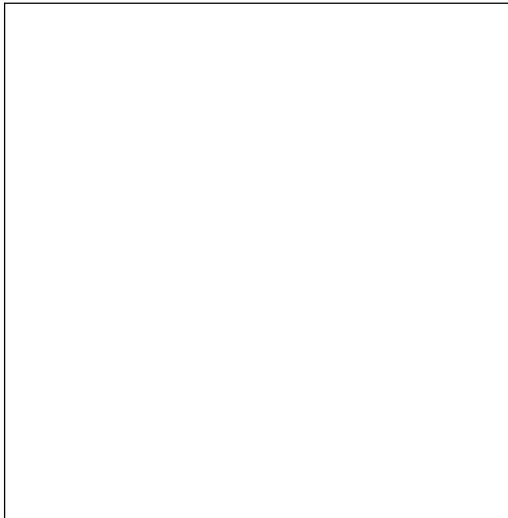


Lighting Market Transformation Program

	Mission	IOU Recommendations and Comments
<p>SW Program: Lighting Market Transformation (LMT)</p> <p>SW Sub-programs: Lighting Technology Advancement; Lighting Education and Information; Lighting Market Transformation</p>	<p>Statewide Lighting Market Transformation Program (LMT) establishes processes through which the IOUS can develop and test market transformation strategies for both emerging and existing lighting technologies across all market sectors. LMT, operating through funding leverage, includes market research and coordination activities, and an educational component for improving the information available to consumers, contractors, and other market actors. A major part of the program involves design and planning that can be transferred to pilots and market analyses in the context of product life cycle and existing programs. The program also seeks to advance development of increasingly efficient lighting technologies. LMT is a non-resource program.</p>	<p>After the joint LMT PPM meeting on 9/21, additional communications took place to provide clarification to IOU ED and consultants. Below you will find our latest suggestions based on these exchanges.</p> <p>The LMT PPMs should address the two primary areas:</p> <ol style="list-style-type: none"> 1. Developing and revising pipeline plans (i.e. the best practice measure), and 2. Leveraging IOU programs, government programs, and industry partners to implement the strategic pipeline plans. <p>The Pipeline Plans are the core of the Lighting Market Transformation Program. All the collaboration, coordination, and leveraging decisions and activities support the program within the Pipeline Plans.</p> <p>The pipeline plan describes the following in the commercial market sectors:</p> <ul style="list-style-type: none"> • The best practice technology or system, • The opportunities associated with the best practice technology or system, • The barriers to the best practice technology or system by market sector • “The Strategy” for the best practice technology or system • The estimated timeline for “the Strategy” based on the best information at the time, <ul style="list-style-type: none"> ○ The pipeline plan is not a static plan and must be able to adapt to changing conditions in the market, such as new regulations, etc.



“The Strategy” describes the necessary coordinated act statewide IOU programs, ED/CPUC, government p industry partners.

- Example, LMT to leverage and coordinate
 - ET to evaluate technology with res technology assessments, scaled fi etc.,
 - EE to develop pilot programs for te
 - WE&T to develop and deliver traini technologies,
 - Energy Centers to develop and pro technology fact sheets, and course
 - Industry to present and distribute c presentations or white papers

CA EESP Goals/Strategies Addressed by SW <u>Program</u> :	C R
<p><u>Goal 1.</u> Develop and implement coordinated policies, procedures, and other market interventions that eliminate barriers, accelerate lighting market transformation* in California and provide incentives for best practice lighting technologies and systems. Goal Results: By 2020, existing policies and procedures in California will enable lighting technologies to contribute to zero net energy (ZNE)* consumption with negligible negative impacts on the environment.</p>	Section
<p><u>Goal 2.</u> Define and advance best practices for design, installation, operation and maintenance of integrated systems* to achieve sustainable* lighting solutions for all spaces. Goal Results: By 2020, 100% of new and retrofit lighting installations will meet best practice standards and are optimally maintained throughout their useful lives.</p>	Section
<p><u>Goal 3.</u> Create widespread end user desire for, purchase of, and use of best practice lighting technologies, and systems. Goal Results: By 2020, transform consumers’ lighting preferences to best practices as demonstrated by an 80% decrease in perceived barriers to adoption and a 50% decrease in sales of inefficient lighting products in key market segments (over 2010 baselines).</p>	Section
<p><u>Goal 4.</u> Develop research, development and demonstration (RD&D) networks to create, test, and deliver the lighting solutions needed to transform California’s lighting market achieve ZNE goals. Goal Results: Create a broad RD&D portfolio of technologies that will support a 60-80% statewide reduction in electrical lighting energy consumption by 2020.</p>	Section

