008 Industrial Energy
13 Efficiency Program and advances comprehensive energy efficiency including integrating approaches to
14 minimize lost opportunities, planning and recruiting sites for a pilot certification in industrial facilities,
15 analyzing and identifying resulting process improvements, investigating financing options,
16 benchmarking, and promoting advances in equipment efficiency and operations through process
17 improvements. Along with SCE's industrial sector strategy, the sector strategy is designed to overcome
18 well-understood barriers (or limits) to the adoption of energy efficiency and has a clear vision and
19 strategy. The industrial sector strategy is aligned with the CEESP's vision⁷⁷ that:

20 "California industry will be vibrant, profitable, and exceed national benchmarks for
21 energy and resource efficiency".

22 SCE's vision for the industrial sector is focused on a partnership between customer and
23 utility in which the utility supports the ongoing profitability of the consumer through energy
24 management assistance in exchange for energy and demand savings. SCE's industrial strategy is to
25 position energy efficiency and SCE as resources to help industrial customers manage cost and
26 operational risks, enhancing their economic and environmental sustainability.

⁷⁷ California Energy Efficiency Strategic Plan, dated June 2, 2008, p. 4-1.

1 The program targets energy efficiency opportunities in industrial processes and systems
2 (although cost-effective building measures will be bundled along with process improvements to prevent
3 lost opportunities), which have historically had low energy efficiency adoption rates. The program is
4 structured to reflect the industrial customer’s reluctance to alter elements of a working production
5 process for reasons other than product output or quality. These customers understandably do not think
6 of their business as a collection of end uses of energy, but rather as a process that transforms commodity
7 inputs into products. As industrial customers think in terms of processes, so should utilities, in order to
8 maximize the industry’s awareness and uptake of energy efficiency, demand response, and renewable
9 self-generation opportunities.

10 SCE’s industrial sector strategy builds on and incorporates other energy efficiency
11 programs that focus on key end-use applications such as motors and variable speed drives. The
12 industrial energy efficiency programs offer the calculated and itemized elements of the Business
13 Incentives Element as part of a more integrated review of energy efficiency options. As outlined in the
14 CEESP, the industrial strategy targets improvements that address energy and business needs across:

- 15 • Customers’ operational and business objectives;
- 16 • Energy-related DSM programs;
- 17 • Marketing and delivery channels;
- 18 • Enabling partners (financial institutions, trade associations, service providers, *etc.*);
- 19 and
- 20 • Value propositions from the customers’ perspective (energy, water, materials
21 management, recyclables, corporate citizenry, *etc.*).

22 In addition to the barriers that limit adoption rates of energy efficiency measures across
23 all customer groups, there are additional barriers that affect the decisions of process industries’
24 management. This program is designed to mitigate those barriers through a systems approach to
25 identifying energy efficiency potential and by presenting those opportunities within a comprehensive
26 business context.

1 Recent evaluations of the Standard Performance Contract (SPC) program ⁷⁸ provide
2 significant insight into the issues that affect decisions about installing energy efficiency measures within
3 industrial process facilities. The issues tend to vary by firm size and by industry type,⁷⁹ however they
4 include:

- 5 • First, costs associated with increasing energy efficiency;
- 6 • Uncertainty over project savings;
- 7 • Time commitment required to get informed about energy efficiency opportunities
8 and projects;
- 9 • Time and cost associated with selecting implementation contractors for projects; and
- 10 • Uncertainty about the savings information provided by energy efficiency firms.

11 Most energy efficiency programs are designed around direct (investment) costs and are
12 aimed at reducing simple payback, or increasing return on investment for projects that may be just short
13 of a company's threshold for investment. Given that time has economic value, and that undue delay is a
14 key market barrier, energy efficiency programs for industrial customers need to incorporate elements to
15 reduce the cost and time commitment associated with energy efficiency decisions.

16 The Industrial Energy Efficiency Program is coordinating with the other IOUs to drive
17 towards consistent incentive levels and information. In addition, the utilities are coordinating to offer a
18 joint audit and recommendation package to facilities that share service territories.

19 The program is built on the same principles that form the CEESP vision and strategy for
20 the industrial sector and aligns with multiple CEESP strategies,⁸⁰ including leveraging the marketing and
21 comprehensive benefits of energy efficiency branding, certification, and continuous improvement
22 methods. The program also supports the CEESP strategies related to DSM Integration and Coordination

⁷⁸ 2004-2005 Statewide Nonresidential Standard Performance Contract Program Measurement and Evaluation Study: Impact, Process and Market Evaluation-Final Report, March 19, 2008.

⁷⁹ *Id.*

⁸⁰ California Energy Efficiency Strategic Plan, dated June 2, 2008, pp. 4-16 to 4-18.

1 by providing integrated facilities/process audits and project proposals that offer integrated solutions to
2 maximize participant value and are cost-effective.

3 **4. Agriculture**

4 SCE's targeted approach to the agriculture and water systems sector includes food
5 production enterprises, crop production enterprises, and public and private water system enterprises.

6 The CEESP sets forth the following vision for the Agricultural Sector:

7 "Energy efficiency will support the long-term success of California agriculture,
8 including through increased profitability, support of AB 32 compliance, and support
9 of renewable energy goals."⁸¹

10 SCE's 2009-2011 agriculture and water systems strategy supports the CEESP vision
11 through various strategies, as outlined in the segment's implementation plan. Specifically, SCE's
12 portfolio supports the CEESP's strategy of market characterization and goal setting,⁸² which focuses on
13 establishing and maintaining a sufficient knowledge base for the sector to support the development of all
14 energy efficiency and demand reduction resources. SCE supports this goal by dedicating resources to a
15 detailed analysis and review of the segment's electricity usage, peak demand, and electricity
16 use/intensity within SCE's service territory, characterizing to at least the North American Industry
17 Classification System (NAICS) level, and providing geographic mapping. This characterization effort
18 supports more targeted and cost-effective delivery of energy efficiency programs, by better identifying
19 customers with similar business models and similar energy consumption patterns. This, in turn, will
20 drive a more customized and effective delivery of energy efficiency solutions to unique agriculture
21 market sub-segments.

22 SCE's agriculture strategy also leverages the Financial Solutions Element, which
23 supports the CEESP strategy of providing greater levels of financing and incentives to the agricultural
24 sector.⁸³ The program provides for SCE on-bill financing, third party asset-based financing, and third-
25 party project financing for energy efficiency projects adopted by SCE business customers.

⁸¹ California Energy Efficiency Strategic Plan, dated June 2, 2008, p. 5-1.

⁸² *Id.*, p. 5-17.

⁸³ *Id.* p. 5-16.

1 SCE's portfolio supports the CEESP's strategy of fostering advances in best management
2 practices and equipment efficiency.⁸⁴ This is accomplished through the Agriculture Energy Efficiency
3 Program, which follows up on pump testing audit findings to implement tailored, customized solutions
4 for enhancing energy efficiency. Additionally, the agriculture strategy dedicates resources for the
5 assessment of energy usage benchmarks and energy cost metrics within the sub-segments. This
6 information is valuable in identifying energy efficiency opportunities and enhancing the operations and
7 profitability of the customer.

8 The agriculture strategy supports the CEESP's goal of accelerating the emergence of
9 energy efficiency technologies by providing seed capital for energy efficiency research and development
10 and early stage energy efficiency technologies, such as through the IDEEA solicitation. Emerging
11 technologies will also be assessed and, where applicable, demonstrated at SCE's Energy Centers. The
12 agriculture strategy also plans for continued work and program development around reduced water
13 usage, which has, as a secondary benefit, reduced electricity use. Lessons learned from the water-
14 energy Pilot⁸⁵ may also be used in designing new customized programs.

15 The following programmatic concepts and methods are designed to address the barriers to
16 adoption of energy efficiency projects in the agriculture and water systems sector:

- 17 • Agriculture Energy Efficiency Program- this program is designed to be customized
18 to specific agricultural applications;
- 19 • Segment Customized Offerings – these programs provide robust economic returns to
20 customers as measured by payback period, net present value, and/or return on
21 investment;
- 22 • Project Management Assistance – the portfolio introduces an option to customers to
23 employ a project manager who is an expert in energy efficiency programs to assist in

⁸⁴ *Id.* p. 5-14.

⁸⁵ D.07-12-050, dated December 20, 2007.

1 the implementation and management of long term energy efficiency projects, helping
2 to overcome the barrier of limited customer expertise;

- 3 • Financing – the portfolio introduces an option for the customer to obtain turnkey
4 project or asset based financing for the portion of an energy efficiency project not
5 covered by rebates or incentives; this helps alleviate capital constraints that often
6 derail energy efficiency projects, and
- 7 • AB 32 Carbon Emission Reduction Program- this program demonstrates to
8 customers that the indirect emissions savings from their energy efficiency projects
9 have additional economic value that is linked to the demand for carbon allowances in
10 existing and future carbon markets. This could enhance the potential financial value
11 of energy efficiency projects, increasing the level of adoption.

12 Additionally, as SCE continues into the 2009-2011 program cycle employing existing
13 programs and testing new programs within the agriculture market segment, it continues to identify those
14 programs that require or would benefit from a greater level of statewide coordination on a program and
15 market segment level, as guided by the CEESP, and act accordingly.

16 **5. Emerging Technologies**

17 The development, enhancement, deployment, and operation of energy efficiency related
18 technology is fundamental to achieve California’s energy efficiency vision and goals and to successfully
19 implement the CEESP. The CEESP looks to emerging technologies in general and the statewide
20 Emerging Technology Program (ETP) in particular to support these overall efforts, as described in the
21 Research and Technology chapter.⁸⁶ The ETP delivers information, insights, analytical tools, and
22 resources to help enable expedited adoption of innovative technologies, support the promotion of new
23 applications to existing technologies, and accelerate the statewide market penetration of emerging
24 technologies, products, and practices.

⁸⁶ California Energy Efficiency Strategic Plan, dated June 2, 2008, pp. 11-2 to 11-12.

1 Strategically focused activities in the ETP will include integrating demand side activities,
2 enhancing market intelligence efforts, engaging and leveraging other stakeholders in the ET process, and
3 accelerating technology transfer and adoption activities. Reducing perceived risk in new technologies
4 through performance assessments is one tactic which the ETP will continue to utilize, as will be the
5 tactic of developing innovative tools that enable more consumers to explore, purchase, and use energy
6 efficiency related products at all stages of technology and marketplace deployment. Integrated Demand
7 Side Management (IDSM) activities are included in the ETP and encompass the integration of
8 appropriate renewables, demand response, permanent load shifting strategies, carbon mitigation
9 measures, and other sustainability activities.

10 One new concept in the 2009-2011 filing is that limited ETP efforts, including
11 Technology Research Incubation Outreach (TRIO) program, will be aimed at contributing to technology
12 adoption through influencing the ease and attractiveness of energy efficiency technology investment and
13 development in California. A second new concept is conducting a greater number of scaled field
14 placements on selected technologies in the market. These placements will target market awareness
15 and/or advanced technology assessments- key steps in the market transformation continuum.

16 The ETP will also work with the CEC's PIER Program and the RD&D communities
17 through the Emerging Technology Coordinating Council (ETCC) to assure these research portfolios are
18 aligned with the IOU's demand side activities and the CEESP so that ET resources can be leveraged,
19 potential energy savings can be maximized, and technology transformation can be broad-based and
20 long-lasting.

21 The ETP aligns with the CEESP research and technology sector strategies ⁸⁷to enhance
22 market intelligence, expand activities to create market pull for efficient technologies, leverage private
23 industry, drive product improvement, and focus on the leading edge.

⁸⁷ California Energy Efficiency Strategic Plan, dated June 2, 2008, pp. 11-9 to 11-11.

6. Codes & Standards

The Codes & Standards (C&S) program directs initiatives to enhance state and federal building and appliance standards to codify cost-effective, reliable, verifiable, and persistent demand side measures. The program’s goal is to maximize portfolio energy savings, demand reduction, and demand response, consistent with the CEESP’s overall philosophy and C&S vision:

“A broad range of aggressive and continually improving energy codes and standards will be adopted to greatly accelerate the widespread deployment of zero-net and highly efficient buildings and equipment. The effectiveness of codes and standards will be enhanced by improved code compliance as well as coordinated voluntary efficiency activities.”⁸⁸

It is not an exaggeration to state that the aggressive development of (and compliance with) energy codes and standards is fundamental to California’s market transformation goals and essential for the CEESP’s success; in fact, the Commission and others, appropriately, often define adoption into codes and standards as the end point for market transformation.

Codes and Standards Enhancement (CASE) studies for energy efficiency improvements are performed for promising design practices and technologies and are presented to standards and code-setting bodies, with the goal of developing more comprehensive whole building approaches, concentrating on new areas of appliance regulation, developing “reach” codes, and better integrating demand response, water use, and renewable energy.

Following the adoption of new codes or standards, the program supports their successful and long-term implementation through activities designed to maximize compliance, as described in the CEESP,⁸⁹ by increasing training to local code officials, conducting research to determine key areas of non-compliance, simplifying codes, and improving acceptance testing procedures. The C&S program closely coordinates with local government partnerships and other energy efficiency programs, and with the CEC, other state agencies, and other stakeholders to develop and implement codes that appropriately

⁸⁸ California Energy Efficiency Strategic Plan, dated June 2, 2008, p. 7-1.

⁸⁹ California Energy Efficiency Strategic Plan, dated June 2, 2008, pp. 7-8.

1 address government, customer, and industry needs, and legislative initiatives and mandates. In
2 alignment with the CEESP,⁹⁰ C&S coordinates with the local government partnerships to train staff and
3 support code development efforts with the federal Department of Energy. The C&S Program strongly
4 supports the zero net energy BBEES by advocating for Title 24 building energy standards and Title 20
5 appliance regulations that will help meet the zero net energy requirements for residential new
6 construction by 2020 and commercial buildings by 2030. The program accomplishes this by developing
7 comprehensive CASE studies that reduce energy use (tighter building envelopes, regulation of plug
8 loads, higher efficiency air conditioning systems, *etc.*) and by on-site renewable energy generation.

9 **7. Local And State Governments**

10 SCE's energy efficiency partnership program portfolio consists of partnerships with local
11 and state government organizations as well as with institutional customers. SCE acknowledges that
12 these governments and institutions provide a number of key functions relating to demand side
13 management and efficiency. Additionally, SCE embraces the vision of the CEESP to strengthen and
14 capitalize upon the capacity of governments and institutions to encourage community outreach,
15 leadership by example, and enforcement of state and local codes and standards in support of California's
16 aggressive energy savings goals. The CEESP's vision for local governments⁹¹ is that:

17 "By 2020, California's local governments will be leaders of community-based initiatives
18 to reduce energy use and carbon dioxide emissions. Local governments will be using their authorities
19 and resources—regulatory, legal, and educational—to promote energy efficiency technologies and
20 practices within their communities, in their own facilities and with their peers."

21 Energy leadership is one of the very important roles that governments and institutions can
22 play. SCE believes that governments and institutions will be motivated to improve energy efficiency in
23 their facilities and communities as part of their larger interests in reducing carbon emissions and
24 managing energy costs.

⁹⁰ *Id.* p. 7-11.

⁹¹ California Energy Efficiency Strategic Plan, dated June 2, 2008, p, 12-1.

1 SCE's 2009-2011 partnership programs provide opportunities for institutional and local
2 government partners to lead by example, enhancing efficiency-related market transformation while
3 delivering cost-effective energy savings. Following the guidance of the CEESP,⁹² these programs
4 provide assistance for partners to identify energy efficiency retrofit projects, enhanced incentives, audits,
5 and other technical assistance to help overcome barriers to implementation of energy efficiency projects.

6 Many governments and institutions are working to develop local ordinances or programs
7 to build a sustainable environment. SCE's partnership programs will work with these partners, with
8 support from other demand side management programs such as the Sustainable Communities, Codes and
9 Standards, and new construction programs. These resources support the governments and institutions
10 segment to simplify and standardize relevant policies and codes as well as create model ordinances or
11 programs to facilitate adoption locally and statewide. The role of local governments in this key area is
12 discussed extensively in the CEESP.⁹³

13 Governments and institutions provide venues for the piloting of new technologies that
14 could potentially be scaled up across the state. The Emerging Technologies Program considers
15 partnerships a high priority in the selection of test sites and also links with CEC's PIER program. Codes
16 and Standards and the WE&T Synergies Program support and leverage local governments' Title 24
17 enforcement activities with energy code training for plan checkers, inspectors, and the trades.

18 Peer-to-peer support is considered a key part of SCE's partnership strategy, and is
19 outlined in the CEESP.⁹⁴ Forums will be created for partners to share best practices and to support each
20 other. In addition, SCE's partnership portfolio includes partnerships with local government
21 organizations such as Councils of Government and other joint powers authorities representing groups of
22 cities/counties in the partnership portfolio.

23 SCE has developed a strong history of working closely with a variety of institutional and
24 local government partners to implement demand side management. These partnerships enable the

⁹² California Energy Efficiency Strategic Plan, dated June 2, 2008, pp. 12-13 to 12-14.

⁹³ California Energy Efficiency Strategic Plan, dated June 2, 2008, pp. 12-8 to 12-9 and 12-14.

⁹⁴ California Energy Efficiency Strategic Plan, dated June 2, 2008, p. 12-16.

1 customers to focus on, learn about, and implement energy efficiency, conservation, demand response,
2 load shifting, and renewable energy within their own facilities.

3 SCE's 2009-2011 partnership programs include a greater focus on coordination with
4 demand response and other DSM. Different levels of demand response offerings have been defined and
5 partners are encouraged to establish goals for demand response to progress to higher levels of
6 partnership participation. In addition, the partners also utilize an integrated approach that encourages
7 participation in the California Solar Initiative, Self Generation Incentive Program, and Low Income
8 Energy Efficiency Program, as laid out in the CEESP.⁹⁵ Although the funding for the integrated portion
9 of the program comes from the dedicated funding source for each respective integrated measure, the
10 partnership makes this as seamless as possible to the partner and its constituents.

11 SCE's partnership program approach stipulates that the type of support available to
12 partners can be a combination of enhanced energy efficiency incentives, technical support, and
13 marketing, education and outreach, depending on the specific needs of the partner and its community.
14 However, to enhance cost efficiency, additional non-resource components are leveraged from other
15 portfolio programs. For example, Sustainable Communities, Codes and Standards, and WE&T have all
16 made provisions for supporting Local Government Partnerships.

17 The partnerships continue the progress made with the establishment of a statewide
18 approach to training on energy efficiency technologies that are applicable to improving building
19 operation. This fosters and facilitates long-term and persistent energy efficiency savings. The training
20 and education component of the partnership involves training of design staff, project managers, energy
21 managers, and others in using best energy practices in the construction, retrofit, RCx, and monitoring-
22 based commissioning of buildings and central plant infrastructures. The partnerships will also
23 collaborate with higher education institutional partners to support the development of energy curriculum
24 to support the workforce development initiatives of the CEESP.

⁹⁵ California Energy Efficiency Strategic Plan, dated June 2, 2008, pp. 12-13 to 12-16.

1 **8. DSM Integration**

2 SCE’s 2009-2011 portfolio strongly supports the key CEESP goal of DSM integration
3 and coordination, which include establishing integration procedures, piloting DSM integration
4 programs, and improving regulatory coordination. For full discussion of integrated DSM, see SCE-
5 Exhibit 5.

6 **9. Marketing, Education, And Outreach**

7 The CEESP sets forth a clear vision⁹⁶ for Marketing, Education, and Outreach (ME&O):
8 “Californians will be engaged as partners in the state’s energy efficiency, demand-side management and
9 clean energy efforts for 2009 and beyond with the dual goals of informing them of the importance of
10 energy efficiency, and their opportunities to take action.”

11 Consistent with the CEESP, SCE's marketing, education, and outreach efforts seek to
12 maximize energy savings and move customers towards permanent adoption of an energy-efficient
13 lifestyle. Integrated DSM marketing and outreach – a key cornerstone of SCE's marketing approach -
14 will continue to leverage both the statewide brand and other market actors to drive program
15 participation, market transformation, and behavior change. SCE's integrated DSM marketing and
16 outreach campaigns will continue to utilize segmentation research to better understand customers and
17 provide them with a wide range of action-oriented solutions to maximize energy savings. Segmentation
18 also enables SCE to customize the characteristics of its offerings, providing customers with solutions
19 that are relevant to their needs.

20 In order to accomplish SCE’s key objectives, marketing efforts are designed to move
21 consumers through a continuum from awareness, to attitude change, to long term behavior change.
22 Given the diversity of SCE’s customer base, SCE uses multiple layers of integrated marketing to
23 effectively reach customers and motivate them to action.

⁹⁶ California Energy Efficiency Strategic Plan, dated June 2, 2008, p.10-1.

1 The first layer – statewide branding – builds awareness of the benefits of an energy
2 efficient lifestyle and is designed to affect customer attitudes. SCE plans to leverage and coordinate the
3 statewide branding efforts, but will not duplicate them.

4 The second layer – IOU bundled marketing – provides customers with bundled solutions
5 to move them from awareness to action. Bundled marketing is an important element of D.07-10-032
6 and the CEESP’s call for integrating DSM⁹⁷ that involves pulling together relevant energy efficiency,
7 conservation, demand response, low income energy efficiency, California Solar Initiative, and
8 SmartConnect™ (AMI) enabled offerings. Bundled marketing helps deliver awareness of relevant
9 offerings, so that customers will both appreciate and accept holistic energy management solutions.

10 For example, SCE plans to conduct up to three marketing campaigns each year that
11 feature holistic solutions to common consumer issues, like managing cooling costs. SCE will promote
12 participation in energy efficiency programs such as Residential/Light Commercial HVAC, Home
13 Energy Efficiency Surveys, and Low Income Energy Efficiency, as well as demand response programs,
14 such as the Air Conditioning Cycling Program. Providing integrated product bundles encourages
15 customers to change behavior and motivates them toward salient and long-lasting solutions.

16 The third layer – highly targeted, customized marketing— provides SCE the opportunity
17 to explore a one-to-one or behavior-based marketing approach. This one-to-one marketing approach
18 includes a personalized energy report with measure-specific tips providing customers with relevant
19 solutions for their specific energy management needs.

20 SCE continues to conduct highly targeted marketing efforts for its key DSM programs.
21 Activities include point-of-sale, direct response, outbound calling, trade journals, sce.com, on-line and
22 electronic advertising, bill messaging, inserts, and partnerships with other market actors.

23 Accomplishing the long term goal of maximizing energy savings and changing consumer
24 behavior requires a marketing effort across many stakeholders with responsibility for energy efficiency

⁹⁷ D.07-10-032, dated October 18, 2007, pp. 29-32, see also California Energy Efficiency Strategic Plan, dated June 2, 2008, pp. 8-1 to 8-9.

1 in all sectors. SCE coordinates with market players and leverages best practices to move customers to
2 take action through:

- 3 • Statewide branding;
- 4 • Coordination between IOUs, and
- 5 • Utilizing a spectrum of market actors, including –
 - 6 • Retailers
 - 7 • Businesses
 - 8 • Cities, counties, and local governments
 - 9 • Trade associations
 - 10 • Non-profit/faith-based organizations

11 Additionally, in alignment with the CEESP,⁹⁸ the Statewide Marketing and Outreach
12 Program includes exploration of a statewide EE/DSM brand for California, utilization of statewide
13 segmentation and social marketing techniques to develop marketing campaigns and messaging that
14 facilitates awareness and long-term behavior change, and development of a statewide EE/DSM web
15 portal.

16 **10. Workforce Education and Training**

17 Workforce Education & Training (WE&T) is an important crosscutting activity that
18 educates and trains current and future workers to successfully perform the jobs needed to reach
19 California’s clean energy goals. The CEESP’s vision⁹⁹ for WE&T is that:

20 “[b]y 2020, California’s workforce will be trained and engaged to provide the human
21 capital necessary to achieve California’s economic energy efficiency and demand-
22 side management potential.”

23 To that end, WE&T strategies require a comprehensive, collaborative, and highly
24 leveraged approach to education and training-one that focuses on developing new jobs that currently do

⁹⁸ California Energy Efficiency Strategic Plan, dated June 2, 2008, pp. 10-7 to 10-8.

⁹⁹ California Energy Efficiency Strategic Plan, dated June 2, 2008, p. 9-1.

1 not exist, expanding outreach methods for new and existing programs, providing supplemental training,
2 and increasing awareness and demand for green careers.

3 SCE's 2009-2011 WE&T Program includes three important core delivery components:

4 1) WE&T Strategic Planning & Implementation; 2) WE&T Synergies; and 3) WE&T EARTH
5 Education and Training. Each component is designed to target specific market segments, and contribute
6 significantly to the CEESP's larger education and training goals and objectives.

7 The WE&T Strategic Planning & Implementation program component is a statewide
8 program that serves as the planning and support function to the greater CEESP WE&T long range
9 activities. The WE&T Strategic Planning & Implementation component facilitates implementation and
10 completion of the five key activities identified in the CEESP that are needed to drive long-term WE&T
11 development and strategic planning. The five key activities include:¹⁰⁰ (1) conducting a needs
12 assessment of training and education resources; (2) reviewing cost-effectiveness; (3) creating a WE&T-
13 specific web portal; (4) establishing ongoing dialogue with key market players; and (5) forming an
14 administrative WE&T Task Force to manage the scoping study and needs assessment, and facilitate the
15 ongoing development and accomplishment of statewide WE&T activities.

16 The WE&T Synergies Program component utilizes SCE's Energy Centers, Technology
17 Test Centers, and other information and training venues and program implementation strategies, to
18 provide comprehensive education and training offerings to a variety of customers across all market
19 sectors. This program is dynamically designed with the ability to focus training to accommodate
20 specific market sector training needs. This program specifically supports the CEESP's WE&T strategy
21 of assisting with the current need for technically trained installers, energy auditors, and building energy
22 operators through training.¹⁰¹

23 The WE&T EARTH Education and Training Program is a three-fold program. First, the
24 program promotes green careers to K-12 and university students through energy and environmental

¹⁰⁰ California Energy Efficiency Strategic Plan, dated June 2, 2008, p. 9-4.

¹⁰¹ California Energy Efficiency Strategic Plan, dated June 2, 2008, p. 9-8

1 curriculum, relevant degree programs, courses, and internships. Second, the program educates students
2 on energy, water, and the environment, with the goal of influencing day-to-day decisions of students and
3 their households. Third, the program educates schools on energy efficiency and demand response
4 programs¹⁰² and benefits and helps schools overcome barriers to adopting energy efficiency in their
5 facilities.

6 The WE&T EARTH Education and Training Program supports the five CEESP strategies
7 for Workforce Education and Training¹⁰³ including:

- 8 • Implement activities needed to initiate and drive long-term WE&T development and
9 strategic planning.
- 10 • Establish partnership with K-12 stakeholders to ensure energy education is provided
11 in primary grades and continued through high school; curriculum and outreach to
12 include energy efficiency fundamentals and career potential in energy-related fields.
- 13 • Support the community college and adult education efforts to allow students to
14 develop their education based on their career paths. Ensure that there are appropriate
15 linkages with the K-12 educational sector. Utilize this sector to provide technical
16 energy training.
- 17 • Assist with the current need for technically trained installers, energy auditors and
18 building energy operators through training. Incorporate energy efficiency into
19 traditional contractor roles such as plumbers and electricians.
- 20 • Create or expand four-year and graduate College and University programs with
21 energy demand side management focus (*e.g.*, establish partnerships with K-12
22 stakeholders, support community colleges, assist with need for technically trained
23 installers, *etc.*).

¹⁰² Funding for these demand response activities is identified in A.08-06-001.

¹⁰³ California Energy Efficiency Strategic Plan, dated June 2, 2008, p. 9-6.

1 The WE&T Program promotes energy efficiency to a variety of customer segments. The
2 objectives are to:

- 3 • Disseminate information about efficient technologies and practices to electric, natural
4 gas, and water utility customers to assist them in reducing energy and water usage,
5 lowering their bills, and improving customer productivity.
- 6 • Provide services to a variety of midstream and upstream market actors (*e.g.*,
7 architects, engineers, distributors, technicians, and contractors) who use information
8 and tools to design more efficient buildings or processes, and to conduct efficient
9 energy and water system retrofits and renovations.
- 10 • Support and participate in education and training partnerships to ensure California's
11 workforce is trained and engaged to achieve the State's economic energy efficiency
12 and DSM potential.

13 WE&T leverages its existing market sector and educational sector partnerships, and
14 expands those partnerships to include greater participation from K-12 schools, community colleges,
15 universities, adult education, vocational training programs, trade and labor associations. Education and
16 training integrates comprehensive energy and whole building approaches, with direct linkages to the
17 IOUs' incentives, rebates, services, and offerings from other partner agencies and stakeholders.

18 WE&T also supports the Commission's BBES by educating the residential and
19 nonresidential new construction industries on ways to achieve the zero net energy new commercial
20 buildings and residential new construction targets. Education includes focused workshops and training
21 that brings the specific design and technical knowledge needed to facilitate the achievement of the
22 Commission's BBES.

23 Addressing human resource requirements requires the collaborative efforts of many
24 entities. The program collaborates statewide with the other IOUs and potentially with the following
25 potential entities to identify, provide, and leverage WE&T resources:

- 26 • Government – California Department of Education, Federal (*e.g.*, Department of
27 Labor), State government (*e.g.*, licensing boards) and local governments(*e.g.*,

1 building departments) to recruit, train, and prepare workforce candidates for technical
2 and professional careers;

- 3 • Financial institutions – to leverage the Community Re-Investment Act;¹⁰⁴
- 4 • Community-based and non-profit organizations- to leverage programs and/or
5 organizations funded to provide education, career development, and workforce
6 training programs (*e.g.*, Greenlining Institute, Apollo Alliance);
- 7 • Industry and labor organizations – to co-fund with educational institutions, training
8 centers, and community-based organizations to recruit, train, and prepare workforce
9 candidates for technical and professional careers, and
- 10 • Publicly owned utilities- to provide input for WE&T programs to address the
11 technical and professional skills necessary to achieve California’s economic energy
12 efficiency potential.

13 The WE&T Program will complete a needs assessment, designed to play a significant
14 role in the design and implementation of the program. The assessment will lay the foundation for
15 strategic planning efforts and help identify gaps and market barriers. The program will present findings
16 from the needs assessment in 2009 and begin developing a statewide action plan that involves all market
17 players to achieve short- and long-term goals.

