

## **Appendix H:**

**San Diego Gas & Electric Company**

**Market Transformation Indicators**



In compliance with OP# 159 SDG&E has addressed metrics for the Statewide Lighting Market Transformation program, the Statewide HVAC Quality Installation and Quality Maintenance programs, Energy Upgrade California, Residential New Construction, Savings By Design, Plug Load/Appliances programs, and third-party programs and/or pilots focused on Commercial and Residential Zero Net Energy in Attachment C for each individual program to include:

- A description of the market, including identification of the relevant market actors and the relationships among them;
- A market characterization and assessment of the relationships/dynamics among market actors, including identification of the key barriers and opportunities to advancing demand-side management technologies and strategies;
- A description of the proposed intervention(s) and its/their intended results, and specify which barriers each intervention is intended to address;
- A coherent program, or “market,” logic model that ensures a solid causal relationship between the proposed intervention(s) and its/their intended results; and
- Appropriate evaluation plans will be developed in conjunction with the Energy Division.

In addition, per Resolution E-4385, a subset of market transformation indicators (MTIs) for statewide energy efficiency programs and subprograms were presented at a public workshop on November 7, 2011, to allow for public comments and discussion before being finalized. Per Energy Division Guidance on June 19, 2012, the attached MTI’s are approved for these sub-program as applicable. *-Refer to Revised MTI’s and Crosswalk Table-*

Revised MTIs

MTI Index #	Proposed Market Transformation Indicator	RE-CATEGORIZED Metric (LTPPM - or SPI) [E-4385 Appendix B original text except for noted edits]	Market Transformation Indicator	Strategic Plan/Policy Progress Indicator	Long-Term PPM (Program Performance Metric)	Deleted Metric	Justification / Rationale [For Classification and/or changes]	Unresolved Issues	Break Out Group Assignment
SUM			15	12	19	38			
<b>Continuous Energy Improvement - COMBINED Commercial, Industrial and Agricultural Programs</b>									
CIA-1		MT Indicator 1: Number and percent of Calculated Incentive participants who go on to implement a long-term energy plan under the Continuous Energy Improvement program.			1		Re-categorized since linked to IOU program.		C//A
CIA-2	MT Indicator 2: Number and percent of CEI-targeted large Non Res Customers participants who developed a long-term energy plan. (Track by sector Industrial, Ag, Commercial)		1				Revised and adopted with the following changes. Not directly linked to IOU programs.	Criteria for "long term energy plan" will need to be defined, but will be informed by current programmatic definitions. Should be size weighted.	C//A
CIA-3		MT Indicator 3: Number and percent of CEI Participants who achieve all scheduled milestones, as identified in their long-term energy plans.			1		Re-categorized since linked to IOU programs		C//A
CIA-4		MT Indicator 4a: Number and percent of CA corporations that include greenhouse gas reduction measurement, monitoring, and reduction strategies in their long-term energy plans.				1	Deleted because the metric includes parameters that would be included in an energy plan; and duplicates CIA-2.		C//A
CIA-4b		MT Indicator 4b: Number and percent of CEI Participants that include greenhouse gas reduction measurement, monitoring and reduction strategies in their long-term energy plans.			1		Re-categorized since linked to IOU programs; and is maintained as a LTPPM since it gathers similar information as CIA-4.		C//A
CIA-5		MT Indicator 5: Number and percentage of eligible customers participating in the CEI Program			1		Re-categorized since linked to IOU programs		C//A
<b>Non-Residential Audit - COMBINED Commercial, Industrial and Agricultural Programs</b>									
CIA-6		MT Indicator 1: Percent of NRA participants that implement <del>non-incented measures</del> recommended measures without receiving an IOU Incentive <del>recommended in the audit.</del>			1		Re-categorized since linked to IOU program, clarifying revisions.		C//A
CIA-7		MT Indicator 2: Percent of NRA participants that implement XYZ measures without receiving an IOU incentive.				1	Delete. Duplicative of CIA-6		C//A
CIA-8		MT Indicator 3: Percent of NRA participants that implement recommended measures that cost \$X or more without receiving an IOU incentive				1	Delete. Too many externalities affecting cost to make it a meaningful indicator.		C//A
CIA-9		MT Indicator 4: Percent of NRA participants that implement recommended measures that save X amount or more without receiving an IOU incentive				1	Delete. Unable to determine usefulness.		C//A
<b>Deemed Incentives - COMBINED Commercial, Industrial and Agricultural Programs</b>									
CIA-10	MT Indicator 1: Number of energy efficiency measures sunsetted in IOU CIA programs and new measures introduced since year [2011]	MT Indicator 1: All measures determined to be "standard practice" are phased out at various levels of the program (depending on the technology within the customer class) and replaced by new, improved or ETP measures. (Y/N)  Note: Utilities to define "standard practice" and "advanced technology" by the end of 2011.	1				Revised language to to be more specific and focus on tracking turnover of measures in this sector regardless of strategy (deemed, cacluated or direct install) pursued.	Will need to define "classes" of measures, rather than variants of one type of measure to make the metric meaningful.	C//A
<b>Calculated Incentives - COMBINED Commercial, Industrial and Agricultural Programs</b>									
CIA-11		MT Indicator 1: All Measures determined to be "standard practice" are phased out at various levels of the program (depending on the technology within the customer class), and replaced by ETP or "Advanced Technology" measures. (Y/N)				1	Delete. Duplicates "phased out" indicator (CIA-10).		C//A

