

Residential Statewide Program

	Mission
SW Program: Residential	Residential Energy Efficiency Program (REEP) is designed to offer and promote specific and comprehensive energy solutions within the residential retrofit and lighting markets. The residential customer base of California IOUs constitute one of the largest and most challenging groups of electricity consumers in the nation due to its diversity, complexity and size. The residential energy efficiency portfolio has been developed to deliver a wide array of programs and services to increase awareness of energy efficiency and to provide relevant energy efficient solutions. The residential program portfolio is designed to affect up-stream manufacturers, mid-stream retailers and channels, market actors and contractors, home-owners, tenants, and property-owners and managers with the goals to influence their short-term to long-term EE awareness, knowledge, attitude and behavior.

CA EESP Goals/Strategies Addressed by SW Program:	CA EESP Ref. pp. #
See subprograms.	

Short-term (2010-2012) “SMART” Program Objectives:	Source (SP, AL, DR, PIP, or Staff)*	IOU Recommendations and Comments
None proposed at program level. (See subprogram level.)		Add: Starting 2010, for each program cycle to increase and maintain program targets' (defined as homeowners, renters, property owners/managers) EE awareness, knowledge and attitude (AKA) to increase program participation behavior from prior program cycle base. If no baseline exists for 2006-2008, a baseline for 2012 will be created. For sub-program message- AKA-B (behavior) objectives, please refer to specific programs below.

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		<p>Comment This is in agreement with the discussion in the MEO s The decision was to move the EE AKA-related objec and metrics to the residential sub-program portfo Since there are general EE AKA objectives and s program/message-specific AKA objectives, the IO recommend setting general AKA objectives and P the portfolio level. For sub-program-specific AKA objectives, such as level of AKA for recycling ben please refer to the specific sub-programs below.</p>
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Short-term <u>Program</u> PPMs:	Source (SP, AL, DR, PIP, or Staff)*	Metric Type (2a or 2b)**	Baseline Study Required (Y/N)	IOU Recommendations and Comm
None proposed at program level. (See subprogram level.)				<p>Add By targeted populations (homeowne renters, property owners/managers) PPM-1a: % increase in level of EE awareness, PPM-1b: % increase in level of EE knowledge, PPM-1c: % increase in level of EE a Comment: To effectively measure the above thr PPM-1, a list of questions to discern must be agreed to, statewide.</p>

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

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

Long-Term (2013-2020) "SMART" <u>Program</u> Objectives:	Source (SP, AL, DR, PIP, or Staff)*	IOU Recommendations and Comm
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<p>Objective 1: Energy consumption in existing homes will be reduced by 20% by 2015 and 40% by 2020;</p> <ul style="list-style-type: none"> ▪ 25% of existing SF homes have a 70% decrease in purchased energy from 2008 levels ▪ 75% of existing SF homes have a 30% decrease in purchased energy from 2008 levels ▪ 100% of existing multi-family homes have a 40% decrease in purchased energy from 2008 levels 	SP	OK
		<p>Add: Starting 2010, for each program cycle, increase or maintain program targets' (directional objective) as homeowners, renters, property owners/managers) AKA-B, concerning scription of responsibility, green/smart- and environmental issues. Use 2010-2011 create baselines.</p>
		<p>Add: Starting 2012, Increase or maintain the California program portfolio's IDSM serv by each program cycle. (directional objective)</p> <p>Comment: IOUs recommend adding the following Objective-3 from ARP to REEP:</p>

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

Long-Term MT Indicators:	Source (SP, AL, DR, PIP, or Staff)*	Metric Type (3)**	Baseline Study Required (Y/N)	IOU Recommendations and Comments
<p>MT Indicator 2: Average energy use/ft2 in existing homes (kwh, therms, KW)</p>	SP	3	Y (may already be available)	<p>OK</p> <p>Comment: This MT indicator must be clear</p>

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				defined so it can be measurable. minimum, we need to separate single family homes from multi-dwelling complexes.
<p>MT Indicator 3: Percentage and number of homes where the purchased energy is reduced by 20%, 40% or 70% by 2013, 2017 and 2020 from 2008 baseline Comment: using 2008 baseline may be problematic. 2010 baseline makes more sense. CC: Program design starts at 10%. JC: SP is focused efficiency; ZNE is purchased energy.</p>	SP	3	Y (may already be available)	<p>Comment: IOU Comment Perhaps consider establishing types of baselines:</p> <ul style="list-style-type: none"> • Using billing analysis to identify residential accounts (single metered) that achieved 10%, 30%, 70% reduction of purchased energy by doing a comparison between 2010 and 2008. • In 2010, survey these households to find out how they were able to achieve these purchased energy reductions. This step is important so program designs for whole house and whole-apartment programs can be better informed by data.

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

Residential – Home Energy Efficiency Survey

	Mission
SW Program: Residential	This program is a continuation of the existing statewide Home Energy Efficiency Survey (HEES) program within the Residential energy efficiency portfolio. The program provides customers with information to help them become familiar with ways to control and reduce energy and water usage in their homes by offering customers up to four options (mail-in survey, on-line survey, phone survey, and in-home survey) in multiple languages (English, Spanish, Vietnamese, Chinese and Korean) including an action plan for implementation. The program also provides survey results to enable participants to understand how their energy use varies throughout the year and how their household compares with similar households. This multi-language approach enhances the program's ability to reach California's diverse culture and provides efficiency recommendations based on a whole-house system approach.
SW <u>Sub</u> -program: Home Energy Efficiency Survey (HEES)	

CA EESP Goals/Strategies Addressed by SW <u>Sub</u>-program:	CA EESP Ref. pp. #
Goal 2.1: 25% of existing homes have a 70% decrease in purchased energy from 2008 levels; 75% of existing homes have a 30% decrease in purchased energy from 2008 levels.	p. 19
CA EE SP Goal 2: Home buyers, owners and renovators will implement a whole-house approach to energy consumption that will guide their purchase and use of existing and new homes, home equipment (e.g., HVAC systems), household appliances, lighting, and "plug load" amenities.	p. 11
CA EE SP Goal 8.3 – DSM Coordination and Implementation – Deliver integrated DSM options that include energy efficiency, demand response, energy management and self-generation measures, through coordinated marketing and regulatory integration. The HEES program will seek partnerships with local water agencies, municipals and other key stakeholders to develop and implement a comprehensive plan to promote water conservation. Further integration strategies will also include DSM (CSI, SDP, Peak Demand, etc.), LIEE and energy efficiency programs.	p. 72
CA EE SP Goal 9.2 – Workforce, Education and Training. Ensure that minority, low-income and disadvantage communities fully participate in training and education programs at all levels of the DSM and energy efficiency industry. For IOUs offering in-home surveys, the HEES in-home survey team will be comprised of a contracted (and in some cases utility staff) workforce who will be trained in areas of energy conservation and technologies towards an increased knowledge base of demand-side management and energy efficiency. A comprehensive training curriculum will be	p. 78

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implemented to formalize the knowledge base of the survey force. This strategy falls in line with a goal of the WE&T Strategic Plan intended to ensure that minority, low-income and disadvantage individuals fully participate in training and education programs at all levels of demand-side management and energy efficiency.	
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Short-term (2010-2012) “SMART” <u>Sub-program</u> Objectives:	Source (SP, AL, DR, PIP, or Staff)*	IOU Recommendations and Comments
1. Achieve annual survey targets as identified in PIPs. (If not specified in PIPs, IOUs will provide.)	Staff	Ok
2. By 2012, increase HEES program participation among low-income and minority communities by X percent and vice versa (?). Central objective or not?	Staff	Delete Comment: Not a central objective of HEES – to be tracked in coordination with the LIEE program
3. By 2012, increase understanding of energy efficiency among program participants by X percent relative to 2006-2008 baseline	Staff	Revise to: By end of 2012, increase in knowledge/awareness of energy efficiency among program participants relative to 2006-2008 baseline
4. By 2012, X% of HEES participants subsequently participate in 1 or more additional programs (e.g. Whole House Retrofit, LIEE, ARP, or CSI)	Staff	Revise to: Measurement for baseline by end of 2012 to show percentage of HEES participants who subsequently participate in additional programs (e.g. Whole House Retrofit, LIEE, ARP, or CSI)
5. By 2012, develop a comprehensive plan to promote water conservation in partnership with local water agencies, municipals and other key stakeholders	PIP (appended to SP Goal 8.3, as posted above)	Revise to: By end of 2012, HEES will be leveraged to promote water conservation in partnership with local water agencies, municipals and other key stakeholders