18 As laid out in the CEESP,¹⁰⁵ the WE&T Program creates a synergistic alignment with the
19 CEESP to achieve the “end game” of a trained and engaged workforce to help achieve the California’s
20 economic DSM potential. However, steps towards toward this direction must begin with a needs
21 assessment, which provides an in-depth, formal statewide training and education resource inventory
22 necessary for long-range strategic planning. The program also seeks out partnerships with grades K-12,
23 universities, and colleges to create or expand classes that educate and train the energy efficiency experts
24 of today and tomorrow, and expects to achieve its goals by 2020.

¹⁰⁴ The Community Reinvestment Act (CRA), enacted by Congress in 1977 (12 U.S.C. 2901) and implemented by Regulations 12 CFR parts 25, 228, 345, and 563e, is intended to encourage depository institutions to help meet the credit needs of the communities in which they operate. *See* <http://www.ffiec.gov/cra/default.htm>

¹⁰⁵ California Energy Efficiency Strategic Plan, dated June 2, 2008, pp. 9-1 to 9-10.

1 The WE&T program is statewide and activities identified in the CEESP are coordinated
2 among the IOUs for economies of scale and to streamline program offerings. Examples of statewide
3 activities include:

4 WE&T Strategic Plan -

- 5 • Costs and activities associated with the scoping study, needs assessment, cost-
6 effectiveness review, web portal, and task force involve the participation of all IOUs,
7 and
- 8 • Addressing human resource requirements requires IOU coordination of collaborative
9 efforts of many entities (*e.g.*, government, financial institutions, community-based
10 and non-profit organizations, and industry/labor organizations).

11 WE&T Synergies -

- 12 • Collaboration with statewide IOU program groups through efforts such as shared
13 workshop/seminar curriculum, instructors, and coordinated class schedules, and
- 14 • Partnerships with the CEC and other organizations that can contribute technical
15 resources and enhance interaction with community colleges, trade colleges and the
16 UC/CSU system, leveraging their technical expertise and established structure to
17 support WE&T's goal of broadening access to energy efficiency information and
18 training.

19 WE&T EARTH Education and Training -

- 20 • Promoting energy and environmental curriculum to promote energy efficiency and
21 the pursuit of energy efficient careers to K-12 students. This program element
22 collaborates with IOUs (particularly Southern California Gas Company) and regional
23 and local water agencies to promote natural gas- and water-saving components of the
24 program.

25 In addition to statewide coordination, the WE&T Program plays a significant role in
26 coordinating DSM offerings by providing education and training that provides meaningful and effective
27 education and training to communicate DSM messages to a broad spectrum of customers.

1 SCE's Energy Centers serve as an important delivery channel for information concerning
2 energy efficiency programs and other DSM programs and services, as guided by the CEESP. SCE's
3 Mobile Energy Units (MEU), which include a new plug-in hybrid vehicle, travel throughout the service
4 area, promoting all DSM programs and services, including Low Income Energy Efficiency, California
5 Solar Initiative, demand response, and energy efficiency. This marketing and outreach effort
6 collaborates with SCG and local water agencies and supports ENERGY STAR and Flex Your Power
7 (FYP) marketing and outreach campaigns.

8 **11. Low Income Energy Efficiency**

9 The low income residential segment section of the CEESP identifies several strategies to
10 ensure maximum realization of the Commission's programmatic initiative, "[t]o provide all eligible
11 customers the opportunity to participate in the LIEE programs and to offer those who wish to participate
12 in all cost-effective energy efficiency measures in their residences by 2020."¹⁰⁶

13 SCE's Low Income Energy Efficiency (LIEE) proposals for 2009-2011 include cost-
14 effective measures for all eligible customers. The portfolio of cost-effective measures is augmented by
15 measures that produce long term and enduring savings, such as cooling measures, which help promote
16 the comfort, health and safety of eligible low-income customers. SCE's proposed LIEE program is
17 designed to achieve one fourth of the Programmatic Initiative by December 2011, and provide enduring
18 savings. To achieve the Programmatic Initiative, SCE is requesting a three-year program budget of
19 \$165 million. The increased program budget over 2007-2008 funding levels, together with leveraging
20 the resources of other entities, and improving integration with SCE's energy efficiency and demand-side
21 programs, enables SCE to provide the measures and reach the number of homes required to achieve one
22 fourth of the Programmatic Initiative and achieve the 95,628 annual MWh and 35.6 MW demand
23 reduction by year-end 2011. SCE's complete low-income assistance programs proposal (A.08-05-026)
24 was filed with the Commission on May 15, 2008.

¹⁰⁶ D.07-12-051, dated December, 20, 2007, p. 4.

1 **D. Strategic Plan Outlook For Ten Years And Beyond**

2 **1. Application Includes A Program Line Item And Budget For Strategic Planning**
3 **Personnel**

4 Due to the importance and magnitude of California’s “next generation” strategic
5 planning, SCE proposes establishing a dedicated and substantial energy efficiency Strategic Planning
6 Team (Team). This dedicated Team will increase current staff capacity and help lead SCE’s strategic
7 planning, including collaboration with the Commission and other key actors towards the goals,
8 strategies, actions, and results put forward in the CEESP; SCE proposes a budget of \$7.780 million for
9 the 2009-2011 cycle to support this new organization.

10 SCE’s Strategic Planning Team will serve several key roles that range from the analytical
11 to the logistical. SCE will have the Team directly lead many of these strategic planning responsibilities
12 while at other times also assisting others – notably SCE energy efficiency senior management and
13 program staff – who will have leading roles. The Team’s responsibilities include:

- 14 • Conducting, designing, and/or collaborating in the research, evaluation, analysis,
15 budgeting, and other functions that are essential to strategic planning development
16 and implementation. In addition to researching existing state, regional, and
17 private/public sector demand-side initiatives for potential application by SCE, this
18 will include cost-benefit, resource allocation, and prioritization analyses that should
19 be conducted more thoroughly in future CEESP cycles that will not have the same
20 tight time constraints the first CEESP had.
- 21 • Working with Commissioners and the Commission staff regarding implementation of
22 the current CEESP; research and analysis needed for future strategic planning; and
23 the substantive and logistical development of future CEESPs.
- 24 • Working closely with SCE management and staff with relevant responsibilities. They
25 include energy efficiency staff responsible for implementing programs called for in
26 the CEESP, such as Savings by Design and California New Homes Partnership, and
27 with other DSM groups, such as demand response, CSI, and SmartConnect™.

- Collaboration with the other key actors and stakeholders described in the CEESP, including the other IOUs and the CEC, CARB, builders, developers, manufacturers, consumer organizations, demand-side providers, efficiency organizations, low-income advocates, the financial industry, publicly owned utilities, *etc.*
- Coordinating (on either a start up or ongoing basis) SCE’s role in the proposed California Energy Efficiency Alliance and California Energy Efficiency Summit. The California Energy Efficiency Alliance is a key step of CEESP implementation and is described below in greater detail.

At the heart of D.07-10-032 and the CEESP is an expanded reliance upon market transformation to meet the State’s energy efficiency and climate change goals. For years, SCE has built a network of market transformation relationships directly on the national stage and through national organizations (*e.g.*, the American Council for an Energy Efficient Economy [ACEEE] and the Consortium for Energy Efficiency [CEE]). These relationships are essential in helping promote national and state energy efficiency legislation, and national and state codes & standards. To make the CEESP work best for California, the IOUs will cooperatively increase their efforts to coordinate on the state and national stage.

To leverage that expertise, the IOUs will establish and contribute to a California Energy Efficiency Alliance (CEEA). CEEA is dedicated to be a forum for market transformation energy efficiency program administrators in California willing to devote substantial resources and coordinate activities to further the market transformation objectives and strategies in the CEESP. Proposed activities of the CEEA include:

- Sharing market transformation and related information among program administrators;
- Supporting coordination of programs and portfolios implemented by program administrators designed to robustly and continually transform the California marketplace for energy efficiency;

- Coordinating with other energy efficiency program administrators’ and regional groups’ (such as the Northwest Energy Efficiency Alliance) programs;
- Aligning with the efforts of national organizations promoting energy efficiency (*e.g.*, ACEEE, CEE);
- Establishing and overseeing some of the task forces where the program administrators have a lead role as identified in the CEESP, and
- Soliciting stakeholder input on market transformation programs.

Additionally, the CEESP calls for SCE, other utilities, and the Commission to host an annual “California Energy Efficiency Summit.” This event would review CEESP activities from the previous year, outline near-term actions, and showcase exemplary accomplishments. It would be open to all those involved in the CEESP’s strategies. (At present at least five national organizations promote new energy efficiency programs, policies, and technologies through annual conferences or ongoing activities; the purpose of this Summit would be to explore those most suitable for California.)

To increase technology awareness and transfer, a portion of this Summit would be devoted to demonstrating promising new technologies. This would be a “best of the best” of new technologies showing promise for California’s unique geographic, demographic and demand side management market conditions. The showcased programs, policies, and technologies would focus on energy efficiency, but would also include other integrated demand side areas which could function synergistically with energy efficiency, including demand response, SmartConnect™ enabled technologies, and other demand-side resources.

In summary, SCE proposes a substantial dedication of personnel, budget, and other resources-beyond current levels and staff capacity- so that we can strongly maintain ongoing strategic planning efforts, and do so without being unduly distracted by “day to day” events. Our new energy efficiency Strategic Planning Team will have leadership and staff that is simultaneously analytic and action-oriented- undertaking the multiple goals of rigorous planning, innovative program development, spirited problem solving, robust implementation of market transformative activities, and strategic thinking.

1 **2. New 2009-2011 Pilot Project Programs, Based On The Strategic Plan**

2 SCE’s 2009-2011 portfolio includes multiple pilot programs in support of the CEESP’s
3 specific goals and strategies for both residential and nonresidential consumers, including the
4 commercial, industrial, and agriculture and water systems segments, as well as the CEESP’s broader
5 market transformation goals. These include:

- 6 • Business and Consumer Electronics Program;
- 7 • Energy Benchmarking;
- 8 • Energy Efficiency Loan Program;
- 9 • New IDEEA and Statewide Solicitations, and the
- 10 • AB 32 Carbon Emission Reduction Pilot.

11 Business and Consumer Electronics Program

12 For both residential and nonresidential customers, SCE is offering the Business and
13 Consumer Electronics Program, which provides midstream incentives to retailers to increase the
14 stocking and promotion of high efficient electronic products including computers, computer monitors,
15 cable and satellite set-top boxes, televisions, smart power strips, and additional business and consumer
16 electronics as they become available to the market. The Business and Consumer Electronics Program
17 supports multiple CEESP strategies, including the residential sector strategy of revolutionizing the
18 energy efficiency and management of plug load devices by consumers.¹⁰⁷

19 Business Services Element: Energy Benchmarking

20 The new BSE’s Energy Benchmarking offering creates market awareness and demand for
21 more efficient buildings. This offering integrates benchmarking as a core service, addresses AB 1103
22 requirements, and serves as the lead-in for other commercial programs. The Benchmarking offering
23 supports the CEESP strategy to align commercial building benchmarking, labels, and operations and
24 maintenance practices to address energy efficiency.¹⁰⁸

¹⁰⁷ California Energy Efficiency Strategic Plan, dated June 2, 2008, p. 2-18.

¹⁰⁸ *Id.* p. 3-12.

1 Financial Solutions: Energy Efficiency Loan Program

2 This new offering includes enhancement of the existing on-bill financing program and
3 development of a new energy efficiency loan program and through partnerships with financial
4 institutions. This program supports the CEESP commercial strategy of targeting financing and
5 incentives to support meeting commercial sector goals,¹⁰⁹ and also supports the local government
6 strategy of improving access to financing.¹¹⁰

7 New IDEEA and Statewide Solicitations

8 The 2009-2011 portfolio establishes a modified approach to SCE’s nonresidential
9 customer base, focusing on a vertical market segment approach. A number of new and pilot programs
10 will be implemented under the IDEEA and Statewide solicitations, placing a premium on
11 implementation of comprehensive energy efficiency programs for narrow or niche market segments
12 (*e.g.*, entertainment centers, K-12 private schools, *etc.*). These pilot programs focus on markets that are
13 traditionally less likely to participate in energy efficiency, and also support the CEESP strategy of
14 providing integrated products to increase the benefits of energy efficiency.

15 AB 32 Carbon Emission Reduction Pilot

16 SCE’s portfolio includes the AB 32 Carbon Emission Reduction (CER) Program, a new
17 pilot designed to demonstrate to customers that the indirect emissions savings from their energy
18 efficiency projects have additional economic value that is linked to the demand for carbon allowances in
19 existing and future carbon markets. This could enhance the potential financial value of efficiency
20 projects, increasing the level of adoption.

21 **3. Methodologies to Address Programs With Long Term Savings**

22 The proposed portfolio is intended to provide both short-term and long-term energy
23 efficiency solutions, including the ability to work with market participants to affect changes ten years or
24 more into the future. SCE’s portfolio is designed to support various long-term ventures, such as those

¹⁰⁹ *Id.* p. 3-15.

¹¹⁰ *Id.* p. 12-13

1 discussed above: Residential New Construction, Commercial New Construction, and driving the
2 transformation process of California's HVAC market. The portfolio also continues to support the
3 development of codes and standards, as well as identifying and testing the viability of emerging
4 technologies. There is no distinct regulatory treatment required beyond the adoption of the
5 recommended budget levels, the fund-shifting proposal set forth by SCE in this Application and the
6 ability to encumber funds in the 2009-2011 cycle which can be funded from the subsequent program
7 cycles. SCE's recommended funding in this Application, concurrent with its proposed fund-shifting
8 rules and the ability to use funding from future cycles, will allow SCE to fund the commitments for
9 installation forecast in this Application.

1 IV.

2 **SCE'S PROPOSED ENERGY EFFICIENCY PORTFOLIO**

3
4 **A. The Proposed Portfolio Meets Or Exceeds The Energy Efficiency Goals**

5
6 **1. Portfolios Meet Or Exceed 2011 Cumulative Energy Savings Goals**

7 SCE's recommended portfolio meets the cumulative savings goals for the three-year
8 cycle. As discussed in the Policy section of this Application, SCE recommends a cumulative goal be
9 adopted which reflects cumulative savings beginning in 2009 and ending in 2011.

10 SCE's also provides a calculation scenario which follows the direction of D.07-10-032,
11 calculating the expected cumulative savings of the portfolio plans using 2004 as the base year. The
12 calculation of these savings is based upon the following:

- 13 • 2004 and 2005 net savings results as reported in draft or final program impact studies,
14 where available;
- 15 • 2004 and 2005 net savings results from forecasts, where impact studies are not
16 available;
- 17 • 2006 and 2007 net savings results, with 2008 results replicated from 2007; and
- 18 • 2009-2011 results as forecast in this proceeding.

19 These scenarios do not include the cumulative impacts for savings occurring during this
20 period for programs implemented prior to 2004, or other items which were not explicitly included in the
21 studies or forecasts of savings. It is unclear as to whether all of the studies included the full
22 commitments made in the 2004-2005 program cycle and SCE's Summer Initiative programs
23 implemented in this timeframe. Such inclusions may alter the analysis performed for this Application.
24 SCE would expect to see the cumulative effect of these savings continue over time as participants
25 continue to install the measures which were installed previously, particularly as codes and standards
26 improve over time. SCE looks forward to further addressing this analysis in order to ensure that the
27 appropriate calculation is performed which allows the IOUs to meet the Commission's policy and

1 resource goals while providing cost-effective portfolios to customers. Table IV-7 below illustrates
 2 SCE's forecast of accomplishments towards the 2009-2011 cumulative CPUC goal.

Table IV-7
Forecasted Energy Savings and Demand Reduction Towards
2009-2011 Cumulative Goal

	2009	2010	2011	2009-2011 Total	CPUC Goal	% of Goal
Energy Savings (GWh)	1,658	2,112	1,992	5,762	3,529	163%
Demand Reduction (MW)	332	428	409	1,169	741	158%
Gas Savings (MMTh)	-	-	-		-	-

Notes:

Includes forecast of Low Income Energy Efficiency and Codes and Standards impacts from the 2009-2011 program cycle.
 D.04-09-060 authorized the energy savings and demand reduction goals.

3 **2. Portfolios and Funding Levels Appropriately Balance Short-Term and Long-Term**
 4 **Savings**

5 The proposed portfolio is intended to provide both short-term and long-term energy
 6 efficiency solutions, including implementation of the Energy Efficiency Strategic Plan, which is
 7 intended to affect changes ten years or more into the future. Short-term savings are supported by the
 8 implementation of the full set of resource programs, designed to focus on immediate savings for
 9 customers, the immediate replacement of supply-side resources, and the immediate reduction of
 10 greenhouse gases. SCE's portfolio is also designed to support various long-term ventures, such as those
 11 discussed above: Residential New Construction, Commercial New Construction, and driving the
 12 transformation process of California's HVAC market. In addition, the portfolio includes substantial
 13 contributions to programs such as Marketing Education and Outreach, and Workforce Education and
 14 Training, each with a significant focus on long-term benefits to the state. The portfolio also continues to
 15 support the development of codes and standards, as well as identifying and testing the viability of
 16 emerging technologies.

17 The average useful life of SCE's portfolio proposed in this Application is approximately
 18 10.9 years, increased from approximately 9.8 years in SCE's 2006-2008 Application. SCE proposes a
 19 diverse portfolio of approaches and measures to address the short-term and long-term needs of all
 20 customers through a multitude of delivery channels and program implementers. SCE will focus on the

1 identified potential of savings and look to new and emerging technologies, promising program designs,
2 and codes and standards to build the future for energy efficiency. A full discussion of the programs and
3 their short-term and long-term strategies can be found throughout this Application and throughout the
4 Energy Efficiency Strategic Plan filed June 2, 2008.

5 **3. Portfolios Reasonably Allocate Funding Among Market Sectors & Applications**
6 **With Respect to Potential Studies**

7 In planning SCE's 2009-2011 program portfolio, SCE made judicious use of studies of
8 energy efficiency potential to inform their planning process. SCE used the results of both the 2006
9 California Energy Efficiency Potential Study¹¹¹ and the draft California Energy Efficiency Potential
10 Study 2008¹¹² to guide their decision-making regarding SCE's program offerings.

11 Since 2001, multiple Commission-funded studies of energy efficiency potential in
12 California have been performed. These studies have been conducted by consulting firms recognized
13 internationally as experts in the assessment of energy efficiency potential. The studies have used
14 similar, but not identical, methodologies and data sources. Results of the studies have generally been
15 similar, but have varied somewhat over time based on these differences in methodology and data, and
16 changes in the energy efficiency marketplace.

17 SCE broadly attempts to align portfolio planning with estimates of energy efficiency
18 potential by sector for the four customer sectors identified in the CEESP: residential, commercial,
19 industrial, and agricultural. The 2006 and 2008 Itron studies of energy efficiency potential provide a
20 significant amount of useful information for program planning for the residential, commercial, and
21 industrial sectors. For the agriculture sector, SCE used the data available, which is summarized into the
22 industrial sector results.

23 SCE used the energy efficiency potential studies to align programs with the available
24 potential by sectors. In addition, SCE considered other factors such as cost-efficiency in determining

¹¹¹ California Energy Efficiency Potential Study 2006, Itron, Inc., KEMA, Inc., RLW Analytics, Inc., and Architectural Energy Corp., May 2006.

¹¹² California Energy Efficiency Potential Study 2008 (Draft), Itron, Inc., February 2008

the allocation across sectors. Table IV-8 below compares SCE’s 2009-2011 Energy Efficiency Portfolio with the results of the California Energy Efficiency Potential Study 2008 (Draft) for SCE’s service territory.

Table IV-8
Energy Efficiency Potential by Sector 2009-2011

Sector	SCE Portfolio		SCE Potential - 2009-2011*	
	kWh	kW	kWh	kW
Residential	31.0%	26.9%	36.5%	24.0%
Commercial	48.6%	57.6%	47.4%	65.4%
Industrial	17.6%	11.8%	16.1%	10.5%
Agriculture	2.8%	3.7%	-	-
Total	100.0%	100.0%	100.0%	100.0%

SCE also used data regarding potential by end use to guide the type and mix of measures included in the portfolio. Table IV-9 compares SCE’s proposed portfolio with the results of the 2008 Itron energy efficiency potential study.

Table IV-9
Comparison of SCE’s Portfolio

End Use	SCE Portfolio		SCE Potential - 2009-2011*	
	kWh	kW	kWh	kW
HVAC	19.1%	32.5%	19.3%	47.0%
Lighting	47.6%	37.7%	56.8%	38.3%
Refrigeration	9.1%	8.8%	13.0%	7.8%
Misc/Other	17.5%	16.2%	1.6%	1.3%
Compressed Air	1.0%	0.6%	1.6%	1.0%
Drives	1.8%	0.9%	1.6%	1.0%
Pumps	3.8%	3.4%	6.0%	3.6%
Total	100.0%	100.0%	100.0%	100.0%
*Results based on Draft California Energy Efficiency Potential Study 2008, Itron Inc. (Full Restricted Scenario)				

A precise comparison of SCE’s portfolio to the Itron energy efficiency potential study is difficult because of somewhat different mapping of measures into end uses. In general, Itron used fewer end use categories and, as a result, their end use definitions were more highly aggregated. To achieve a “lowest common denominator,” SCE mapped its measures into Itron’s end use categories. These

mapping differences are particularly apparent in the Miscellaneous/Other category which represents a “catch all” for a variety of relatively small end uses, or measures that do not fall neatly into other end use categories. Overall, SCE’s portfolio aligns well with identified potential by end use when these factors are considered, especially in the major end uses, lighting, HVAC, and refrigeration.

4. Portfolio’s Proposed Cost-effectiveness Takes into Account Uncertainty

SCE’s energy efficiency portfolio is consistent with the Commission’s goal of procuring all available cost-effective energy efficiency. Through a diverse set of program offerings, SCE’s energy efficiency portfolio is focused on strategies articulated in the CEESP that harvest cost-effective energy efficiency savings and demand reductions while looking beyond the 2009-2011 planning cycle to ensure energy efficiency remains a reliable and robust resource.

The Energy Efficiency Standard Practice Manual outlines the methodologies and indicators used to perform a dual-test cost-effectiveness evaluation, which consist of the Total Resource Cost (TRC) test and the Program Administrator Cost (PAC) test. The E3 Calculator, which is the Commission-approved tool to run cost-effectiveness calculations, contains the aforementioned methodologies and indicators. SCE used the E3 Calculator to develop the portfolio and calculate cost-effectiveness. The portfolio is in compliance with the April 21, 2008 Assigned Commissioner’s Ruling requiring the IOUs to use the updated 2007 generation cost values adopted in Resolution E-4118, dated October 4, 2007. SCE presents its prospective showing of cost-effectiveness of its 2009-2011 energy efficiency portfolio in the tables below.

***Table IV-10
Total Resource Cost (TRC)***

Total Costs	\$2,768,163,336
Total Savings	\$4,707,984,831
Total Benefits	\$1,939,821,494
Benefit/Cost Ratio	1.70
Levelized Cost per kWh Saved (cents/kWh)	\$0.067
Levelized Cost per therm Saved (\$/therm)	--

Table IV-11
Program Administrator Cost (PAC)

Total Costs	\$1,571,711,696
Total Savings	\$4,707,984,831
Total Net Benefits	\$3,136,273,135
Benefit/Cost Ratio	3.00
Levelized Cost per kWh Saved (cents/kWh)	\$0.035
Levelized Cost per therm Saved (\$/therm)	--

1 The cost-effectiveness tests are derived to calculate the benefits and costs associated with
2 the implementation of energy efficiency programs. The benefit and cost calculations are driven by
3 specific key parameters, including Expected Useful Lives (EUL), Net-to-Gross Ratios (NTG), Measure
4 Costs, and measure energy use impacts. SCE, in compliance with Commission direction in the Assigned
5 Commissioner’s and Administrative Law Judge’s Ruling dated May 5, 2008, has used the May 30, 2008
6 release of DEER, with specific changes discussed in Chapter II. This includes estimates of the key
7 parameters to calculate the ex-ante energy savings, demand reduction, and cost-effectiveness forecasts.
8 Current measurement and evaluation protocols establish a process over the course of the program cycle
9 to evaluate the ex-ante impacts in order to determine the proper ex-post evaluation of the portfolio. This
10 process creates an inherent uncertainty in program planning because it subjects the impacts of the
11 portfolio to change four years removed from the beginning of the program cycle.

12 In response to the Assigned Commissioner’s and Assigned Law Judge’s Ruling dated
13 April 21, 2008, SCE presents its prospective showing of cost-effectiveness using a higher \$30/ton
14 carbon adder value in the tables below.

Table IV-12
Total Resource Cost (TRC)
With Higher Carbon Adder

Total Costs	\$2,808,728,276
Total Savings	\$5,047,648,905
Total Benefits	\$2,238,920,629
Benefit/Cost Ratio	1.80
Levelized Cost per kWh Saved (cents/kWh)	\$0.067
Levelized Cost per therm Saved (\$/therm)	--

1

Table IV-13
Program Administrator Cost (PAC)
With Higher Carbon Adder

Total Costs	\$1,612,276,635
Total Savings	\$5,047,648,905
Total Benefits	\$3,435,372,270
Benefit/Cost Ratio	3.13
Levelized Cost per kWh Saved (cents/kWh)	\$0.035
Levelized Cost per therm Saved (\$/therm)	--

2

3

4

5

6

SCE has planned its 2009-2011 energy efficiency portfolio to account for the uncertainty around evaluating its portfolio using two sets of different assumptions: Effective Useful Life and Measure Costs. SCE has conducted the following scenarios, based upon the key parameters influencing cost-effectiveness, which illustrate the effects on its portfolio's energy savings, demand reduction, and cost-effectiveness.

Table IV-14
Scenarios Based on Key Parameters Influencing Cost-effectiveness

Scenario	Adjustment Factor	Energy Savings (kWh)	Demand Reduction (MW)	Cost-Effectiveness
SCE 2009-11 Proposal	None	6,021,687,168	1,225,051	1.70
Gross Measure Costs Adjustment	Increase by 10%	-	-	1.59
Gross Measure Costs Adjustment	Increase by 20%	-	-	1.48
Effective Useful Life	Decrease by 10%	-	-	1.54
Effective Useful Life	Decrease by 20%	-	-	1.41
Gross Measure Costs Adjustment / Effective Useful Life	Increase by 10% / Decrease by 10%	-	-	1.43
Gross Measure Costs Adjustment / Effective Useful Life	Increase by 20% / Decrease by 20%	-	-	1.23

1 **5. Portfolios Are Designed to Overcome Barriers to Market Transformation And To**
2 **Advance Integration**

3 In D.07-10-032, the Commission made several key changes to the previous regulatory
4 framework for efficiency programs, including embracing market transformation initiatives and placing
5 an imperative on integration – across utility service areas, utility ownership types, state agencies, and
6 demand side programs. SCE is supportive of these changes and has worked jointly with the other IOUs
7 to ensure they permeate the CEESP.

8 This Application advances that agenda. With respect to market transformation, SCE’s
9 portfolio includes proposed activities that address each major component of the market transformation
10 continuum and their respective barriers. These include:

- 11 • Emerging Technology Program – the important and ambitious goals of the State
12 cannot be met without the development and commercialization of new energy
13 efficiency and demand management technologies. This Application proposes
14 enhancing and expanding the statewide Emerging Technology program to better mine

1 innovation, understand consumers, assess market exposure, and support climate and
2 environmental efforts. Specific actions include participating in upstream technology
3 development, conducting scaled field placement activities on selected technologies,
4 increasing market intelligence, studying consumer behavior with regard to emerging
5 technologies, and participating in incubation activities, through the Technology
6 Research Incubation Outreach (TRIO) Program.

- 7 • Education and outreach – overcoming informational and motivational barriers by
8 educating customers about the merits of choosing efficiency and the options available
9 to help them implement it is at the heart of voluntary market transformation. This
10 Application significantly contributes to this effort in many ways – as put forward in
11 numerous sections of the CEESP¹¹³ – by offering the Home Energy Efficiency Survey
12 Program (surveys available in multiple languages), the On-Line Buyer’s Guide, new
13 HVAC quality installation/quality maintenance branding, and increased
14 benchmarking for commercial buildings.
- 15 • Financial incentives – voluntary market transformation often relies heavily on
16 providing financial incentives to overcome the barriers of high first costs and/or
17 discomfort with new products. This not only enables immediate purchase of
18 efficiency resources, but also accelerates the adoption and declining production cost
19 curves of efficient products, weakening these barriers. This portfolio contains a broad
20 array of incentives for qualifying consumers, including home energy efficiency
21 rebates, business and consumer electronics incentives, multifamily energy efficiency
22 rebates, new construction incentives, and incentives for businesses across all key
23 market sectors, including commercial, industrial, and agricultural markets. In

¹¹³ The CEESP’s discussion of, and recommendations for, education and outreach can be found primarily in Chapter 10, “Marketing, Education and Outreach” including ME&O’s four strategies. Significant additional discussion of education and outreach can be found throughout the CEESP, including in the chapters on the four end-use sectors (chapters 2 through 5), HVAC (chapter 6), Workforce Education and Training (chapter 9), and Local Governments (chapter 12).

1 addition to traditional rebates/incentives, the Financial Solutions Element also offers
2 various loan options for financing energy efficiency projects.

- 3 • WE&T – although not typically part of the market transformation continuum,
4 responding to the shortage of trained energy efficiency workers is now widely
5 recognized as essential if markets are to be transformed thoroughly and quickly. This
6 Application supports the CEESP’s strategies in this area – by providing technical
7 training, assisting with the need for technically trained energy auditors and building
8 operators, and working with education providers to collaboratively identify goals and
9 strategies to build the workforce through 2020 – while recognizing the IOUs’ limited
10 role and resources in this arena.
- 11 • Codes & Standards – D.07-10-032 and the CEESP appropriately place great emphasis
12 on the most powerful market transformation tool: the adoption of and improved
13 compliance with aggressive energy codes & standards. Codes & Standards are an
14 essential element to reach the zero net energy building targets, HVAC transformation,
15 peak management, and other goals. This Application proposes enhancing and
16 expanding the statewide Codes & Standards Program to place greater emphasis on
17 code compliance and strategically and progressively increase the stringency of Title
18 24 commercial and residential building codes toward zero net energy goals, while
19 simultaneously pursuing voluntary “stretch” and/or green building codes.
20 Additionally, SCE’s portfolio supports research and analysis to transform the code to
21 a zero net energy-based approach, and expands Title 24 and 20 to address significant
22 end uses (*e.g.*, plug loads, server farms, *etc.*). Furthermore, Codes & Standards plan
23 to increasingly focus on using codes & standards to promote related DR,
24 SmartConnect™ (AMI), clean self-generation, water, and related goals.