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<b>Commercial - Direct Install (Commercial Only) - note - not under "Commercial Only" in Res E-4385 Appendix B - but titled "Comm/Indus/Agric"</b>									
CIA-12		MT Indicator 1: Measures determined to be "standard practice" are phased out at various levels of the program (depending on the technology within the customer class) and replaced by new, improved or ETP measures. (Y/N)  Note: Utilities to define "standard practice" and "advanced technology" by the end of 2011.				1	Delete. Duplicates "phased out" indicator (CIA-10).		C//A
CIA-13		MT Indicator 2: Percent of DI participants that routinely consider energy efficiency when making capital purchases.				1	Delete and replace with awareness/knowledge/attitudes (AKA) indicator in the future.	Define market-wide AKA changes in D.10-10-033 process	C//A
<b>Commercial SW</b>									
CIA-14		MT Indicator 1a: Square footage of existing commercial space in California retrofitted X% beyond current (definition) title 24 building standard (2011) (size weighted percent of projects that are x% beyond Title 24 - percent of events triggering Title 24 - for current code)		1			Re-categorized since higher level policy objective. Proposed re-wording to capture "triggering" event for existing commercial space.	Need to identify appropriate target.	C//A
CIA-15		MT Indicator 1b: Total square footage and percentage of overall square footage of existing commercial space in California retrofitted X% beyond current Title 24 building standard (2011) (NRDC, pg. 6.)				1	Delete. Duplicative of CIA-14.		C//A
CIA-16		MT Indicator 2: Percentage of commercial participants, tracked by NRA, Calculated and Deemed subprogram, who go on to implement a long-term energy plan.			1		Re-categorized since linked to IOU programs	Need to define "long term energy plan"; start with CEI program definitions.	C//A
<b>Industrial Statewide Program</b>									
Ind-1		MT Indicator 1: The number and percentage of participants in the Industrial programs who go on to implement an energy plan under the Continuous Energy Improvement subprogram			1		Re-categorized since linked to IOU programs; modified to only track percentage		C//A
Ind-2		MT Indicator 1: Energy intensity (per gross dollar of production value) for industrial entities.		1			Re-categorized since higher level policy objective.		C//A
Ind-3		MT Indicator 2: The percentage of large customers (businesses that are responsible for 80% of sectoral energy usage) that adopt energy efficiency certification and/or benchmarking.				1	Deleted because lack of applicability certification and benchmarking for the industrial sector.		C//A
<b>Agricultural Statewide Program</b>									
Ag-1		MT Indicator 1: Percentage of participants in the Agricultural program who go on to implement a long-term energy plan.				1	Delete. Would be covered with CIA-2 sector specific results.		C//A
<b>Agriculture – Pump Test &amp; Repair Subprogram</b>									
Ag-2		MT Indicator 1: Percent of Ag customers renovating and/or maintaining their pump after receiving a pump test that shows OPE is above the baseline OPE level determined through the Market Characterization Study.			1		Re-categorized since linked to IOU programs		C//A
<b>Residential Statewide Program</b>									
ResSW-1		MT Indicator 1: Average energy use/ft2 in existing homes (kwh, therms, KW), reported by single-family and multi-family.		1			Re-categorized since tracking higher level policy objective.		Res