Short-term (2010-2012) “SMART” <u>Sub-program</u> Objectives:	Source (SP, AL, DR, PIP, or Staff)*	IOU Recommendations and Com
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<p>Objective 1: Formalize a process – via the selection and piloting of technologies - by which the IOUs can rapidly introduce advanced lighting solutions and emerging technologies to the marketplace, improve existing lighting programs, and develop new program strategies; (notes: “indirect influence” a goal of program and hard to measure; “sub –programs” really activities) Note: is this the definition of Pipeline Plan?</p>	<p>AL (IOU PPM spreadsheet)</p>	<p>Revise to: Formalize a process by which the IOUs can introduce advanced lighting solutions and emerging technologies to the marketplace and improve existing lighting programs in the 2011 June Lighting Transformation Program Report</p>
<p>Objective 2: Address the pressing need for better and more accessible information on lighting technologies through proposing new strategies for core programs. This sub-program will cooperate with and leverage the resources of other programs to provide assess the need for and facilitate the development of improved access to information and education regarding existing and emerging lighting technologies among end-users, IOU staff, equipment suppliers, lighting designers, and equipment installation contractors. (Notes: specific budget towards this not identified in Adv. Lighting so far; could add lighting emphasis to OBG).</p>	<p>PIP (SCE, p.548)</p>	<p>Revise to: By end of 2012 or before, address the pressing need for better and more accessible information on lighting technologies., including developing a lighting technology roadmap by January 2011 to be updated annually (i.e., what’s new and available by MM/YY), which will use available information from IOU and external parties).</p> <p>Comment: This key activity will provide improved access to information and education regarding existing and emerging lighting technologies among end-users, leveraging existing web access/WET/MEC resources, IOU staff, equipment suppliers, lighting designers, and equipment installation contractors.</p>
<p>Objective 3: 1. (1) Clearly define “market transformation” for each technology by reviewing existing research (especially with regard to market data on technology saturation), identify research gaps, and propose/conduct additional research and data collection as appropriate to increase understanding of the technology (including rate of technology adoption); and (2) Develop appropriate metrics and guidelines for determining when market transformation has occurred and publicly-funded intervention is no longer appropriate, so as to define an end-point for strategies and set the course for new programs and goals. Notes: review D-0909047 language on this; this activity is a step in rethinking stages of MT. This IOU program activity can propose when a targeted market will be transformed, but refer to D0909047 for Commission expectation of its role in “confirming” MT.</p>	<p>PIP (SCE, p.548)</p>	<p>Revise to: Identify strategic options for each technology by reviewing existing research (especially with regard to market data on technology saturation), identify research gaps, and propose/conduct additional research and data collection as appropriate to increase understanding of the technology (including rate of technology adoption); and</p> <p>Develop appropriate metrics and guidelines for determining when market transformation has occurred and publicly-funded intervention is no longer appropriate, so as to define an end point for strategies and set the course for new programs and goals.</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
<p>PPM 1: ED-proposal: Number of Best Practice technology, systems, and approaches program helps identify;</p> <p>IOU AL proposal: Number of new technology projects, studies or analyses completed and summarized in: a) workpapers, b) white paper, and c) pilot projects proposals to partner programs.</p> <p>Draft Objectives around program's awareness- building activities</p> <p>PPM1a) Leveraging partner program's increasing of awareness and use of these (this leveraging and AKA-building assessed in these partner programs- move PPM Advanced Lighting, all non-res, basic lighting, some partnerships, 3rd party programs). LMT staff will facilitate communication internally and externally on promising technologies.</p> <p>PPM1b) Building AKA amongst market actors (via white papers, etc).</p>	Staff	2b	Y	<p>Revise to:</p> <p>Develop a lighting technology roadmap (i.e., what is available by when (MM/YY), using available information from IOU and external parties) by January 2011 and update annually.</p> <p>Develop a communication plan to make the lighting technology roadmap, pipeline plans, and technology resources available via the statewide MEO portal by July 2011 and update annually.</p>
<p>PPM 2: Degree of advancement of program selected technologies along their LMT pipeline plans</p> <p>Creation of "pipelines plan/strategic direction documents," facilitation of launch of associated pipeline plan/strategic direction project implementation, and stage of implementation of pipeline plans/strategic direction.</p> <p>IOU to do: define key terms such as: 1) Pipeline plan; 2) Strategic direction; 3) White paper; 4) Pilot project</p> <p>Getting rebates into areas of high potential for new technologies (one def of Pipeline plan)</p>	Staff	2a 2 b 2b	N	<p>Revise to:</p> <p>Number of recommended projects initiated and completed, findings and recommendations (i.e., this is a tracking tool for related projects for ET, Advanced Lighting and 3rd party projects)</p> <p>Comment:</p> <p>These projects may require an extended period of time to complete as defined by the LMT process. It makes sense to track project progress overtime.</p>