25 Additionally, SCE proposes activities that support market transformation in an over-
26 arching way, such as the creation of a new California Energy Efficiency Alliance and proposal of policy

1 changes that SCE believes will better enable market transformation and the long term goals of the
2 CEESP.

3 This Application also advances the integration agenda. Integration is primarily used in
4 the Decision and CEESP to indicate coordination among DSM options, but it also refers to coordination
5 across utilities (preferably statewide) and coordination between utilities and government agencies.

6 Proposed integration and coordination actions in this Application include:

- 7 • Those that coordinate across utility companies, such as ME&O, Emerging
8 Technologies, California New Homes, and others;
- 9 • Utility-agency coordination, such as working more closely with the CEC, the
10 Commission, and local governments on codes & standards development and
11 compliance, and jointly developing, promoting, and improving the ENERGY
12 STAR labels and benchmarks (including potential development of a new
13 label/brand for HVAC quality installation and maintenance) with U.S. EPA,
14 DOE, and others, and
- 15 • For integration and coordination among demand-side resources, there are a wide
16 array of activities planned as described in Exhibit SCE-5, Demand Side
17 Management Integration and Coordination.

18 **B. Program Design Achieves Savings Objectives**

19 **1. Strategies To Reduce Critical Peak Loads And Improve System Load Factors**

20 SCE's 2009-2011 energy efficiency portfolio produces energy savings across all hours of
21 the year, and de facto reduces critical peak loads, SCE's 2009-2011 energy efficiency portfolio places
22 appropriate emphasis on measures and strategies that serve to reduce costly peak demand and provide
23 system stabilizing relief. Strategies include the specific targeting of measures that have substantial peak
24 impact and new incentive levels for 2009-2011 that will reflect higher values based on the measure's
25 ability to deliver peak demand reduction.

26 As shown in section IV.A.3, SCE's 2009-2011 energy efficiency portfolio includes
27 measures that encompass all major end uses. The portfolio is structured across end uses to provide both

1 energy and demand savings, creating a complete energy efficiency resource, as directed by D.07-10-032
2 and the CEESP.¹¹⁴ SCE's proposed 2009-2011 energy efficiency portfolio has a peak-to-energy ratio of
3 0.198. In March and April 2008, Energy Division issued proposed energy and demand savings goals for
4 California IOUs. For SCE, the proposed goals have an implied peak-to-energy ratio of 0.177 for the
5 period 2009-2011.¹¹⁵ By comparison, the peak-to-energy ratio for SCE's 2006-2007 energy efficiency
6 programs was approximately 0.165. Overall, SCE has increased the on-peak reductions of its proposed
7 2009-2011 energy efficiency portfolio from recent levels and in comparison to the Commission's
8 proposed energy efficiency goals. These results demonstrate that SCE has focused on improving system
9 load factor.

10 About 46 percent of the energy savings and 57 percent of the demand reductions in
11 SCE's portfolio come from measures with peak-to-energy ratios exceeding SCE's 2009-2011 implied
12 peak-to-energy ratio of 0.177. This result shows that a significant percentage of SCE's portfolio is
13 focused on measures with higher than average peak-to-energy savings. Measures with high peak-to-
14 energy ratios reduce critical peak loads and improve system load factors. HVAC provides
15 approximately 19 percent of the energy savings and 32 percent of the demand reductions in SCE's
16 portfolio.

17 **2. Strategies To Minimize Lost Opportunities**

18 SCE's portfolio planning and development process included careful consideration of
19 minimizing and/or avoiding potential lost opportunities across all program areas, one of the CEESP's
20 goals.¹¹⁶

21 SCE's 2009-2011 portfolio of residential programs is generally designed to avoid lost
22 opportunities through a "comprehensiveness" strategy. Programs are promoted and designed to
23 encourage comprehensive projects that are not limited to only the most cost-effective measures. In the

¹¹⁴ California Energy Efficiency Strategic Plan, dated June 2, 2008, pp. 6-1 to 6-5, 7-3, and 12-4 to 12-6.

¹¹⁵ Assistance in Updating the Energy Efficiency Savings Goals for 2012 and Beyond, Itron, Inc., May 2008. This statistic compares 2009 – 2011 cumulative demand reductions from Table E3-18 and cumulative 2009- 2011 energy savings from Table C2-18.

¹¹⁶ California Energy Efficiency Strategic Plan, dated June 2, 2008, pp. 8-1 and 14-3,

1 residential sector, lost opportunities are most likely to arise when a consumer elects to upgrade only one
2 or two elements of a heating/cooling system or invasive building envelop improvement. If the variable
3 cost of additional upgrades at the same time is less than the cost of subsequent upgrades, the subsequent
4 upgrades may not be done. However, if it is essentially no more expensive to stage upgrades over time
5 due to cash flow limitations, then a lost opportunity will not occur.

6 SCE's comprehensive approach encourages consumers to look at the complete picture of
7 managing energy and demand. Where programs are targeted to specific end-uses or equipment, care is
8 taken to select equipment that does not create lost opportunities in most circumstances (*e.g.*, refrigerator
9 replacement, light bulb exchanges). In addition, SCE's programs are supported by general advertising
10 campaigns. The campaigns encourage residential consumers to pursue all cost-effective opportunities
11 energy efficiency improvements. Finally, SCE's WE&T EARTH Education and Training Program
12 teaches students, and by extension their families, to seek comprehensive solutions.

13 SCE's implementation strategy for the nonresidential portfolio also emphasizes
14 comprehensiveness along multiple parameters, including a comprehensive approach to addressing all
15 vertical market segments, and a comprehensive approach to individual customers, by emphasizing
16 energy efficiency project opportunities which yield comprehensive savings.

17 This focus on comprehensiveness is a lever to assure that hard-to-reach vertical markets
18 segments are fully considered in the roll out of energy efficiency programs. This also assures that
19 projects implemented at individual customer locations consider all available measures, not simply those
20 that are easiest to install or most cost-effective. Additionally, third party solicitations for energy
21 efficiency programs include specific criteria that elevates proposed multiple measure projects above
22 proposed single measure projects.

23 Within existing core programs and business services, SCE recognizes each customer
24 touch as an opportunity to survey additional energy efficiency opportunities as well as demand response
25 opportunities. The portfolio proposes leveraging audits across measures and across major DSM areas of
26 focus including energy efficiency and demand response. A "call" to a customer location mobilizes
27 resources. SCE intends to ensure that these mobilization costs and resources are cost-effectively applied

1 in the most comprehensive manner possible. SCE also routinely revisits existing, customer specific,
2 energy audit data to assess whether there may be renewed opportunities to implement recommendations
3 from audit findings, minimizing lost opportunities.

4 In addition to residential and business programs, both Local and Institutional Government
5 Partnerships promote a comprehensive approach to minimize lost opportunities in local government and
6 intuitional facilities. In general, this market segment has high potential for lost opportunities. There are
7 inherent barriers that prevent these entities from adopting energy efficiency, including budgetary
8 constraints, lack of resources, or technical expertise to develop or manage projects, funding, and
9 decision-making structures. Lost opportunities occur when higher efficiency opportunities are not
10 identified or are valued-engineered out of a project due to lack of funds or lack of management support.
11 In most instances, the operations and maintenance (O&M) department and the capital improvement
12 department have different management with different budgets. The capital improvements department
13 designs and constructs a project to minimize cost; the O&M department inherits the higher cost of
14 operating and maintaining the inefficient equipment or building. Energy efficiency opportunities are
15 lost due to the lack of collaboration.

16 The partnerships effectively minimize these lost opportunities by providing a team of
17 experts on the front lines with the customer to communicate and facilitate the potential results of energy
18 efficiency to decision makers within these organizations. Partnerships also provide project identification
19 and collaboration with partners to review potential projects and work towards bringing all customer
20 facility personnel to the table. Comprehensive audits are performed for RCx and energy efficiency
21 retrofits. Technical assistance and project management support are provided to encourage partners to
22 complete the work. Enhanced incentives are also provided to overcome financial and other barriers.
23 On-bill financing will be available to Local and Institutional Governments in 2009-2011, which will
24 address budgetary constraints.

1 **3. Successful And Cost-Effective Programs Have Been Continued**

2 SCE proposes to continue successful 2006-2008 programs in the 2009-2011 cycle. SCE
3 has taken the opportunity to further enhance these successful programs to increase comprehensiveness,
4 increase integration, and to align with the CEESP.

5 SCE’s overarching goal for energy efficiency programs is to procure cost-effective
6 energy savings. SCE’s portfolio continues to rely on proven programs such as the Business Incentive
7 Element- Calculated/Customized and Itemized Retrofits (formerly named Standard Performance
8 Contract and Express Efficiency) and the Residential Lighting Incentive Program, which have
9 successfully demonstrated the ability to achieve cost-effective energy and demand savings over the near
10 term. SCE also continues to place emphasis on those programs that have a proven ability to set the
11 framework for longer term energy savings such as the California New Homes Program/New Solar
12 Homes Partnership, Savings By Design, and Sustainable Communities. Additionally, SCE proposes to
13 incorporate several successful 2006-2008 IDEEA programs and measures into its core energy efficiency
14 offerings, such as the Automated Energy Review for Schools Program (formerly named the
15 Modernization and New Construction Efficiency Enhancement Program for Schools), the California
16 Preschool Energy Efficiency Program, and the Healthcare Energy Efficiency Program. Some measures
17 that were piloted in IDEEA or IndEE programs during 2006-2008 are now included as standard
18 offerings in mainstream programs, such as pool pumps- which were piloted in the Innovative Pool Pump
19 Program and are now offered as a standard measure through the Home Energy Efficiency Rebate
20 Program.

21 **4. Program Design Reflects Cumulative Savings**

22 As discussed in more detail above, SCE’s recommended portfolio meets the cumulative
23 savings goals for the three-year cycle. This is performed through a focus on both long-term and short-
24 term measures, combined with the full support of the Energy Efficiency Strategic Plan. The
25 quantification of the long-term impacts of the Energy Efficiency Strategic Plan is difficult, but the
26 efforts in support of the Plan are throughout this Application and are focused on cumulative savings

1 from both short-term strategies being implemented today and the impact of the Strategic Plan in the long
2 term.

3 SCE proposes a diverse portfolio of approaches and measures to address the short-term
4 and long-term needs of all customers through a multitude of delivery channels and programs. This
5 portfolio is designed to focus on continuing to pursue long-term savings and allow SCE to address the
6 need for long-term, cumulative savings to meet the resource needs of California. A full discussion of
7 the programs and their short-term and long-term strategies can be found throughout this Application and
8 throughout the California Energy Efficiency Strategic Plan filed June 2, 2008.

9 **5. How The Potential Inclusion Of Energy Savings From “Spillover” Activities Has**
10 **Been Reflected In Program Design**

11 Current policy rules¹¹⁷ do not allow energy savings from either participant or non-
12 participant spillover activities to be counted towards energy savings goals. Consequently, SCE’s
13 portfolio is designed to be cost-effective without counting spillover effects.

14 SCE’s portfolio includes opportunities to create both participant and non-participant
15 spillover effects that can be generated on top of clearly countable savings. For example, SCE’s Savings
16 By Design program offers a stipend to building design teams to participate in an integrated design
17 process. This process encourages teams to work with Savings By Design’s consultant architects on up
18 to three projects to learn whole building analysis approaches. While the initial projects generate
19 countable savings, the intent is that trained design teams will then use the integrated design approaches
20 they’ve learned to produce more efficient buildings in future projects, without receiving further
21 incentives.

22 However, given the social value and the Commission’s interest in generating savings
23 beyond direct program participation, SCE is including in its portfolio some nominally non-cost-effective
24 programs focused on spillover effects. A prime example of this is the Commercial New Construction
25 Quality Assurance Program, which offers voluntary audits for customers at the time of a new meter set,

¹¹⁷ Energy Efficiency Policy Manual, v.3.1, dated January 8, 2008, p. 6.

1 and notifies participating customers about the Title 24 compliance level of their new building. SCE
2 expects this program to create significant non-participant spillover effects as building designers,
3 engineers, and builders will become increasingly accountable for their work, and pushed to improve
4 their standards accordingly as quality assurance increases.

5 The impetus to developing a focused, multi-channel marketing approach to nonresidential
6 market segments comes both from a desire to drive program penetration deeper into specific customer
7 groups and from a desire to get to the point of word-of-mouth promotion of efficient technologies
8 among customers within some key segments. SCE hopes that this will lead not only to greater program
9 participation, but also to participant and non-participant spillover and-ultimately-to market
10 transformation for particular technologies.

11 **6. How Utilities Propose That Potential Energy Savings From Market Transformation**
12 **Programs Should Be Measured, And How This Will Lead To The Phase Out From**
13 **Utility Programs Of The Transformed Measures**

14 For market transformation measurement methods, SCE highly recommends the following
15 two nationally-praised works developed with California Public Goods Charge funds and overseen by
16 statewide advisory groups including regulatory and utility evaluation personnel:

- 17 • A Framework for Planning and Assessing Publicly Funded Energy Efficiency (2001,
18 <http://www.calmac.org/events/20010301PGE0023ME.pdf>) and
- 19 • The California Evaluation Framework,
20 (http://www.calmac.org/events/California_Evaluation_Framework_June_2004.pdf).

21 The CFL direct installation and rebate programs represent one of the most impressive
22 energy efficiency market transformation examples to date. It provides a prime example of monitoring
23 energy savings potential and achieved energy savings, to work towards the goal of transforming a
24 market and enabling the phasing out of support for a technology.

25 The CFL programs took an obscure technology, demonstrated its efficacy, and have
26 gradually built increasing demand for it year after year. Problems with the technology were identified
27 and program efforts sought to overcome these. The result has been a continuing reduction in cost and an

1 increase in the number of manufacturers, available lamp varieties, and the number and types of retail
2 outlets. At each phase of the growth, new customers have been drawn into the market to install more
3 CFLs for a wider variety of uses.

4 As long as the CFL programs can cost-effectively expand CFL installations beyond what
5 market forces alone would accomplish, the programs will continue. In large part due to the years of
6 product development and increased customer acceptance enabled by energy efficiency programs, a
7 national standard for lighting efficiency is now on the horizon. As this draws close, and as evidence
8 develops that program support can no longer cost-effectively increase the installation of basic CFLs,
9 CFLs will be phased out of energy efficiency programs. SCE expects that the next generation of even
10 more efficient lighting will soon develop to the stage of commercially viable installation, which could be
11 followed by energy efficiency programs designed to speed development and market share.

12 As long as a program is able to cost-effectively broaden the penetration of the measure by
13 these means, promotion of the measure will continue. In general, borderline cost-effectiveness among
14 certain uses or groups because of rising free ridership is a signal that the program needs to be either
15 refocused to more narrowly targeted uses or groups, or ended.

16 Some kinds of programs need to stay in the market even when they aren't cost-effective,
17 in order to satisfy long-term objectives. Residential new construction programs are a good example of
18 this. These programs are often critical to building a record of builder experience, acceptance, and proper
19 installation/setup of measures that are candidates for eventual code requirements. The builders are a test
20 market that provides important information for the code development process.

21 **7. Emerging Technologies That Are Anticipated To Increase Savings Potential**

22 The statewide Emerging Technology Program (ETP) seeks to influence savings potential
23 through contributing to the acceleration and improvement of technology adoption, as articulated in the
24 CEESP.¹¹⁸ This is accomplished by delivering information, insights, analytical tools, and resources to

¹¹⁸ California Energy Efficiency Strategic Plan, dated June 2, 2008, p. 11-10.

1 help enable expedited adoption of innovative technologies and support the promotion of new
2 applications of existing technologies.

3 One new concept in the 2009-2011 filing is that limited ETP efforts will be aimed at
4 contributing to technology adoption through influencing the ease/attractiveness of energy efficiency
5 technology investment and development in California. The Technology Research Incubation Outreach
6 (TRIO) initiative addresses these issues. A second new concept is conducting scaled field placements
7 on selected technologies in the market in larger volumes. These placements will target market
8 awareness and/or advanced technology assessments.

9 Reducing perceived risk in new technologies through performance assessments is one
10 tactic which will continue to be utilized by the ETP. In 2009-2011, the ETP will continue to increase
11 efforts around supporting the transfer of high potential ET assessment findings into the utility portfolio,
12 as well as to other audiences including –but not limited to- allies, strategic partners, financial
13 institutions, investors, ratepayers, and the public. Developing innovative tools that enable more
14 consumers to purchase and use the IDSM products is another tactic carried forward by the ETP.

15 The information generated by the ETP is primarily disseminated to customers and other
16 program stakeholders through energy efficiency program, including the technology centers. The ETP
17 program also disseminates information directly through seminars, workshops, technical conferences,
18 professional journals, and the Emerging Technology Coordinating Council (ETCC) website.
19 Assessment reports and other information on the latest technologies are posted to the ETCC website and
20 are accessible to the general public.

21 **8. Portfolios Contribute to the Green Building Initiative**

22 In December 2004, Governor Schwarzenegger signed Executive Order S-20-04, which
23 was accompanied by the Green Building Action Plan. Together they became known as the state's Green
24 Building Initiative (GBI). Also important is Assembly Bill 2160,¹¹⁹ which requires a Green Building
25 Report, which was submitted in January 2008 by the CEC to the Governor's Green Action Team.¹²⁰

¹¹⁹ Lieu, Chapter 742, Statutes of 2006.

¹²⁰ CEC January 2008, CEC-400-2008-005-CMF.

1 GBI places great attention on buildings owned by the State, but also addresses furthering green buildings
2 that are owned and managed by other public, institutional, and for-profit commercial entities.

3 SCE’s portfolio provides numerous programs and opportunities for State agencies,
4 departments, and other entities under the direct executive authority of the Governor to implement
5 measures to reduce grid-based energy purchases for state-owned buildings through the installation of
6 cost-effective efficiency measures. In fact, the CEC cites in its Green Building Report the “formal
7 partnership between the state and investor-owned utilities to provide energy audits and coordinate
8 incentive program funds to help pay for energy efficiency retrofit projects.”¹²¹

9 Furthermore, as embodied in the CEESP and throughout this Application, SCE proposes
10 several important activities that facilitate the GBI and address many of the major obstacles to furthering
11 green building projects as identified by the CEC in the Green Building Report. These include
12 developing consistent benchmarking of facilities, supporting RCx, expansion and ongoing tightening of
13 Titles 24 and 20 codes & standards, developing voluntary tiers for green buildings beyond Title 24,
14 coordinating with the PIER program to deploy emerging technologies in state buildings, promoting
15 integrated building design and training, developing California-oriented HVAC technologies, supporting
16 various related activities by local governments, and establishing a buildings-sector “Zero/Low-Energy
17 Financing Task Force” to advance innovative green building financing options.

18 Additionally, SCE plans to coordinate directly with state agencies (as well as local
19 governments, the American Institute of Architects’ 2030 Challenge, the United States Global Business
20 Council and other key parties) on green building initiatives.

¹²¹ AB 2160 Green Building Report: For Submission to the Governor’s Green Action Team”, California Energy Commission, January 2008, CEC-400-2008-005-CMF, p. 1

1 **C. Proposed Portfolio Design Reflects Market Strategies, Integration, And Delivery Channels**
2 **To Enhance Customer Participation In Demand-Side Resources**

3 **1. Summary of Proposed Programs**

4 This section provides an overview of SCE's proposed program offerings for program
5 years 2009-2011. Each of the programs in SCE's portfolio is described in detail in the Program
6 Implementation Plans in Exhibits SCE-3 and SCE-4. SCE's portfolio incorporates the successful
7 elements of previous program designs while making innovative changes to maximize the resource
8 benefits derived from the programs and to align with the long-term CEESP and its long-term
9 perspective.

10 a) **Residential Programs**

11 SCE's residential customer base constitutes one of the largest and most
12 challenging groups of electricity consumers in the nation, due to its diversity, complexity, and size.
13 SCE's residential energy efficiency portfolio delivers a wide array of programs and services to increase
14 awareness of energy efficiency and to provide relevant energy efficient solutions. SCE's residential
15 portfolio greatly advances the implementation of the BBEES, the CEESP, and California's EAP for the
16 benefit of all customers.

17 (1) **Appliance Recycling**

18 The Appliance Recycling Program (ARP) produces cost-effective energy
19 savings and peak demand reduction in residential and nonresidential market sectors. The program picks
20 up operable, inefficient refrigerators and freezers from residential dwellings and businesses and prevents
21 their continued operation by recycling them in an environmentally safe manner. ARP offers both free
22 pickup of working refrigerators or freezers and a customer incentive. Customers schedule their pickups
23 of refrigerators and freezers using a toll free number or the SCE web site (www.sce.com) and receive
24 their incentive following the pickup of their appliance.

25 (2) **Home Energy Efficiency Rebate (HEER) Program**

26 The HEER Program encourages customers to make an energy efficient
27 choice when purchasing and installing household appliances and equipment measures, by offering

1 customers educational materials on energy efficiency options and rebate and incentive offerings. In
2 addition to influencing efficient purchases, the program educates customers on how to use products
3 correctly. The program offers an immediate rebate at the retailer's register through point-of-sale (POS)
4 rebates for many measures, in addition to on-line rebate application process. The HEER Program also
5 continues to integrate with the ARP to provide a convenient means of properly and permanently retiring
6 the replaced units, and integrates with Low Income Energy Efficiency Program by providing customers
7 with information and marketing material on SCE's low-income programs.

8 (3) [Business And Consumer Electronics Program \(BCEP\)](#)

9 The BCEP provides midstream incentives to retailers to increase the
10 stocking and promotion of high efficient electronic products including computers, computer monitors,
11 cable and satellite set-top boxes, televisions, smart power strips, and additional business and consumer
12 electronics as they become available to the market. The program continues to expand the POS rebate
13 delivery method, and provides field support services to update marketing materials in retail stores and
14 support education to the retailer sales force. These services leverage the HEER Program and the ARP to
15 reduce cost associated with retailer site visits. The BCEP includes a linkage to an on-line information
16 system designed to identify the most energy efficient and environmentally friendly products available in
17 the market for multiple categories. Potential categories include televisions, appliances, computers, and
18 even alternative fuel vehicles.

19 (4) [Plug Load Efficiency Program](#)

20 The Plug Load Efficiency Program is a non-resource program that takes
21 an active leadership role in addressing the energy use issues associated with the increasing demand of
22 plug load devices, which include any electrical device that receives power from a wall outlet, ranging
23 from cell phones to small appliances. The goal of the program is to interpret, analyze, and report on all
24 categories of plug load information and data from various sources and influence market stakeholders to
25 support energy efficient plug load products. Comparing information about the competing devices help
26 the consumer determine an item's cost of ownership and encourage them to base other purchasing
27 decisions on energy efficiency.

1 (5) Residential Lighting Incentive Program For Basic CFLs

2 For 2009-2011, the upstream lighting programs have been split into
3 separate programs; the Residential Lighting Incentive Program for Basic CFLs and the Advanced
4 Consumer Lighting program. SCE’s Residential Lighting Incentive Program represents a continuance
5 of the existing Upstream Lighting Program within SCE’s residential energy efficiency portfolio. This
6 program provides customers with incentives in the form of discounts that greatly reduce the cost of
7 energy efficient lighting products to customers for basic CFLs (*i.e.*, screw-in bare spiral CFLs \leq 30
8 Watts), and strives to influence future purchasing behaviors of customers.

9 (6) Advanced Consumer Lighting Program

10 The Advanced Consumer Lighting (ACL) program provides customers
11 with incentives in the form of discounts that greatly reduce the cost of energy efficient lighting products
12 to customers. All forms of ENERGY STAR labeled screw-in compact fluorescent lamps will be offered
13 in the program other than screw-in bare spiral CFLs (Basic CFLs). Also offered are ENERGY STAR
14 labeled hardwired and plug-in fixtures. Additionally, early production of general illumination screw-in
15 halogen lamps that meet the 2012 state and federal equipment standards will be eligible for incentives.
16 Other subprograms are planned for non-bare spiral products, such as the “California Super CFL”
17 program, which will mitigate market barriers to CFLs among high and upper medium income customers,
18 and the Torchiere and Plug-in Lamp Exchange Program. Web, catalog, phone sales, and lighting
19 showroom store outreach activities are also being planned.

20 In alignment with AB 1109, the program will also support a statewide
21 approach for continued customer education and public awareness for proper CFL disposal. SCE, in
22 coordination with other IOUs, will pursue recycling partnerships with local and regional governments
23 and recycling organizations, participating manufacturers, and retailers. The program will implement
24 strategies and messages for education/outreach and infrastructure that are consistent with state efforts in
25 recycling fluorescent lamps. The message will address the importance of energy efficiency,
26 environmental protection, and consumer safety when handling fluorescent lamps. SCE will provide
27 resources for education and outreach activities through a variety of approaches. SCE will coordinate

1 with local government partners as well as local retailers to identify collection stations for special
2 collection events if no existing collection stations exist in the area, and will also provide limited funding
3 to distribute recycling kits.

4 In accordance with the CEESP, the ACL program expands the penetration
5 of more efficient products by supporting state and federal legislation that requires a transition from
6 general service incandescent lighting to more efficient solutions. A new generation of lighting will take
7 their place. SCE's lighting programs will be essential in transitioning the public to this new paradigm,
8 thereby greatly mitigating the inherent difficulties of supporting the legislation at the point of public
9 behavior. SCE will continue to work with ENERGY STAR, the Consortium for Energy Efficiency, the
10 Program for Evaluation and Analysis of Residential Lighting (PEARL), the California Lighting
11 Technology Center, and the CEC to further their visions, goals, and priorities in the application of
12 energy efficient lighting.

13 (7) [Multi-Family Energy Efficiency Rebate Program](#)

14 The Multifamily Energy Efficiency Rebate (MFEER) Program offers
15 prescribed rebates for energy efficient products to motivate property owners/managers to install energy
16 efficient products in both common areas and dwelling units of multifamily complexes, as well as
17 common areas of condominium complexes, and mobile home parks. An additional objective is to
18 heighten property owners/managers and tenants energy efficiency awareness and knowledge. MFEER
19 Program marketing plans include print material, direct mail campaigns, print advertisement, trade show
20 exhibitions, presentations, and statewide advertising; the program also links program rebates for
21 ENERGY STAR refrigerators with incentives from SCE's ARP and coordinates with the HEES
22 Program. MFEER also promotes SCE's Low Income Energy Efficiency Program within the customer
23 application to make the property owner/manager aware of the available income-qualified services for the
24 tenants.

25 (8) [Comprehensive Mobile Home Program](#)

26 The residential Comprehensive Mobile Home Program (CMHP) is a direct
27 install program designed to provide a comprehensive energy efficiency program to mobile home

1 customers in collaboration with local communities. The program installs energy efficient products in
2 the mobile home and common areas of the mobile home parks, starting with the warmer climate zones.
3 CMHP is delivered through a third party responsible for implementing all aspects of program marketing,
4 participant enrollment, and product installation and is designed to enhance the energy efficiency
5 knowledge and program participation within this market segment.

6 (9) [Comprehensive Home Performance Program](#)

7 The Comprehensive Home Performance Program (CHPP) delivers
8 comprehensive improvements packages tailored to the needs of each existing home and its owner. The
9 CHPP solicits, screens, and trains qualified residential repair and renovation and HVAC contractors to
10 assemble capable contracting teams, perform whole-house diagnostics, propose a comprehensive
11 improvement package, and complete the improvements. The program also includes marketing activities
12 to help educate customers on program services and provide additional customer leads to trained
13 contractors. In addition to a choice of a cash rebate or reduced-rate financing for homeowners,
14 contractors receive financial incentives for formal home diagnostics, post retrofit quality assurance
15 testing, and reporting of data on all jobs.

16 (10) [Home Energy Efficiency Survey \(HEES\) Program](#)

17 The Home Energy Efficiency Survey (HEES) Program is used to outreach
18 to customers in five languages (English, Spanish, Chinese, Vietnamese, and Korean) and four delivery
19 channels (mail-in, on-line, in-home, and phone surveys) to perform a variety of energy audits. The
20 program provides survey results to enable participants to understand how their energy use varies
21 throughout the year and how their household compares with other similar households. This multi-
22 language approach enhances the program's ability to reach southern California's diverse culture and
23 provides efficiency recommendations based on a whole-house system approach. Additionally, HEES
24 provides information on and referrals to SCE's On-line Buyer's Guide, water conservation efforts, and
25 SCE's demand response and low-income programs, as applicable.

1 (11) [Efficient Affordable Housing](#)

2 The Efficient Affordable Housing program addresses the affordable
3 housing retrofit market segment. The program uses a performance-based approach to encourage
4 affordable housing property owners to choose the most cost-effective measures to achieve a 20 percent
5 energy improvement over existing building conditions. The program transforms the affordable housing
6 retrofit market away from a prescriptive, one-size-fits-all approach towards a comprehensive building
7 analysis approach. This approach includes energy consultants and California Home Energy Rating
8 System (C-HERS) raters to evaluate the energy efficiency improvement options for rehabilitating
9 properties. In addition, energy education workshops provide information regarding the retrofit and
10 knowledge about energy efficiency for tenants and owners. The program also refers customers to other
11 SCE programs, including low-income programs, as applicable.

12 (12) [On-line Buyer's Guide](#)

13 The On-Line Buyer's Guide provides SCE's customers with one web-
14 based source for information and tools needed to overcome market barriers that prevent customers from
15 purchasing energy efficient products and participating in energy efficiency programs. The guide
16 includes technical information, a product database, savings calculation tool, shopping guide, rebate
17 program information, and retailer information for products.

18 (13) [California New Homes Program](#)

19 The California New Homes Program (CANHP) encourages single and
20 multi-family builders of all production volumes to construct homes that exceed California's Title 24
21 energy efficiency standards by a minimum of 10 percent. This goal will be achieved through a
22 combination of incentives, technical education, design assistance, and verification. CANHP supports
23 the ambitious goals of the CEESP, and works in close coordination with the Advanced Homes
24 component of the Sustainable Communities Program to raise plug load efficiency and focus on whole
25 house solutions, in-home monitoring and visual display tools, and green building standards. CANHP is
26 also coordinated with demand response programs.

1 (14) Manufactured Housing New Construction

2 The Manufactured Housing New Construction Program is designed to
3 promote the construction of new manufactured homes in SCE’s service territory that comply with
4 ENERGY STAR energy efficiency standards. The Program targets manufacturers, retailers, and
5 homebuyers of new manufactured homes. The current baseline for manufactured homes is the Housing
6 and Urban Development (HUD) standard specification. The program encourages manufacturers to
7 install “right-size” heating, ventilation, and cooling equipment (HVAC), install high-efficiency HVAC
8 equipment, and evaluate homes on a whole-building basis covering windows, insulation levels, and
9 quality installation inspections. The program works in coordination with the Advanced Home
10 component of the Sustainable Communities Program, and also includes an education and outreach
11 component.