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ResSW-2		MT Indicator 2: Percentage and number of homes where the purchased energy is reduced by 20%, 40% or 70% by 2013, 2017 and 2020 from 2008 baseline		1			Re-categorized since tracking higher level policy objective.	Recommend revising for next cycle via the D.10-10-033 process.	Res
<b>Residential – Business and Consumer Electronics Subprogram</b>									
BCE-1		MT Indicator 1: Percent decrease in average plug load attributable to electronic products that are in the BCE program.....( Efficient Market Share of the top 10% most efficient products; or bundle of consumer electronic products)		1			Recategorized as a strategic policy indicator, with modifications and presuming the market sector continues to be a priority.	If this continues to be a priority area, a market transformation indicator that can capture some combination of technologies and usage would be preferable.	Res
BCE-2		MT Indicator 2: The number and percentage of products meeting minimum program specifications (by product type) that are sold compared to total sales				1	Delete. Since the indicator is limited to "program specifications" the metric would not likely be relevant beyond the life of the program.	Possibilities to consider would be creating a metric that tracks the average plug load of a bundle of products; identifying if there is a decrease in average plug load over time.	Res
<b>Residential – Advanced Consumer Lighting Subprogram</b>									
Advanced Lighting-1	MT Indicator 1: Average energy consumption of interior lighting applications in residential buildings in California.	MT Indicator 1: The average lighting power density of residential and commercial lighting applications.		1			Re-Characterized as a broader lighting policy indicator for the residential sector and focus on an average consumption metric (instead of power density). Better aligns with lighting strategy to reduce lighting usage by 60-80%.	Need to add same for commercial lighting; alternatively tracking average lumens per watt may be appropriate for lighting overall (advanced and basic) as a Strategic Indicator. This will be a significant data collection effort.	Res
Advanced Lighting-2		MT Indicator 2: The number and percentage of newly incentivized advanced lighting practices or products sold and installed above baseline				1	Delete. Would not have longevity beyond the program specifications and activities.		Res
Advanced Lighting-3		MT Indicator 3: The availability on retailer shelves of additional lighting technologies that address longstanding concerns with the current efficient options on the market (e.g. super CFLs, halogenas, etc)				1	Delete. May not be necessary to track the availability of bulbs if we are tracking the average energy consumption, and products sold metrics.		Res
<b>Residential – Appliance Recycling Subprogram</b>									
Appliance-1		MT Indicator 1: Saturation levels of "inefficient, older refrigerators and freezers" in California homes as demonstrated through appliance: age, size and efficiency.  Note: "Inefficient, older refrigerators and freezers" needs to be defined.			1		Re-categorized since linked to IOU programs	As a LTPPM, needs work. Suggested revision - "Saturation levels of key appliances (refrigerator, washer, etc) by size and energy usage".	Res
<b>Residential - Basic CFL Subprogram</b>									
BasicCFL-1	MT Indicator 1: Basic CFLs sold annually as a percentage of all MSB, non-dimming interior bulbs sold in California.	MT Indicator 1: Number of basic CFLs sold annually in California and percentage of overall bulb sales (NRDC, p. 7). (note: for entire market, not IOU-rebated CFLs)	1				Revised; and best used in conjunction with other proposed Basic CFL-2. Revision intended to focus on portion of more specific bulb types.		Res
BasicCFL-2	MT Indicator 2: Price of non-discounted Energy Star qualified MSB CFLs sold in California.	MT Indicator 2: Price of non-discounted MSB CFLs	1				Revised; and best used in conjunction with other proposed Basic CFL-1 metrics. Revision intended to focus on quality threshold (Energy Star), specific bulb types, and limit to CA.	May need to include more specificity in bulb types.	Res

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BasicCFL-3	<p>MT Indicator 3: Saturation of eligible sockets (MSB, non-dimming, interior) with (1) basic CFLs and (2) pre-defined advanced lighting options.</p> <p>or</p> <p>MT Indicator 3: Saturation of eligible sockets (MSB, non-dimming, interior) with top five most frequently used advanced efficient lighting options in eligible sockets.</p>	MT Indicator 3: Saturation of eligible sockets (MSB, non-dimming, interior) with CFLs or better	1				Revised; to add more specificity to bulb types that may be appropriate for "advanced" currently.	Socket studies will likely be needed to measure (3-5 yrs). Supplemented with "average lumens/watt" assessments via saturation studies (shorter term)	Res
<b>Residential Audits – Home Energy Efficiency Survey</b>									
<b>Residential – Home Energy Efficiency Rebate Subprogram</b>									
Appliance-2	MT Indicator 1: Percentage of key appliances sold in California that are Energy Star.	MT Indicator 1: Statewide market penetration of ENERGY STAR appliances sold at retail level across various store sizes.	1				Revised. ENERGY STAR standards change, meaning measures will fall out of ENERGY STAR compliance and not contribute to any cumulative indicator. Revision will also be consistent with national, state and regional ES data.	Need to develop list of key appliances. Refrigerators, clothes washers, clothes dryers, dishwashers, freezers, others?	Res
Appliance-3		MT Indicator 2: Median age of in-home appliances statewide in single-family and multi-family homes				1	Delete. Duplicates Appliance-1.		Res
Appliance-4		MT Indicator 3: Changes in the Energy Star energy saving level of incentivized measures over time				1	Delete because of changes in baseline for Energy STAR (EPA determines). Difficult to track and longevity may not be good.		Res
<b>MF Residential – Multifamily Energy Efficiency Rebate Subprogram</b>									
Appliance-5		MT Indicator 1: Percentage of multi-family buildings achieving purchased energy reduction by 10%, or 20% or 30% or 40% and above.				1	Delete. Since it may be covered in ResSW-2.	If Res-SW 2 does not assume to cover MF then re-consider as unique SPI for MF. In the future we may need a market change indicator on building owner purchasing patterns.	Res
Appliance-6	MT Indicator 2: Average efficiency of common area fixtures and appliances in MF properties						Good measure of status of lighting and appliances in MF market.	May need further revision to make more specific.	Res
Appliance-7		MT Indicator 3: Percentage of eligible MF building participating in MFEER				1	Delete. Tightly linked to cycle specific program activity, this is a short term PPM.		Res
<b>Residential - Whole House Retrofit Subprogram</b>									
DeepRetrofit-1		MT Indicator 1: Costs to customers of whole house retrofits, including costs of goods and labor.				1	Delete. While the theory is that whole house retrofits would be more cost effective, it would be very difficult to isolate the externalities driving costs to make this metric meaningful.	Evaluation studies should still should be looking at costs to understand if the basis of this program is to lower costs, or to take advantage of a rare window of opportunity despite increased overall project costs.	Res
DeepRetrofit-2	MT Indicator 2: The proportion (%) number of households that elect not to perform comprehensive energy upgrades. due to lack of available financing, lack of qualified contractors, undesirable payback period, lack of urgency, "hassle" of upgrade, or uncertainty that the upgrades will provide appreciable benefit		1				Revised to simplify, by removing the state of multiple market barriers, and focusing on the provision of the service regardless of reasons.	Comprehensive will need to be defined and be consistent with multi-jurisdictional efforts (IOU progs, CEC, local govts etc.); make sure it is not redundant with program tracking and value of non-participant information is more than cost to gather info.	Res
DeepRetrofit-3		MT Indicator 3: The number and percent of audits performed compared to the number of customers signed up for an audit (NRDC, p.7). Number of IOU customer households that undergo a deep retrofit (Advanced and/or IDSM) audit through IOU programs.			1		Re-categorized since linked to IOU programs; Revised to simplify and be a stronger LTPPM.		Res