Short-term <u>Sub-program</u> PPMs:	Source (SP, AL, DR, PIP, or Staff)*	Metric Type (2a or 2b)**	Baseline Study Required (Y/N)	IOU Recommendation Comments

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1. Percentage of HEES participants with increased AKA of energy efficiency	Staff	2b	Y	Revise to: Percentage of HEES participants with increased knowledge of energy efficiency
2. Percentage of HEES participants that; a) enroll in another EE program (ie, use incentives); change (IOUs requested to list programs where this could be tracked – or not). b) implement a HEES recommendation via behavior PG&E; IDSM tool the “Progressive Energy Audit Tool”, when developed, will/SHOULD track this and will REPLACE HEES (we think; EM&V study is evaluating “evalualability” of PEAT). Data to track this through HEES may be limited/unavailable. Needed data is customer account number. 3. For the 2b approach, customer interviews should parse out motivation for implementing a recommendation from the audit- was it the audit or some other input. 4. More discussion on measurement method needed.	Staff	2b Suggestion b would be 2b	N	Revise to: Percentage of HEES participants that enroll in another IOU program Comment: Requires baseline study
5. Percentage of HEES participants who are members of low-income or minority communities relative to a 2010 baseline. SCE/Sempra use HEES to identify LI/minority households and to route to LIEE/CARE. More relevant as metric for LIEE program? Consider deleting? Relevant issue is to ensure that all IOU HEES programs have functionality to route LIEE-CARE qualified customers to those programs.	Staff	2a	Y	Delete Comment: Not a central objective of HEES program Not tracked in coordination with LIEE program

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Long-Term (2013-2020) “SMART” Sub-program Objectives:	Source (SP, AL, DR, PIP, or Staff)*	IOU Recommendations and Comments
None proposed.		NA

Long-Term Sub-program MT Indicators:	Source (SP, AL, DR, PIP, or Staff)*	Metric Type (3)**	Baseline Study Required	IOU Recommendations and Comments

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			(Y/N)	
None proposed.				NA

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

Residential - Basic CFL Subprogram

	Mission	IOU Recommendations and Comments
SW Program: Residential	The Residential Lighting Incentive Program that has run successfully for several years has been separated into two programs: the Basic CFL program, and the Advanced Consumer Lighting Products program. The basic lighting program aims to increase consumer purchase and installation of basic medium screw base (MSB) CFLs in homes (and businesses). It does this by rebating MSB bulbs sold by major manufacturers in California and enrolling retail outlets to sell the discounted bulbs.	IOUs would like to make the following clarification to the mission statement: (1) Definition of Basic CFLs: Less than 30 W, spiral, non-dimmable ONLY This program will continue to offer appropriate messaging to support program objectives.
SW <u>Sub-program</u> : Basic CFL subprogram		

CA EESP Goals/Strategies Addressed by SW <u>Sub-program</u> :	CA EESP Ref. pp. #
<u>Goal 4 (residential)</u> : The residential lighting industry will undergo substantial transformation through the deployment of high-efficiency and high-performance lighting technologies, supported by state and national codes and standards.	p. 11
<u>Strategy 4-1</u> : Drive continual advances in lighting technology through research programs and competitions (near-term objectives)	p. 24
<u>Strategy 4-3</u> : Continuously strengthen standards. (near-term objectives)"	p. 24
<u>Strategy 4-4</u> : Coordinated phase out of Utility promotions for purchase of CFLs. (near-term objectives)	p. 24
<u>Strategy 4-5</u> : Ensure environmental safety of CFLs and other emerging lighting solutions. (near-term objectives)	p. 24
<u>Goal 3 (commercial)</u> : The commercial lighting industry will undergo substantial transformation through the deployment of high-efficiency and high-performance lighting technologies, spurred by state, national codes and standards and leading-edge incentive strategies.	p. 41
<u>Strategy 3-2</u> : Create demand for improved lighting products through demonstration projects, marketing efforts, and utility programs. (near-term objectives)	p. 41
<u>Strategy 3-3</u> : Coordinated phase out of Utility promotions for purchase of CFLs. (near-term objectives)	
<i>Note: CA EESP Goals/Strategies section needs to be updated to final adopted Strategic Lighting Plan</i>	

Short-term (2010-2012) “SMART” <u>Sub-program</u> Objectives:	Source (SP, AL, DR, PIP, or Staff)*	IOU Recommendations and Comments

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<p>Objective 1: Achieve annual savings/product targets (add by IOU)</p> <p>the quantitative program targets (increase participating retailer locations 10% annually; and, increase products sold less than 30 watts 10% annually).</p>	<p>PIP</p>	<p>Revise to: By 2012, achieve activity targets specified in the PIP as specified by each IOU. (1) For SCE, see table 5, page 10 (2) PG&E, see PG&E activity targets in the filing, (3) For SDG&E, see SDG&E activity targets in the filing.</p>
<p>Alternate Objective 2: Taking into account NTG ratios, optimize and diversify retailer participation by channel and location in order to increase rebated basic CFL availability for the whole market (by 2012 as compared to 2008 channels/locations)</p> <p>Objective 2: Increase the number of participating retailer locations in lower-moderate income neighborhoods (excluding LIEE targets) by X% relative to 2008 levels. "Low income" from PIP- IOU to do: define. Have 2008 data by retail channel, not low-income neighborhood. 2008 census as data source. Do not target by demographics (SCE).</p> <p>Alternate Objective: Increase (optimize?) the number of participating "discount stores" (would need to be defined by IOUs)</p> <p>Consider quality of bulbs within program; add possible metric. Discussion on raising quality level of products.</p>	<p>PIP, Staff</p>	<p>Revise to: By 2012, Enhance distribution channels while optimizing program net-to-gross and desire to increase distribution channels that better serve lower-income and underserved reach populations.</p>
		<p>Add: During 2010-2012, demonstrate increased proportion of advanced lighting program activities (i.e., rebate level, kW, kWh) over Basic CFLs while optimizing energy savings and net-to-gross goals. (IOU specific directional goal)</p>

<p>Short-term <u>Sub-program</u> PPMs:</p>	<p>Source (SP, AL, DR, PIP, or Staff)*</p>	<p>Metric Type (2a or 2b)**</p>	<p>Baseline Study Required (Y/N)</p>

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PPM 1: Basic CFL: Implement marketing campaign to “install CFLs immediately” or “shelves to sockets” campaign by (date ?) as required in D-09-09-047 (Y/N) IOU to do: discuss and agree on specifics; brief ED on plan at monthly meetings and/or share updated plan with ED. Deleted previous	AL	2b	N	Revise to: During 2010-2012, implement marketing and/or campaign to encourage prompt installation of CFLs as required in D (Y/N metric)
delete	Staff	2b	Y	Delete
PPM 3: Number of retailer locations participating in program, including those in low-income neighborhoods Alternate PPM: Channel type and diversity of location of participating retailers	PIP, Staff	2a	N	Revise to: % kW/kWh/Qty of incented products Basic CFL program as compared to Advanced Lighting program.
PPM 4: Number of incented products less than 30 Watts sold in participant retail stores	PIP, Staff	2a	Y	Delete Comment: This PPM can be rolled up into PPM

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Long-Term (2013-2020) “SMART” <u>Sub-program</u> Objectives:	Source (SP, AL, DR, PIP, or Staff)*	IOU Recommendations and Comments
Objective 1: Achieve y% reduction in non-discounted basic CFLs price above 2008-09 levels by 2015.	Staff	OK Comment: This objective should apply to the lighting for non-IOU-incented products
Objective 2: Achieve 60% saturation of the eligible medium screw base (MSB) market in California by the end of Relocate to Advanced Lighting Program/combine with objectives there. Modify to “increasing” saturation? Should be “efficient lighting,” not specific to MSB	PIP, Staff	Revise to: By 2020 60% of “general service” lighting California will be high-efficiency lighting