12 b) Nonresidential Programs

13 SCE’s 2009-2011 nonresidential portfolio is designed to reach a broad spectrum
14 of customers in each of the major sectors- commercial, industrial, and agriculture and water systems,
15 and to align with the strategies and goals of the CEESP.

16 To achieve delivery of targeted energy efficiency and other integrated DSM
17 solutions to specific market segments and customers, as laid out in the CEESP, SCE proposes a
18 nonresidential program portfolio that better tailors offerings to the markets while leveraging a common
19 infrastructure. This approach recognizes the need to assemble individual offerings and services into
20 segment- and customer- specific solutions.

21 This approach allows integrated customer solutions to be developed and targeted
22 to specific market segments and sub-segments, while leveraging a standardized menu of offerings and
23 services and a common program infrastructure. Such an approach enables SCE to integrate the full
24 range of DSM offerings into solution bundles that are customized and targeted to both the level of the
25 market segment and individual customer.

26 Under this hybrid approach, traditional statewide and local energy efficiency
27 programs, such as Standard Performance Contract, Express Efficiency, and Savings By Design, will

1 continue (see Business Incentives Element PIP). However, they will be managed as menus of offerings
2 and services as a means to overcome the various market barriers to adoption of energy efficiency
3 measure at retrofit and/or new construction phases of a building's life cycle. These programs are
4 described in depth in the PIPs, as shown in Exhibits SCE-3 and SCE-4. Program budgets and savings
5 impacts will continue to be tied to these programs (e.g., BIE).

6 The Market Segment Plans describe how the key market segments are targeted
7 with customized solutions chosen from the menu of offerings, but the PIPs include detailed descriptions
8 of the individual offerings and services and how each is designed to overcome a barrier to adoption.
9 Program budgets and savings impacts are not tied to the Market Segment Plans.

10 Nonresidential Market Segment Plans

11 (1) MSP – Industrial Sector

12 The Industrial Market Segment Plan (MSP) is designed to focus on high
13 opportunity¹²² sub segments such as oil and gas production and refining, nonmetallic minerals &
14 products, food & kindred products, chemicals, and industrial gases. The Industrial MSP
15 comprehensively targets the customer's energy consumption profile, including lighting, motors,
16 processes, pumps, and control end uses. SCE provides many program offerings for industrial customers,
17 including, incentives/rebates, audits, retrocommissioning, and other services.

18 (2) MSP – Agriculture and Water Systems Sector

19 The Agriculture and Water Systems MSP for the 2009-2011 program
20 cycle addresses two characteristics of the sector that have historically been an obstacle to adoption of
21 energy efficiency throughout all regions of the country, and California in particular: diversity of the
22 customer base, and the relatively small proportion of electricity costs compared with total operational
23 costs. The MSP comprises a comprehensive set of strategies and tactics to produce energy,
24 environmental, and economic benefits. Its design enhances the adoption of energy efficient equipment

¹²² This prioritization has been established based upon multiple criteria, including sub segment annual energy consumption and sector's average annual energy consumption (per customer), historical EE adoption experience, aggregated overall EE market potential, and aggregated measure specific EE market potential.

1 and practices among customers in this market sector through a combination of existing and new
2 programs.

3 (3) [MSP – Commercial And Small Business](#)

4 The Commercial MSP provides a summary of SCE’s Energy Efficiency
5 (EE) program portfolio offered to SCE’s Commercial customers. SCE’s Commercial MSP:

- 6 • Provides solutions for all major commercial sub-segments,
7 including government and institutions;
- 8 • Develops solutions for common building types (*e.g.*, office
9 buildings, retail space, lodging space, warehouses, *etc.*);
- 10 • Captures the “hard-to-reach” smaller (less than 200 kW demand)
11 customers that have similar buying characteristics; and
- 12 • Targets a buildings’ energy consumption profile.

13 Nonresidential Programs

14 (1) [Residential/Light Commercial HVAC Program](#)

15 As articulated in the CEESP, the Residential/Light Commercial HVAC
16 Program continues the transformation process of California’s HVAC market to ensure that “technology,
17 equipment, installation, and maintenance are of the highest quality to promote energy efficiency and
18 peak load reduction in California’s climate.”¹²³ SCE proposes building towards this vision and
19 specifically the BBEES for HVAC by implementing a variety of downstream, midstream, and upstream
20 strategies designed to affect a positive influence on the overall behavior of all stakeholders. The
21 program will seek to increase the market penetration of efficient HVAC systems across the service
22 territory, as well as further the use of quality installation and maintenance.

23 (2) [Commercial New Construction Quality Assurance \(CNCQA\)](#)

24 The Commercial New Construction Quality Assurance Program is
25 designed to identify and pilot methods to ensure that customers with new buildings are realizing a level

¹²³ California Energy Efficiency Strategic Plan, dated June 2, 2008, p. 6-1.

1 of energy performance consistent with California’s Building Energy Codes and Standards (Title 24).
2 This program explores ways for SCE to fill a more direct role in ensuring that customers are receiving
3 the full energy performance benefits out of their new buildings for which they have paid their design
4 teams and construction contractors. This program closely coordinates with the Codes & Standards
5 Program compliance activity.

6 (3) Business Incentives Element

7 Through a variety of incentives across a full range of measures, the
8 Business Incentive Element (BIE) implements the CEESP by helping business customers of all sizes
9 and in all nonresidential market segments overcome barriers to adopting energy efficiency program
10 measures by reducing financial costs to the customers for the implementation of these offerings.

11 BIE includes:

- 12 • Calculated retrofits (formerly Standard Performance Contract);
- 13 • Itemized retrofits (formerly Express Efficiency), and
- 14 • No-cost installations (formerly Direct Install).

15 The program also includes coordination activities with entities such as
16 vendors, local governments, community and faith-based organizations, and other community groups to
17 promote program participation.

18 (4) Industrial Energy Efficiency Program

19 The Industrial Energy Efficiency Program (IEEP) is the primary-incentive
20 based program supporting the industrial vertical market sector, and will extensively leverage the
21 calculated and itemized retrofit offerings in the BIE. Additionally, IEEP will leverage the business
22 services offerings in the Business Services Element (BSE). Guided by the CEESP, the program pays
23 incentives to industrial customers who install and use energy efficient hardware and equipment in their
24 operations and also provides services to industrial customers including financing, audits, benchmarking,
25 training, technical assistance, and project management to help propel customers to implementing energy
26 efficiency.

1 (5) Agriculture Energy Efficiency Program

2 The Agriculture Energy Efficiency Program (AgEE) is the primary
3 incentive-based program supporting the Agriculture and Water Systems vertical market sector, and will
4 extensively leverage the calculated and itemized retrofit offerings in the BIE. Additionally, AgEE will
5 leverage the business services offerings in the BSE. This program pays incentives to customers when
6 they install energy efficient hardware and equipment in their operations, and also includes services,
7 which provide design assistance for pumping systems. Major elements of the operational
8 implementation of the AgEE program depend on the results of pump tests and full facility audits.

9 (6) Financial Solutions Element

10 SCE's Financial Solutions Element (FSE) offers the participants of energy
11 efficiency projects access to capital funds, helping customers to overcome barriers related to project
12 financing. This element will advance the CEESP's strategy of using targeted and innovative financing
13 for energy efficiency.¹²⁴ FSE's offerings include:

- 14 • On-Bill Financing Program – offers zero-interest financing for
15 qualifying energy efficiency installations of lighting, refrigeration, and
16 HVAC measures to commercial customers and governmental
17 institutions;
- 18 • Energy Efficiency Loan Program – provides third-party asset-based
19 lease and/or project financing to customers who are implementing
20 energy efficiency projects for which they have out-of-pocket costs
21 greater than \$25,000; and
- 22 • AB-32 Carbon Emission Reduction (CER) Program – pilot program
23 that demonstrates to customers that the indirect emissions savings
24 from their energy efficiency projects have additional economic value

¹²⁴ California Energy Efficiency Strategic Plan, dated June 2, 2008, pp. 3-15 to 3-16.

1 that is linked to the demand for carbon allowances in existing and
2 future carbon markets.

3 (7) Business Services Element

4 Offerings under the Business Services Element (BSE) help commercial,
5 industrial, government and institutions, and agriculture business customers of all sizes identify and
6 assess the potential for energy efficiency projects' implementation, optimization, and sustainability.
7 BSE programs provide services to help survey facility processes and operations. BSE's offerings
8 include:

- 9 • Nonresidential Energy Audits – provides business customers a no-cost
10 source of information about their energy use, and outlines ways to save
11 energy through on-site and remote audit services;
- 12 • Pump Testing – offers standardized, high quality pump tests;
- 13 • Retrocommissioning (RCx) Assessment and Repair & Maintenance-
14 provides RCx, which focuses on identifying and correcting operational
15 problems not easily identified in a standard audit;
- 16 • Energy Benchmarking – offers a management tool that customers can
17 use to evaluate various aspects of their building performance and/or
18 operational processes in relation to a performance standard or best
19 practice;
- 20 • Express Assist – provides project management and energy savings
21 assessment support, and
- 22 • Cool Planet Project – promotes energy efficiency to large commercial
23 and industrial customers by leveraging the California Climate Action
24 Registry.

25 In most cases, the identified energy efficiency projects are eligible for a
26 financial incentive under one of SCE's Business Incentive Element components.

1 (8) [Commercial Energy Efficiency Program](#)

2 The Commercial Energy Efficiency Program (CEEP) is the primary-
3 incentive based program (or rebate “engine”) supporting the commercial market sector and is a major
4 element of SCE’s implementation of the CEESP. CEEP will extensively leverage the calculated and
5 itemized retrofit offerings in the BIE, the business services offerings in the BSE, and the financial
6 services offerings in the FSE. It pays incentives to commercial customers who install and use energy
7 efficient hardware and equipment in their operations. It also provides services to commercial customers
8 to help propel customers to implement energy efficiency. Supporting services include benchmarking,
9 audits, financing, project management, training, and technical assistance.

10 (9) [Entertainment Centers Energy Efficiency Program](#)

11 The primary objective of the Entertainment Centers Energy Efficiency
12 Program is to help facilities with highly variable occupancy such as movie theaters, amusement parks,
13 and auditoriums realize energy savings in a cost-effective manner. The program includes energy audits,
14 maintenance training, and low-cost/no-cost measures, with an emphasis on demand control ventilation
15 technology.

16 (10) [Private College Campus Housing Energy Efficiency Program](#)

17 The Private College Campus Housing Energy Efficiency Program offers
18 energy efficiency measures, training, and financing to qualifying private college campus housing
19 facilities, including campus dining facilities or common area kitchens. The program includes a
20 comprehensive offering of installations, retrofits, and RCx and building optimization to improve
21 efficiency and recruits and trains students on some campuses to conduct lighting energy surveys.

22 (11) [Management Affiliates Program](#)

23 The Management Affiliates Program (MAP) primarily focuses on
24 managing energy efficiency projects for commercial office buildings, retail department stores, and other
25 commercial buildings (from participating property management companies) to help realize the CEESP’s
26 goals for this sector. MAP provides assistance to cities with specific energy efficiency program
27 management needs. City assistance is delivered in collaboration with other organizations, such as joint

1 power agencies and local governmental councils, while coordinating with local government partnerships
2 as part of this collaboration.

3 (12) [K-12 Private Schools and Colleges Audit and Retrofit Program](#)

4 The K-12 Private Schools and Colleges Audit and Retrofit Program
5 provides comprehensive energy efficiency services to private preschools, K-12 schools, colleges,
6 universities, and trade/technical schools, including benchmarking and energy audits, comprehensive
7 direct installation of no-cost/low-cost measures, and incentives and installation assistance. The program
8 leverages SCE's programs, such as the BIE, to provide financial incentives for qualifying projects.

9 (13) [Healthcare Energy Efficiency Program](#)

10 The Healthcare Energy Efficiency Program (HEEP) is a retrofit program
11 that provides comprehensive whole building/system technical audits and other services and establishes a
12 permanent framework for a sustainable, long-term, comprehensive energy management program for
13 medical office buildings. HEEP addresses this industry's hesitancy to adopt energy efficiency measures
14 and initiate facility upgrades, while achieving cost-effective energy savings. The program provides a
15 comprehensive approach to energy efficiency measures, including lighting and lighting controls, HVAC
16 systems and controls, and other equipment.

17 (14) [California Preschool Energy Efficiency Program](#)

18 The California Preschool Energy Efficiency Program (CPEEP) targets
19 both public and private preschool facilities or preschool contractors, including stand-alone and shared-
20 space facilities. The program delivers cost-effective energy and demand savings through a
21 comprehensive energy efficiency strategy that includes detailed audits, technical assistance, financial
22 analysis, and implementation of measures (including lighting, HVAC, and food service measures).

23 (15) [Integrated DSM Food Processing Pilot](#)

24 The Integrated Demand Side Management (IDSM) Food Processing Pilot
25 is a non-resource program in which industry, trade allies, and other partners promote integrated energy
26 management solutions to end use customers in the food processing and refrigerated warehouse
27 segments. Targeted customers include agricultural post-harvest processors and food processing, fruit

1 and vegetable processors (canners, dryers, and freezers), prepared food manufacturers, wineries and
2 other beverage manufacturers. The program’s integrated approach aligns with the CEESP; it includes
3 joint audits that offer both energy efficiency and demand response recommendations, and also includes
4 collaboration with trade and other industry associations to align program offerings with current industry
5 drivers.

6 (16) [Automated Energy Review For Schools](#)

7 The Automatic Energy Review for Schools (AERS) Program is a
8 continuation of a successful 2007-2008 IDEEA program. The program increases the energy
9 performance of new and modernized school buildings by utilizing Department of State Architects (DSA)
10 review and approval process. The program works with DSA staff to flag and refer projects that just
11 marginally exceed the energy code to the automatic plan review technical assistance team. The team
12 reviews the project and leverages DSA to identify potential energy-saving design modification
13 opportunities and intervene during a time in the process where changes to building project drawings
14 normally occur.

15 (17) [Savings By Design](#)

16 Savings by Design (SBD) provides the nonresidential new construction
17 industry with a broad palette of technical and financial resources to aid them in designing new facilities
18 to the most cost-effective energy and resource efficiency standards. The SBD program offers two
19 components – Whole Building Approach (Integrated Design) and Systems Approach to its customers
20 with new construction or major remodel/renovation projects, while adding a new simplified approach to
21 better reach small projects. Additionally, SBD offers financial support for design teams to undertake an
22 integrated design process, as well as sustainability incentives to building owners to achieve green
23 building certification, perform building commissioning during design and construction, and/or establish
24 and follow a building Measurement & Verification plan after occupancy.

25 (18) [Sustainable Portfolios](#)

26 The Sustainable Portfolios Program obtains commitments from real estate
27 owners, investors and major tenants to “green” their portfolios of leased commercial office space

1 through energy efficiency. Participants are offered a comprehensive set of “one-stop” turn-key services
2 including strategic implementation plan development, and comprehensive installations including HVAC
3 retrofits, conversion to variable flow for air and water systems, hybrid central plants, real-time
4 ventilation controls, standard RCx, and lighting upgrades.

5 The program also utilizes the Green Leasing Toolkit, which includes
6 strategies recommended by real estate owners, tenants, and brokers for promoting, developing, and
7 managing green leases. It also addresses both real and perceived barriers, including split incentives.

8 (19) [Monitoring-Based Commissioning Program](#)

9 The Monitoring-Based Commissioning (MBCx) Program combines RCx
10 and continuous commissioning activities with ongoing, technology-based monitoring to ensure
11 persistent savings. The program advances the CEESP by exclusively targeting commercial customers
12 that are eligible to participate in or are currently participating in demand response programs, with the
13 goal of helping commercial customers:

- 14 • Learn about energy use at their facilities;
- 15 • Participate in a comprehensive energy audit;
- 16 • Implement cost-effective measures with help from incentive funds,
17 and
- 18 • Engage in an ongoing, monitoring-based commissioning process.

19 (20) [Leased Office Space Retrofit Program](#)

20 The Leased Office Space Retrofit Program provides non-owner occupants
21 of commercial office buildings a comprehensive package of audits and installations of energy efficient
22 lighting, computer load management software, and HVAC equipment in their leased office space. The
23 program is proposed as a hybrid direct install program (*i.e.*, some measures will be installed at no cost to
24 the customer, while others will include a partial incentive/rebate) that initially targets medium to large
25 office buildings.

1 (21) [Data Center Energy Efficiency Program](#)

2 The Data Centers Energy Efficiency Program (DCEEP) is an incentive-
3 based program that promotes retrofit, RCx, and virtualization offerings to significantly reduce the
4 energy and demand use of data centers across multiple market segments. DCEEP is a key example of
5 CEESP’s implementation in the application; it uses a combination of traditional technologies combined
6 with emerging technologies to offer comprehensive solutions and will take a holistic approach towards
7 data centers including establishing metrics for data center energy intensity, creating tools and guidelines
8 to drive continuous improvement, supporting third party certification processes, and providing
9 recognition for data centers to achieve a high level of energy savings.

10 (22) [Monitoring-Based Persistence Commissioning Program](#)

11 The Monitoring-Based Persistence Commissioning Program (MBPCx)
12 provides marketing, technical assistance, and financial incentives to facilities including office buildings,
13 hotels, hospitals, and colleges & universities (except UC/CSU/IOU Partnership & Local Government
14 Partnerships). The program offers implementation of traditional RCx measures as well as more
15 comprehensive energy efficiency upgrades and retrofits for HVAC, lighting, and hot water systems.
16 MBPCx combines a comprehensive evaluation of HVAC and lighting retrofit energy saving
17 opportunities with a rigorous RCx approach that facilitates the continuous reporting and correction of
18 deviations from optimal performance.

19 (23) [Data Center Optimization Program](#)

20 The Data Center Optimization Program (DCOP) targets- as guided by the
21 CEESP- a variety of electric end uses such as facility site infrastructure loads (cooling, fans, pumps,
22 lighting, and uninterruptible power supplies), network, storage, and servers. Program scope includes a
23 comprehensive facility audit and report, project management support for implementation, financial
24 incentives for energy savings reductions, and verification services. DCOP aims to deliver persistent
25 savings through its detailed engineering audit, which benchmarks the data center, gives the customer
26 instruction and a methodology to replicate the benchmarking over time, and generates a systems

1 manual. This manual includes a schedule for the data center market actors to check settings in order to
2 maintain optimized conditions.

3 c) Partnerships

4 SCE's energy efficiency partnership program portfolio consists of partnerships
5 with local and state government organizations (governments) as well as with institutional customers
6 (institutions). SCE acknowledges that these governments and institutions provide a number of key
7 functions relating to DSM. The Partnership Program embraces the vision of the CEESP to strengthen
8 and capitalize upon the capacity of these governments and institutions to leverage their unique functions
9 in community outreach, leadership by example, and codes and standards compliance improvement in
10 support of the Commission's aggressive energy savings goals.

11 (1) Local Government Partnerships

12 Local governments are key to the success of the CEESP, which is
13 reflected in this application. SCE intends to partner with cities, counties, and other local government
14 organizations that have a vision for sustainability and a desire to provide leadership to their
15 communities. In the new Energy Leader Model, partners lead by example. They will take action in
16 their own facilities and encourage constituents to take energy efficient action in their homes and
17 businesses.

18 In 2009-2011, SCE's Partnership Program is enhanced to reward and
19 recognize cities for participation in energy savings activities. The new Energy Leader model builds
20 upon SCE's current local government partnering strategy by establishing a disciplined approach to
21 create consistency in program offerings and improving clarity and ease of participation in local
22 government partnership programs.

23 Partners enter the model at one of four levels, depending on their past
24 participation in energy efficiency programs at the city/county and community level. The allocation of
25 program budgets is based on each partnership's future commitments to achieve energy efficiency in
26 municipal facilities and within their communities. The model's goal is to be cost-effective and in
27 alignment with Commission criteria. All partnerships are resource programs and will include emphasis

1 on coordination with demand response and low-income programs, and on green community concepts
2 supported by the Commission and statewide IOUs. It is likely to become a key element of the CEESP's
3 successful implementation and transformation of energy efficiency in the State.

4 The Partnership Program offerings include technical support, marketing
5 and outreach assistance, education efforts, and financial incentives for energy efficiency projects and
6 demonstration projects. The incentive structure is tiered and offers higher levels of support as the
7 government partner and its community achieves higher levels through installed energy efficiency
8 projects. In addition to the local government partnership programs below, SCE proposes a mechanism
9 for initiating new local government partnerships during the program cycle.

10 2009-2011 Local Government Partnerships include:

- 11 • Community Energy Partnerships
- 12 • Beaumont Energy Leader
- 13 • Desert Cities Energy Leader
- 14 • Eastern Sierra Energy Leader
- 15 • Kern County Energy Leader
- 16 • Long Beach Energy Leader
- 17 • Orange County Energy Leader
- 18 • Ridgecrest Energy Leader
- 19 • Santa Ana Energy Leader
- 20 • Simi Valley Energy Leader
- 21 • Ventura County Energy Leader
- 22 • South County Energy Leader
- 23 • South Bay Energy Leader
- 24 • South Gate Energy Leader
- 25 • San Gabriel Valley Energy Leader
- 26 • San Joaquin Valley Energy Leader
- 27 • Palm Desert Partnership

1 (2) [Institutional Partnerships](#)

2 SCE's Institutional Partnerships create dynamic and productive working
3 relationships among IOUs, state or local governments, and agencies or educational institutions. The
4 objective is to reduce energy usage through facility and equipment improvements, sharing best practices,
5 and providing education and training to key personnel. SCE proposes seven institutional partnerships
6 for 2009-2011. In addition, SCE proposes the Institutional and Government Resource for Energy
7 Efficiency Now (IGREEN) Program, as a mechanism for initiating new institutional partnerships during
8 the program cycle. IGREEN would reserve a budget for partnerships with government agencies and
9 institutional customers that become interested in forming partnerships, as they materialize during the
10 course of the three-year program cycle.

11 Projects within the partnerships will utilize a comprehensive approach to
12 include energy efficiency and coordination with other DSM offerings, as applicable.

13 2009-2011 Institutional Partnerships include:

- 14 • California Community Colleges
- 15 • California Department of Corrections and Rehabilitation
- 16 • SCE-SCG County of Los Angeles Partnership
- 17 • County of Riverside Partnership
- 18 • UC/CSU/IOU Partnership
- 19 • County of San Bernardino Partnership
- 20 • State of California/IOU Partnership

21 d) [Crosscutting Programs](#)

22 SCE's crosscutting programs cut across residential, nonresidential and/or
23 partnerships portfolios, delivering benefits to multiple sectors of customers. They are directly guided by
24 the CEESP's approach on crosscutting issues.

25 (1) [Emerging Technologies Program \(ET\)](#)

26 The ET Program delivers information, insights, analytical tools, and
27 resources to enable acceleration and expansion of the adoption of innovative technologies and support

1 promotion of new applications of existing technologies. ET activities contribute to energy savings
2 statewide through an array of mechanisms targeted at new cost-effective, high performance energy
3 efficient technologies, including identifying and evaluating these technologies, assessing performance
4 uncertainties, and/or helping to increase consumer awareness.

5 (2) [Codes & Standards Program \(C&S\)](#)

6 The C&S Program directs initiatives to enhance building and appliance
7 standards to codify cost-effective, reliable, persistent, and verifiable demand-side measures in support of
8 maximizing portfolio energy savings and demand reduction. Following the adoption of new codes or
9 standards, the program supports their implementation through activities designed to improved
10 compliance.

11 (3) [Sustainable Communities Program](#)

12 The Sustainable Communities Program (SCP) encourages the inclusion of
13 sustainable elements and energy efficient features in campus projects, mixed-use complexes, residential
14 new construction, multi-family and transit-oriented developments, and other projects whose scope
15 exceeds traditional SCE programs. The SCP provides financial incentives and customized technical
16 assistance to encourage builders to use sustainable energy-efficient building design and construction
17 practices. SCP will also pilot technologies, design assistance, and economic strategies to move new
18 development toward ZNE, with the intent to commercialize strategies and then mainstream them into
19 SCE's resource new construction energy efficiency programs (*e.g.*, SBD, CANHP).

20 (4) [Workforce Education and Training – EARTH](#)

21 EARTH Education and Training is a three-fold education and information
22 program. First, the program promotes green careers to K-12 and university students through energy and
23 environmental curriculum, relevant degree programs, courses, and internships. EARTH educates
24 students on energy, water, and the environment and the pursuit of green careers. Second, the program
25 educates students on energy, water, and the environment, with the goal of influencing day-to-day
26 decisions of students and their households. Third, the program educates schools on energy efficiency
27 and demand response programs and benefits and helps schools overcome barriers to adopting energy

1 efficiency in their families. Through its energy education program components, the WE&T EARTH
2 program integrates energy efficiency, demand response, renewable energy, and water conservation to
3 advance demand side management and sustainability for participants.

4 (5) [Workforce Education and Training Synergies](#)

5 WE&T Synergies is a nonresource program currently comprised of six
6 specialized programs to provide a comprehensive delivery of workforce education and training to
7 agricultural, commercial, industrial, and government institutions, including both private and public
8 schools. WE&T Synergies is designed to integrate energy education to a broad spectrum of customers
9 and facilitate efforts to create or enhance workforce training opportunities. Over the program's three-
10 year cycle, WE&T Synergies will address market barriers and reach a broader audience by enhancing its
11 existing training and workshop offerings as well as developing new ones. Dissemination of information
12 will take place through energy centers, technology test centers, and information and training program
13 offerings.

14 (6) [Workforce Education and Training – Strategic Planning and](#)
15 [Implementation](#)

16 The Workforce Education and Training (WE&T) Strategic Planning
17 Program is a statewide effort designed to ensure California's workforce is trained and engaged to
18 achieve the state's economic energy efficiency potential. WE&T Strategic Planning is a statewide
19 support and administrative effort to accomplish the greater WE&T long-range activities and goals as
20 proposed by the CEESP. This integrative effort will coordinate the collaboration and involvement of
21 secondary and post-secondary education leaders, technical and professional organizations, state
22 agencies, economic and labor development organizations, utilities, and construction and manufacturing
23 businesses that deliver energy efficiency solutions.

24 (7) [Statewide Marketing Education and Outreach](#)

25 Until the Commission directs the IOUs to complete the statewide brand
26 study and renders a final decision regarding the long term plan for Statewide ME&O, the IOUs will

1 continue implementing the integrated statewide marketing and outreach program using the current
2 program implementers.

3 ME&O programs include:

- 4 • Flex Your Power (FYP) – an energy efficiency marketing and outreach
5 program that provides “umbrella” messaging statewide, across service
6 territories and media markets, through events, television, radio, on-
7 line, and outdoor and newspaper advertising.
- 8 • Univision Television Energy Efficiency Marketing – the Spanish
9 language television campaign creates synergy with the general market
10 and rural market campaigns by using the same theme and branding
11 elements of FYP. The program also uses secondary research, focus
12 groups, and other input from Spanish-speaking Latinos in California to
13 craft a campaign that meets their language needs and resonates with
14 their shared culture.
- 15 • FYP Rural-targets rural consumers in the IOU service area, and
16 complements the other statewide FYP efforts.

17 (8) [Integrated Marketing and Outreach](#)

18 SCE is aligning its local marketing efforts to support the vision of the
19 CEESP by developing and implementing marketing campaigns that integrate DSM offerings such as
20 energy efficiency, demand response, solar, SmartConnect™, and low income energy efficiency
21 programs. SCE’s integration efforts also leverage the utility website (sce.com) to engage customers in
22 an ongoing dialogue about energy efficiency in an effort to promote long-term behavior change. SCE
23 utilizes market intelligence to glean insights and best practices that can be used to design messages and
24 programs that effectively motivate consumers to adopt energy efficient behaviors and practices.

25 (9) [Marketing Education and Outreach Strategic Plan](#)

26 The ME&O Strategic Plan sets forth a requirement to conduct an equity
27 assessment of the current energy efficiency statewide brand, Flex Your Power, as a starting point to lead

1 to the development of a recognizable, trustworthy DSM brand for California and a web portal that will
2 serve as a clearinghouse for readily available information about DSM. Branding, segmentation and
3 social marketing exploratory activities must be undertaken concurrently with the proposed continuance
4 of the current statewide ME&O Program. The results of these studies will inform the Commission's
5 decision regarding the future direction of statewide marketing and outreach. The goal of a long-term
6 strategic ME&O plan is to shape a culture in California that understands DSM options as a way of life
7 with long-term implications rather than expectation of immediate results.

8 e) Solicitations

9 (1) Third Party Solicitations

10 SCE's third party solicitation process is designed to enable successful
11 solicitation, selection, and implementation of third party programs. In preparation for the 2009-2011
12 program cycle, SCE conducted third party solicitations were held between November 2007 and June
13 2008; these will be supplemented by additional solicitations throughout the 2009-2011 cycle. SCE's
14 third party solicitation process utilizes a multi-faceted solicitation approach which includes the
15 following elements:

- 16 • Local Targeted Program Solicitation Support (2009-2011)
- 17 • Statewide General Program Solicitation Support (2009-2011)
- 18 • Local Solicitation – Innovative Design for Energy Efficiency
19 Applications (IDEEA)
- 20 • Local Solicitation – IDEEA 365 Future Solicitations (2009-2013)
- 21 • Incubator Strategy (2009-2011)
- 22 • Local Solicitation – Demand Side Management (DSM) Integration
23 Solicitation Support (2009-2011)

24 SCE's third party solicitation process targets and promotes new and
25 innovative energy efficiency technologies and program designs in preparation for and throughout the
26 2009-2011 program years. The results of SCE's 2009-2011 third party program solicitations, including
27 SCE's selected programs are shown in Exhibit SCE-2, Table 3.4.

1 For the 2009-2011 program cycle, SCE conducted the third party program
2 solicitations beginning November 2007, to allow sufficient time for program ramp up in late 2008 with
3 program implementation targeted for January 2009. SCE also proposes to conduct additional local
4 targeted and statewide general solicitations during the 2009-2011 program cycle. Furthermore, SCE
5 proposes to move away from annual solicitations and allow bidders to submit local innovative proposals
6 on a more frequent basis (*e.g.*, quarterly) during the three year program cycle under SCE's new IDEEA
7 365 solicitation process. This will enable SCE to continue to identify and test the latest program
8 concepts and technologies in order to constantly improve and enhance the overall program portfolio for
9 the long term.