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<b>Lighting Market Transformation Program</b>									
LMT-1		MT Indicator 1: Percentage of total lighting sales comprised of Best Practice technologies (by sector)				1	Delete. Not a good market indicator since the longevity is tied to specific technologies. Concept of improved availability and purchase of enhanced technologies are captured in Advanced Lighting indicators.		Res
LMT-2		MT Indicator 2: Number of technologies (by sector) for which market transformation is achieved (as defined by the program)				1	Delete. Indicator is tracking performance of the program, and is closely related to LMT-3.		Res
LMT-3	MT Indicator 3: Number of lighting technologies by sector that no longer require IOU program interventions		1				Retained with modification; closely related to CFL and Advanced Lighting metrics.	Modification may be needed, and alignment with other lighting metrics should be considered.	Res
<b>New Construction- Residential California Advanced Homes Subprogram</b>									
NC-1		MT Indicator 1: Total number/percentage of California-wide, new homes of all production types (SF, MF), modeled 15-19%, 20-29%, 30-39%,40+% above T24 code (2008 and subsequent code updates). Includes participants and non-participants; for all indicators suggested, baseline year would be years from which data for baseline study is drawn. OR (as SPI) "Percentage of new homes in CA that are built above 2008 Title 24 standards"		1			Re-categorized as SPI since focused on bigger strategic objective. Opportunities to simplify as an SPI.	Wording as SPI may need revision.	Res
NC-2	MT Indicator 2: Percentage of new homes in CA with self-generation capabilities	MT Indicator 2: Number/percentage of ZNE, and zero peak new homes of all production types (SF, MF) in California (includes participants and non-participants)	1				Revised--To focus on the broader market objective of ZNE while the more detailed definitions and branding of ZNE take hold in the market.	Metric can be modified to track ZNE specifically when there is a clearer definition across jurisdictions. Take care not to neglect EE in this metric.	Res
NC-3		MT Indicator 3: Average incremental cost of new homes more efficient than Title 24 (2008) (and subsequent code levels) by: 15%-19%; 20%-29%; 30-39%, 40+%; ZNE and zero peak homes				1	Delete. Tracking cost trends presents significant challenges for isolating externalities to make this a meaningful metric.		Res
NC-4		MT Indicator 4: Average electricity and energy use levels of California new residential units (KW/ft2; KBTU/ft2/year)		1			Re-characterized as a SPI; since it represents a broader strategic objective.	Definition of "energy use" will need to be clarified.	Res
<b>New Construction - Residential ENERGY STAR® Manufactured Housing Subprogram</b>									
NC-5	MT Indicator 1: Penetration rates of ENERGY STAR® manufactured homes in California as compared to homes meeting HUD specifications		1				Recommended as written as the core MTI for the manufactured home market segment.		Res
NC-6		MT Indicator 2: Incremental cost to customer of ENERGY STAR® manufactured as compared to homes meeting HUD specifications				1	Delete. Tracking costs for housing includes many externalities; NC-5 captures core MT need.		Res
NC-7		MT Indicator 3: Average energy savings of ENERGY STAR® manufactured homes as compared to baseline (homes meeting HUD specifications in X year)				1	NC-5 captures core MT need.		Res
NC-8		MT Indicator 4: Percentage and number of retailers that market ENERGY STAR® homes as their "standard home" (defined as ENERGY STAR homes comprise 50% or more of a retailers sales)				1	NC-5 captures core MT need.		Res
<b>New Construction – Commercial Savings by Design Subprogram</b>									