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Long-Term Sub-program MT Indicators:	Source (SP, AL, DR, PIP, or Staff)*	Metric Type (3)**	Baseline Study Required (Y/N)	
MT Indicator 1: Number of basic CFLs sold annually (note: for entire market, not IOU-rebated CFLs)	Staff	3	N	Revise to: # of basic CFLs sold annually in the Calif
MT Indicator 2: Market share of efficient and inefficient lighting (needs defining- align now with advanced lighting definition and revise over time?) Challenge getting data; could also look into collaboration with CEE to get data). Efficacy of lamps and sales data as considerations.	Staff	3	Y	Revise to: Market share of "general service" lighting efficiency lighting
MT Indicator 3: Price of non-discounted MSB CFLs	Staff	3	N	Delete
MT Indicator 4: Saturation of eligible sockets (MSB, non-dimming, interior) with CFLs or better	Staff	3	N	OK

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Residential – Advanced Consumer Lighting Subprogram

	Mission	IOU Recommendations and Comments
SW Program: Residential	The Advanced Consumer Lighting Program: The Residential Lighting Incentive Program that has run successfully for several years has been separated into two programs: the Basic CFL program, and the Advanced Consumer Lighting Products program. The Advanced Consumer Lighting program also provides participating retailers with up-stream incentives in the form of buy-downs that reduce the cost of energy-efficient lighting products. The program introduces new and advanced energy-efficient lighting products to the market and strives to influence future purchasing behaviors of customers. The definition of advanced lighting is all lighting products excluding bare spiral bulbs of 30 watts or less bare spiral CFLs, non-dimmable.	Definition: Basic lighting is defined as less than 30 W bare spiral, non-dimmable products, ONLY. Advanced Lightings products defined as all else.
SW <u>Sub-program</u> : Advanced Consumer Lighting Program		

CA EESP Goals/Strategies Addressed by SW <u>Sub-program</u>:	CA EESP Ref. pp. #
<u>Goal 4 (residential)</u> : The residential lighting industry will undergo substantial transformation through the deployment of high-efficiency and high-performance lighting technologies, supported by state and national codes and standards.	p. 11
<u>Strategy 4-1</u> : Drive continual advances in lighting technology through research programs and competitions (near-term objectives)	p. 24
<u>Strategy 4-2</u> : Create demand for improved lighting products through demonstration projects, marketing efforts, and utility programs. (near-term objectives)	p. 24
<u>Strategy 4-3</u> : Continuously strengthen standards. (near-term objectives)"	p. 24
<u>Strategy 4-4</u> : Coordinated phase out of Utility promotions for purchase of CFLs. (near-term objectives)	p. 24
<u>Strategy 4-5</u> : Ensure environmental safety of CFLs and other emerging lighting solutions. (near-term objectives)	p. 24
<u>Goal 3 (commercial)</u> : The commercial lighting industry will undergo substantial transformation through the deployment of high-efficiency and high-performance lighting technologies, spurred by state, national codes and standards and leading-edge incentive strategies.	p. 31
<u>Strategy 3-1</u> : Drive continual advances in lighting technology through research programs and competitions (near-term objectives)	p. 41
<u>Strategy 3-2</u> : Create demand for improved lighting products through demonstration projects, marketing efforts, and utility programs. (near-term objectives)	p. 41

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Strategy 3-3: Coordinated phase out of Utility promotions for purchase of CFLs. (near-term objectives)	
<i>Note: CA EESP Goals/Strategies section needs to be updated to final adopted Strategic Lighting Plan</i>	

Short-term (2010-2012) "SMART" <u>Sub-program Objectives:</u>	Source (SP, AL, DR, PIP, or Staff)*	IOU Recommendations and Comments
Objective 1: Increase percentage of advanced lighting fixtures (see list in PIP) incented by IOUs as compared to all lighting products incented by IOUs from yy% in 2010 to xx% in 2012	PIP, D0909047	Revise to: During 2010-2012, increase lighting program results are attributed to advanced lighting program activities (rebate level, kW, kWh) as compared to 2006-2008, optimizing energy savings.
Objective 2: Increase participation in advanced lighting incentive program among retailers and manufacturers by XX% and YY% by 2012 respectively as compared to 2010 participation levels. Taking into account the need to maintain high NGT ratios, optimize the availability of incented advanced lighting products in retail outlets across the state (IOU service territories). IOUs to do: identify "buckets" of types of retail outlets for which to track participation in program. Reflect in PPM.	AL, PIP	Revise to: By 2012, Enhance distribution channel mix while optimizing between program net-to-gross ratios and increasing distribution channels that better serve lower-income and hard-to-reach populations.
Objective 3: Increase annually via the Plug-in Lamp Exchange Program the number (by location) of customer exchange events of incandescent table, desk and floor lamps for efficient lamps (IOU-incented), for LED light strings during holiday season	PIP	Delete
Objective 4: Via the Lighting Showroom Store Outreach program, increase customer purchase of efficient lighting products over 1,100 lumens by xx% by 2012 against 2009 baseline.	PIP	Delete

Short-term <u>Sub-program PPMs:</u>	Source (SP, AL, DR, PIP, or Staff)*	Metric Type (2a or 2b)**	Baseline Study Required (Y/N)	IOU Recommendations and Comments
PPM 1: Number/percentage of advanced lamps/products incented under IOU programs as compared to basic CFLs incented by IOUs (3 buckets of IOU incented lighting: basic, advanced, and through other programs such as t8s, Hid, etc.)	PIP, D0909047	2a	N	Revise to: % kW/kWh/Qty of incented products under Advanced Lighting program as compared to Basic Lighting program

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PPM 2: Number and percentage of retailers (broken out by retailer "buckets") located in IOU service territories participating in the program; PPM 2a) Percentage of Big Box retail locations of participating Big Box retailers offering incented products	PIP, Staff PIP, Staff	2a 2a	N N	Revise to: % of products incented under the Advanced Lighting Program by distribution channel
PPM 3: Number of manufacturers/percentage of manufacturers selling to California market participating in upstream portion of program	PIP, Staff	2a	N	Delete
PPM 4: Number of products per exchange event for lamps and LED holiday lights held as a result of the Plug-in Lamp Exchange Program IOUs concur best to remove since not a significant PPM	PIP, Staff	2a	N	Delete
PPM 6: List of new measures/technologies adopted by the program, as a result of LMT & ETP's efforts (Combine this with LMT PPMs and remove from advanced)	PIPs, Staff, DR (?)	2a	N	Move to LMT

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Long-Term (2013-2020) "SMART" <u>Sub-program</u> Objectives:	Source (SP, AL, DR, PIP, or Staff)*	IOU Recommendations and Comments
Objective 1: Increase sales of LED products xx% by 2015 against 2010 baseline based on number of fixtures	PIP, Staff	Revise to: By 2015, double the sales of LED products state of California, over 2010 baseline.
Objective 2: California Super-CFL program- Increase sales of small, tapered and dimmable CFLs over 2010 baseline by ZZ% by 2015	PIP, Staff	Revise to: By 2015, double the sales of small, tapered dimmable CFLs over 2010 baseline.
Objective 3: Decrease the lighting power density of all residential and commercial lighting applications by XX% and YY% respectively by 2015 over 2010 baseline (enhanced RASS survey needed to get at multiple measures over multiple years, since CLASS and RASS studies don't include these measures would need to start a baseline for this)	SP- Strategic Lighting Plan	Revise to: By 2015, reduce the lighting power density of average commercial application from the 2010 level to meet the Strategic Plan Lighting Change Comment: Residential market sector currently does not use lighting power density as a metric.

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Long-Term Sub-program MT Indicators:	Source (SP, AL, DR, PIP, or Staff)*	Metric Type (3)**	Baseline Study Required (Y/N)	IOU Recommendations and Comments
MT Indicator 1: The average lighting power density of residential and commercial lighting applications	SP, Strategic Lighting Plan, Staff	3	Y (RASS?)	Revise to: The average lighting power density of residential and commercial lighting applications. Comment: Residential market sector currently does not use lighting power density as a metric.