10 Additionally, SCE proposes the Technology Resource Incubator Outreach
11 Program (TRIO) as part of the Emerging Technologies Program, which will nurture new technologies
12 that may not be ready for the marketplace, and eventually move successful technologies into the IDEEA
13 solicitation process.

14 For 2009-2011, SCE also proposes to seek, as part of its third party
15 solicitations process, creative program ideas centered around technologies applications that can serve
16 energy efficiency and demand response needs. This coordination attempts to further leverage potential
17 technologies to integrate energy efficiency with other DSM offerings. SCE may extend the solicitation
18 to include solar end-use technologies that can cost-effectively¹²⁵ replace inefficient electric technologies.

19 f) General and Administrative Costs

20 The General and Administrative (G&A) elements for 2009-2011 consists of
21 various types of indirect administrative costs that are general in nature; these costs are allocated over the
22 entire program portfolio or subgroup of programs. G&A support costs include: regulatory and reporting,
23 finance and accounting, engineering, marketing, procurement, information and tracking systems,
24 memberships, internal communication, job skills training, operations management, audit, internal

¹²⁵ Per the Energy Efficiency Policy Manual, Version 3.1, dated January 8, 2008, Section IV.1 through 7 , pp. A-6 to A-8 and D.07-11-004, OP# 4, p. 12.

1 review, quality assurance, planning, and legal support. The G&A allocation is based on programs’
2 budget, which represents the scope of work for the program receiving the G&A support.

3 **2. Third Party Contracts**

4 a) Process, Criteria, and Statewide Consistency

5 (1) Overview

6 While SCE’s energy efficiency program portfolio includes a variety of
7 programs addressing a broad range of market segments, SCE recognized that there may be new
8 opportunities that have not yet been identified, new markets that can be more effectively targeted, and
9 market players who can leverage their relationships or expertise within an industry very effectively.
10 Consistent with Commission direction to conduct a competitive bid “for the purpose of soliciting new
11 ideas and proposals for improved portfolio performance,”¹²⁶ SCE’s third party competitive solicitation
12 process is a comprehensive and multi-faceted approach that draws from the skill, experience, and
13 creativity of the energy efficiency community with the goal of enhancing current program design and
14 uncovering new approaches to capturing cost-effective energy efficiency. Additionally, the program
15 solicitations promote comprehensive energy efficiency approaches, and focus on new ways to integrate
16 demand side management offerings. SCE’s 2009-2011 third party programs include a combination of
17 continuing programs from the 2006-2008 cycle and newly selected programs from the solicitations held
18 between November 2007 and June 2008.

19 SCE offers two unique categories of solicitations for 2009-2011: general
20 and targeted. General solicitations allow bidders to design and submit their own program proposals to
21 help SCE fill gaps within its energy efficiency program portfolio and develop newer methods or
22 program designs. Targeted solicitations support identified markets and program needs. SCE offered
23 local targeted solicitations for identified market sector needs, and also participated in a statewide
24 targeted solicitation.

¹²⁶ D.05-01-055, Section 5.2.1, p. 94.

1 in these programs are necessary to help find the next generation of cost-effective energy efficiency
2 programs.

3 (4) Targeted - Statewide and Local Solicitations

4 Three of SCE's Targeted Requests for Proposals (RFPs) were coordinated
5 with the other IOUs. The coordinated RFPs gave bidders the opportunity to submit proposals to offer
6 their program in one, multiple, or all IOU service territories. The Statewide Targeted Solicitations were
7 single stage because the RFP defined the broad program scope, eliminating the need for screening the
8 proof of concept. Statewide Targeted RFPs¹²⁷ were issued for the following three program areas on a
9 statewide basis:

- 10 • Manufactured Housing New Construction
- 11 • Energy Efficiency Program for Entertainment Centers
- 12 • K-12 Private Schools and Colleges Audit and Retrofit Program

13 (5) Local Targeted Solicitations

14 SCE also identified various program areas within its portfolio that would
15 benefit from the focused efforts of a third party implementer. Thus SCE issued an RFP for each targeted
16 area that included broad program expectations, target market sector, technologies but looked to the
17 bidder to propose a program design and implementation plan. The objective of the local Targeted
18 Solicitations was for the winning proposals to contribute improvements to program implementation and
19 design through new and innovative approaches.

20 The Local Targeted Solicitations were single stage because the RFPs
21 defined the broad program scope, eliminating the need for screening the proof of concept. SCE issued
22 Local Targeted RFPs¹²⁸ for the following eleven program areas:

- 23 • Efficient Affordable Housing
- 24 • CA New Homes Multi-Family

¹²⁷ The results of these programs solicitations are shown in Exhibit SCE-2, Table 3.4.

¹²⁸ The results of these programs solicitations are shown in Exhibit SCE-2, Table 3.4.

- Campus Housing Energy Efficiency Program
- Industrial Market Segment Program
- Agriculture and Water Systems Market Segment Program
- Commercial and Small Business Segment Program
- Residential/Light Commercial HVAC Program- Technology Commercialization
- Residential/Light Commercial HVAC Program- Quality Maintenance
- Public Schools, Governments and Institutions Program
- Comprehensive Manufactured Homes Program
- Community Language Efficiency Outreach Program
- Nonresidential Direct Install Program
- Newly Developing and Specialty Use Program
- Sustainable Communities

(6) [Solicitation Process](#)

SCE grouped several individual RFPs into single “flights.” SCE had several grouping or “flights” as part of its program solicitation process. These “flights” were released over time during November 2007 through April 2008. This is a new approach adopted by all IOUs for the 2009-2011 cycle, allowing bidders greater opportunity and more time to respond to multiple RFPs instead of releasing all RFPs at one time. The flight schedules were coordinated and adopted by all IOUs, with the longest two-stage RFPs released in earlier flights, and the shorter solicitations positioned in the later flights. Flight #1 included the Statewide General and SCE’s local IDEEA Solicitations, Flights #2-4 included Statewide and Local Targeted RFPs, SCE did not participate in Flight #3, as these solicitations were moved to Flight #5 in order to provide more time to develop SCE’s RFPs for this flight. SCE launched Flight #5 in late April 2008, which was primarily designed to support SCE’s new approach (*i.e.*, vertical market segmentation) to the nonresidential sectors, through a local targeted solicitation.

1 (7) Proposal Evaluation

2 The proposal review process involved an extensive evaluation of each
3 proposal based on scoring criteria jointly developed by the IOUs and reviewed by the Peer Review
4 Groups. To ensure a thorough, fair and consistent evaluation of all aspects of the proposals, SCE
5 established the following evaluation process:

- 6 • Overall Program Scoring – Each proposal was scored by a team
7 consisting of the SCE market sector lead or program manager who
8 specializes in the RFP’s subject area.
- 9 • Technical Review – A technical review was performed of each
10 proposal’s technical documentation and E3 calculators to ensure that
11 consistent review protocols were followed.
- 12 • Supplier Diversity – SCE reviewed each proposal’s supplier diversity
13 components and calculated the supplier diversity score based on SCE’s
14 established protocol.
- 15 • Portfolio Review – Once scored, the proposals were ranked from high
16 to low within each RFP. SCE, then, assessed the strengths and
17 weaknesses of each program design and how it may or may not
18 coordinate with the overall portfolio. SCE optioned to rank proposals
19 higher if they were deemed to fit a portfolio gap and/or improve the
20 overall portfolio offering.
- 21 • Peer Review Group Review – SCE’s proposal scoring process and
22 results were presented to SCE’s local PRG for its review. The PRG
23 and SCE discussed each selection recommended by SCE and how it
24 contributed to the overall energy efficiency policy objectives.

1 (8) Criteria

2 The IOUs developed joint evaluation criteria for the Targeted¹²⁹ and
3 General Solicitations. The two sets of criteria slightly differed as follows:

- 4 • The Targeted Solicitations were single-stage and did not need
5 abstract evaluation criteria because the program area of the
6 Targeted Solicitations was defined in each RFP. As the
7 program scope was outlined in the RFP, it was not necessary to
8 include portfolio fit as a scoring criteria.
- 9 • For the two-stage General Solicitation, the abstract evaluation
10 criteria was similar to the scoring criteria for the full proposal
11 except that the abstract stage did not require the submission of
12 an E3 Calculator, so a full cost-effectiveness showing could not
13 be evaluated. From past experience, requirement of a full E3
14 Calculator showing, in the abstract stage, is too costly and
15 burdensome for bidders and typically reduces the number of
16 potential bidders. Instead, the IOUs developed a more
17 streamlined cost efficiency worksheet which approximated
18 cost-effectiveness for the purposes of the abstract evaluation.

19 The following scoring criteria and corresponding weights were
20 used for all SCE General and Targeted Solicitations:

¹²⁹ SCE applied the Statewide Targeted Solicitation criteria to its Local Targeted Solicitations.

2009-2011 Scoring Criteria- General

Stage 1

Part 1: Abstract Responsiveness (Pass/Fail)

Part 2: Abstract Evaluation

A. Program Implementation and Feasibility	50%
B. Cost Efficiency	30%
C. Skill and Experience	20%
Total	<hr/> 100%

Stage 2

Part 1: Proposal Responsiveness (Pass/Fail)

Part 2: Proposal Evaluation

A. Program Implementation and Feasibility	50%
B. Cost-effectiveness	30%
C. Skill and Experience	10%
D. Supplier Diversity & Miscellaneous	10%
Total	<hr/> 100%

2009-2011 Scoring Criteria- Targeted¹³⁰

Part 1: Proposal Responsiveness (Pass/Fail)

Part 2: Proposal Evaluation

A. Program Implementation and Feasibility	35%
B. Cost-effectiveness	30%
C. Skill and Experience	25%
D. Supplier Diversity & Miscellaneous	10%
Total	<hr/> 100%

(a) Statewide Consistency

For 2009-2011, SCE, in coordination with the IOUs, streamlined the solicitation process to solicit and accept bids on a statewide level. This process was designed to provide bidders with an opportunity to respond to one statewide RFP for each statewide program, thereby improving the quality of the proposals, streamlining the utilities' process, and simplifying the

¹³⁰ SCE applied the Statewide Targeted Solicitation criteria to its Local Targeted Solicitations.

1 bidders' process. The IOUs developed common outreach, solicitation process, flight schedule, scoring
2 process and criteria, and developed a statewide on-line portal (PEPMA) that included all IOU
3 solicitation information for bidders, IOUs, and the PRGs. The submission, review, and scoring of
4 proposals were handled individually by each IOU. Additionally, the IOUs issued three statewide
5 targeted bids for common programs, utilized one common RFP for each, and jointly issued a Statewide
6 General RFP. This is the first time IOUs have created a process by which potential bidders had an
7 opportunity to respond to a common RFP for program implementation throughout all IOU service
8 territories.

9 To ensure selected programs offer a consistent statewide program,
10 the IOUs will form statewide teams assigned to each statewide program to ensure consist
11 implementation across IOU service territories. In support of the 2009-2011 statewide solicitation
12 process, the following steps were taken by the IOUs as part of the collaborative planning process:

- 13 • IOUs jointly developed a shared timeline for all key
14 milestones, flights, and bidder deadlines.
- 15 • IOUs compiled a master list of all 2006-2008 third party
16 implemented energy efficiency programs.
- 17 • IOUs cross-referenced the 2006-2008 third party implemented
18 programs, discussing program scopes to understand which
19 programs were similar across utilities.
- 20 • IOUs jointly developed a set of criteria, in consultation with
21 the combined PRG (*i.e.*, participating members of all three
22 PRGs), to identify 2006-2008 third party programs to be
23 renewed for the 2009-2011 program cycle.

- Per. D.07-10-032,¹³¹ IOUs analyzed current program status of existing third party programs, and determined which were eligible for renewal.
- Of the remaining programs, other successful program designs were adopted statewide, where feasible¹³² but RFPs were only issued in IOU service territories which did not have the program as part of the 2006-2008 portfolio. These program designs were sought through local targeted solicitations. In three cases, the IOUs identified programs where there was a need to issue an RFP in all four IOU service territories. These three programs were sought through Statewide Targeted solicitations.
- Additionally, all IOUs issued a joint statewide general bid.

Each statewide solicitation was coordinated by a lead IOU that was responsible to coordinate the development and release of the RFP in close coordination with the other IOUs. Bidders had the option to bid into any number of service territories, and were not required to respond with a bid proposing a program that covers all four IOU territories. The IOUs implemented other mechanisms that facilitated common statewide solicitation, including:

- Statewide Call for Abstracts and RFP – The IOUs used the same call for abstracts and RFP documents for the two-stage Statewide General Solicitation.
- Statewide Targeted RFPs – The IOUs used the same RFP documents for the Statewide Targeted RFPs.

¹³¹ D. 07-10-032, dated October 18, 2007, OP# 15, p. 145.

¹³² Certain programs targeted discrete market segments which did not exist in all service territories (e.g., no dairy farms in SDG&E's service territory).

- 1 • Local Targeted RFP Templates – The IOUs agreed to the
2 same program, cost, and technical submission
3 requirements. Each IOU used their targeted solicitation
4 requirements into the statewide RFP template.
- 5 • Statewide Portal – The IOUs developed a statewide web-
6 based solicitation portal (PEPMA) that allowed bidders to
7 register on-line to receive RFP notifications, upload
8 proposals electronically, and store electronic versions of
9 solicitation documents in each IOU’s “virtual room.”
10 Bidders were required to submit hard copy proposals to
11 satisfy SCE’s Procurement requirements, however the
12 portal provides a common interface for the IOUs, PRG
13 members, and bidders.
- 14 • Statewide Bidder’s Training – The IOUs required all
15 bidders to attend a mandatory training via webinar to
16 review the work paper and E3 calculator requirements. The
17 IOUs jointly offered training in support of each flight
18 unless an IOU did not have an RFP within a particular
19 flight.
- 20 • Statewide Scoring Criteria – D.07-10-032¹³³ directed the
21 IOUs to use the 2006-2008 third party scoring criteria, and
22 combined components of each into one set of scoring
23 criteria. The IOUs jointly developed a common scoring
24 criteria for all statewide solicitations.

¹³³ Finding of Fact No. 23, p. 132.

1 b) Third-Party Programs Continued From 2006-2008

2 Consistent with D.07-010-032, SCE proposes to extend its successful third party
3 programs which were selected as part of competitive solicitation for the 2006-2008 program cycle into
4 2009-2011.¹³⁴ In an effort to further expand successful third party programs, SCE and the other IOUs
5 shared their lists of 2006-2008 successful programs. In order to facilitate the identification of successful
6 programs, the IOUs agreed upon a success criteria to be used to determine whether a program and/or
7 implementer was successful and should be continued into 2009-2011. During the development of the
8 review criteria, drafts were shared with the local PRG members for their insight. The criteria for
9 evaluating success of the programs included:

- 10 • Program Goals and Achievements – includes commitments – is program at or
11 ahead of contracted/revised forecast? If not, does implementer have a solid
12 plan to meet goals?
- 13 • Program Cost – Is the program’s actual levelized cost (Program Administrator
14 Cost test) equal to or less expensive than original forecast? If not, did
15 program change substantially from forecast to increase comprehensive or
16 incorporate new delivery strategies?
- 17 • Cost-effectiveness – Is the program’s actual Total Resource Cost greater than
18 or equal to original forecast? If not, did program change substantially from
19 forecast to increase comprehensiveness or incorporate new delivery
20 strategies?
- 21 • Actual Installed Measure Mix – Does the actual measure mix varies
22 substantially from the forecasted measure mix? Particularly, is the actual mix
23 less comprehensive, or does the end-use split vary dramatically from forecast?
- 24 • Customer Satisfaction/Program Quality – Does program have outstanding
25 complaints from customers or other implementers, or outstanding inspection

¹³⁴ D.07-10-032, dated October 18, 2007, pp. 74-75.

1 failures, excluding very recent issues that implementer has not had reasonable
2 opportunity to resolve yet?

- 3 • Coordination/Vendor Relationship – Is existing coordination agreement
4 working well? Is implementer proactively coordinating with other programs
5 and stakeholders, including utility account representatives and programs, other
6 third party programs, and local government partnerships? Is the vendor
7 cooperative, responsive, and meeting needs? Are their responses timely?
- 8 • Regulatory and Reporting Compliance/Audits – Are implementer's reports
9 accurate and on-time? Is implementer in compliance with all regulatory
10 requirements? Is the implementer responsive to audit data requests? Are
11 audit requests accurate and on-time?
- 12 • Energy Savings Claims – Are program/project savings claims clear, well
13 documented and defensible?

14 Additionally, per D.07-10-032,¹³⁵ only programs that were competitively bid in
15 2006-2008 could be considered for renewal to be included in the 20 percent requirement.

16 c) [Efforts To Expand Third-party Programs And Results Of Competitive Bid](#)
17 [Selection Process](#)

18 In order to find and fund the most promising third party programs and expand the
19 number of potential offerings, SCE worked with the IOUs to expand the call for abstracts/RFPs. The
20 IOUs shared outreach techniques including mailing lists with other IOUs, trade associates, and service
21 lists, to inform a greater number of potential bidders about upcoming program solicitations. As a result,
22 SCE sent various calls for abstracts to over 2,700 potential bidders. SCE's efforts to expand third party
23 programs included: (1) expanding targeted RFPs to incorporate programs designs from other IOUs
24 2006-2008 energy efficiency portfolio; (2) expanding SCE's 2006-2008 IDEEA program to statewide

¹³⁵ D.07-10-032, dated October 18, 2007, pp. 74-75.

1 programs in 2009-2011, and (3) developing the IDEEA 365 as a non-traditional method to expand
2 SCE's open solicitation offering and to provide additional outreach during 2009-2011.

3 SCE successful 2009-2011 program solicitation process included several new and
4 promising program offerings, as shown in Exhibit SCE-2, Table 3.4. These selected programs resulted
5 in the successful implementation of a statewide general solicitation, local innovative solicitation,
6 statewide targeted solicitation, and local targeted solicitation. SCE outreached to thousands of potential
7 bidders, received several hundred abstracts and proposals, and selected more than 28 program
8 implementers.

9 d) Review with Peer Review Group (PRG)

10 In D.07-10-032,¹³⁶ the Commission continued the role of the local PRGs for
11 2009-2011. Specifically, for SCE, the Commission continued the role of the combined SCE and SCG
12 PRG. The PRG role is to:

13 “(1) review the IOUs’ submittals to the Commission and assess the IOUs’
14 overall portfolio plans, including their plans for bidding out pieces of the
15 portfolio per the minimum bidding requirement, and (2) review the bid
16 evaluation utilized by the IOUs and their application of that criteria in selected
17 third-party programs. In addition, the three PRGs are expected to meet and
18 assess the statewide portfolio in terms of its ability to meet or exceed short
19 and long-term savings goals in compliance with the Rules.”¹³⁷

20 To support the Commission’s vision for the PRG, SCE engaged its local PRG
21 during the portfolio planning process. PRG activities included:

- 22 • Identifying the Energy Division as a liaison between SCE and the PRG to
23 facilitate and manage communications;
- 24 • Developing tracking mechanisms for monitoring and resolving PRG
25 related issues;
- 26 • Attending regular PRG meetings and conference calls;

¹³⁶ D.07-10-032, dated October 18, 2007, OP# 30, p.149.

¹³⁷ D.05-01-055 and Policy Rule VII.4

- Soliciting feedback from PRG members on third party abstracts, RFPs, and selection criteria, and
- Collaborating with the other IOU PRG liaisons to coordinate on statewide efforts.

Throughout the planning process, the PRG has provided recommendations and insights to refine and improve the development of the third party program solicitation process. Key PRG recommendations that SCE adopted in the solicitation process include:

- IOU should use the Statewide PRG’s recommended definition of innovation to be used in the RFPs.
- SCE should report on the reasons for technical failures.
- SCE should report on reasons for failures due to non-responsive RFPs. PRG also recommended that for technical failures, reliability of savings and cost-effectiveness criteria categories should be zeroed out.
- SCE should develop a PRG summary sheet for each solicitation to include measure mix by percentages, with scoring variation comments (for low and high scores).
- SCE should report back to the PRG after negotiations on contract status, changes to contracts, and/or programs that fell out of negotiations.
- SCE should develop a PRG library in the on-line web portal (*i.e.*, PEPMA) to facilitate sharing and transferring of PRG documents.
- SCE should develop a PRG view to allow the PRG to see all proposals submitted in PEPMA.

SCE meets with the PRG during each phase of the third party program solicitation process including: (1) initial scope and schedule; (2) development of RFPs and scoring criteria, and (3) scoring and selection of the program proposals. SCE appreciates the insights and contributions of its PRG during this very involved and lengthy process and looks forward to their continuing support during the 2009-2011 program solicitations.

1 e) Implementer Contracts

2 SCE has gained valuable experience over the past several years in developing and
3 administering third party contracts. Based on this experience, SCE proposes to create third party
4 contracts that: (1) promote a “pay for performance” approach while minimizing reliance on “time and
5 material” contracting; (2) allow for immediate execution of third party contracts upon Commission
6 approval of 2009-2011 program portfolio; (3) emphasize greater comprehensive approaches (*e.g.*,
7 multiple end uses); (4) promote DSM integration and coordination, and (5) allow for increased funding
8 for successful installation of energy efficiency projects while providing for program closure for non-
9 performing programs. Reliance on these sound contracting approaches will allow successful programs
10 to continue to play an integral role in achieving SCE’s 2009-2011 energy efficiency goals.

11 (1) Pay For Performance Contracting

12 In order to limit exposure to investments in programs that do not achieve
13 or marginally achieve contract milestones (*e.g.*, installed energy efficiency projects), SCE proposes to
14 award contracts with a not-to-exceed cap of 25 percent (of non-incentive funds) for time and materials
15 work, and a 75 percent fixed unit price component, based on “pay-for-performance”. Depending upon
16 on the program circumstances, SCE may modify these proposed caps. In addition to energy savings
17 goals, other milestones may be included in the contract to track each program’s progress toward meeting
18 its energy savings targets. In this way, limited funds and valuable time are not compromised by
19 contracts that allow funds to be expended over a significant period of time without realizing program
20 results.

21 (2) Timely Execution Of Contracts

22 SCE proposes to complete negotiations and execute contracts immediately
23 upon Commission approval of the 2009-2011 program portfolio. This will allow for timely
24 implementation of the third party programs. SCE will work with the implementers during contract
25 negotiations to fully substantiate each program energy saving’s estimates, finalize program work papers,
26 and update the E3 Calculators. However, SCE and the third party may agree not to execute a contract
27 for variety of reasons (*e.g.*, energy savings assumptions flawed, technology unavailable, *etc.*). In such

1 cases, funds will be used for future 2009-2011 “in-cycle” program solicitations and/or other areas of the
2 portfolio.

3 As for contract completion, depending on the program design, program
4 implementation will extend through the end of 2011 with “wrap-up” work (*e.g.*, final reporting, final
5 invoicing/payment, installations, inspections, *etc.*) possibly continuing through mid-2012. However,
6 implementation activities (*e.g.*, new customer commitments, marketing/outreach, *etc.*) are planned to
7 conclude by end of 2011.

8 (3) [Emphasize Greater Energy Efficiency Comprehensiveness](#)

9 As the energy efficiency goals increase over time, cost-effective energy
10 savings and demand reduction opportunities become more difficult and costly to harvest. In response,
11 SCE will encourage third party implementers to offer more comprehensive approaches to customers,
12 where feasible and reasonable. SCE will strive to have contracts that include provisions for adding new
13 measures implementers during the course of the program implementation. The ability to add new
14 measures during program implementation will help facilitate a comprehensive approach at a customer
15 site. In addition, contracts will require program implementers to be familiar with the other program
16 offerings within SCE’s portfolio, including other third-party programs and local government
17 partnerships, where appropriate. Contracts will also require that program implementers refer customers
18 to these other programs, as appropriate and practicable. This approach will typically limit the number of
19 visits to customer sites, thereby, potentially reducing lost opportunities and costs.

20 (4) [Promotion Of DSM Coordination And Integration](#)

21 SCE proposes to design contracts that allow for greater coordination
22 and/or integration of DSM offerings. Typically this will include capturing “leads” for other DSM
23 offerings (*e.g.*, demand response) to increase participation in those programs.

24 (5) [Mid-Cycle Program Funding Augmentation And Program Cancellations](#)

25 At times, third party programs may experience greater demand than
26 originally planned. Conversely, programs may experience little to no demand. SCE will create

1 contracts that are designed to allow for such occurrences. In these cases, SCE will augment funding
2 during the cycle (*i.e.*, mid-cycle) to better react to market demand.

3 **3. Partnerships**

4 a) Proposed Local Government Partnership Structure And Statewide Consistency

5 SCE has refined and strengthened SCE's 2009-2011 partnership portfolio to
6 enhance partner benefits, increase cost-effectiveness, and improve the consistency and transparency of
7 the selection of local government partnerships (LGPs). The major change in SCE's partnering strategy
8 has been the selection and development of LGP programs.

9 SCE's new Energy Leader (EL) model for local governments improves the
10 current local government partnering strategy – and with it the CEESP – by establishing a disciplined
11 approach for local agencies to realize energy savings. Partners demonstrate leadership and
12 environmental stewardship by taking action in their own facilities as well as engaging local business and
13 residential customers to participate in DSM programs. The enhancements are based on the following
14 premises:

- 15 • The level of support that the utility provides will be tiered based on the level
16 of energy efficiency achieved in municipal facilities and throughout the
17 community.
- 18 • The type of support available to local governments can be a combination of
19 incentives, technical support, marketing, and education, depending on the
20 specific needs of the community. However, the amount available for support
21 is commensurate with a city's energy savings commitment, using a consistent
22 calculation methodology.
- 23 • The incremental tiered support provided must be cost-effective.

24 SCE partnership support local governments in the establishing of community-
25 wide goals and strategies. The program:

- 26 • Provides increased levels of support based on the City and the Community's
27 past participation in energy efficiency programs as well as future energy

1 savings commitments for city and community using a consistent calculation
2 methodology;

- 3 • Co-brands program offerings and provides joint outreach to communities.
4 The partners will leverage their local infrastructure to initiate outreach of
5 energy efficiency and deepen the reach of energy efficiency programs and
6 services;
- 7 • Acts as an outreach portal for energy services (*e.g.*, energy efficiency, demand
8 response, self-generation, solar, low income energy efficiency, *etc.*);
- 9 • Synchronizes with future green community concepts supported by the
10 Commission and the utilities statewide, and
- 11 • Assists local governments to improve compliance with codes and regulations.

12 Partners enter the model at varying levels depending on past participation in
13 energy efficiency programs at the city/county and community level.

14 The new Energy Leader model’s goal is to be cost-effective and in alignment with
15 Commission criteria. All interested SCE cities pursuing a long-term sustainability strategy qualify as
16 Energy Leader Partners. Joint Powers Authorities and non-profits representing groups of cities can also
17 qualify for partnerships.

18 Partnership levels are:

- 19 • Valued Partner Level – this level is the entry level for partners to develop
20 knowledge and establish goals towards the Silver Level. A budget is available
21 for marketing, education, and outreach to the community, and for technical
22 assistance toward the partners’ facilities. Although there would be no
23 enhanced incentives, the partner is expected to generate verifiable energy
24 savings in their own facilities and in the community using the marketing and
25 outreach funds.
- 26 • Silver Level – this level requires the partner to demonstrate past participation
27 in energy efficiency programs, develop an energy action plan, set community

1 and city energy reduction goals, and target city facilities to complete energy
2 efficiency upgrades and participate in demand response. An enhanced
3 incentive is paid at the Silver Level.

- 4 • Gold Level – this level offers higher incentives for energy efficiency projects
5 at the partner’s facilities. To qualify for this level, the partner demonstrates
6 higher past participation in energy efficiency programs, establishes higher city
7 and community program participation and energy savings goals, and
8 demonstrates a higher level of participation in demand response.
- 9 • Platinum Level – this level offers the highest incentives for partner energy
10 efficiency projects at partner facilities, and offers additional incentives for
11 community energy efficiency projects. To qualify for this level, the partner
12 demonstrates even higher past participation in energy efficiency programs, is
13 innovative, and integrates Energy Action Plan policies, ordinances and
14 procedures. All facilities are targeted for energy efficiency upgrades and the
15 partner makes a higher commitment to participate in demand response.

16 b) [Statewide Consistency](#)

17 The Commission hosted workshops on January 29 and 31, 2008, to jointly solicit
18 existing local government partner input on partnerships moving forward into the new cycle. The IOUs
19 drafted 2009-2011 partnership selection criteria to reflect this input and improve statewide consistency.
20 With input from members of the PRG, the IOUs also jointly developed a Call for Abstracts (CFA), a
21 CFA schedule, and a pre-announcement notice.

22 Additionally, the IOUs worked together to develop a similar evaluation process
23 and document to capture the evaluators’ scores. SCE scored each proposal independent of the other
24 IOUs.

25 c) [Government and Institutional Partnership Opportunities:](#)

26 As the awareness and success of the government and institutional partnerships
27 grow, more government agencies and institutional customers may wish to form partnerships. SCE

1 proposes to reserve a budget for these partnerships should they materialize during the course of the
2 three-year program cycle.

3 In order to create a new partnership, the government agency would develop an
4 abstract similar to those used in the initial program planning for the 2009-2011 program cycle. If the
5 partnership is with SCE only, the abstract would be submitted to SCE. SCE would then review the
6 abstract and evaluate according to the original evaluation criteria, as well as the availability of remaining
7 funds. If the proposed partnership appears viable and there are sufficient funds remaining, SCE will
8 work with the partner to create a formal partnership. If the partnership is statewide, the development
9 will be coordinated with the participating IOUs to ensure consistency in program development, program
10 implementation plan, incentive rates, management, and reporting.

11 d) [Local Government Partnership Selection Criteria And Process](#)

12 D.07-10-032 gave the PRG oversight over the selection of local government
13 partnerships.¹³⁸ The development of selection criteria for the 2009-2011 Local Government
14 Partnerships was a collaborative process that included the local governments themselves, the IOUs, and
15 PRG members.