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NC-9		<p><u>MT Indicator 1:</u> Percentage decrease in average site energy* use (kBtu/sq ft-yr) and demand reduction (kW/sq ft) for CNC by building type in California.</p> <p>* Total site energy comprises building site energy and exterior lighting, architectural lighting/signage, all non-building energy use (fountains, irrigation, vehicle charging stations) non-occupied space (garages, walkways), and building end-uses unregulated by T24 (plug loads, process loads, appliances, occupancy, etc)</p>		1			Re-categorized as an SPI - since addressing a broader policy objective of reducing average consumption.		C/I/A
NC-10		<p><u>MT 2.2.</u> Percentage of all eligible projects sq footage that participate in commercial SBD (<del>NRDC, p-8</del>).</p>			1		Re-categorized as a long term program performance metric; as it is specific to program participation. Revisions intended to clarify.		C/I/A
NC-11		<p><u>MT Indicator 3:</u> Percentage of completed CNC buildings California-wide implementing Integrated Design/Whole Building approaches*</p> <p>*Integrated Design/WBA" is as defined in SBD program:                      If project is &gt;50% Design Development, it is too late for WBA/ID; then becomes a Systems project in SBD. A complete building model looks at interactive affects, day lighting, etc. Most likely non-participant WB/ID will be identified by % &gt; T24. For example, if project is 15% &gt; T24, project most likely utilized ID/WBA.</p> <p>Revise to: Percentage of completed CNC buildings in IOU service territory that participated in an IOU commercial building design program</p>			1		Re-categorized as a long term program performance metric with revisions to focus on program; Not useful as MCI because changing definition of "Integrated Design/Whole Building" for non-IOU sponsors would be hard to track. Likewise, non-IOU participant data would be hard to obtain.	C/I/A	
<b>Codes and Standards</b>									
CS-1		<p><u>MT Indicator 1:</u> Percent of (a) Residential (b) Commercial buildings in California that are built to comply with code targeting ZNE technologies, practices and design</p>				1	Deleted, this information should be captured with sectoral MTIs (see CS-4; NC-2 (if include Commercial))	Most of the objectives for C&S should be captured in metrics for sectoral market transformation. C&S is a supporting effort or milestone, not a transformation activity in and of itself.	Cross-Cutting
CS-2		<p><u>MT Indicator 2:</u> Number of utility incentivized EE measures that become part of the following code cycle (e.g. measures incentivized in 2006-2008 would be part of 2011 or 2014 code) targeting the following:</p> <p>a. advanced climate-appropriate HVAC technologies (equipment controls, including system diagnostics)                      b. Whole Building approaches in Commercial buildings                      c. Whole House approaches in Residential homes                      d. Advanced Lighting                      e. High efficient peak reduction technologies including plug loads                      f. Other categories</p>			1		Re-categorized; should also be captured at the sectoral level. Useful for tracking transition or handoff of rebated measures to code.	May want to consider simplifying to track specifications of IOU rebated measures that become part of code not specific measures. (i.e. "Number of new measure codes that have the same specifications as incentivized EE Measures")	Cross-Cutting