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Residential – Appliance Recycling Subprogram

	Mission	
SW Program: Residential	The Appliance Recycling program is well established, having been offered to SCE customers since 1994.	
SW Sub-program: Appliance Recycling	Customers are offered a \$50 cash incentive for recycling their operating refrigerators or freezers. Recycled appliances are picked up by a 3rd party. The overall goal of this program is to reduce the number of inefficient, older fridges, room ACs and freezers in Californian homes.	<p>During our joint IOU/ED discussion of this program on 9/20/2010, Mikhail Haramati (MKH) of ED requested definitions for “older” appliances and “inefficient” appliances since these are key terms in the mission statement. The following background information should clarify the IOU position on providing such definitions:</p> <ol style="list-style-type: none"> (1) We believe ARP is part of the strategy to reduce long-term net energy purchase for the state of California as part of the Whole House and Whole Apartment strategy. In addition, ARP complements the strategy to support appliance early replacement. (2) ARP is designed to remove older and less efficient refrigerators and freezers from use. The program is designed and justified based on energy savings derived from appliances collected from the program (see the latest HIM study results) and is very cost effective with a positive TRC, calculated using standard procedures. The precise definition of “older” and “inefficient” is not imperative since the program is justified under standard energy efficiency policy. (3) Appliance degradation is a real phenomenon. The refrigerator sealing materials are subject to deterioration such as hardening and becoming less pliable thus reducing the efficiency level through time, despite appliance efficiency rating improvements year after year. This is also demonstrated by the DOE efficiency testing procedure (source: <i>EM&V Study of 2004-05 Statewide</i>



Residential Appliance Recycling Program, Final Report).

In conclusion, IOUS would like to continue operating this statewide program for the following reasons:

- It is a required action to meet deep energy reduction goals in CALTEESP,
- It is complementary to the appliance early replacement strategy,
- The program is cost-effective.

CA EESP Goals/Strategies Addressed by SW <u>Sub-program</u> :	CA EESP Ref. pp. #
Goal 2 (residential): Home buyers, owners and renovators will implement a whole-house approach to energy consumption that will guide their purchase and use of existing and new homes, home equipment (e.g., HVAC systems), household appliances, lighting, and "plug load" amenities.	p. 11
Strategy 2-2: Promote effective decision-making to create widespread demand for energy efficiency measures	p. 20
Strategy 2-3: Manage research into new/advanced cost-effective innovations to reduce energy use in existing homes	p. 20

Short-term (2010-2012) "SMART" <u>Sub-program</u> Objectives:	Source (SP, AL, DR, PIP, or Staff)*	IOU Recommendations and Comments
Objective 1: Capture cost-effective energy savings and demand response opportunities for the benefit of all Californians. MKH: #1, 2 and 3 are not quantifiable/SMART.	AL	Move to the statewide residential EE portfolio () Comment: We are not able to find this objective in the AR specific PIP/AL
Objective 2: Promote support of and compliance with more stringent appliance and building standards.	AL	Move to the statewide residential EE portfolio () Commnet: We are unable to find this objective in the ARP specific PIP/AL .
Objective 3: Develop public awareness and promote effective decision-making to create widespread demand for high efficiency measures.	AL	Move to the REEP portfolio.

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		<p>Comment: We believe general EE AKA should be a portfolio objective for all programs.</p>
<p>Objective 4: Increase consumer awareness and knowledge of and attitudes towards the need to recycle old appliances by X% (from 2008 levels) by 2012. CC: will need baseline. Proposes that we use 2010 as baseline year. Two issues: general ee knowledge across all programs and need to recycle. Some people might not see the need, IOUs will at least educate them of the benefits of doing so. LM: is this two separate metrics: education/awareness component and a metric that measures action among educated customers?</p>	<p>Staff</p>	<p>Revise to: By 2012, the program will increase and/or maintain general EE AKA towards the need to recycle refrigerators/freezers among homeowners and renters by 5% from 2006-2008 baseline levels. (2b type)</p> <p>Comment: Same comments as above regarding consistency of measurement and the level of expected AKA. 2006-2008 process evaluation indicated that program awareness among disposers have improved from 60% (2004-2005) to 70% (2006-2008), so the recommended 5% improvement is reasonable. Baseline data is necessary since the other IOUs do not have baseline data from 2006-2008 program cycle.</p>
<p>Objective 5: By 2012, decrease by X% saturation levels of “inefficient, older refrigerators and freezers” (as defined by the program) in IOU customer homes from 2008 levels. MKH: IOU feedback requested on definition of “inefficiency, older refrigerators and freezers”, which is used in the PIPs. IOUs will do this. CC: will need baseline. Propose using 2010 as baseline year.</p>	<p>Staff</p>	<p>Revise to: By 2012, meet program activity targets specified in the PIP. For SCE, the three-year expected program volume is 210,000 units (refrigerators and freezers only). This data will be reported annually and segmented by appliance type, age, and size. (For SDG&E volume is 47,166 units for three years, For PG&E 2010 volume is 33,000 units)</p> <p>Comment: IOUs recommend this revised objective for the following reasons: (1) this is much easier to define and measure, (2) baseline data is available for 2006-2008.</p> <p>Please also refer to IOU comments next to the program mission statement.</p>

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Short-term <u>Sub-program</u> PPMs:	Source (SP, AL, DR, PIP, or Staff)*	Metric Type (2a or 2b)**	Baseline Study Required (Y/N)	
PPM 1: Consumer awareness and knowledge of and attitudes towards the need to recycle old appliances in IOU service territories using 2010 baseline	Staff	2b	Y	Revise to: Level of program participants' AKA the appliance recycling subprogram Comment: See comments above, next to Obj
PPM 2: Average age, size and efficiency of removed units. CC: we don't have eff. Data. But with age/size we can determine it. Eff. Can be reported now. (Proposal to track # of participants.)	Staff	2a	Y	Revise to # of program appliance units by year, appliance type, age, and size. Comment: Refer to comments next to the program mission statement.

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

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

Long-Term (2013-2020) "SMART" <u>Sub-program</u> Objectives:	Source (SP, AL, DR, PIP, or Staff)*	IOU Recommendations and Comments
Objective 1: Move the residential market towards coordinated demand-side management, including self-generation and a "smart meter" initiative. MKH: #1, #2, and # are not SMART.	PIP	Move to the Residential EE Program (REEP).
Objective 2: Promote the adoption of comprehensive residential retrofits	PIP	Move to the Residential EE Program (REEP).
Objective 3: Contribute to the ultimate transformation of energy consumption patterns.	PIP	Move to the Residential EE Program (REEP).
Objective 4: Eliminate the stock of "older, inefficient refrigerators and freezers" in IOU	Staff	Delete

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customer homes as defined by age, size and efficiency standards MKH: “older, inefficient refrigerators and freezers” needs to be defined/ revised. Issue: “Reduce” the stock, as opposed to “eliminate”.		<p>Comment: As indicated above, IOUs recommend operating the program as long as it is cost-effective since it is paid for by the purchased energy reduction and appliance replacement strategy.</p>
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*SP=Strategic Plan, AL=Advice Letter, DR=Data Request Response, PIP=program plans, Staff=ED proposed. [Include page reference when applicable.]