16 On January 29 and 31, 2008, the Commission held a workshop with existing local
17 governments to discuss strategic planning and potential criteria for 2009-2011 partnerships. Local
18 governments suggested several criteria that would leverage the uniqueness of local governments to
19 create change. The IOUs used these suggestions to develop a draft document for review by the PRG.
20 The IOUs and the PRG met in February 2008 to discuss and refine the criteria. The IOU's final list of
21 criteria included:

- 22 • Cost Efficiency
- 23 • Skill and Experience
- 24 • Demonstrated Commitment
- 25 • Municipal Facility Buildings
- 26 • Feasibility
- 27 • Integrated Approach

¹³⁸ D.07-10-032, dated October 18, 2007, p. 103

- Comprehensiveness
- Innovation and Reflects Strategic Plan

A pre-announcement was sent to all cities, counties, and local government organizations, and appropriate non-profit organizations on February 11, 2008, alerting them that the Call for Abstract (CFA) would be released on February 21, 2008. SCE and existing partners supported the distribution of the abstract in SCE’s service territory.

Eligibility requirements to become a partner were also developed among the IOUs, with input from PRG members. For 2009-2011, new partnerships will be with government or non-profits that work directly with government entities, government associations, and joint powers authorities. A CFA was drafted by the IOUs, with review and input from members of the PRG. The CFA was issued on February 21, 2008, and required interested partnerships to submit their abstracts by March 10, 2008.

Abstract evaluations consisted of two parts – the responsiveness of the Abstract and its scoring (for Abstracts that meet the minimum threshold requirements). The IOUs first evaluated whether the Abstract met the threshold requirements on a pass/fail basis. Only Abstracts that received a “pass” were further scored according to the criteria and weights listed below:

Table IV-15
Abstract Evaluation Criteria

Item	Criteria	Weights
Part 1: Threshold Requirement		
A.	Abstract Responsiveness	Pass/Fail
Part 2: Proposal Scoring		
A.	Cost Efficiency	20%
B.	Skill and Experience	10%
C.	Demonstrated Commitment	10%
D.	Municipal Facilities	15%
E.	Feasibility	10%
F.	Integrated Approach	10%
G.	Comprehensiveness	10%
H.	Innovation and Reflects Strategic Planning Process	15%

e) [Review With Peer Review Group](#)

Scores for each partnership were recorded in the summary sheet submitted to PRG members on March 19, 2008 along with the actual abstract. SCE and the PRG members reviewed and discussed evaluation scores together on March 27, 2008.

PRG members provided formal feedback by way of a memorandum to government agency staff proposing local government partnership programs and to IOU staff regarding PRG member input on LGP programs. The purpose of the memorandum was to ensure that local government partnership programs embody the spirit of the new paradigm of the CEESP. SCE continues to work with the partners to improve and align the program plans.

f) [PRG Recommendations And Responses](#)

The PRG members provided suggestions on the development of the selection criteria including:

- The definition of a quasi government partnership and that meeting the definition of Partnership should be a threshold criteria;
- Threshold criteria would include meeting the definition of “partnership”;
- The addition of the “innovation and reflects strategic planning” criteria;
- Clarifications to the criteria definitions and sub-criteria descriptions (*e.g.* incorporated suggestion to clarify “skill and experience”, criteria to include experience with “related projects”, *etc.*);
- Criteria weighting should look similar to the third party weighting;
- Specific changes to the weighting of the criteria (*e.g.* increased weighting for “innovation and reflects strategic plan” and decreased weighting for “feasibility”), and
- Recommendation to send out the draft criteria to existing partners and obtain feedback.

Listed below are the key suggestions from PRG members that were incorporated into the CFA document and process:

- Existing partners would need to submit abstracts, comply with CFA criteria, and be scored;
- Private sector firms and others who did not fit the new definition of partner would need to change their structure to comply;
- Edits to CFA language and format (*e.g.* length of partners abstracts and further clarity to criteria definitions);
- Pre-announcement should be sent out to local governments and agencies; and
- Local government abstracts would be sent to the PRG for review.

g) [Partnerships Comply With Energy Efficiency Policy Manual](#)

The IOUs and PRG members developed criteria that could be supported by the existing energy efficiency policies with two exceptions- “integration” and “innovation and reflects strategic plan.” Currently, the Energy Efficiency Policy Manual states that the partnership arrangements

1 “should in no way diminish or dilute the responsibility and accountability of Program Administrators to
2 meet the Commission-adopted savings goals.”¹³⁹ Therefore, potential partners were asked to identify
3 those innovative and strategic plan elements separately, along with the applicable budgets.

4 Although integration of other energy programs including demand response and
5 solar were a criterion, incremental funding to support these activities would need to come directly from
6 the appropriate program.

7 Additionally, SCE intends to use the 2006-2008 Partnership Agreement as the
8 basis for 2009-2011 partnerships. The 2009-2011 contract templates will be substantially similar to
9 2006-08 templates that were developed to meet policy requirements that address the rights and
10 responsibilities of the partners, program flexibility, information sharing, intellectual property ownership,
11 reimbursement turn-around, and dispute resolution. Modifications may be made to reflect the
12 individuality of the different partnerships and clarification of existing language.

13 h) [Palm Desert Partnership](#)

14 In 2006, SCE submitted a five year pilot demonstration project with a goal of
15 reducing energy consumption and peak demand by 30 percent. The approval for the project by the
16 Commission¹⁴⁰ on December 14, 2006, directed SCE to file the additional three years with the 2009-
17 2011 energy efficiency program Application. This project emphasizes the early retirement of single
18 speed pool pumps with variable speed pool pumps, the early retirement of central HVAC units, both
19 residential and commercial, and a continuation of community sweeps. Heavy emphasis will also
20 continue on the promotion of SCE's existing, core programs in addition to those available on this
21 program.

22 Results from operations in year one of this five-year project show that
23 participation in energy efficiency increased by more than a factor of four since the partnership launched
24 its program.

¹³⁹ Energy Efficiency Policy Manual v.3.1, dated January 8, 2008, Rule 5, p.A-13.

¹⁴⁰ D.06-12-013, dated December 14, 2006, OP#1, p. 27.

1 The project seeks to develop an energy management system for residential and
2 small commercial customers and pioneer methods to both affect and measure energy savings associated
3 with behavioral changes. Additional ordinance changes will be considered to build upon the successes
4 of the city-wide energy ordinance launched in January of 2007. A new method of financing energy
5 efficiency projects is under development for launch in 2009. AB 811, passed by the state legislature and
6 pending senate vote, may allow local governments to provide energy efficiency loans to its businesses
7 and residents and collect the payments through property taxes. This financing mechanism will be
8 available for any community in California and is expected to result in a substantial increase in program
9 participation. A full program implementation plan for the Palm Desert Demonstration Project is in
10 Exhibit SCE-4.

11 **4. Summary Of Market Transformation Strategies**

12 Key market transformation strategies are summarized in Section IV.A.5, “Portfolios are
13 designed to overcome barriers to market transformation and to advance integration”. Additional details
14 are also discussed in the Program Implementation Plans in Exhibits SCE-3 and SCE-4.

15 **5. Proposals For On-Bill Financing**

16 a) Small Business And Institutional Customers

17 As guided by the CEESP, for 2009-2011, SCE proposes to build on the success of
18 the On-Bill Financing (OBF) Pilot conducted during the 2006-2008 program cycle. In this cycle, OBF
19 was offered to qualified convenience store and small grocery store customers electing to participate in a
20 direct install energy efficiency program. The pilot program required a minimum loan amount of \$5,000
21 and a maximum loan term of five years.

22 The CEESP¹⁴¹ identified OBF as an option in many customer segments. Provided
23 adequate eligibility standards and enforcement mechanisms are in place to limit risk to SCE’s
24 ratepayers. SCE proposes to extend OBF as a financing option to qualified small commercial and
25 institutional customers (including governmental) undertaking approved improvements.

¹⁴¹ California Energy Efficiency Strategic Plan, dated June 2, 2008, pp. 3-15 to 3-16, 5-16, and 12-7.

1 OBF is a standardized non resource offering designed to be leveraged by multiple
2 resource programs, rather than a targeted resource program as in 2006-2008. SCE proposes to offer an
3 OBF financing option for the nonresidential retrofit energy efficiency programs under Business
4 Incentive Elements (both calculated and itemized), as well as for many of the market segment programs
5 implemented by third party contractors that will deliver calculated and itemized measures to specifically
6 targeted market sub segments. OBF may become an important element in implementing the CEESP and
7 deploying energy efficiency.

8 The proposed 2009-2011 OBF program, an element of the Financial Solutions
9 Element program, is a significant expansion of the 2006-2008 pilot, with a proposed budget of
10 approximately \$26.3 million. In order to facilitate appropriate controls and tracking, SCE plans to set up
11 a separate balancing account for the purpose of tracking the loans. However, all loans will be funded
12 through energy efficiency funding, as set out in this Application. The operation of this account is
13 described more fully in Chapter VII, Revenue Requirements and Cost Recovery.

14 b) [Proposal For On-Bill Financing For Residential Customers](#)

15 In response to D.07-10-032 to further investigate the possibility of offering on-bill
16 financing to residential customers,¹⁴² SCE intends to conduct its investigation in collaboration with the
17 other IOUs. At this time, SCE does not offer OBF loans to residential customers. Our initial
18 investigation of the hurdles facing residential OBF include:

- 19 • High-cost residential energy efficiency measures requiring financing have
20 very long payback periods that are unlikely to meet the project payback
21 limit required for OBF loans. Loans with a long payback are likely to
22 increase the risk of defaults. For example, purchase of a four-ton 14-
23 SEER unit in an average climate zone (zone 9) would cost \$7,274 (after
24 rebates), with a payback period of 55 years.

¹⁴² D.07-10-032, dated October 18, 2007, OP# 13, p. 144.

- 1 • SCE’s OBF loans are non-transferable and have to be paid in full at the
2 time of account termination. These requirements have been put in place to
3 reduce loan defaults and minimize administration costs. Since residential
4 OBF loans are likely to have long paybacks, it is also likely that residential
5 customers with such loans will not complete their monthly payments at the
6 time of moving. The financial burden created by the necessity to pay the
7 remaining loan balance in full at the time of moving may negate the
8 intended benefits of OBF, and make the program less attractive to
9 residential customers.
- 10 • In California, residential financing has more involved lending laws than
11 commercial lending laws. To comply with these California lending laws,
12 there would be an additional administrative, reporting, and compliance
13 cost that would further add to program costs and may need to be passed on
14 to the customers. For example, SCE may be subject to obtaining a
15 commercial lender license that requires a very large annual license fee and
16 a bond. Currently, SCE has a finance lender license exemption for issuing
17 commercial loans under Financial Code Section 22100 of the California
18 Finance Lenders Law; a similar exemption would need to be obtained for
19 residential consumer loans.

20 **6. Proposed Program Delivery And Market Outreach**

21 a) **Proposed Marketing And Outreach Program**

22 Accomplishing the long-term goal of integrating demand side management
23 programs, maximizing energy savings, and changing customer behavior requires a multi-layered
24 marketing effort across all stakeholders with responsibility for energy efficiency in all sectors. An
25 effective marketing effort will move consumers through a continuum from awareness, to attitude
26 change, to action, as is articulated in the CEESP.

To move customers through the continuum from awareness to action will require both integrated and targeted marketing campaigns. While targeted marketing efforts will be funded exclusively by the program being promoted, the integrated campaigns will receive funding from multiple programs, such as the California Solar Initiative, Demand Response, SmartConnect™, Energy Efficiency and Low-income Energy Efficiency. Below is a summary of SCE’s approved, proposed, or anticipated marketing budgets (budgets exclude labor):

**Table IV-16
Summary of Marketing Budget**

PROGRAM	2009 to 2011 MARKETING BUDGET (non-labor)
AMI (SmartConnect™)	\$37,058,929
California Solar Initiative (CSI) ¹⁴³	\$1,500,000
Demand Response	\$21,711,450
Energy Efficiency	\$40,043,842
Low Income Energy Efficiency	\$1,425,000

By coordinating and integrating demand side management programs, as appropriate, SCE expects to increase energy efficiency participation, avoid lost opportunities, and provide simple and intuitive solutions for customers. Integrated bundled efforts are used to maximize delivery and gain more widespread awareness of our offerings, while targeted marketing efforts will continue in order to persuade high-potential customers to participate in key program activities, enabling the utility to meet program goals. These efforts will help the CEESP succeed. Marketing, education, and outreach efforts will:

- Integrate DSM programs to provide holistic solutions;
- Leverage SCE’s customer segmentation;
- Make it easy for customers to participate (easy to find information, easy to determine best course of action, easy to take action);

¹⁴³ 2009-2011 CSI marketing budget is estimated, based on actual 2008 CSI budget allocation.

- 1 • Create interactive “self-service” tools to enable informed choices by
- 2 customers;
- 3 • Leverage partnerships to extend reach (*i.e.* retailers, cities, community
- 4 agencies);
- 5 • Communicate with customers at the right time and channel throughout their
- 6 individual deployment lifecycle;
- 7 • Conduct pilots to test innovative programs and outreach tactics;
- 8 • Leverage advanced meter (SmartConnect™) technology to further educate
- 9 and inform customers on the benefits associated with the integrated DSM
- 10 programs, and
- 11 • Cross-sell to customers as appropriate.

12 b) Discussion Of Context And Funding Integration

13 (1) Demand Response And Advanced Metering Infrastructure (AMI)

14 As articulated extensively in the CEESP,¹⁴⁴ SCE plans to actively pursue
15 integrated DSM goals, and will evolve our goals even further in 2009 and beyond as a result of SCE’s
16 SmartConnect™ (AMI) technologies, equipment, and offerings. With the implementation of
17 SmartConnect™, SCE will be able to provide real time information to customers that can help them
18 make more informed decisions about their energy usage. Programs will be developed that give
19 customers both an incentive to save energy and help them reduce energy costs with varying levels of
20 participation.

21 As SmartConnect™ is rolled out, SCE will integrate bundled DSM
22 solutions into its marketing and communications efforts to customers about SmartConnect enabled rates
23 and offerings. An integrated, multi-media approach will be used to reach SCE’s diverse customer base.
24 SmartConnect™ technology will enable SCE to help customers better understand their energy usage and
25 its impact to their bill and the environment. Additionally, SmartConnect™ will provide the utility with

¹⁴⁴ California Energy Efficiency Strategic Plan, dated June 2, 2008, pp. 8-1 to 8-10.

1 an opportunity to conduct an integrated marketing campaign that shows customers how DSM programs
2 combined with SmartConnect™ rates and offerings can help them manage their energy costs.
3 Throughout the SmartConnect™ rollout, SCE will continue to leverage and integrate demand response
4 offerings, such as the Air Conditioner Cycling Program, Base Interruptible Program, *etc.*, into its
5 marketing campaigns and materials. These activities will advance the CEESP implementation.

6 (2) [California Solar Initiative, Including Commission And CEC Programs](#)

7 SCE will continue to promote the California Solar Initiative (CSI)
8 program to residential and business customers to increase awareness, participation, and application
9 submissions. For cost efficiency and maximum reach, CSI messaging will be included in ‘bundled’
10 marketing communications that present customers with the broad array of SCE’s energy efficiency and
11 DR solutions. Bill inserts, fact sheets, and training and educational materials will be developed to
12 promote the program. Vertical marketing efforts will be implemented to drive participation from
13 customers with the highest propensity to respond to the ‘go solar’ call to action.

14 Because a well-trained and appropriately resourced installer community is
15 critical to the ongoing success of the CSI program, SCE will continue to offer monthly installer
16 workshops covering a variety of solar-related topics including interconnection, net metering, shading,
17 *etc.* Training classes geared towards educating residential and business customers about the basics of
18 solar are currently under development. SCE will also utilize the internet as a cost-effective channel to
19 deliver web-based solar training to installers and customers.

20 SCE will work in partnership with the Commission to provide input
21 leading to the development of a long-term strategic plan (including budget requirements) for marketing
22 the CSI in 2009 and beyond. SCE will also identify opportunities to educate builders, new home buyers,
23 trade organizations, and other stakeholders about the New Solar Homes Partnership program (NSHP)
24 which provides incentives to homebuilders that incorporate high levels of energy efficiency and high
25 performing solar systems into new construction.

26 Providing customers with viable options to manage their energy use and
27 creating a culture that understands the importance of energy efficiency as a long-term investment is the

1 key to achieving market transformation. SCE will leverage the CEC's ongoing effort to educate
2 customers about the importance of asking for high levels of energy efficiency and high performing solar
3 systems when making a new home purchase.

4 (3) Low Income Energy Efficiency

5 As extensively discussed in the CEESP's section on the Low Income
6 Residential segment,¹⁴⁵ SCE will continue to reach out to low-income customers using direct mail, bill
7 inserts, outreach events, fact sheets, savings guides, seasonal campaigns, brochures, and sce.com to
8 increase program enrollment, and will expand energy efficiency and LIEE in-home education to
9 leverage information on green house gas and SmartConnect™. SCE will work to identify program
10 design gaps between energy efficiency and LIEE and evaluate solutions to ensure that all customers
11 have the opportunity to accelerate adoption of energy efficiency.

12 (4) Distributed Generation

13 SCE continues to administer the Self Generation Incentive Program
14 (SGIP) that provides economic incentives to customers using clean, renewable, and efficient distributed
15 generation technologies such as fuel cells and wind turbines. SCE will continue to facilitate and
16 promote the use of cost and energy efficient distributed generation applications by its customers. SCE
17 will also participate with the Commission, CEC, and other research organizations to simplify and
18 streamline interconnection processes for Distributed Generation and to develop rates and tariffs that
19 fairly allocate costs while reducing perceived barriers to the use of customer owned and operated
20 distributed generation facilities.

21 7. Proposed Training Programs

22 a) Overview

23 The Workforce Education and Training (WE&T) portfolio promotes energy
24 efficiency and other DSM offerings through a variety of training and educational programs across
25 residential and nonresidential customer segments. WE&T's overarching goal is to continue the

¹⁴⁵ California Energy Efficiency Strategic Plan, dated June 2, 2008, pp. 2-21 to 2-36.

1 transformation of California’s business and residential customers to integrate energy efficiency into
2 consumers’ everyday decisions.

3 b) Proposed Strategies and Training Programs

4 As identified in the CEESP,¹⁴⁶ the WE&T Program Portfolio achieves its goals
5 through the implementation of the following strategies:

- 6 • Implement activities needed to initiate and drive long-term WE&T development
7 and strategic planning.
- 8 • Establish partnership with K-12 stakeholders to ensure energy education is
9 provided in primary grades and continued through high school; curriculum and
10 outreach to include energy efficiency fundamentals and career potential in energy-
11 related fields.
- 12 • Support the community college and adult education efforts to allow students to
13 develop their education based on their career paths. Ensure that there are
14 appropriate linkages with the K-12 educational sector. Utilize this sector to
15 provide technical energy training.
- 16 • Assist with the current need for technically trained installers, energy auditors and
17 building energy operators through training. Incorporate energy efficiency into
18 traditional contractor roles such as plumbers and electricians.
- 19 • Create or expand four-year and graduate College and University programs with
20 energy demand side management focus (*e.g.* establish partnerships with K-12
21 stakeholders, support community colleges, assist with need for technically trained
22 installers, *etc.*).

23 SCE also plans to initiate a needs assessment study, which will act as the
24 foundation for the 2009-2011 plan moving forward. The study will be used to guide the development of

¹⁴⁶ California Energy Efficiency Strategic Plan, dated June 2, 2008, pp. 9-2 and 9-6 to 9-10.

1 new workshops and seminars, determine key technical and non-technical subject matter, and design
2 effective ways to deliver educational messages, all aligned with WE&T strategic goals and the BBES.

3 Each of the five strategies will be further defined and reviewed through a
4 collaborative effort of stakeholders as identified in the CEESP. After the needs assessment has been
5 completed, the WE&T stakeholders will prioritize the strategies and determine which WE&T sub-
6 program would be most effective in addressing each. As laid out in the CEESP,¹⁴⁷ under the guidance of
7 the needs assessment report, SCE's anticipates WE&T will provide training and workforce development
8 opportunities through:

- 9 • Outreach to more participants in its education activities. Workshops and
10 training classes will focus on specific technologies and tools that can assist
11 customers in saving energy.
- 12 • Integration of comprehensive energy efficiency and DSM technology training.
13 SCE integrates information from other programs and services offered by
14 outside entities; these include the CEC, EPA, DOE, universities and colleges,
15 trade associations, labor unions, manufacturers, and others.
- 16 • Collaboration with statewide IOU program groups. This includes sharing
17 workshop/seminar curriculum, instructors, and class schedules.
- 18 • Partnerships with the CEC and other organizations that can contribute
19 technical resources. SCE will tap into work done by the CEC's PIER projects
20 and with other programs such as 2007's Water Conference conducted in
21 partnership with the University of Wisconsin.
- 22 • Interaction with community colleges, trade colleges, and the UC/CSU system.
23 This will leverage their technical expertise and established structure to support
24 WE&T's goal of broadening access to energy efficiency information and
25 training.

¹⁴⁷ California Energy Efficiency Strategic Plan, dated June 2, 2008, p. 9-6.

- Exploration of the use of webinars and on-line training options.
- Leveraging of SCE’s process for integrating emerging technology products into training materials, communication mediums, and displays for use by the energy centers and customer contact representatives.
- Training for designers, engineers, and other industry participants, focused on energy regulation changes. Code change education is important to ensure industry participants are informed of the impact the code changes will have, and more importantly what design strategies, technologies, and IOU program services and incentives can be used to meet and surpass the code requirements.

c) [Outreach to Low-Income, Minorities and Disadvantaged Communities](#)

SCE’s EARTH Education and Training Program, CLEO, and MEUs bring their services to schools, school districts, and communities in areas where low-income, minorities, and disadvantaged community constituents can be reached. The programs’ activities and services teach students and residents to keep energy efficiency practices in mind throughout their day whether at school, work, or at home. In addition, to further one’s ability to continue learning about energy efficiency, SCE plans to disseminate information on available training and where additional energy efficiency resources can be found. This approach is described in the CEESP.¹⁴⁸ Examples include:

- Leveraging the Governor’s Career Technical Education Initiative (CTE). CTE integrates core academics with technical and occupational courses to give students a pathway to post-secondary education and careers.
- Conducting professional development workshops for all new school teams annually. The purpose of the workshops is to orient teams to the program and providing instruction and guidance in planning and implementing their Green Schools activities.

¹⁴⁸ California Energy Efficiency Strategic Plan, dated June 2, 2008, p. 9-10, see also pp. 2-24 and 4-11.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20

- Conducting Student Energy Audit Training (SEAT) programs in at least three high schools and/or middle schools each year. Students will make presentations to the school board or other district-level administrators that include recommendations for energy efficiency improvements, including SCE's programs for assistance.
- Offering teacher lessons plans. Through this service, teachers submit lesson plans that align with California lesson plans content standards and/or case studies to SCE that directly supports energy education activities. Select lesson plans will be made available and shared with any interested party via a public website or websites.
- Publicizing “Students Leading the Way Success Stories” each academic year to capture success stories and best practices.
- Scheduling MEU events in targeted communities and leveraging the MEU with EARTH Education and Training activities.
- Utilizing SCE programs offering multi-language speaking representatives to deliver energy efficiency messages to residential and small commercial customers.
- Developing training classes (based on the needs assessment study) in a joint effort with public and private entities to provide the right type of training to develop “Green Collar” opportunities for specific target markets.

V.

PROPOSED FUNDING REQUESTS, POTENTIAL BRIDGE FUNDING, AND FUND-SHIFTING PROPOSALS ARE REASONABLE

A. Funding Request Is Reasonable

1. Proposed Funding Levels Are Reasonable And Should Be Adopted

SCE's proposed 2009-2011 energy efficiency program portfolio budget supports both the achievement of the Commission's aggressive 2009-2011 energy efficiency goals as well as supports progress towards the realization of the long-term goals and specific strategies and actions identified in the CEESP. The proposed 2009-2011 budget is an increase from SCE's 2006-2008 energy efficiency portfolio budget. The proposed increase in funding over previous program cycles is attributable to several factors including: (1) increased energy efficiency goals¹⁴⁹ set forth by the Commission; (2) reduced estimates for energy savings and demand reduction resulting from measurement and evaluation work; (3) increased codes and standards; (4) increased incentives levels to encourage customers to adopt the latest energy efficiency technologies; and (5) increased resources needed to support the Commission's big, bold energy efficiency strategies and the other elements of the proposed CEESP. SCE's proposed 2009-2011 energy efficiency budget summary, by program, is presented in Exhibit SCE-2.

2. Certain Costs Not Included In Cost-Effectiveness Calculations Per The Strategic Plan And Commission Direction

The CEESP includes both near and long term goals for California. To realize the achievement of the CEESP goals, California will need support from a vast number of market actors. To a certain extent, the IOUs' energy efficiency activities will play a part in supporting California's energy efficiency goal achievement. Many of these long-term IOU investments will not realize near-term (*i.e.*, 2009-2011) benefits to ratepayers but will be vital in providing energy efficiency solutions in the long-

¹⁴⁹ D.04-09-060, Table 1B.

1 term to these ratepayers. Nevertheless, SCE proposes to include all forecasted costs associated with
2 supporting the long-term CEESP activities into the cost-effectiveness showing in SCE's Application to
3 ensure ratepayers are funding a cost-effective energy efficiency portfolio.

4 However, SCE does propose to remove any costs associated with long-term investments
5 in support of the CEESP from the 2009-2011 utility energy efficiency incentive mechanism (*i.e.*,
6 Performance Earnings Basis Calculation). SCE also proposes a discrete utility earnings mechanism to
7 encourage and maintain focus on supporting the utilities' contribution to the CEESP. This will remove
8 the perverse incentive for IOUs to focus solely on near-term actions to achieve near-term results thus
9 sending the appropriate signal to IOUs to focus on long-term investments in support of the CEESP as
10 well as the achievement of the Commission aggressive 2009-2011 energy efficiency goals. These
11 recommendations are included in Chapter II.

12 **B. Proposed Interim Bridge Funding May Be Necessary To Avoid Program Interruption**

13 If the Commission determines that a final decision on this Application will not be issued before
14 2008, SCE requests that the Commission issue an interim bridge funding decision in advance of its final
15 decision authorizing the IOUs 2009-2011 proposed energy efficiency portfolios and budgets. Pursuant
16 to the May 5, 2008 Assigned Commissioner's and Administrative Law Judge's Ruling Regarding Due
17 Dates for 2009-2011 Energy Efficiency Portfolio Plans and Energy Efficiency Strategic Plan
18 Applications, the due date for the IOUs' 2009-2011 portfolio applications was extended to June 23,
19 2008, resulting in a corresponding delay in the expected final decision from the Commission.
20 Specifically, that Ruling states "With these changes in due dates, we now anticipate final decisions
21 occurring in November or December 2008." A later Ruling was issued on June 2, 2008 further delaying
22 the filing of IOU 2009-2011 portfolio applications until July 21, 2008, and the final decision possibly
23 into 2009.

24 If a final decision on this Application is not issued by the end of 2008, SCE proposes to continue
25 successful 2006-2008 programs (*i.e.*, IOU, third-party, and partnerships) into 2009 and until the
26 Commission issues a final decision on SCE's 2009-2011 energy efficiency program application. This
27 will ensure there is no suspension of program delivery. SCE also proposes to continue to fund planning

1 activities for 2009-2011. However, SCE does not propose to execute contracts for new 2009-2011 third-
2 party programs and partnerships until the Commission issues final approval of this Application. SCE
3 will continue to work with potential implementers and partners during 2008 on preparing 2009-2011
4 contracts for execution immediately upon Commission approval of this Application. In addition, in
5 order to ensure a smoother transition from 2006-2008 programs to 2009-2011 programs and avoid
6 customer confusion, SCE may make selective changes (*e.g.*, participant eligibility requirements,
7 incentive levels) to any program extended into the bridge period.

8 Furthermore, to balance the need for bridge funding with the need to ensure adequate funds still
9 remain for 2009-2011 third-party program implementers and new partnerships, SCE will limit the
10 overall budget, including commitments, for those 2006-2008 successful third-party programs and
11 partnerships extended during the bridge period. During the bridge period, SCE will identify specific
12 program budget limits that will be based on the 2006-2008 budgets, prorated on a monthly basis (*e.g.*, 3-
13 year, \$3.600 million budget = \$100,000/month budget). However, on a case-by-case basis, SCE may
14 modify this guideline to make accommodations for unique program design issues. For example,
15 statewide Marketing, Education and Outreach will be undertaking key studies and committing to future
16 media buys, to reduce costs, which may cause a need to modify the monthly prorated approach
17 described above.

18 **C. Proposed Fund-Shifting And Program Flexibility Proposals Are Reasonable**

19 The fund shifting guidelines proposed in this Application for the 2009-2011 program cycle
20 (Guidelines) are an extension of the fund shifting guidelines approved for 2006-2008 energy efficiency
21 programs as presented in the 2008-2008 Energy Efficiency Policy Manual, with key modifications, as
22 shown in Table V-17, Proposed 2009-2011 Energy Efficiency Fundshifting Guidelines.¹⁵⁰ For the 2006-
23 2008 program cycle, the Commission recognized and approved the need for IOU program administrators
24 to have flexibility “to make decisions, without undue restrictions or delays, so they can effectively

¹⁵⁰ Dated January 8, 2008, Attachment A, Table 8: Adopted Fund Shifting Rules, p. A-2.

1 manage their portfolios to meet or exceed the Commission’s savings goals cost-effectively.”¹⁵¹ The
2 proposed Guidelines will extend this flexibility into the 2009-2011 funding cycle.

3 SCE proposes selective modifications to the current Guidelines to: (1) change to the current
4 treatment of mid-cycle portfolio funding augmentation; (2) recognize the elimination of the policy
5 advisory group in 2009-2011; (3) clarify language contained within the 2006-2008 Guidelines for 2009-
6 2011; (4) clarify language addressing rolling program budget cycle; and (5) propose a process for 2009-
7 2011 for encumbering funds from subsequent budget cycles.

¹⁵¹ D.05-09-043, dated September 22, 2005, Section 8.9 Fund Shifting Guidelines, p. 144.

Table V-17
Proposed 2009-2011 Energy Efficiency Fundshifting Guidelines

Category	Shifts Among Budget Categories, Within Program	Shifts Among Programs, Within Category	Shifts Among Categories
Resource / Non-resource Programs (includes multiple program categories – see definitions below)	Yes, no formal Commission review/approval triggered.	<ul style="list-style-type: none"> • Yes, no formal Commission review/approval triggered. • However, 15 day PRG notification and comment required if shifts exceed 25% on an annual basis or 50% on a cumulative basis. • Adding a new program outside the competitive bid process triggers Advice letter process. • Advice letter required if allocation to third-party implementers is expected to fall below 20%. 	<ul style="list-style-type: none"> • Yes, up to 25% on an annual basis or 50% on a cumulative basis. Advice letter required for larger shifts. • Adding a new program outside the competitive bid process triggers Advice letter process. • Advice letter required if allocation to third-party implementers is expected to fall below 20%.
C&S / ET / Statewide M&O	Yes, same as above	Advice letter required for shifts that would reduce any of these programs by more than 1% of budgeted levels.	Advice letter required to shift funds OUT of any program more than 1% of budgeted levels.
EM&V	Yes, within utility portion. Fund shifting between the utility and ED portions only with Assigned Commissioner or ALJ approval, in consultation with Joint Staff.	Not Applicable – Single Program	Assigned ALJ or Commissioner ruling required to shift funds OUT of EM&V by any amount.