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CS-3		MT Indicator 3: Compliance rates of remodels triggering T24 in existing (a) existing homes and (b) commercial buildings in California.		1			Re-categorized as SPI since it is focusing on a broader policy objective, that will require collaboration with CEC and local jurisdictions. Revisions to clarify "existing" and code requirements.		Cross-Cutting
CS-4		MT Indicator 4: Compliance rates of T24 in (a) new homes (b) new commercial buildings in California.		1			Re-categorized as SPI since it is focusing on a broader policy objective, that will require collaboration with CEC and local jurisdictions.		Cross-Cutting
CS-5		MT Indicator 5: Percent of building departments (jurisdictions) that adopt and use tools identified as industry best practices to improve permit application, tracking, and inspection processes and increase regional consistency.			1		Re-categorized as long term program metric. "Best Practice" manuals have been developed by IOU programs and used to promote improvements in processes via the Reach Codes programs.		Cross-Cutting
CS-6		MT Indicator 6: Number of measures from Voluntary beyond code standards and rating systems (LEED, CHPS, 189) that are incorporated into mandatory T24 Standards in the Residential and Commercial Sectors.		1			Re-categorized as SPI since it is focusing on a broader policy objective as an indicator of change over of technologies	May need modification to clarify and address changing code over time.	Cross-Cutting
CS-7	MT Indicator 7: Number of jurisdictions in IOU service territory implementing reach codes in residential and commercial buildings. MT Indicator 7: Number of Jurisdictions in California IOU service territory implementing CEC approved Reach Codes in the Residential and/or Commercial Buildings.		1				Revised. Clarify that the jurisdictions would be limited to IOU service territory. Reach codes are defined by the CEC relative to existing codes, and existing codes continually change. This metric also matches better with an existing PPM.		Cross-Cutting
<b>Codes &amp; Standards – Building Standards Advocacy Subprogram</b>									
		None proposed.							
<b>Codes &amp; Standards – Appliance Standards Advocacy Subprogram</b>									
		None proposed.							
<b>Codes &amp; Standards – Compliance Enhancement Subprogram</b>									
		None proposed.							
CS-8		MT Indicator 1: Number and percent of eligible jurisdictions participating in the compliance enhancement program			1		Re-categorized since linked to IOU programs. Increases in compliance would be tracked in CS-4 and depending on the term of reporting for LT v. ST PPM's it may just represent progress of a PPM over time.		Cross-Cutting
CS-9		MT Indicator 2: Number and percent of jurisdictions* that report improvements in code compliance processes				1	Delete. While this metric may be able to measure the persistence of the program impact (therefore LTPPM); CS-8 may capture the sub-program activities better; and CS-4 captures the ultimate objective. "Improvement" could be judged based on pre-program participation practices.		Cross-Cutting
<b>Codes &amp; Standards – Reach Codes Subprogram</b>									
		None proposed.							
<b>HVAC – Upstream HVAC Equipment Subprogram</b>									
HVAC-1	MT Indicator 1: Market share of climate appropriate HVAC equipment. (or Market share of energy efficient climate appropriate equipment.)		1				Retain. Market share would reflect sales (not installed); and "climate appropriate" has been defined in the programmatic activity to date (and in the Strategic Plan) to focus on the availability of hot/dry units in the market.	More discussion needed. Refers to market and MTI, but needs work to specify.	C/I/A
<b>HVAC – Residential Energy Star Quality Installation Subprogram</b>									

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HVAC-2	<del>MT Indicator 1 – Identify the percentage of California Residential HVAC installation contractors change in the using of Quality Installation guidelines.</del>	<del>MT Indicator 1 – Identify the percentage change in the use of Quality Installation guidelines among all California Residential HVAC installation contractors.</del>	1				Retain. Defining guidelines will be necessary and has started in programmatic activities; Metric should possibly be size weighted to reflect variable impact of the types of contractors that make the changes.		C/I/A
<b>HVAC – Commercial Quality Installation Subprogram</b>									
HVAC-3	<del>MT Indicator 1 – Percentage change in the use of all California Commercial HVAC installation contractors using Quality Installation guidelines. (delete "change in the use of" --- Percent of Quality Installation Contractors using guidelines." (weighted by size))</del>	<del>MT Indicator 1 – Percentage change in the use of Quality Installation guidelines among all California Commercial HVAC installation contractors. (delete "change in the use of" --- Percent of Quality Installation Contractors using guidelines." (weighted by size))</del>	1				Retain. Defining guidelines will be necessary and has started in programmatic activities; Metric should possibly be size weighted to reflect variable impact of the types of contractors that make the changes.		C/I/A
<b>HVAC – Quality Maintenance Development Subprogram</b>									
HVAC-4	MT Indicator 1: Percentage of HVAC units serviced in IOU service territory under a QM Service Agreement.	MT Indicator 1: Percent change in the employment of Quality Maintenance practices among all California HVAC contractors and technicians.	1				Revised to focus on IOU service territories, and tracks the provision of QM service agreements, instead of QM practices, since it may be easier to measure.	Tracking units services may be challenging.	C/I/A
<b>HVAC – Technologies and System Diagnostics Subprogram</b>									
HVAC-5		MT Indicator 1: Code adoption of diagnostic standards (Y/N)				1	Delete: Code adoption is an objective of the program but not an indicator.		C/I/A
<b>HVAC – Workforce Education &amp; Training Subprogram</b>									
HVAC-6		MT Indicator 1 – Percentage of California HVAC-training institutions offering courses using Quality Installation and Quality Maintenance standards.			1		Re-categorized since linked to IOU programs; the intent is to understand how accessible this type of training is then with HVAC-4 and HVAC-3 you would understand if it is affecting provision of service in the market..		C/I/A
<b>Emerging Technologies Program</b>									
ETP-1		MT Indicator 1: Market penetration (percent of buildings/percent of homes) of new climate-appropriate HVAC technologies (equipment and controls, including system diagnostics) resulting from ETP:  (a) Existing Residential (b) Residential New Construction (c) Existing Commercial (d) Commercial New Construction				1	Delete. Dupliactive of indicators proposed for HVAC. It ay have additional value as it is distributed by sector and the ETP portion of activity is intended to test the technology.		Cross-Cutting
ETP-2		MT Indicator 2: Number of ETP measures (or technical specifications) adopted* into building codes and/or appliance standards by CEC. *Adoption means measure is available to end-use customers through IOU programs. Adoption of a measure may be attributed to one or more ET sub-programs			1		Re-categorized as a long term program performance metric. In addition to ETP measures, performance specifications being adopted into code may also be appropriate. Would be a lagging indicator.	Clarification of "adoption" would be necessary.	Cross-Cutting
<b>Emerging Technologies - Technology Assessment Subprogram</b>									
		None proposed.							
<b>Emerging Technologies - Scaled Field Placement Subprogram</b>									