Long-Term Sub-program MT Indicators:	Source (SP, AL, DR, PIP, or Staff)*	Metric Type (3)**	Baseline Study Required (Y/N)	IOU Recommendations and Comments
MT Indicator 1: Saturation levels of “inefficient, older refrigerators and freezers” in California homes as demonstrated through appliance: age, size and efficiency. MKH: “inefficient, older refrigerators and freezers” needs to be defined/ revised.	Staff	3	Y	<p>Delete</p> <p>Comment: Focus on net energy purchase reduction and using ARP as part of appliance replacement strategy.</p>

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

Residential – Business and Consumer Electronics Subprogram

	Mission	IOU Recommendations and Comments
SW Program: Residential	<p>The BCE program is a new addition to the residential EE portfolio for 2009 -2011. The BCE provides midstream incentives to retailers to increase the stocking level and promotion activities for high-efficiency (ENERGY STAR®) electronic products including computers and monitors, cable and satellite set-top boxes, televisions, and additional business and consumer electronics as they become available in the market. The BCE will also provide incentives to manufacturers that sell directly to consumers or key accounts. Although the IOUs share similar program theory, each may implement its program differently. The program will leverage POS rebates and provide retailer support and a web-based information service to help consumers choose the most energy-efficient products.</p>	<p>IOUs propose modifying the Mission Statement to the following:</p> <p>The BCE program is a new addition to the residential EE portfolio for 2009 -2012. The BCE Program provides midstream incentives to retailers, manufacturers, distributors, and other market actors to increase the stocking level and promotion activities for high- efficiency (ENERGY STAR® and higher efficiency levels, depending on product category) electronic products including computers and monitors, cable and satellite set-top boxes, televisions, and additional business and consumer electronics as they become available in the market.</p> <p>IOU Rationale: The mission as described in the PIP doesn't sufficiently reflect the breadth of involvement of multiple market actors taking part in the program or acknowledge the fact that, although filed as a statewide program, there are substantial differences between IOUs in program implementation.</p>
SW Sub-program: Business and Consumer Electronics Subprogram		

CA EESP Goals/Strategies Addressed by SW Sub-program:	CA EESP Ref. pp. #
<u>Goal 3 (residential):</u> Develop comprehensive, innovative initiatives to reverse the growth of plug load energy consumption through technological and behavior solutions.	p. 21
<u>Strategy 3-1:</u> Drive continual advances in residential energy usage, including plug loads home energy management systems, and appliances.	p. 21

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<u>Milestone 3-1:</u> 10% reduction in plug loads by 2012-2015; 25% reduction in plug loads by 2016-2020	p. 21
<u>Strategy 3-2:</u> In coordination with Strategy 2-2 above, develop public awareness of and demand for highly efficient products	p. 22
<u>Strategy 3-3:</u> Create demand for such products through market transformation activities	p. 22
<u>Strategy 3-4:</u> Continuously strengthen standards, including the expansion of both Title 24 and 20 to codify advances in plug load management	p. 22

Short-term (2010-2012) “SMART” <u>Sub-program</u> Objectives:	Source (SP, AL, DR, PIP, or Staff)*	IOU Recommendations and Comments
Objective 1: 80% of participating retailer stores receiving training and detailing by 2012	DR	<p>Revise to: By 2012, 80% of participating retailer stores receive training Objective-1b: By 2012, 80% of participating retailer stores receive detailing</p> <p>Comment: To make the objective more precise</p>
Objective 2: Increase by XX the number of retailers participating in mid-stream program by 2012 as compared to 2010, including by (a) installing POS capacity; and/or (b) offering upstream rebated products. Modify to match PPM below.	AL, Staff-modified	<p>Revise to: Increase number of retailers and/or other market actors participating in the mid-stream program by 2012, as compared to 2010:</p> <ol style="list-style-type: none"> 1. SCE: sign up 5 additional retailers and 5 manufacturers. 2. PG&E: sign up 3 additional market actors. 3. SDG&E: sign up 1 additional retailer. <p>Comment: Definition of market actor: a business entity engaged in some aspect of the supply chain for electronics. Market actors include manufacturers, distributors, and resellers of various types.</p> <p>Growth of the “number of retailers” is not an accurate indicator of program objectives, since participation b</p>

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		other market actors is important as well, and since the magnitude of the BCE program and program budgets vary considerably by IOU. Note that the targets listed above are taken from the PIPs.
Objective 3: By 2012, increase the number of manufacturers participating in upstream CBE rebate program and selling to key accounts or directly to California consumers as compared to 2010	AL	Delete Comment: It is addressed in the proposed Objective-2 above.

Short-term <u>Sub-program</u> PPMs:	Source (SP, AL, DR, PIP, or Staff)*	Metric Type (2a or 2b)**	Baseline Study Required (Y/N)	IOU Recommendations and Comments
PPM 1: Percent of participating retailer stores receiving training and detailing annually Detailing: people visit stores to make sure point of purchase materials properly identify qualifying products.	DR	2a	N	Revise to: PPM 1a: Number of participating retailers other resellers receiving training. PPM 1b: Number of participating retailers receiving detailing. Comment: To make PPM-1 align with proposed Objective 1a and -1b.
PPM 2a): The number of retailers participating in the BCE mid-stream program by offering mid-stream rebated products look at mission statement for accuracy here. PPM 2b): The percentage of all Big Box retailers located in IOU service territories that this number is estimated to represent BAS: In PG&E territory, we're reaching saturation of participant retailers. DW: funding is limiting the level to which we may increase participant retailers. Recommendation: suggest IOU-specific targets. CC: SCE PIP has goal of signing up 5 new manufacturers (may sell direct to end-users) and 5 new retailers. Issue: "Big Box" needs to be defined. SCE has list and will circulate for consideration.	AL, Staff-modified Staff	2a 2a	N N	Revise to: The numbers and names of specific types of market actors (retailers, buying groups, manufacturers, and distributors) participating in the program. Comment: To align with proposed changes to Objective 2.

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PPM 2c): number of "big box" retail locations offering rebated products.				
PPM 3: The number of manufacturers participating in upstream CBE rebate program and selling to key accounts or directly to California consumers as compared to 2010. IOUs will define "manufacturers". PG&E: will look expanding to at VAR's.	AL	2a	N	Delete
PPM 3a) The percent of manufacturers selling to key accounts or directly to California that this number is estimated to represent	AL, Staff-modified	2a	N	Comment: It is addressed in the prior PPMs

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

Long-Term (2013-2020) "SMART" <u>Sub-program</u> Objectives:	Source (SP, AL, DR, PIP, or Staff)*	IOU Recommendations and Comments
Objective 1: Increase the number of BCE-qualifying units sold as a percentage of total business and consumer electronics product sales. (candidate for quantitative target)	PIP, Staff	Revise to: By 2020, increase the efficiency in average pl load attributable to the use of electronic produ that are in the BCE program. Comment: IOUs believe Objectives-1 and -2, present dif measurement challenges due to evolving Coo and Standards, economic factors, and availability/expense of sales data.
Objective 2: ENERGY STAR®-qualifying BCE appliances comprise XX% of purchases annually. DW: ES is in process of expanding product list. CE is limited list currently. Very few products to track right now. Getting sales data for #1 and #2 could be expensive. But we could work with other agencies to acquire data.	PIP, SP, Staff	See comments above.

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Long-Term Sub-program MT Indicators:	Source (SP,	Metric Type	Baseline	IOU Recommendations and Comm
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	AL, DR, PIP, or Staff)*	(3)**	Study Required (Y/N)	
MT Indicator 1: BCE-qualifying units sold as a percentage of total business and consumer electronics product sales 6 month product cycle. Will be difficult to capture because of numerous measurement issues. From ex-ante point of view, we want to drive volume. On ex-post basis, these metrics present different challenges. Not contemplating FR issues. Need to come up with method to measure and track. MT will not be looking at FR. Purpose is to make sure stock is more efficient as time passes.	SP, Staff	3	Y	Revise to: % increase in efficiency level of average load attributable to electronic products in the BCE program. Comment: This MT may be difficult and costly to track since ES and program qualification continue to evolve quickly over the program horizon.
MT Indicator 2: ENERGY STAR®-qualifying BCE appliances as a percent of total business and consumer electronics product sales	SP, Staff	3	N	Comment: This MT may be difficult and costly to track since ES and program qualification continue to evolve quickly over the program horizon.

