

## New Construction - Residential ENERGY STAR® Manufactured Housing Subprogram

	Mission	IOU Comments
SW Program: <b>New Construction</b>	The RNC subprogram supports transformation of California’s residential new construction consistent with the CEESP via incentive, education, outreach, marketing and training strategies aimed at the California building industry. The RNC subprogram consists of the California Advanced Home Partnership program (CAHP) coupled with Zero Net Energy Homes and an Energy Star Manufactured homes subprograms.	
SW Sub-program: <b>ENERGY STAR® Manufacture d Housing Subprogram</b>	The ENERGY STAR® Manufactured Homes Program promotes the construction of new manufactured homes that comply with ENERGY STAR® energy efficiency standards by encouraging manufacturers to go beyond HUD specifications to install high efficiency and right size HVAC systems. It also works to increase the efficiency of the whole home, moving the industry towards zero net energy.	This program is tied to the EPA E’STAR standard over which the California IOUs have little if any influence. While E’STAR currently aligns with the CAHP mission, given our experience in the Single Family sector, that may change at any time.

CA EESP Goals/Strategies Addressed by SW <u>Sub-program</u> :	CA EESP Ref. pp. #	IOU Comments
<u>Goal (1)</u> NC will reach ZNE performance (including clean, onsite distributed generation) for all new single and multi-family homes by 2020 Key element : develop ZNE example homes across the spectrum of housing options, including MF affordable housing in urban infill areas with access to public transportation.	p. 11  p. 16	
<u>Strategy 1-1:</u> Drive continual advances in technologies in the building envelope, including building materials and systems,	p. 16	

construction methods, distributed generation, and building design.		
<u>Strategy 1-5:</u> Encourage local, regional, and statewide leadership groups to support pilots and foster communication among pioneering homeowners and builders.	p. 18	
<u>Goal (2)</u> Home buyers, owners and renovators will implement 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 appliance, lighting, and "plug load" amenities.	p. 11	

<b>Short and Long term (2010-2012) "SMART" <u>Program</u> Objectives:</b>	<b>Source (SP, AL, DR, PIP, or Staff)*</b>	<b>IOU Comments</b>
	AL, SP	Deleted T24-based metrics for Man Hsg.
	AL, (SP, as updated by D 0909047)	
	AL	

<b>Short-term (2010-2012) "SMART" <u>Sub-program</u> Objectives:</b>	<b>Source (SP, AL, DR, PIP, or Staff)*</b>	<b>IOU Comments</b>
Objective 1: To transform the marketplace by significantly increasing each year the penetration rates of ENERGY STAR® qualified manufactured homes as compared to homes that meet the existing HUD qualification	PIP	Ok. See note above on E'STAR.

Objective 2: To consistently increase the number/percentage of manufactured home retailers/manufacturers participating in the program each year.	Modification of AL proposal, Staff	Will need a baseline
		Deleted: not a 2010-2012 objective.

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 Comments
PPM1: Number of manufactured housing units installed in IOU service territories (via retailers and/or manufacturers) participating in program.	Modification of AL proposal, Staff	2a	N	In revised PIP, IOUs will clarify different approaches  Removed "Market Penetration" because BSRA said that they are unable to provide data that is needed to determine this.  Need to define "installed" for Manufactured Housing. Shipped? Sold? *Verified?*
PPM 2: Number /percentage of participating projects utilizing: (a) whole house incentive for gas heat; (b) whole house incentive for electric heat;	Based on PIP, Staff	2a	N – tracking study	C and D deleted, IOUs will indicate change as required per final revised PIP.
	Based on PIP, Staff	2b-EM&V study	N	Deleted - no resources to implement well; moved to objective but will not be tracked.

\*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,	IOU Comments
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	<b>DR, PIP, or Staff)*</b>	
Objective 1: Support the initiation of and increase over time the sales of zero net energy and zero peak manufactured homes in California, including coordinated DSM and AMI	PIP, Staff	Long term is fine as objective
Objective 2: Achieve increasing levels of energy savings per home in the California manufactured homes market in the most cost effective manner possible for customers	Staff	Need performance-based tool and methodology in order to increase above E'STAR. Title-24 does not cover manufactured housing. Currently E'STAR is a pass-fail, prescriptive standard.

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

IOUs requested in redline version to prioritize these and/or edit into 1-2 succinct MT metrics for which data could be gathered in one study.

<b>Long-Term Sub-program MT Indicators:</b>	<b>Source (SP, AL, DR, PIP, or Staff)*</b>	<b>Metric Type (3)**</b>	<b>Baseline Study Required (Y/N)</b>	<b>IOU Comments</b>
MT Indicator 1: Penetration rates of ENERGY STAR® manufactured homes in California as compared to homes meeting HUD specifications	Based on PIP, Staff	3	Y	Ok
MT Indicator 2: Incremental cost – Price premium? of ENERGY STAR® manufactured as compared to homes meeting HUD specifications	Staff	3	Y	Define as customer IMC, if available. IMCs are difficult to calculate given the whole-building nature of Manufactured Housing.
MT Indicator 3: Average energy savings of ENERGY STAR® manufactured homes as compared to baseline (homes meeting HUD specifications in X year)	Based on PIP, Staff	3	Y	Market penetration: data should be available – can confirm with Systems Building Research Alliance(SBRA), trade association for Manufactured Housing.
MT Indicator 4: Percentage and number of retailers that market ENERGY STAR® homes as their “standard home”	Based on PIP, Staff	3	Y	Definition of “standard home:” recommend retailer sales greater than 50%, but data may be difficult to obtain

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