For purpose of these fund-shifting rules, the Resource/Non-Resource program categories are as follows:

- Resource / Non-Resource Program categories for ~~SCE, SDG&E, and SoCalGas~~ are: (1) Residential; (2) Nonresidential; (3) Crosscutting (except C&S, ET, SW Marketing and Outreach, EM&V).
- ~~Resource / Non-Resource Program categories for PG&E are: (1) Mass Market (residential/small commercial cross-cutting); (2) Residential targeted market sectors within Targeted Markets and (3) Non-Residential targeted market sectors within Targeted Markets.~~
- Utility program administrators may carryover/carryback funding during the ~~2006-2008~~ **2009-2011** program cycle without triggering a review/approval process. ~~Authorization for utilizing 2006 funding in 2005 for specific purposes is described in this decision.~~
- Changes to incentive levels or modifications to program design (such as changes to customer eligibility requirements) will not trigger Energy Division or formal Commission review, except as indicated below. We expect that the results of EM&V studies, ~~and~~ statewide coordination efforts ~~and ongoing consultation with advisory groups~~ will enable utility program administrators to identify the best practices and program designs for portfolio implementation.
- If the proposed incentive level change impacts a statewide offering, ~~e.g., is included in the deemed and calculated measure list presented in the statewide PAG meeting on August 23, 2005,~~ and is less ~~or more~~ than 50% of the original incentive level on a cumulative basis over the three-year program cycle, the utility administrator will need to inform and solicit comment from the joint PRGs prior to the change taking place.
- ~~If the proposed incentive level change impacts a statewide program offering and is more than 50% of the original incentive level on a cumulative basis, the utility administrator will follow the advice letter process described in these rules.~~
- The program administrator will notify the ~~PAG~~ Commission **through the quarterly reporting process** of all incentive level changes that take place.
- For all significant shifts in funding or modifications to program design, the utilities should seek informal review with their ~~PAGs~~/PRG members as part of the ongoing exchange of information during program implementation. Where an advice letter is required under these rules, absent a protest or written data request by Energy Division for additional information by the end of the 20-day protest period, the request will become effective on the twentieth day after filing. If Energy Division staff issues a data request before the end of the protest period, the response time requirements and other procedures applicable to our normal advice letter procedures, ~~as updated by D.05-01-032,~~ will take effect. All advice letters required for fund shifting shall be served on the **energy efficiency** service list ~~in A.05-06-004 and R.01-08-028, or its successor rulemaking,~~ unless otherwise specified by the assigned ALJ. The assigned ALJ, in consultation with the Assigned Commissioner, may provide further clarification on implementing these fundshifting rules, or consider modifications to these rules during the ~~2006-2008~~ **2009-2011** program cycle, as appropriate.
- **Adding new programs not part of a competitive solicitation will require an Advice Letter, however, a full Resolution may not be required per the Commission’s advice letter approval process.**

1 **1. Modify Treatment Of Mid-cycle Funding Augmentation**

2 In D.07-10-032, the Commission set a policy rule (rule 12, Section IV) not to allow IOUs
3 to claim energy savings and demand reductions results towards the achievement of the Commission
4 energy efficiency goals because mid-cycle funding augmentation provides a “bonus” to utilities without
5 any undue risk bestowed upon them.¹⁵² D.07-10-032 also indicates that “in effect, mid-cycle funding
6 augmentations provide the utilities with additional funding to accomplish a goal that was set with a
7 lower budget.”¹⁵³ As a result of this rule, IOUs are now discouraged from pursuing all cost-effective
8 energy efficiency even though there may be energy efficiency funds available from prior years. SCE
9 proposes the elimination of the 2006-2008 mid-cycle funding augmentation rule for 2009-2011 as it: (1)
10 creates a disincentive to propose new programs with augmented funding; (2) punishes, unnecessarily,
11 IOUs when market conditions change which may require additional funds to incent customers in order
12 to achieve the Commission energy efficiency goals, and (3) creates a contradiction to the California’s
13 Energy Action Policy¹⁵⁴ and Commission policy¹⁵⁵ to pursue all cost-effective energy efficiency.

14 The inability to record results from mid-cycle funding sends the wrong signal to IOUs to
15 stifle program innovation and creation of promising programs. This is contrary to the Commission’s
16 desire to promote innovation and test new program designs. Another key fault of the 2006-2008 mid-
17 cycle funding augmentation rule is it assumes that during the program implementation cycle the
18 marketplace remains static and acts just as assumed during the planning process. This is unrealistic.
19 The marketplace is dynamic with many actors and unforeseen influences which can foreclose expected
20 opportunities as well as create new opportunities. The mid-cycle rule also contradicts California’s

¹⁵² D.07-10-032, dated October 18, 2007, OP# 7, p. 143.

¹⁵³ D.07-10-032, dated October 18, 2007, p. 98.

¹⁵⁴ Energy Action Plan identifies specific goals and actions to ensure that adequate, reliable, and reasonably-priced electrical power and natural gas supplies are achieved and provided through cost-effective and environmentally sound strategies. A copy of the Energy Action Plan, including the 2008 Update, is posted on the Commission’s website at <http://www.cpuc.ca.gov/static/energy/electric/energy+action+plan/index.htm>. See also, D.05-09-043, *mimeo*, p. 15 and Energy Efficiency Policy Manual Version 3.1, dated January 8, 2008, Rule II.2, p. A-2.

¹⁵⁵ D.07-10-032, dated October 18, 2007, p. 2.

1 Energy Action Plan¹⁵⁶ which calls for the pursuit of all cost-effective energy efficiency by discouraging
2 IOUs to supplement their program portfolios with promising new/enhanced programs. Thus, for 2009-
3 2011, SCE proposes to modify the mid-cycle funding policy rule to allow all utilities to count all
4 installed energy efficiency results towards the Commission's aggressive energy savings and demand
5 reduction goals.

6 **2. Recognize The Elimination Of The Policy Advisory Group For 2009-2011**

7 The proposed Guidelines also remove references to the local Program Advisory Groups
8 (PAGs), as the Commission has eliminated the local PAGs for the 2009-2011 cycle.¹⁵⁷ During the 2006-
9 2008 program cycle, the guidelines directed the IOUs to seek input from the local PAG members when
10 proposing significant changes to incentive levels.¹⁵⁸ The proposed 2009-2011 Guidelines would remove
11 references to the local PAG.

12 **3. Provide Additional Clarity To Prior Year's Fund Shifting Guidelines To Reduce**
13 **Confusion**

14 The proposed 2009-2011 Guidelines include clarifying language to the 2006-2008 fund
15 shifting guidelines. For example, in proposing to add a new program (outside the competitive bidding
16 process)¹⁵⁹ the IOUs are required to file an advice letter but a full Commission resolution will not be
17 mandatory if the Commission deems the proposal acceptable. Also, the 2006-2008 policy rules provide
18 the IOUs ability to carry funds from a future funding cycle to a current cycle.¹⁶⁰ The 2009-2011
19 Guidelines propose the following clarifying language:

¹⁵⁶ Energy Action Plan identifies specific goals and actions to ensure that adequate, reliable, and reasonably-priced electrical power and natural gas supplies are achieved and provided through cost-effective and environmentally sound strategies. A copy of the Energy Action Plan, including the 2008 Update, is posted on the Commission's website at <http://www.cpuc.ca.gov/static/energy/electric/energy+action+plan/index.htm>. See also, D.05-09-043, *mimeo*, p. 15 and Energy Efficiency Policy Manual Version 3.1, dated January 8, 2008, Rule II.2, p. A-2.

¹⁵⁷ D.07-10-032, dated October 18, 2007, OP# 29, p. 149..

¹⁵⁸ D. 05-09-043, dated September 22, 2005, p.152.

¹⁵⁹ D.05-09-043, dated September 22, 2005, p. 149, allows for new programs to be introduced during the implementation if the new program was selected through a competitive bid process overseen by the local PRG.

¹⁶⁰ Energy Efficiency Policy Manual v.3.1, dated January 8, 2008, Attachment 1, Table 8, p. A-2.

1 “12. Bridge Funding. Programs continuing from the ~~2006-2008~~ **2009-2011** program
2 cycle into the ~~2009-2011~~ **2012-2014** cycle may use ~~2009-2011~~ **2012-2014** funding to
3 **keep programs from shutting down prior to the end of the implementation cycle**,
4 once the ~~2009-2011~~ **2012-2014** portfolio has been approved. **Additionally, and start-**
5 **up costs for ~~2009-2011~~ **2012-2014** programs may use ~~2009-2011~~ **2012-2014** funding**
6 **once the ~~2009-2011~~ **2012-2015** portfolio has been approved **although the previous****
7 **implementation cycle has not concluded.** (~~D.07-10-032~~). Unspent or uncommitted
8 funds from previous program years, or ~~2006-2008~~ **2009-2011** funds that will not be
9 needed should be used prior to using ~~2009-2011~~ **2012-2014** funds. Both continuing
10 program funding and start-up cost funding, from 2009-2011 or from previous
11 program years, are limited to 15% of the current budget cycle without Commission
12 approval. An Advice Letter is required for funding in excess of this percentage.”

13 **4. Funding Proposal For Rolling Budget Cycle As Set Forth In D.07-10-032**

14 SCE is seeking the flexibility to encumber funds from next program cycle for continuing
15 programs, not to exceed 20 percent of the current program cycle budget set forth by 2009-2011 fund-
16 shifting guidelines. SCE seeks this additional flexibility in order to keep the programs from ramping up
17 and down as the old program cycle comes to a close and the new program cycle starts. Having this
18 option will help the programs to avoid interruption and keep the continuity of the programs flowing to
19 the next program cycle. The funds encumbered for continuing programs will be counted when those
20 funds are actually spent. This is consistent with the 2006-2008 decision to count only “actual” savings
21 as they occur both towards the savings goals (and the minimum performance standard) and also in
22 calculating the performance earnings basis and benefits.

23 **5. Proposal For Encumbering Funds From Subsequent Budget Cycles**

24 The Guidelines provides the ability to carry back from next program budget cycle 15
25 percent of the current program cycle budget without Commission approval, to potentially fund 2009-
26 2011 energy efficiency activities to maintain program continuity and, more importantly, capture
27 potential cost-effective energy saving and demand reduction opportunities during 2009-2011. Unlike
28 the rolling budget, and carryover and carry back flexibility within the 2009-2011 program year cycle,
29 the program administrator will seek Commission approval through the ALJ or an Assigned
30 Commissioner Ruling prior to any shift of funds from the next funding cycle or previous funding cycles
31 to 2009-2011 if it exceeds 15 percent of the current program cycle.

1 VI.

2 **PROPOSED EVALUATION, MEASUREMENT & VERIFICATION PLANS AND BUDGETS**

3 **A. Funding Principles And Overall Funding Request**

4 As directed by the Commission,¹⁶¹ SCE is adding eight percent of the total amount proposed for
5 program portfolio funding as the preliminary budget for evaluation, measurement and verification
6 (EM&V) activities, both Commission-managed and utility-managed.

7 The budget amounts and allocations for EM&V need to be regarded as placeholders at this time.
8 As the utilities and the Energy Division found in the 2006-2008 cycle, it is not feasible to develop
9 meaningful study plans until the program portfolio has been developed and can be analyzed to determine
10 the key researchable issues. In addition, due to the substantially larger program budgets for 2009-2011,
11 eight percent of total program budgets may be an unnecessarily large fraction to fund EM&V activities.

12 In the 2006-2008 cycle, development of detailed budget allocations occurred after program plans
13 had been submitted; a similar deferred process should occur for 2009-2011. SCE has contacted the
14 Energy Division to discuss this issue for 2009-2011. We look forward to working with the Energy
15 Division to develop appropriate EM&V plans and budget levels. The final EM&V budget can then be
16 approved in the final decision or through a later advice letter or compliance filing.

17 This request is for a three-year budget. As in 2006-2008, unspent funds will be carried forward
18 from year to year within the period as necessary, and may be carried over into years after 2011 in order
19 to conduct and complete evaluations of 2009-2011 programs and other 2009-2011 studies as necessary.

20 In 2006-2008, 72.5 percent of the funding was reserved for Commission-managed studies, policy
21 support, and strategic planning projects, and 27.5 percent of the funding was allocated for utility-
22 managed studies.¹⁶² SCE proposes that this allocation be continued for 2009-2011, unless detailed
23 analysis by the utilities and the Energy Division suggests a different allocation.

¹⁶¹ D. 07-10-032, dated October 18, 2007, p, 107.

¹⁶² D.05-11-011, dated November 18, 2005, p. 7.

1 The proposed SCE study and activity budgets that comprise this funding request are described in
2 the following sections. The specific studies, activities, and budget levels provided here are currently
3 SCE's best estimates for the evaluation and analysis needs over the next three years. Past experience
4 demonstrates that over such periods of time, study needs often change. Scope of work and related costs
5 of specified studies may change, studies may need to be combined or separated, new studies may be
6 identified, and work may be re-prioritized with changing and varied information needs. Budget
7 flexibility is critical to allow for changing study and analysis priorities and needs. Consequently, SCE
8 requests that the long-time practice of permitting full flexibility in the specific allocation of EM&V
9 funding be continued for 2009-2011 studies.

10 Quarterly and annual reporting on study status and budgets will allow for tracking of SCE's
11 EM&V activity. Energy Division staff will also be informed by the utilities' submission of draft process
12 evaluation plans, to allow for input by Energy Division and its consultants, as well as continuing
13 coordination with the staff and their evaluation contractors.

14 **B. Proposed SCE Studies And Activities**

15 SCE's initial budget estimate for utility-managed EM&V activities is provided in overall budget
16 allocation tables in Exhibit SCE-2, Table 5.1. Descriptions of various areas that would be included in
17 the budget estimates are provided in the sections below. EM&V activities are divided into two major
18 categories: program-specific and cross-cutting.

19 **1. Program-Specific Analyses**

20 **a) Process Evaluations And Evaluability Assessments**

21 Process evaluations review the design and operation of programs to determine
22 their effectiveness and their efficiency and to provide recommendations for program improvements.

23 Many of the programs in SCE's 2009-2011 portfolio are either new programs or
24 programs that have significant modifications from their previous design. Consequently, SCE will
25 conduct process evaluations for most of the programs in the portfolio, submitting annual evaluation

1 plans to the Energy Division as mandated in the California Energy Efficiency Evaluation Protocols.¹⁶³
2 Some of these evaluations will analyze a group of related programs, in order to assess their linkages,
3 explore their single and grouped impact on the markets they affect, compare their methods to find best
4 practices, and reduce contracting and analysis costs.

5 Process evaluations will be particularly important for deciding whether to
6 continue new programs and for providing some of the information needed to improve the design and
7 operations of these programs. Examples of such programs include the new approaches to local
8 government partnerships and pilot programs such as the programs selected through SCE's IDEEA
9 Program.

10 Evaluability assessments are a related category of study, with a specific focus on
11 assuring that programs are collecting the information that will be necessary to conduct effective impact,
12 market effects, or process evaluations of the program. These are particularly important for new
13 programs and programs implemented by organizations new to the Commission's evaluation
14 requirements for Commission-regulated programs.

15 b) [Program-Linked Market Analysis Studies](#)

16 The budgets for market analyses related to SCE programs allow for analyses of
17 particular markets central to the operation of specific SCE program and program components, such as
18 emerging technologies, financing, building and industrial process maintenance services and practices,
19 and structure and practices in the building construction, sale, and rental markets. With the increased
20 focus on emerging technologies and codes & standards, analyses of the market potential of program
21 candidate technologies will be important.

22 c) [Early Measurement & Verification/Baseline Activities](#)

23 A particular focus of not only SCE's evaluation, measurement and verification
24 contracts, but also internal work in 2009-2011 will be quality control and process improvement. Given
25 the demanding goals and preeminent role that the state has established for energy efficiency programs, it

¹⁶³ California Public Utilities Commission, California Energy Efficiency Evaluation Protocols, April 2006, page 134, first paragraph.

1 is vital that programs efficiently deliver the full savings of which they are capable. Early, small-sample
2 measurement and verification (M&V) efforts including collection of baseline data are needed to assure
3 that ex ante energy savings estimates are being achieved, and if they are not, whether and how achieved
4 savings can be increased. Funding in this area will cover internal staffing plus engineering contracts to
5 conduct early measurement and verification and baseline analyses to provide early feedback to program
6 managers on whether their program energy savings assumptions are being met.

7 **2. SCE's Crosscutting EM&V Activities**

8 a) Energy Efficiency Forecasting, Forecasting Model, And Annual Savings Model

9 Energy efficiency program and portfolio forecasting and cost-effectiveness
10 analysis will be part of SCE's market analysis activities. This work builds on the energy efficiency
11 potential studies that will be managed by Commission staff. It provides SCE staffing for development
12 of Commission- and CEC-required energy efficiency forecasts and for detailed, SCE-specific analysis
13 that will help the portfolio and program designers to determine cost-effective levels of energy efficiency
14 program activity, to identify the most promising program areas, and to decide on program budget levels.
15 The data are also useful in helping program managers and customer account managers to identify the
16 most promising energy efficiency upgrade areas for various customer segments. Some budget is
17 reserved for continuing enhancement and updating of the forecasting tools, both in terms of data inputs
18 and analysis capabilities.

19 b) Market Segment Studies

20 These studies will gather data about market segments that will be targeted by the
21 various programs. Surveys will gather data about customers' decision-making approach to energy
22 efficiency investments, key factors that enable or inhibit their adoption of energy efficiency measures
23 and participation in energy efficiency programs, and their awareness, attitudes and knowledge regarding
24 energy use, energy efficiency and conservation. They will also collect information on these customers'
25 level of knowledge of energy efficiency, sources of information, demographic characteristics, and
26 program participation. Analysis of key drivers of EE adoption use these groupings to determine
27 effective messages and communication media for increasing customers' knowledge about and

1 receptiveness to energy efficiency messages. The results will be provided to the utility, partnership, and
2 third party personnel involved in marketing and outreach activities, to assist them in increasing the
3 effectiveness of their messages and message delivery methods.

4 c) [Basic Data Collection And Analysis: Demographic, Business, And Weather Data](#)

5 Market analysis work includes the ongoing collection and maintenance of base
6 data needed for effective program design, targeting, analysis, and evaluation: demographic, business
7 classification, and weather data. SCE will contract for tailored demographic data as well as use
8 packaged demographic data available from SCE's market research organization. Business classification
9 data and software will continue to be provided by EM&V funding, since its primary uses are for energy
10 efficiency and demand forecasting, energy efficiency potential analysis, and program design, targeting,
11 and marketing.

12 SCE maintains a system of 24 weather stations that provide data used to estimate
13 energy usage and energy savings of individual customers in multiple programs. It is the basis for the
14 energy usage and energy savings analyses provided to customers through two of SCE's home energy
15 efficiency survey programs. It provides input to building energy simulation models used in multiple
16 nonresidential energy efficiency programs, in particular Savings By Design and technology assessments.
17 These data are also used in virtually all of the program impact evaluations of SCE programs.

18 d) [Portfolio Analysis](#)

19 This funding allows both consultant and internal evaluation staff work to analyze
20 coverage of markets, strategies, end uses, and technologies in SCE's program portfolio. It also funds
21 exploration of optimal coordination among programs in delivery, marketing, and outreach. Its goal is to
22 make recommendations for refining current program coverage and to provide input for the 2012-2014
23 program cycle. The work builds on process evaluations and other SCE and utility market analyses,
24 especially including those of SCE's IDEEA. It will also gather information from other states and
25 utilities and coordinate with the energy efficiency forecasting/potential work that informs program
26 design.

1 e) [Program Best Practices Updates](#)

2 SCE will support selective updating of the statewide Best Practices Database
3 using its Portfolio Analysis work as a primary source of information about new program reports and
4 practices to be included.

5 f) [Multi-Client Studies](#)

6 Each year, several opportunities arise for SCE to participate in multi-client studies
7 dealing with energy efficiency program issues. Costs range from \$10,000 to \$50,000. These studies
8 provide a relatively low-cost option for gathering data. Usually they provide data on a national level
9 that can be used as at least a rough representation for SCE's service territory. Often regional
10 breakdowns are available, providing something closer to data representative of California. In some
11 cases, over-sampling within a specific area can be provided for an extra fee, so that the client can
12 compare results in their own territory with national results.

13 These studies cover topics as diverse as ENERGY STAR brand recognition,
14 customer attitudes and preferences, energy efficiency issues in particular market segments, and program
15 characteristics and funding. The American Council for an Energy-Efficient Economy usually offers at
16 least one such study each year on a topic that is highly relevant for California energy efficiency
17 programs. The Consortium for Energy Efficiency offers high-value joint research opportunities. Market
18 research firms also occasionally offer useful options.

19 g) [Conference/Organization Support](#)

20 Support of conferences and conference attendance for national and regional
21 conferences focused on energy efficiency programs and measurement and evaluation issues will be part
22 of SCE's EM&V budget. Utility program management and evaluation staff members as well as
23 Commission energy efficiency oversight staff need the information and professional development
24 offered by these conferences to maintain their work at the premier level that California programs and
25 evaluation work currently attain. Such conferences also provide access to studies completed by others
26 that provide valuable information for California program planning. Organizations such as the
27 International Energy Program Evaluation Conference, the Association of Energy Services Professionals,

1 the Alliance to Save Energy, and the American Council for an Energy-Efficient Economy provide
2 valuable opportunities for learning from energy efficiency activities and staff in other jurisdictions.
3 Support for such organizations is often a low-cost way to gain continuing access to this value.

4 h) [CALMAC Support And Website](#)

5 The California Measurement Advisory Council (CALMAC) website makes
6 publicly available electronic copies of all energy efficiency studies completed with Commission-
7 authorized energy efficiency funding. The website also provides notification and access to the activities
8 of CALMAC. CALMAC serves as a forum for soliciting input on and presenting results of EM&V
9 studies. It also hosts meetings of Commission and utility EM&V staff to communicate and work
10 together on EM&V issues. Funding and staffing support will be provided to enable CALMAC
11 meetings, workshops, and forums and to maintain and enhance the website.

12 i) [Statewide Saturation Surveys](#)

13 The utilities are required by Title 20 of the California Code of Regulations to
14 conduct periodic surveys of their residential, commercial, and industrial customers and to provide the
15 survey results to the California Energy Commission for demand forecasting purposes. These surveys
16 are also used as primary data sources for energy efficiency potential analyses. In addition, they are
17 valuable sources of information for program managers to use in targeting programs to customer
18 segments. Funding is need for each of the sectoral saturation surveys during the 2009-2011 period. The
19 budgets of these studies tend to be quite large, since they generally require detailed onsite surveys to
20 gather data for representative samples needed to meet Title 20 requirements. The surveys provide
21 greater value for use in energy efficiency portfolio planning if the samples are large enough to allow for
22 reliable tabulations by service territory, customer segment, and climate zone.

23 **3. [SCE EM&V Staffing](#)**

24 Specialized and experienced utility staffing is necessary for utility-administered EM&V
25 activities and for support of the Commission's staff-administered activities. The appropriate activity
26 budgets include funding for needed contract work and for the following EM&V staff functions.

- 27 • Managing SCE studies;

- 1 • Conducting analyses internally to support program design, targeting, and operations;
- 2 • Managing and/or supporting utility-managed statewide market analyses, including
- 3 saturation surveys;
- 4 • Providing program administrator and implementer input on research design and draft
- 5 reports of program impact evaluations managed by Commission staff (this includes
- 6 gathering and conveying to Commission evaluation managers and their contractors
- 7 the information needs, issues and concerns of program managers);
- 8 • Providing program tracking data, customer billing data, and other customer data to
- 9 evaluation contractors as needed for Commission-managed program impact
- 10 evaluations and other Commission EM&V activities;
- 11 • Coordinating study coverage and timing with the Commission’s evaluation
- 12 contractors in order to avoid unnecessary overlaps in data collection and analysis,
- 13 reduce potential customer burden from multiple contacts, and to share data collected;
- 14 that might be helpful to the other group’s evaluation contractors;
- 15 • Working with the Commission’s contractors and utility personnel to support the
- 16 contractors’ customer contact, survey, and measurement activities;
- 17 • Collecting data needed for operation, effective targeting, and analysis of programs
- 18 and for analysis of energy demand and energy savings potential, including weather
- 19 data and business classification data;
- 20 • Developing and analyzing estimates of energy efficiency potential and forecasts of
- 21 energy and demand savings from energy efficiency programs, and
- 22 • Gathering actionable study results and working with program managers to use
- 23 findings to improve programs.

VII.

REVENUE REQUIREMENTS AND COST RECOVERY

A. Overview

SCE is requesting an increase in its 2009-2011 energy efficiency funding levels in this Application. Currently, SCE is authorized to recover costs associated with: (1) legislatively mandated energy efficiency programs PGC; and (2) Commission authorized procurement-related energy efficiency programs. As discussed in more detail later in this chapter, these two categories of energy efficiency funding (i.e., PGC and procurement-related) have separate ratemaking treatment. **Error! Reference source not found.**, shows the requested increase in energy efficiency program costs during the 2009-2011 period from the currently authorized funding amounts for the 2006-2008 period.

Table VII-18
Requested Energy Efficiency Authorized Program Costs Increase
(\$000)

	2009-2011	2006-2008	Increase	Current Authority
PGC Energy Efficiency 1/	294,943	294,943	TBD	
Procurement Energy Efficiency	1,048,736	433,688	615,048	
Est. Unspent/Uncommitted Funds 2/	(62,200)	-	(62,200)	
Total	1,281,479	728,631	552,848	D.05-09-043, D.05-11-011
Franchise Fees and Uncollectibles			<u>6,251</u>	D.06-05-016
Total Increase Reflected In Rate Levels over 3-year period			559,099	

1/ Will increase pursuant to PU Code Section 399.8. To the extent the PGC EE funding increases the Procurement EE funding will decrease equal and opposite so that the total EE funding is \$1.344 billion over the 2009 - 2011 period.

2/ See Table 6.2 in Exhibit 2. This amount will be updated at the end of 2008 with actual unspent/uncommitted funds.

As set forth in Exhibit SCE-2, and as shown in Table 6.2, SCE has included as a source of funding for the 2009 through 2011 energy efficiency programs the estimated unencumbered funds from pre-2009 energy efficiency cycles at the end of 2008. SCE is currently estimating the unencumbered funds recorded in the energy efficiency balancing accounts on December 31, 2008 to be \$62.2 million. SCE will update this amount at the end of the year once the actual unencumbered amount is known. In

1 addition, SCE is not requesting to change the level of its PGC energy efficiency funding. Consistent
2 with the provisions of Public Utilities (PU) Code § 399.8 and Resolution E-3792,¹⁶⁴ SCE will continue
3 to submit an annual advice letter to the Commission to escalate this funding level.

4 Finally, as discussed in more detail below, SCE is requesting to establish the On-Bill Financing
5 Loan Balancing Account (OBFLBA) to record differences between the On-Bill Financing loan funding
6 included as part of the procurement energy efficiency program funding requested in this proceeding, the
7 amount of actual loans provided to participating customers, and their loan repayments.

8 **B. PGC Energy Efficiency Ratemaking**

9 SCE proposes no change to the currently-approved PGC energy efficiency ratemaking. SCE's
10 current ratemaking associated with PGC energy efficiency includes: (1) the recovery of the authorized
11 PGC energy efficiency revenue requirement as set forth in PU Code § 399.8 through the operation of the
12 Public Purpose Programs Adjustment Mechanism (PPPAM); and (2) tracking the difference between the
13 authorized PGC energy efficiency revenue requirement with actually incurred PGC Energy Efficiency
14 expenses in the Energy Efficiency Programs Adjustment Mechanism (EEPAM) established in D.97-12-
15 103. Unspent funds are refunded to customers upon approval by the Commission.

16 On a monthly basis, SCE records its actual PGC energy efficiency program expenses in the
17 EEPAM. From this amount, SCE deducts one twelfth of the authorized PGC energy efficiency revenues
18 to determine the monthly over- or under-collection recorded in the EEPAM.¹⁶⁵ Effective January 1,
19 2002, PU Code § 399.8 extended funding for the PGC energy efficiency program through January 1,
20 2012,¹⁶⁶ and set SCE's 2002 PGC energy efficiency funding level at \$90 million. PU Code § 399.8 also
21 required utilities to annually adjust the PGC target funding amounts at a rate equal to the lesser of the
22 annual growth in electric commodity sales or the gross domestic product deflator (GDP).

¹⁶⁴ Resolution E-3792, OP# 7.

¹⁶⁵ Due to the one-way nature of the EEPAM, any under-collections (*i.e.*, excess expenditures) existing at the end of the authorized program cycle will not be eligible for recovery from customers.

¹⁶⁶ PU Code § 381, effective September 24, 1996 required the major electric utilities to establish a nonbypassable PGC rate component in order to fund certain public interest programs including SCE's energy efficiency programs through the year 2011.

1 The Commission further directed the utilities in Resolution E-3792 to file an annual advice letter
2 by March 31st of each year beginning in 2003 to determine the annual adjusted funding amounts set
3 forth in PU Code § 399.8. Advice Letter 2229-E¹⁶⁷ established the Public Goods funding for 2008 to be
4 \$99.293 million, by applying SCE's annual sales increase of 0.9% to the 2007 Public Goods funding
5 level.

6 SCE will file an advice letter by March 31, 2009 to establish the 2009 authorized energy
7 efficiency revenue by escalating the 2008 authorized level of \$99.293 million by the lower of either the
8 GDP or SCE's annual sales increase. Interest accrues monthly to the EEPAM by applying the three-
9 month commercial paper rate to the average balance in the account.

10 **C. Procurement Energy Efficiency Ratemaking**

11 SCE's current ratemaking associated with procurement energy efficiency includes: (1) the
12 recovery of the residually determined¹⁶⁸ procurement energy efficiency revenue requirement authorized
13 in D.05-09-043 and D.05-11-011 through the operation of the PPPAM; and (2) tracking the difference
14 between the authorized procurement energy efficiency revenue requirement with actually incurred
15 procurement energy efficiency expenses in the Procurement Energy Efficiency Balancing Account
16 (PEEBA) established in D.03-12-062.