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

Residential – Home Energy Efficiency Rebate Subprogram

	Mission	IOU Recommendations and Comments
SW Program: Residential	The program encourages energy efficient choices when purchasing and installing household appliances and equipment by offering education, rebates, and other incentives, and expands the saturation of efficient equipment faster than would be case in the absence of the program. In addition to POS, on-line and mail-in rebates to the customer, the program will offer mid-stream incentives to retailers to increase the stocking of energy efficient appliances. The program also offers customers information on how to use household equipment efficiently. Rebates will be available to customers, depending on the measure, POS, online, and through the mail.	IOUs recommend modifying the mission statement in the following way: The program encourages energy efficient choices when purchasing and installing household appliances and products by offering education, rebates, and by expanding the saturation of efficient equipment faster than would be case in the absence of the program. The HEER rebates are offered in three modes: POS, on-line and mail-in rebates to customers.
SW Sub-program: Home Energy Efficiency Rebate (HEER)		

CA EESP Goals/Strategies Addressed by SW Sub-program:	CA EESP Ref. pp. #
<ul style="list-style-type: none"> • <i>CA EE SP Goal (2): Home buyers, owners and renovators will implement a whole-house approach to energy consumption that will guide their purchase and use of existing and new homes, home equipment (e.g., HVAC systems), household appliances, lighting, and "plug load" amenities.</i> 	p. 11
<ul style="list-style-type: none"> • <i>CA EE SP 2-1.3: Energy consumption in existing homes will be reduced by 20% by 2015 and 40% by 2020</i> 	p. 11
<ul style="list-style-type: none"> • <i>CA EE SP 2-2: Promote effective decision-making to create widespread demand for energy efficiency measures</i> 	p. 20
<ul style="list-style-type: none"> • <i>CA EE SP 2-3: Manage research into new/advanced cost-effective innovations to reduce energy use in existing homes</i> 	p. 20
<ul style="list-style-type: none"> • <i>The goal of the program is to influence purchase behavior and improve and increase awareness, knowledge and attitude concerning benefits of Energy Star and Energy Efficiency.</i> 	

Short-term (2010-2012) "SMART" Sub-program Objectives:	Source (SP, AL, DR, PIP, or Staff)*	IOU Recommendations and Comments

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<p>1) Define by 2010 and achieve by 2012 targets for collaborations (definition?) with manufacturers, retailers, distributors, etc.</p>	<p align="center">Staff</p>	<p>Revise to: By 2012, increase and/or maintain optimal level of collaboration with manufacturers and retailers to support the program, using 2010 results as baseline.</p> <p>Comment: ("Optimal" is not measureable but reportable).</p> <p>Definition of collaboration: Working with manufacturers and retailers to participate in the program</p>
<p>2) By 2012, X% of HEER participants subsequently participate in 1 or more additional programs (e.g. Whole House Retrofit, ARP, or BCE). Delete and move any missing programs to similar objective in HEES program</p>	<p align="center">Staff</p>	<p>Move to HEES.</p>
<p>Participant "mom-and-pop" retailers as a percentage of all participant retailers shall increase (X%) from a 2006-2008 baseline. Objective: maximize market penetration- BROADNESS of availability of rebates; b) minimize delivery costs; C) diversifying into markets serving ethnicities is an additional metric (see notes in short term PPM section and clarify objective as needed)</p>	<p align="center">Staff</p>	<p>Revise to: By 2012, increase and/or maintain optimal level of store participation located in the lower income and hard-to-reach zip-codes.</p> <p>Comment: ("Optimal" is not measureable but reportable).</p> <p>IOUs do not believe using "mom-and-pop" is a good way to reach the lower-income and hard-to-reach populations. IOUs would prefer to use zip-codes serving the lower income and minority populations to track participation. The definition of lower-income and minority population will be based on 300% federal poverty level and/or more than 50% minority population areas, using census data.</p>
<p>Participant "big-box" retailers as a percentage of all participant retailers shall increase (X%) from a 2006-2008 baseline (see PPM notes and clarify objective as needed)</p>	<p align="center">Staff</p>	<p>Delete</p> <p>Comment: Nearly all big-box stores are participating in the program already.</p>

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Increase number of participant retail locations using POS system relative to 2006-2008 baseline (SDG&E- this is costly for this IOU, so has problem with "increase").	Staff	Revise to: By end of 2012, increase POS # of rebates by 10% 2010 baseline
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Short-term <u>Sub-program</u> PPMs:	Source (SP, AL, DR, PIP, or Staff)*	Metric Type (2a or 2b)**	Baseline Study Required (Y/N)	IOU Recommendations and Comments
1) Percentage of HEER participants who subsequently participate in additional HEER measures; 1a) and 1 or more additional programs (e.g. Whole House Retrofit, ARP). Is this solely a HEES metric? Consider deleting , and move to HEES programs any missing there.	Staff	2a (2b- lag time)	N	Delete Comment: See comments above next to Objective-2.
2) Number of participating retailers using POS system (SDG&E- 45% of customers doing POS, so tracking on #1 hard). (SCE- 50% customers purchasing via POS) (PG&E- ~5% retailers POS). Is a better metric: Percent of HEER applications coming through as POS; or, percentage of incentives paid to customers participating via POS.	Staff	2b	N	Revise to: % of program rebates made through the PO mode relative to all rebates (2a metric)
3) Participant "mom-and-pop"(define; provide list of agreed "Big Box;" retailers not on list considered "mom & pop" – and/or "mid-size") stores as a percentage of all participant retailers; is this a proxy for increasing sales? Hard-to-reach locations? Should this metric be: number of participating "mom and pop" stores and percentage of total mom and pop stores this represents. 3b) Participation of retailers in ethnically diverse/lower income (?)/hard-to-reach (?) locations ("mom and pop" does not necessarily equate to "lower income". SCE- suggests standardizing definitions of "Mom and Pop" "low income" and "Hard to reach"	Staff	2a	Y	Revise to: % of stores located in the lower-income and hard-to-reach zip-codes relative to all program participating locations
4) Number of "big box" participants and percentage of "big box" stores within IOU service territories that this represents. Comment that for CFL program NTG was low for Big Box customers, so this should be considered when establishing objectives. Is Energy Star shipment data relevant here; Answer is that haven't typically been able to track this to state level.	Staff	2a	Y	Delete

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

To do's::

IOUs to include in red-lined version revised objectives and metrics, including all definitions of terms as agreed on SW basis as much as possible. Please also provide justification for where IOUs land.

Long-Term (2013-2020) "SMART" <u>Sub-program</u> Objectives:	Source (SP, AL, DR, PIP, or Staff)*	IOU Recommendations and Comments
<i>Increase saturation of ENERGY STAR-rated appliance to represent X% of the CA market by 2020 (needs to take into account ES updates; see shift downward of penetration whenever standards rise).</i>	Staff	OK

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

Long-Term Sub-program MT Indicators:	Source (SP, AL, DR, PIP, or Staff)*	Metric Type (3)**	Baseline Study Required (Y/N)	IOU Recommendations and Comments
<i>Statewide market penetration of ENERGY STAR appliances sold at retail level across various store sizes (saturation?).</i>	Staff	3	Y	OK
<i>Median age of in-home appliances statewide in single-family and multi-family homes</i>	Staff	3	Y	OK

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

Residential – Multifamily Energy Efficiency Rebate Subprogram

	Mission	IOU Comments
SW Program: Residential	"Multifamily property owners and managers are a historically unresponsive market to energy efficiency efforts. As one of California's largest industries, this unique customer segment warrants additional attention and effort to motivate property owners and managers to actively participate in energy efficiency programs. After some recent years of concerted energy efficiency efforts to target this sector, there are still areas with large concentrations of multifamily households that have not yet received energy efficiency installations as noted in the 2003 EM&V report for this sector. Market studies have noted that there are over 1.0 million multifamily units in Southern California Edison's service territory contained in approximately 145,000 multifamily buildings. Having experienced only modest participation in utility programs to date, the multifamily segment holds tremendous savings potential. In SCE's service area, the multifamily market sector has a consumption base well over 2 billion annual kilowatt hours generated by roughly 682,000 multifamily (tenant) service accounts (five or more units). Although participation levels have depleted program funding over several years, market penetration remains only about 12%. This program targets property owners and managers of multifamily complexes of 2 or more dwelling units, including mobile home parks and condominium complexes with common areas.	
SW <u>Sub</u> -program: Multi-Family Energy Efficiency Rebate (MFEER)		IOU Comment: The mission statement cites a statistic on market penetration of the Multifamily Energy Efficiency Rebates Subprogram is "about 12%." We believe this statistic is based on an SCE program estimate from 2004. The exact methodology used for this estimate is not clear at this time. In the 2010-2012 filed PIP, we do not find such language in the document. Consequently, we request that this sentence be deleted from the mission statement.