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PPM 3: Length of time from when a technology graduates from the ET program to when it's integrated into a core IOU program.	Staff	2b	N	Delete
PPM 4: Number of new program delivery strategies identified by the program Alternate PPM?: Impact to portfolio of strategies developed by program Core function is analysis function (proposed by Nate/PG&E; Lela, SDG&E disagrees. Needs more discussion) Alternate PPM? Number of analyses that translated into a core program (proposed by Caroline, SCE).	Staff	2a	N	Delete
PPM 5: Number of products introduced into the lighting market via the LMT program	Staff	2a	N	Revise to: # of EE lighting measures added, removed, or updated as a result of LMT activities and influence, and report in June Report.
PPM 6: Degree of market availability of technologies selected by the program. IOUs state that this is an indirect output; other programs would have fuller responsibility for this.	Staff	2b	N	Delete
Notes: ED question: can IOUs modify and then live with these draft PPMs? May be too narrow as is; IOUs need to revisit key objectives and work up related PPMs. IOUs need to caucus and blend updated program plans and ED feedback.				Comment: Refer to IOU comments next to 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: By 2020, 100% of new and retrofit lighting installations will meet best practices.	SP (Lighting chapter, Goal 2 Result, p.3)	OK Comment: This objective will need additional definition to be operationalized. These definitions may differ from consumer versus non-consumer applications so these definitions need to be established at the sector level.

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		It is best to identify the short list of b that we would like to advance for ea measurement.
Objective 2: By 2020, transform consumer's lighting preferences to best practices as demonstrated by an 80% decrease in perceived barriers to adoption and a 50% decrease in sales of inefficient lighting products in key market segments (over 2010 baselines).	SP (Lighting chapter, Goal 3 Result, p.3)	OK Comment: Same comment as above, since ligh preferences and best practices may time. Again, These sweeping terms be clearly defined before measurem place.
Objective 3: Create a broad RD&D portfolio of technologies that will support a 60-80% reduction in electrical lighting energy consumption by 2020.	SP (Lighting chapter, Goal 4 Result, p.3)	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
MT Indicator 1: Percentage of total lighting sales comprised of Best Practice technologies (by sector)	Staff	3	Y	OK Comment: We recommend developing definitions for "Best Practice T a changing environment. We also recommend developing "sector". IOU assessment of priority: High
MT Indicator 2: Number of technologies (by sector) for which market transformation is achieved (as defined by the program)	Staff	3	N	OK Comment: IOUs recommend developing definition for "sector."

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				IOU assessment of priority: High
MT Indicator 3: Number of technologies by sector that no longer require IOU program interventions	Staff	3	N	OK Comment: IOU assessment of priority: Low, at this time. We may wish measurement resources elsewhere for now.

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

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