Revised MTIs

MTI Index #	Proposed Market Transformation Indicator	RE-CATEGORIZED Metric (LTPPM - or SPI) [E-4385 Appendix B original text except for noted edits]	Market Transformation Indicator	Strategic Plan/Policy Progress Indicator	Long-Term PPM (Program Performance Metric)	Deleted Metric	Justification / Rationale [For Classification and/or changes]	Unresolved Issues	Break Out Group Assignment
ETP-3		MT Indicator 1: Number of new or existing underutilized ETP measures addressed in the SFP that are adopted* that show an increase in the number of rebates in the EE portfolio. * Adoption means measure is available to end-use customers through IOU programs. Adoption of a measure may be attributed to one or more ET sub-programs				1	Delete. Already a short term PPM.		Cross-Cutting
<b>Emerging Technologies - Demonstration Showcases Subprogram</b>									
		None proposed.							
<b>Emerging Technologies - Market and Behavioral Studies Subprogram</b>									
		None proposed.							
<b>Emerging Technologies - Technology Development Support Subprogram</b>									
		None proposed.							
<b>Emerging Technologies – Technology Resource Incubation and Outreach Subprogram</b>									
ETP-4		MT Indicator 1: Number of TRIO measures assessed by ET program.				1	Delete. TRIO is a new program and it is not necessary to have metrics for all of the sub-programs. This metric should be reviewed and revised as the program evolves.		Cross-Cutting
ETP-5		MT Indicator 2: Number of TRIO measures adopted* by EE programs. * Adoption means measure is available to end-use customers through programs. Adoption of a measure may be attributed to one or more ET sub-programs.				1	Delete. TRIO is a new program and it is not necessary to have metrics for all of the sub-programs. This metric should be reviewed and revised as the program evolves.		Cross-Cutting
<b>Emerging Technologies – Technology &amp; Testing Center Subprogram</b>									
		None proposed.							
<b>Integrated Demand-Side Management Program</b>									
IDSM-1		MT Indicator 1: <del>Percent of customers who are aware of online and onsite integrated audits</del> Percent of CA residents who know where they can get an integrated online audit. Percent of CA residents who know where they can obtain an integrated on site audit. Percent of CA businesses who know where they can get an integrated online audit. Percent of CA businesses that know where they can get an integrated on site audit			1		Re-categorized since linked to IOU programs; Purpose is to saturate awareness of audit availability.		Cross-Cutting
IDSM-2		MT Indicator 2: <del>Percent of customers in each customer class who have received an integrated audit and percent of these customers (by audit type) who have implemented one or more of the audit recommendations (indicate how many incentivized vs. non-incentivized)</del> 1. Percent of customers in sectors A, B, and C who have received an integrated audit. 2. Percent of integrated audit customers who have adopted one or more audit recommendations.			1		Re-categorized since linked to IOU programs. The efforts are to illustrate achievements of programs and may have little value for decision making.		Cross-Cutting
IDSM-3		MT Indicator 3: <del>Percent of customers in each customer classes who are aware of integrated programs or incentive opportunities as a result of local integrated marketing collateral</del> [indicate how many of these customers have participated in an integrated program (one that promotes EE, DG, and DR)].				1	Delete. redundant with IDSM-1 since the offerings for IDSM are channeled through the integrated audit, therefore customers may still be participating in multiple programs but their interaction will be centralized.		Cross-Cutting