CA EESP Goals/Strategies Addressed by SW <u>Sub</u>-program:	CA EESP Ref. pp. #
<i>CA EE SP Goal (2): Home buyers, owners and renovators will implement a whole-house approach to energy consumption that will guide their purchase and use of existing and new homes, home equipment (e.g., HVAC systems), household appliances, lighting, and "plug load" amenities.</i>	p. 11

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CA EE SP 2-1: By 2020, 100% of existing multi-family homes have a 40% decrease in purchased energy from 2008 levels	p. 19
CA EE SP 2-2: Promote effective decision-making to create widespread demand for energy efficiency measures	p. 20
CA EE SP 2-3: Manage research into new/advanced cost-effective innovations to reduce energy use in existing homes	p. 20

Short-term (2010-2012) “SMART” <u>Sub-program</u> Objectives:	Source (SP, AL, DR, PIP, or Staff)*	IOU Recommendations and Comments
1) Diversify energy efficiency measures such that non-lighting measures represent X% of program savings (BTUs? KW/Kwh?) by 2012	Staff	Revise to: By 2012, diversify energy efficiency measures such that lighting measures represent at least 5% of program savings. (2a type)
2) Increase participation in LIEE, CARE and ARP programs subsequent to MFEER participation to represent X% of programs by 2012	Staff	Move to the LIEE program Comment: The MFEER program is designed to leave behind C... brochures to the property owners/managers and to p... targeted Internet content, but the program does not s... CARE/LIEE participation directly (i.e., renters). It wo... much more cost effective to ask where and how did... CARE/LIEE participants learn about their programs.
3) Increase energy efficiency understanding among MF property owners	Staff	Move to the REEP portfolio, and revise to: Improve program participants' AKA level as compared to program targets' AKA level.
4) Increase participation in MFEER program from xx% of MF complexes in IOU services territories in 2010 to yy% in 2012	Staff	Delete and roll it into the Whole Apartment Program Comment: See comments at mission statement about... a good objective but difficult and expensive to measu... need to come up with a way to define apartments/co... complexes since they may not always be correctly id... “account type.” Also, we need to decide on how to t... program visits for different measure treatments.

		<p>Add: By 2012, maintain and/or improve customer satisfaction of program participants (i.e., property owners/managers) to 2010 baseline.</p> <p>Comment: Maintaining customer satisfaction was an important goal for SCE's MFEER program. In 2006-2008, the program experienced declining satisfaction due to program process issues such as releasing payments prematurely to the contractors, and program participants experienced less than satisfactory project experience. We recommend measuring customer satisfaction in lieu of program process issues by measuring participant workshops to get at the real underlying program issue.</p> <p>Satisfaction would be measured from the perspective of the program process (i.e., program sign-up, rebate process, interaction with program staff, and program as a whole) and not refer to suite of questions from SCE 06-08 process evaluation (as illustrations).</p>
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Short-term <u>Sub-program</u> PPMs:	Source (SP, AL, DR, PIP, or Staff)*	Metric Type (2a or 2b)**	Baseline Study Required (Y/N)	IOU Recommendations and Comments
1) Percentage increase in energy efficiency awareness/knowledge (attitude?) among MFEER participants (defined at subprogram level as property managers/owners, not renters) (move all res subprogram "awareness" PPMs up to res program level) (need to define and operationalize survey questions jointly) by 2012 as compared to 2010	Staff	2b	Y	Revise to: % of improvement in AKA level between program targets and program participants
2) Percentage of MFEER unit dwellers participants who subsequently enroll in an additional IOU program (e.g. LIEE, ARP, and CARE) (SCE-tracking capability for this does not currently exist; could be tested for future consideration) (SDGE: Is OK with PPM, so can transfer any leads to LIEE and track. Low income database has this capacity (?). LIEE targets customers by zipcode whereas MFEER is open to all; MFEER program should review LIEE targeting approach to see if replicable. LIEE database	Staff	2a	N	Delete Comment: There are numerous measurement options associated with this measure (e.g., tracking capability does not currently exist; measurement program targets owners, while other

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is used in MFEER program). (SCE: consider tracking this under LIEE program; MFEER is a “leave behind” of brochures). PG&E –similar tracking challenges as SCE.				target residents).
3) Non-lighting measures (BTUs) as a percentage of total energy efficiency measures adopted under MFEER (# units; BTUs). Track lighting as percentage of Kwh/ estimate non-lighting measure savings based on ex-ante deemed savings (evaluation will give additional data) This allows both to be “2a”). (Most IOUs prefer Kwh/KW as metric)	Staff	2a	N	Revise to: % of non-lighting measures as comp of total EE measures adopted in the program. KWh for single commodity BTU for mixed commodity IOU.
4) Number of workshops (IOUs will define) for participating property owners/managers to understand program requirements and procedures (tie-in to EE loading order). Track by # of units that participating property owner/manager owns/manages. Attendance in person. Target should be smaller property owners because larger ones are already well aware of program (?). Intent of this PPM is to address survey’s suggesting dissatisfaction of participating property owner/managers. PPM was designed to make sure that participants understand requirements. Contractors are also participant	DR/IOU	1	N	Delete
5) Total number of MFEER participants (property managers/owners) in IOU service territories, and estimated percent of all MF units/complexes in IOU service territories that this represents. Track cumulatively? Operationalize definitions to break out repeat participants.	Staff	2a or 2b	Y –establish baseline using existing data	Delete

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

Long-Term (2013-2020) “SMART” <u>Sub-program</u> Objectives:	Source (SP, AL, DR, PIP, or Staff)*	IOU Recommendations and Comments
1) By 2020, 100% of existing multi-family homes have a 40% decrease in purchased energy from 2008 levels	SP (p. 19)	OK
2) Increase penetration of ENERGY STAR rated appliances in MF properties (note: not all ES appliances are rebated)	Staff	OK
3) Increase average efficiency of fixtures (non-ES appliances, controllers, etc., central building water heaters; need to identify specific appliances) in	Staff	Ok

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MF properties. Replicate SF baseline study for MF.
 *SP=Strategic Plan, AL=Advice Letter, DR=Data Request Response, PIP=program plans, Staff=ED proposed. [Include page reference when applicable.]

Long-Term Sub-program MT Indicators:	Source (SP, AL, DR, PIP, or Staff)*	Metric Type (3)**	Baseline Study Required (Y/N)	IOU Recommendations and Comments
1) Percentage of MF Homes having a 40% decrease in purchased energy from 2008 levels	SP (p. 19)	3	Y	Revise to: % of multi-family buildings achieving purchased energy reduction by 20% or 30% or 40% and above.
2) Average efficiency of common area fixtures in MF properties	Staff	3	Y	Revise to: Average efficiency level of common area appliances and fixtures for MF properties.
3) Penetration levels of ENERGY STAR rated appliances in MF properties (only those within control of property owner/managers- need to define); couldn't track ES appliances that fall off list. Note that this is a MT indicator, so not only caused by IOU programs.	Staff	3	Y	Delete