17 On a monthly basis, SCE records its actual procurement-related energy efficiency program
18 expenses in the PEEBA. From this amount, SCE deducts one twelfth of the authorized procurement-
19 related energy efficiency revenues to determine the monthly over- or under-collection recorded in the
20 PEEBA.¹⁶⁹ Interest accrues monthly to the PEEBA by applying the three-month commercial paper rate
21 to the average balance in the account. Unspent funds are refunded to customers upon approval by the
22 Commission.

¹⁶⁷ Advice Letter 2229-E, approved June 11, 2008, effective May 1, 2008.

¹⁶⁸ As described in Preliminary Statement FF, PPPAM, the annual procurement energy efficiency revenue requirement is determined residually by subtracting the authorized PGC Energy Efficiency revenue requirement from the total annual authorized energy efficiency funding levels. *See also* Table VII-18.

¹⁶⁹ Due to the one-way nature of the PEEBA, any under-collections (*i.e.*, excess expenditures) existing at the end of the authorized program cycle will not be eligible for recovery from customers.

1 Table VII-19 below illustrates how SCE will determine the authorized procurement-related
2 energy efficiency program funding each year.

Table VII-19
Procurement Energy Efficiency Authorized Program Funding (Illustrative
(000))

	2009	2010	2011	Total
1. Total Authorized Energy Efficiency Funding 1/	326,584	461,554	493,341	1,281,479
2. Less: PGC EE 2/	98,314	98,314	98,314	294,943
3. Total Procurement EE Funding (Line 1 - Line 2)	228,270	363,240	395,027	986,536

1/ As adopted in this proceeding

2/ To be determined annually pursuant to PU Code 399.8 and Resolution E-3792.

Therefore the authorized procurement EE funding will be determined residually.

3 **D. On-Bill Financing (OBF) Balancing Account**

4 In compliance with D.07-10-032, SCE will continue the 2006-2008 OBF Pilot program as a part
5 of the 2009-2011 procurement energy efficiency program. Advice Letter 2066-E, established the 2006-
6 2008 pilot program, effective December 30, 2006. SCE established the OBF loan program initially by
7 funding the OBF loans from SCE’s working cash. SCE currently records the OBF Pilot Program
8 expenses in the PEEBA.

9 As discussed in Chapter IV, the Commission in D.07-10-032¹⁷⁰ requires SCE to continue to
10 expand the OBF pilot program, increasing the customer base to include institutional customers. In order
11 to continue the expansion of this program, SCE proposes to create a new interest bearing balancing
12 account to “upfront” fund the OBF loans, tracking the OBF authorized funding revenue (*i.e.*, requested
13 in this proceeding) for the loans, actual loan disbursements and actual OBF loan repayments. SCE has
14 included \$20 million in energy efficiency funding requested in this proceeding over the 2009 through
15 2011 period to fund the loan portion of the program. SCE is requesting to begin to recover program
16 funds through the Public Purpose Program Charge for use as the principal to fund loans to participating
17 customers. The OBF Balancing Account will track only OBF loans and the repayments on all OBF

¹⁷⁰ D.07-10-032, Ordering Paragraph 13.

1 loans. All other program expenses such as incentives, administrative expenses, and loan defaults will
2 continue to be recorded in the Procurement Energy Efficiency Balancing Account. Upon approval to
3 establish the OBF Balancing Account, SCE proposes to transfer the remaining loan balances from the
4 2006 - 2008 OBF pilot program from the PEEBA to the OBF Balancing Account.

5 **E. Rate Recovery Of Energy Efficiency Program Costs**

6 SCE recovers its currently authorized PGC energy efficiency and procurement energy efficiency
7 costs through its existing non-bypassable Public Purpose Programs Charge (PPPC), which applies to all
8 of SCE's retail customers. Upon receiving a final decision on this Application's funding request, SCE
9 will increase its annual authorized energy efficiency revenue requirement by the amount approved by
10 the Commission. As discussed above, assuming the Commission adopts SCE's energy efficiency
11 funding request as filed, SCE's energy efficiency revenue requirement will increase by \$552.8 million
12 over the three year period (*i.e.*, 2009-2011 to reflect energy efficiency revenue requirement of \$1.281
13 billion.¹⁷¹

14 In order to reduce the number of rate changes, the Commission has established the annual
15 Energy Resource Recovery Account (ERRA) Forecast proceeding as the proper place to consolidate all
16 Commission-authorized revenue requirement changes into one rate level change. Therefore, SCE
17 proposes to include the 2009 PGC energy efficiency funding level submitted by advice filing in March
18 2009 and procurement-related energy efficiency revenue requirement approved in this proceeding in
19 PPPC rate levels on or after January 1, 2009 as part of its 2009 ERRA Forecast proceeding revenue
20 requirement and rate consolidation. This rate consolidation will include the true-up of any
21 undercollection that may accrue in the PPPAM due to the time lag between implementing a revised
22 procurement-related energy efficiency revenue requirement and actually reflecting the revised revenue
23 requirement in rate levels.

¹⁷¹ Subject to a year-end adjustment for any remaining unspent/uncommitted funds from pre-2009 funding cycle.

1 **F. Rate And Bill Impact Analysis**

2 In the Assigned Commissioner’s and Administrative Law Judge’s Ruling Regarding 2009-2011
3 Energy Efficiency Program Applications,¹⁷² the Commission directed SCE to provide estimates of the
4 net rate impacts and bill impacts associated with the proposed portfolio of programs designed to meet
5 the Commission-adopted energy savings goals. The methodology should be consistent across utilities.
6 The Commission also directed SCE to provide, separately, any available unspent, uncommitted funds
7 from previous cycles that will be included in the budget. The aggregate increase resulting from the
8 proposed increase to the Procurement Energy Efficiency revenue requirement is 1.6% over rates in
9 effect today.

10 **G. Revenue Requirements and Cost Recovery**

11 As detailed in Chapter V of this testimony, SCE requests that any Commission authorized
12 interim bridge funding will allow SCE to continue to record the currently authorized 2008 revenues in
13 2009 until a final Commission decision is issued for this Application. SCE further requests that the final
14 Commission decision authorizing 2009-2011 revenue requirement is made effective January 1, 2009.

¹⁷² Assigned Commissioner’s and Administrative Law Judge’s Ruling R.06-04-010 Regarding 2009 to 2011 Energy Efficiency Program Applications dated February 29, 2008, Attachment A, p. 6.

Appendix A
Witness Qualifications

1 **SOUTHERN CALIFORNIA EDISON COMPANY**
2 **QUALIFICATIONS AND PREPARED TESTIMONY**
3 **OF GENE E. RODRIGUES**

4 Q. Please state your name and business address for the record.

5 A. My name is **Gene E. Rodrigues**, and my business address is 6042 N. Irwindale Avenue,
6 Irwindale, CA 91702.

7 Q. Briefly describe your present responsibilities at the Southern California Edison Company
8 (SCE).

9 A. I am presently the Director of Energy Efficiency for SCE. In that capacity, I have direct
10 oversight of SCE's portfolio of energy efficiency programs, low income energy
11 efficiency programs, the California Alternate Rates for Energy (CARE) program, the self
12 generation incentives program, and the measurement & evaluation and regulatory support
13 functions for these areas.

14 Q. Briefly describe your educational and professional background.

15 A. I received a Bachelor of Science degree in Education from Northern Arizona University
16 in 1980 and a Juris Doctor degree from the University of California, Hastings College of
17 Law in 1988. Before coming to SCE, I taught high school in Arizona and practiced law
18 with a civil litigation firm in Los Angeles. In 1990, I joined SCE's regulatory law
19 department, where I provided legal support for SCE's energy efficiency programs, among
20 other things. Since moving to the business side of SCE, I have held various positions
21 within the Customer Service Business Unit, managing energy efficiency policy,
22 operations and regulatory functions. My current position is Director of Energy
23 Efficiency. I have previously practiced law and testified before the Commission.

24 Q. What is the purpose of your testimony in this proceeding?

25 A. The purpose of my testimony in this proceeding is to sponsor the portions of Exhibit
26 SCE-1, as identified in the Table of Contents thereto, and Exhibits SCE-3, SCE-4 and
27 SCE-5.

28 Q. Was this material prepared by you or under your supervision?

29 A. Yes, it was.

30 Q. Insofar as this material is factual in nature, do you believe it to be correct?

31 A. Yes, I do.

1 Q. Insofar as this material is in the nature of opinion or judgment, does it represent your best
2 judgment?

3 A. Yes, it does.

4 Q. Does this conclude your qualifications and prepared testimony?

5 A. Yes, it does.

1

A. Yes, it does.

1

A. Yes, it does.

SOUTHERN CALIFORNIA EDISON COMPANY
QUALIFICATIONS AND PREPARED TESTIMONY
OF GREGG D. ANDER

1
2
3
4 Q. Please state your name and business address for the record.

5 A. My name is Gregg D. Ander, and my business address is 6042 N. Irwindale Avenue,
6 Suite B in Irwindale, CA 91702

7 Q. Briefly describe your present responsibilities at the Southern California Edison Company
8 (SCE).

9 A. I am currently the Manager of Design and Engineering Services for Southern California
10 Edison (SCE). My responsibilities include the management and administration of the
11 Emerging Technology Program, Codes and Standards Program, Energy Related Services,
12 the Technology Test Centers, Program Engineering Support, Demand Response
13 Emerging Markets Initiative, and third-party research contracts.

14 Q. Briefly describe your educational and professional background.

15 A. I was educated at the University of Wisconsin – Milwaukee and Arizona State University
16 with a Bachelor of Science Degree in Architecture and a Masters in Environmental
17 Planning. Prior to working at SCE, I was in private practice in Milwaukee, Wisconsin,
18 and Scottsdale, Arizona and also worked at the California Energy Commission. During
19 my tenure at SCE, I have held various engineering, program management, supervisory,
20 and management positions.

21 Q. What is the purpose of your testimony in this proceeding?

22 A. The purpose of my testimony in this proceeding is to sponsor portions of Exhibit SCE-1,
23 as identified in the Table of Contents thereto.

24 Q. Was this material prepared by you or under your supervision?

25 A. Yes, it was.

26 Q. Insofar as this material is factual in nature, do you believe it to be correct?

27 A. Yes, I do.

28 Q. Insofar as this material is in the nature of opinion or judgment, does it represent your best
29 judgment?

30 A. Yes, it does.

31 Q. Does this conclude your qualifications and prepared testimony?

1

A. Yes, it does.

1 Q. Does this conclude your qualifications and prepared testimony?

2 A. Yes, it does.

1 **SOUTHERN CALIFORNIA EDISON COMPANY**
2 **QUALIFICATIONS AND PREPARED TESTIMONY**
3 **OF CAMPBELL B. HAWKINS**

4 **Q. Please state your name and business address for the record.**

5 A. My name is Campbell B. Hawkins, and my business address is 6042 N. Irwindale
6 Avenue, Irwindale, CA 91702.

7 **Q. Briefly describe your present responsibilities at the Southern California Edison Company.**

8 A. I am the Manager of the Non-Residential Energy Efficiency Portfolio in the Customer
9 Service Business Unit, at Southern California Edison. I am responsible for providing the
10 leadership for all aspects of focus for the Non-Residential Energy Efficiency Portfolio,
11 including strategic direction and program development, project management, analytical
12 support and all other leadership functions.

13 **Q. Briefly describe your educational and professional background.**

14 A. After serving our country as a commissioned officer in the United States Army for five
15 years, I left the service in 1989 and joined the Scientific Products Division of Baxter
16 International, a Fortune 100 company. From 1992 to 1997, I held various sales and sales
17 management positions with a start-up medical information management firm, DataMed
18 International. In 1997, I joined Global Solar Energy and led their Business Development
19 efforts until 1998. From 1998 until 2000, I was a Vice President of Customer Service
20 with New Energy, a retail electricity provider. After leaving New Energy in 2000, I co-
21 founded TrueEnergy and was their Vice President of Sales and Marketing for three years.
22 From 2004 until 2005, I managed the California and Texas markets for Strategic Energy,
23 another retail electricity provider. Beginning in May 2005, I have managed SCE's
24 Economic and Business Development team. In January 2008, I joined SCE's EE division
25 as the Manager of the Non-Residential EE Portfolio.

26 **Q. What is the purpose of your testimony in this proceeding?**

27 A. The purpose of my testimony in this proceeding is to sponsor the portions of Exhibit
28 SCE-1, as identified in the Table of Contents thereto.

29 **Q. Was this material prepared by you or under your supervision?**

30 A. Yes, it was.

31 **Q. Insofar as this material is factual in nature, do you believe it to be correct?**

32 A. Yes, I do.

1 Q. Insofar as this material is in the nature of opinion or judgment, does it represent your best
2 judgment?

3 A. Yes, it does.

4 Q. Does this conclude your qualifications and prepared testimony?

5 A. Yes, it does.

SOUTHERN CALIFORNIA EDISON COMPANY
QUALIFICATIONS AND PREPARED TESTIMONY
OF MARIAN V. BROWN

1
2
3
4 Q. Please state your name and business address for the record.

5 A. My name is Marian V. Brown, and my business address is 6042 N. Irwindale Avenue
6 Irwindale, California, 91702.

7 Q. Briefly describe your present responsibilities at the Southern California Edison Company
8 (SCE).

9 A. I am the manager of Measurement and Evaluation. My primary responsibilities are
10 planning, supervising staff, and supervising projects involving measurement, market
11 assessment, and evaluation of energy efficiency, low income, and demand response
12 programs.

13 Q. Briefly describe your educational and professional background.

14 A. I received a Doctor of Philosophy (Ph.D.) degree in Economics from Stanford University
15 in 1979 and a Bachelor of Arts (B.A.) degree in Economics from Pomona College in
16 1968. Prior to joining SCE in 1986, I was an Assistant Professor of Economics at
17 Pomona College from 1977 to 1986, a Visiting Scholar to the Social Security
18 Administration in 1984-1985, and a Senior Research Analyst at the National Bureau of
19 Economic Research--West from 1975-1977.

20 I have been SCE's witness for program measurement and evaluation issues in energy
21 efficiency and demand response proceedings since the early 1990s. I am SCE's
22 representative to the California DSM Measurement Advisory Committee (CADMAC)
23 and the California Measurement Advisory Council (CALMAC), and I currently serve as
24 chair of CALMAC. I am a life member and past president of the Association of Energy
25 Services Professionals.

26 Q. What is the purpose of your testimony in this proceeding?

27 A. The purpose of my testimony in this proceeding is to sponsor the portions of Exhibit
28 SCE-1, as identified in the Table of Contents thereto, and Exhibit SCE-8.

29 Q. Was this material prepared by you or under your supervision?

30 A. Yes, it was.

31 Q. Insofar as this material is factual in nature, do you believe it to be correct?

1 A. Yes, I do.

2 Q. Insofar as this material is in the nature of opinion or judgment, does it represent your best
3 judgment?

4 A. Yes, it does.

5 Q. Does this conclude your qualifications and prepared testimony?

6 A. Yes, it does.

1 A. Yes, it does.

2 Q. Does this conclude your qualifications and prepared testimony?

3 A. Yes, it does.

Appendix B

SCE 2009-2011 Energy Efficiency Program Plan

Abbreviations & Acronyms

**SCE 2009-2011 ENERGY EFFICIENCY PROGRAM PLAN
ABBREVIATIONS & ACRONYMS**

Abbreviation/Acronym	Definition
AB 32	Assembly Bill 32 (Nunez, 2006)
AB 1103	Assembly Bill 1103 (Saldena, 2007)
AC	Alternating Current
ACCA	Air Conditioning Contractors of America
ACEEE	American Council for an Energy Efficient Economy
ACR	Assigned Commissioner Ruling
AERS	Automatic Energy Review for Schools
AESC	Alternative Energy Systems Consulting
Ag MSP	Agricultural and Water Systems Market Segment Plan
AgEE	Agricultural Energy Efficiency Program
AGTAC	Agriculture Technology Application Center
AHP	Advanced Home Program
AHRI	Air Conditioning, Heating & Refrigeration Institute
AH-SCP	Advanced Home Component of Sustainable Communities Program
AHU	Air Handling Unit
AIA	American Institute for Architects
ALJ	Administrative Law Judge
AMI	Advanced Metering Infrastructure
ANSI	American National Standards Institute
AQMD	Air Quality Management District
ARCA	an appliance recycling company
ARP	Appliance Recycling Program

**SCE 2009-2011 ENERGY EFFICIENCY PROGRAM PLAN
ABBREVIATIONS & ACRONYMS**

Abbreviation/Acronym	Definition
ASHRAE	American Society of Heating, Refrigeration, & Air Conditioning Engineers
ATP	Authorization To Proceed
BAS	Building Automation System
BBEES	Big Bold Energy Efficiency Strategies
BCEP	Business and Consumer Electronics Program
BCS	Building Control System
BELP	Beaumont Energy Leader Partnership
BIE	Business Incentive Element
BIG	Build It Green
BIS	Business Incentives Services
BMS	Building Controls Management Systems
BOC	Building Operator Certification
BOMA	Building Owners Management Association
BOMI	Building Owners and Management Institution
BPI	Building Performance Institute
BSC	Building Standards Commission
BSE	Business Services Element
BTU TM	Building Tune Up
C&S	Codes & Standards
CAC	Central Air Conditioning
CALBO	California Building Code Officials
CALMAC	California Measurement Advisory Council

**SCE 2009-2011 ENERGY EFFICIENCY PROGRAM PLAN
ABBREVIATIONS & ACRONYMS**

Abbreviation/Acronym	Definition
CANHP	California New Homes Program
CARB	California Air Resources Board
CARE	California Alternate Rates for Energy
CASE	Codes And Standards Enhancement
CASH	Coalition for Adequate School Housing
CBIA	California Building Industry Association
CBO	Community Based Organization
CBPCA	California Building Performance Contractors' Association
CCC	California Community College
CDCR	California Department of Corrections & Rehabilitation
CDE	California Department of Education
CEC	California Energy Commission
CEE	Consortium for Energy Efficiency
CEEA	California Energy Efficiency Alliance
CEESP	California Energy Efficiency Strategic Plan
CEP	Community Energy Partnership
CER	Carbon Emission Reduction
CFA	Call for Abstracts
CFL	Compact Fluorescent Lamps
CHA	California Hospital Association
CHEERS	California Home Energy Efficiency Rating System
C-HERS	California Home Energy Rating System
CHP	California Highway Patrol

**SCE 2009-2011 ENERGY EFFICIENCY PROGRAM PLAN
ABBREVIATIONS & ACRONYMS**

Abbreviation/Acronym	Definition
CHPD	Comprehensive Home Performance Delivery
CHPP	Comprehensive Home Performance Program
CHPST TM	Collaborative for High Performance Schools
CHSA	California Head Start Association
CIRB	California Industry Research Board
CLEO	Community Language Efficiency Outreach
CMHP	Comprehensive Mobile Home Program
CNCQA	Commercial New Construction Quality Assurance
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
COG	Councils of Government
CPEEP	California Preschool Energy Efficiency Program
CPUC	California Public Utilities Commission
CRA	Community Reinvestment Act
CRT	Cathode-Ray Tube
CSHE	California Society of Healthcare Engineering
CSI	California Solar Initiative
CSLB	California State Licensing Board
CSR	Customer Service Representative
CSU	California State University
CTAC	Customer Technology Application Center
CTE	Governor's Career Technical Education Initiative

**SCE 2009-2011 ENERGY EFFICIENCY PROGRAM PLAN
ABBREVIATIONS & ACRONYMS**

Abbreviation/Acronym	Definition
CVAG	Coachella Valley Council of Governments
Cx	Commission
DA	Design Assistance
DAA	Design Assistance Agreement
DCEEP	Data Centers Energy Efficiency Program
DCELP	Desert Cities Energy Leader Partnership
DCOP	Data Center Optimization Program
DCV	Demand Control Ventilation
DDC	Direct Digital Control
DEER	Database for Energy Efficiency Resources
DG	Direct Generation
DGS	Department of General Services
DHW	Domestic Hot Water
DMA	Dominant Market Area
DMV	Department of Motor Vehicles
DOE	Department Of Energy
DOF	Department of Finance
DR	Demand Response
DRA	Division of Ratepayer Advocates
DSA	Department of State Architects
DSM	Demand Side Management
DTI	Design Team Incentive

**SCE 2009-2011 ENERGY EFFICIENCY PROGRAM PLAN
ABBREVIATIONS & ACRONYMS**

Abbreviation/Acronym	Definition
E3	Energy and Environmental Economics, Inc.
EAP	Emergency Action Plan
EARTH	Educate Action Responsibility Teamwork Home
EDR	Energy Design Resources
EE	Energy Efficiency
EEM	Energy Efficiency Measure
EEMIS	Enterprise Energy Management Information System
EEPAM	Energy Efficiency Programs Adjustment Mechanism
EL	Energy Leader
ELP	Energy Leader Partnership
EM&V	Evaluation, Measurement & Verification
EMD	Energy Management Division
EMS	Energy Management System
EP	Efficiency Partnership
EP&QA	Engineering, Planning And Quality Assurance
EPA	Environmental Protection Agency
ERP	Enterprise Resource Planning
ERRA	Energy Resource Recovery Account
ESCO	Energy Services Company
ESELP	Eastern Sierra Energy Leader Partnership
ESP	Electrical Service Planning
ESPC	Energy Savings Performance Contract

**SCE 2009-2011 ENERGY EFFICIENCY PROGRAM PLAN
ABBREVIATIONS & ACRONYMS**

Abbreviation/Acronym	Definition
ET	Emerging Technologies
ETCC	Emerging Technology Coordinating Council
ETP	Emerging Technologies Program
ETTC	Energy Technology Test Centers
EUL	Expected Useful Lives
FBO	Faith Based Organization
FDD	Fault Detection and Diagnostics
FERA	Family Electric Rate Assistance
FSE	Financial Solutions Element
FSTC	Food Service Technology Center
FYP	Flex Your Power™
G&I	Government & Institutional
GBAP	Green Building Action Plan
GBI	Green Building Initiative
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GWh	Gigawatt Hour
HAN	Home Area Network
HCD	Housing and Community Development
HEEP	Healthcare Energy Efficiency Program
HEER	Home Energy Efficiency Rebates
HEERP	Home Energy Efficiency Rebate Program

**SCE 2009-2011 ENERGY EFFICIENCY PROGRAM PLAN
ABBREVIATIONS & ACRONYMS**

Abbreviation/Acronym	Definition
HEES	Home Energy Efficiency Survey Program
HERS	Home Energy Rating Scale
HID	High-Intensity Discharge
HSEF	High Sierra Energy Foundation
HSEI	High Sierra Energy Initiative
HUD	Housing and Urban Development
HVAC	Heating, Ventilation and Air Conditioning
ICLEI	Local Governments for Sustainability (formerly the International Council for Local Environmental Initiatives)
ICLS	Integrated Classroom Lighting System
IDEEA	Innovative Design for Energy Efficiency Activities
IDSM	Integrated Demand Side Management
IEPR	Integrated Energy Policy Report
IFMA	International Facility Management Association
IGA	Investment Grade Audits
IGREEN	Institutional and Government Resource for Energy Efficiency Now
IHACI	Institute for Heating & Air Conditioning Industries
IID	Imperial Irrigation District
IndEE	Innovative Designs for Energy Efficiency
IOU	Investor-Owned Utility
ISD	Internal Services Department
ISO	Independent System Operator

**SCE 2009-2011 ENERGY EFFICIENCY PROGRAM PLAN
ABBREVIATIONS & ACRONYMS**

Abbreviation/Acronym	Definition
ITP	Industrial Technology Program
JACO	an appliance recycling company
JLC	Journey of Light Construction
KCEWP	Kern County Energy Watch Partnership
KEEP	Kern Environmental Education Program
KEMA	Energy-efficiency consultant
kW	kilowatt
kWh	kilowatt hour
LACMTA	Los Angeles County Metropolitan Transportation Authority
LACOE	Los Angeles County Office of Education
LADWP	Los Angeles Department of Water and Power
LAUSD	Los Angeles Unified School District
LBELP	Long Beach Energy Leader Partnership
LCD	Liquid Crystal Display
LED	Light Emitting Diode
LEED™	Leadership in Energy and Environmental Design
LGI	Local Government Initiative
LGP	Local Government Partnership
LIEE	Low Income Energy Efficiency
M&V	Measurement & Verification
MAP	Management Affiliates Program
MBCx	Monitoring-Based Commissioning
MBPCx	Monitoring-Based Persistence Commissioning Program

**SCE 2009-2011 ENERGY EFFICIENCY PROGRAM PLAN
ABBREVIATIONS & ACRONYMS**

Abbreviation/Acronym	Definition
MDx	Measure Database
ME&O	Marketing, Education & Outreach
MEU	Mobile Energy Unit
MFEER	Multi-Family Energy Efficiency Rebate Program
MOU	Memorandum of Understanding
MPS	Master Production Scheduling
MSP	Market Segment Plans
MT	Market Transformation
MW	Megawatt
MWD	Metropolitan Water District
MWh	Megawatt Hour
NAHB	National Association of Homebuilders
NAICS	North American Industry Classification System
NARI	National Association of the Remodeling Industry
NATE	North American Technician Excellence
NCS	New Construction Services
NEEP	Northeast Energy Efficiency Partnerships
NGO	Non-Government Organization
NOx	Mono-Nitrogen Oxides (NO and NO ₂)
NR	Non-Residential
NSHP	New Solar Homes Partnership
NTG	Net-to-Gross Ratios

**SCE 2009-2011 ENERGY EFFICIENCY PROGRAM PLAN
ABBREVIATIONS & ACRONYMS**

Abbreviation/Acronym	Definition
O&M	Operations & Maintenance
OBF	On-Bill Financing
OCCELP	Orange County Cities Energy Leader Partnership
OSHPD	Office of Statewide Health Planning & Development
PAC	Program Administrator Cost
PAG	Program Advisory Group
PC	Personal Computer
PCEESP	Preliminary California Energy Efficiency Strategic Plan
PCHEER	Private College Campus Housing Energy Efficiency Program
PD	Peak Demand
PDA	Personal Digital Assistant
PEAK	Peak demand for energy usage
PEARL	Program for Evaluation and Analysis of Residential Lighting
PEB	Performance Earnings Basis
PEEBA	Procurement Energy Efficiency Balancing Account
PEESP	Preliminary Energy Efficiency Strategic Plan
PEPMA	Proposal Evaluation and Proposal Management Application
PG&E	Pacific Gas & Electric
PGC	Public Goods Charge
PIER	Public Interest Energy Research
PIP	Program Implementation Plans
PLEP	Plug Load Efficiency Program

**SCE 2009-2011 ENERGY EFFICIENCY PROGRAM PLAN
ABBREVIATIONS & ACRONYMS**

Abbreviation/Acronym	Definition
PM10	Particulate Matter of 10 micrometers or less
PO	Purchase Order
POS	Point-of-Sale
PPPAM	Public Purpose Programs Adjustment Mechanism
PPPC	Public Purpose Programs Charge
PRG	Peer Review Group
PTAC	Packaged Terminal Air Conditioner
PU	Public Utilities
PV	Photovoltaic
QA	Quality Assurance
QC	Quality Control
QI	Quality Installation
QM	Quality Maintenance
R&D	Research & Development
RCA	Refrigerant Charge Adjustment
RCC	Resource Conservation Commission
RCx	Retro-commissioning
RD&D	Research, Development and Demonstration (or Deployment)
REL P	Ridgecrest Energy Leader Partnership
RETA	Refrigeration And Technical Engineering
RFP	Requests for Proposals
RFQ	Request for Qualifications

**SCE 2009-2011 ENERGY EFFICIENCY PROGRAM PLAN
ABBREVIATIONS & ACRONYMS**

Abbreviation/Acronym	Definition
RLW	Roger L. Wright Analytics, a consulting firm
RMSP	Residential Market Segmentation Plan
ROI	Return On Investment
RP&A	Regulatory Policy and Affairs
RS&E	Runyon, Saltzman, & Einhorn
SA	Systems Approach
SAELP	Santa Ana Energy Leader Partnership
SAS	Statistical Analysis System
SBCCOG	South Bay Cities Council Of Governments
SBD	Savings By Design
SBELP	South Bay Energy Leader Partnership
SCE	Southern California Edison
SCELP	South County Energy Leader Partnership
SCG	Southern California Gas
SCP	Sustainable Communities Program
SDG&E	San Diego Gas and Electric
SEAT	Student Energy Audit Training
SEER	Seasonal Energy Efficiency Rating
SEP	Strategic Energy Plan
SGELP	South Gate Energy Leader Partnership
SGIP	Self Generation Incentive Program
SJVCEO	San Joaquin Valley Clean Energy Coalition
SJVELP	San Joaquin Valley Energy Leader Partnership

**SCE 2009-2011 ENERGY EFFICIENCY PROGRAM PLAN
ABBREVIATIONS & ACRONYMS**

Abbreviation/Acronym	Definition
SM	Energy \$mart
SMART	Subcontractor Management And Reporting Tool
SMUD	Sacramento Municipal Utilities District
SOW	Statement of Work
SPA	Simplified Approach for Small Projects
SPB	Simple Payback
SPC	Standard Performance Contract
SPEED	Statewide Partnership for Energy Efficiency Demonstrations
SVELP	Simi Valley Energy Leader Partnership
SW	Statewide
T5	CFL size
T8	CFL size
T12	CFL size
T&D	Transmission & Distribution
T&E	Training & Education
TA	Technical Assistance
TBD	To Be Determined
TDV	Time Dependent Valuation
TI	Technical Incentive
TRC	Total Resource Cost
TRIO	Technology Resource Incubator Outreach
TTC	Technology and Test Center

**SCE 2009-2011 ENERGY EFFICIENCY PROGRAM PLAN
ABBREVIATIONS & ACRONYMS**

Abbreviation/Acronym	Definition
UC	University of California
UCOP	University of California Office of the President
UESCO	Utility Energy Services Contracts
UPS	Uninterruptible Power Source
USA	United States of America
USGBC	United States Global Business Council
USGBC	United States Green Building Council
VAC	Volts-Alternating Current
VAV	Variable Air Volume
VCELP	Ventura County Energy Leader Partnership
VCREA	Ventura County Regional Energy Alliance
VEA	Voluntary Early Actions
VFD	Variable Frequency Drive
VSD	Variable Speed Drive
WBA	Whole Building Approach
WE&T	Workforce Education & Training
ZNE	Zero Net Energy