Revised MTIs

MTI Index #	Proposed Market Transformation Indicator	RE-CATEGORIZED Metric (LTPPM - or SPI) [E-4385 Appendix B original text except for noted edits]	Market Transformation Indicator	Strategic Plan/Policy Progress Indicator	Long-Term PPM (Program Performance Metric)	Deleted Metric	Justification / Rationale [For Classification and/or changes]	Unresolved Issues	Break Out Group Assignment
IDSM-4		MT Indicator 4: A process evaluation that identifies how well "integrated" (EE, DR, DG) all IOU demand side energy program offerings and components are (ex: CEI, Commercial, Ag, Industrial, Residential, Audits) including estimated savings of integrated programs and projects, lessons learned, improvement plans, and how the program portfolio is addressing strategic planning goals and objectives / Decision directives with regard to integration. Evaluation will include water conservation, GHG and waste reduction strategies (Y/N)				1	Delete. Not a market indicator but a task.		
IDSM-5		MT Indicator 5: Water conservation, GHG, and waste reduction strategies are incorporated into integrated program offerings. (Y/N)				1	Delete. Not a market indicator but a task.	The IDSM activity is intended to drive the IOUs to offer more integrated strategies and a way to measure progress should be developed. (Even if this metric does not currently suffice)	Cross-Cutting
<b>Marketing, Education and Outreach Program</b>									
		<b>None proposed.</b>							
<b>Workforce, Education, and Training – Centergies Subprogram</b>									
WET-1		MT Indicator 1: Percent of program participants stating an interest in pursuing green careers as a result of program participation. (delete this reference - relative to baseline)				1	Delete. Not a market indicator because it is linked to IOU programs and intent of program is to improve capacity for existing employees.	Intent of program is to improve capacity for existing employees. Overall: WET needs to have MTIs and SPI align with strategic plan.	Cross-Cutting
WET-2		MT Indicator 2: Percent of program participants reporting utilization of knowledge and skills received from the program. (delete this reference relative to baseline)				1	Delete. Not a market indicator because it is linked to IOU programs, and as worded would capture short term activity.	Same argument for WET-1	Cross-Cutting
WET-3		MT Indicator 3: Percent of past Centergies participants that attribute the program as a significant reason they are currently working in a clean energy job. (identify figures for low-income participants)				1	Delete. Not a market indicator because it is linked to IOU programs, and intent of the program is to improve capacity of existing workforce not drive people into clean energy jobs.	Same argument for WET-1	Cross-Cutting
<b>Workforce, Education, and Training – Connections Subprogram</b>									
WET-4		MT Indicator 1: Percent of prior program cycle participating schools that have continued the WE&T Connection training activities without program support.				1	Delete. Not a market indicator because it is linked to IOU programs.	May still have potential as a LTPPM with modifications. WE&T Statewide Needs Assessment emphasizes external partnerships and therefore some metric (SPI, MTI or LTPPM) would be appropriate for this activity	Cross-Cutting

ED Identifier	2010-2012 Subprogram	2013-2014 Subprogram	Market Transformation Indicator Presented by Energy Division at November 7, 2011 Public Workshop
CIA-2	CEI	Customer Service	Number and percent of targeted large Non Res Customers who developed a long-term energy plan. (Track by sector Industrial, Ag, Commercial)
CIA-10	Deemed	Deemed	Number of energy efficiency measures sunsetted in IOU CIA programs and new measures introduced since year [2011].
Advanced Lighting-1	Adv Lighting	Lighting Innovation	Average energy consumption of interior lighting applications in residential buildings in California.
BasicCFL-1	Basic CFL	Primary	Basic CFLs sold annually as a percentage of all MSB, non-dimming interior bulbs sold in California.
BasicCFL-2	Basic CFL	Primary	Price of non-discounted Energy Star qualified MSB CFLs sold in California.
BasicCFL-3	Basic CFL	Primary	Saturation of eligible sockets (MSB, non-dimming, interior) with (1) basic CFLs and (2) pre-defined advanced lighting options.
Appliance-2	HEER	PLA	Percentage of key appliances sold in California that are Energy Star.
Appliance-6	MFEER	MFEER	Average efficiency of common area fixtures and appliances in MF properties.
DeepRetrofit-2	Whole House	Whole Home Upgrade	The number of households that elect to perform comprehensive energy upgrades.
LMT-3	LMT	LMT	Number of lighting technologies by sector that no longer require IOU program interventions.
NC-2	RNC-CAHP	RNC	Percentage of new homes in CA with self-generation capabilities.
NC-5	RNC-ESMH	RNC	Penetration rates of ENERGY STAR® manufactured homes in California as compared to homes meeting HUD specifications.
CS-7	C&S	C&S	Number of jurisdictions in IOU service territory implementing CEC-approved reach codes in Residential and/or Commercial buildings.
HVAC-1	Upstream	Res HVAC	Market share of climate appropriate HVAC equipment. (or Market share of energy efficient climate appropriate equipment.)
HVAC-2	Res QI	Res HVAC	Percentage of California Residential HVAC installation contractors using Quality Installation guidelines.
HVAC-3	Com QI	Nonres HVAC	Percentage of all California Commercial HVAC installation contractors using Quality Installation guidelines (weighted by size).
HVAC-4	Quality Main Dev	Res HVAC Nonres HVAC	Percentage of HVAC units serviced in IOU service territory under a QM Service Agreement. <b>IOU proposed in comments to MTI workshop:</b> Percentage of residential HVAC units serviced in IOU service territory under QM Service Agreement. Percentage of commercial HVAC units serviced in IOU service territory under QM Service Agreement.