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

Residential - Whole House Retrofit Subprogram

	Mission	IOU Recommendations and Comments
SW Program: Residential	The Whole House Prescriptive Sub Program is a new addition to the 2010-2012 statewide residential portfolio. The Whole House	
SW <u>Sub</u> -program: Whole House “Energy Upgrade California-Advanced and Basic Programs”	Performance Program is a third party local program for each of the IOUs. Both Whole House programs are designed to offer customers and contractors an easy entry point on the path to home performance. The prescriptive program will allow customers to reduce energy usage while increasing the energy performance and comfort of their existing homes and minimizing lost opportunities for future comprehensive retrofit options. The programs will also educate contractors and customers on the benefits of implementing comprehensive whole house retrofits on existing buildings that will provide systematic reductions in energy use. Both of these programs will leverage and contribute to the pool of qualifying contractors, provide linkage to the local government programs to support financing (i.e., AB811 financing options, etc.) and support a cohesive integrated marketing and outreach efforts. An important goal for both programs (as adopted in D0909047) is to achieve 20% energy reduction for all treated homes.	<p>IOUs recommend modifying the Mission Statement as follows:</p> <p>The Whole House Prescriptive Sub Program is a new addition to the 2010-2012 statewide residential portfolio. The prescriptive Whole House program is designed to offer customers and contractors an easy entry point on the path of home performance. Both Whole House programs are designed to offer customers and contractors an easy entry point on the path to home performance. The prescriptive program will allow customers to reduce energy usage while increasing energy performance and comfort of their existing homes and minimizing lost opportunities for future comprehensive retrofit options. The programs will also educate contractors and customers on the benefits of implementing comprehensive whole house retrofits on existing buildings that will provide systematic reductions in energy use. Both of these programs will leverage and contribute to the pool of qualifying contractors, provide linkage to the local government programs to support financing (i.e., AB811 financing options, etc.) and support a cohesive integrated marketing and outreach efforts. An important goal for both programs (as adopted in D0909047) was to achieve a 10% energy reduction for all treated homes for the prescriptive program.</p> <p>IOU Rationale: There are a few inaccuracies in the existing mission statement. The existing statement does not reflect accurately the program as it is being implemented. The modified statement is consistent with the Petition to Modify the PIP. Most importantly, the</p>

Whole House Program has submitted a Petition to PIP to reduce the energy reduction goal to for the program to 10% and to eliminate a specific energy target for homes in the performance program.

CA EESP Goals/Strategies Addressed by SW <u>Sub-program</u> :	CA EESP Ref. pp. #
<u>Goal 2</u> : Home buyers, owners and renovators will implement a whole-house approach to energy consumption that will guide their purchase and use of existing and new homes, home equipment (e.g., HVAC systems), household appliances, lighting, and "plug load" amenities.	p. 11
<u>Strategy 2-1</u> : Deploy full scale whole house programs.	p. 19
<u>Milestone 2-1</u> : By 2020: <ul style="list-style-type: none"> ▪ 25% of existing homes have a 70% decrease in purchased energy from 2008 levels ▪ 75% of existing homes have a 30% decrease in purchased energy from 2008 levels ▪ 100% of existing multi-family homes have a 40% decrease in purchased energy from 2008 levels 	p. 19
<u>Goal Result 2</u> : Energy consumption in existing homes will be reduced by 20% by 2015 and 40% by 2020 through universal demand for highly efficiency homes and products	p. 11
<u>Strategy 2-2</u> : Promote effective decision-making to create widespread demand for energy efficiency measures	p. 20
<u>Strategy 2-3</u> : Manage research into new/advanced cost-effective innovations to reduce energy use in existing homes	p. 20
<u>Strategy 2-4</u> : Develop financial products and programs such as on-bill financing to encourage demand for energy efficiency building products, home systems, and appliances	p. 20

Short-term (2010-2012) "SMART" <u>Sub-program</u> Objectives:	Source (SP, AL, DR, PIP, or Staff)*	IOU Recommendations and Comments
Objective 1: Enroll and complete upgrade work on the following number of homes by 2012: SCE - 11,820; SCG - 10,644; PG&E - 15,500; SDG&E's - 3,606. (Goals will be adjusted based on the actual program roll-out date) Rolled-up performance and prescriptive.	DR, PIP	OK
Objective 2: Enroll an increasing number contractor firms to participate in program each year (Targets for 2012 are: PG&E- 73; SCE- 63; SCG- 57; SDG&E- 17)	DR, PIP	Revise to: Enroll an increasing number of contractor firms that to participate in either prescriptive and/or performance each year. (Targets for 2012 are: PG&E- 73; SCE-

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		SDG&E- 17)
Objective 3: Increase contractors' and customers' awareness and knowledge of benefits of comprehensive whole house retrofits and the "house as a system"	PIP	Revise to: Leverage ARRA funding for promotion of the whole program, increase contractors' and homeowners' a benefits of comprehensive whole house retrofits 25 existing 2010 baseline.
Objective 4: Decrease percentage of participating homes not passing QA/QC review	PIP	Revise to: By 2012, optimize the proportion of homes inspected QA/QC review.
Objective 5: Energy savings per home for prescriptive and performance program participants achieve adopted target savings levels	PIP, D0909047	Revise to: Energy savings per home for prescriptive and performance program participants achieve adopted target savings average of 10% for prescriptive programs and an average of 10%-20% for performance programs).
Objective 6: By 2012, incorporate radiant cooling, ductless systems, ground source heat pumps, etc into 5% of participating "performance" program homes	SP, p. 63 (also applies to new construction)	Delete Comment: (1) This objective is not specific to our current program (2) The cost of implementing these measures is far above the average cost of current Whole House measures

Short-term <u>Sub-program</u> PPMs:	Source (SP, AL, DR, PIP, or Staff)*	Metric Type (2a or 2b)**	Baseline Study Required (Y/N)	IOU Recommendations and Comments
PPM 1: Number of homes treated in the program for 2010-2012 (prescriptive and performance participation indicated distinctly)	AL, DR, PIP	2a	N	OK
PPM 2: Number of enrolled contracting firms participating in the program	AL, DR, PIP	2a	N	Ok
PPM 3: Average Ex-ante savings per home as reported (average, kwh, therms, KW) Most likely prescriptive. Will need to be tracked by CZ. Performance tracked by test-in/test-out.	D0909047; Staff	2a	N	Revise to: Average Ex-ante savings per home as reported (average, kWh, therms, kW) for both prescriptive and performance programs by climate zone

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PPM 4: Average and range of evaluated energy savings per home (prescriptive and performance programs) we need more real-time evaluated savings delivered to contractors. Will need to talk to em&v staff re: frequency. Building leakage will need to be added back in to baseline study.	D0909047, Staff	2b (2a?)(both?)	Y, Recommended-2010	Ok
PPM 5: Number/percentage of homes not passing QA/QC review, by IOU stick with percentage. But useful to know number/no targets.	Staff	2a	N	Ok

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

Long-Term (2013-2020) "SMART" Sub-program Objectives:	Source (SP, AL, DR, PIP, or Staff)*	IOU Recommendations and Comments
Objective 2: By 2013, 2017 and 2020, costs to customers of whole house retrofits are decreased as compared to 2010 levels issue: yes we want to track, but don't want to force ourselves to drive costs lower. Want to track if they are going down/up. CF: just a measure of how market is changing over time. JC: cost per unit of energy to be saved? Normalized method to be determined.	Staff	Revise to: By 2013, 2017 and 2020, costs to customers of whole house retrofits are decreased as compared to 2010 levels issue: yes we want to track, but don't want to force ourselves to drive costs lower. Want to track if they are going down/up. CF: just a measure of how market is changing over time. JC: cost per unit of energy to be saved? Normalized method to be determined. Comment: Our concerns with this objective include: 1) Costs are primarily driven by labor, and these are not easily forecasted or under IOU control. 2) Measure selection may vary over time, and measure selection is not easily controlled. Moreover, measure selection is not easily controlled.
Objective 3: Customers have increasing financing options for whole house retrofits, including options leveraged by and coordinated with IOU programs and those offered by other entities. Comment: if costs go down, financing would also decrease. Let's not have 2 and 3 at cross-purposes. JC: metric could be # of participants not able to proceed due to unavailable financing. ED gap analysis will identify which options exist or are lacking.	SP, Staff	Delete Comment: Financing availability and costs are not under IOU control.

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Long-Term <u>Sub-program</u> MT Indicators:	Source (SP, AL, DR, PIP, or Staff)*	Metric Type (3)**	Baseline Study Required (Y/N)	IOU Recommendations and Comments
MT Indicator 1: Increased consumer awareness and knowledge of and attitudes towards levels of home as a system by consumers and contractors	SP	3	Y	Revise to: Increased consumer and contractor AK marketing concept of "home as a system"
MT Indicator 4: Average total cost of whole house energy efficiency retrofit to consumers (sorted by level of energy savings or type of job)	Staff	3	Y	Delete
MT Indicator 5: Average amount of financing used for whole house retrofits and types of sources	Staff	3	Y	Revise to: The proportion (%) of households that perform comprehensive energy upgrade of available financing.

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