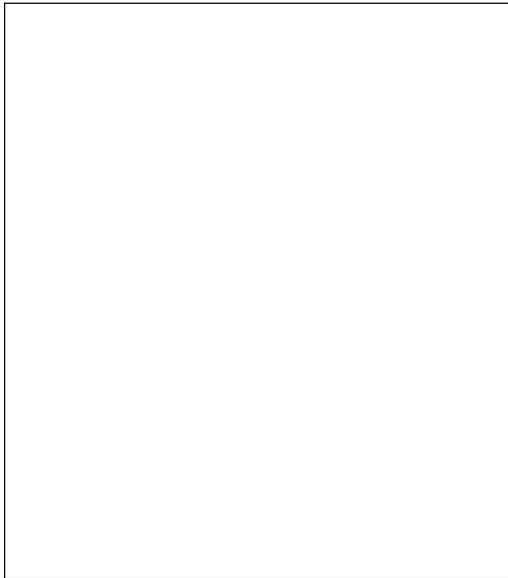


## Lighting Market Transformation Program

	Mission	IOU Comments
<p>SW Program: <b>Lighting Market Transformation (LMT)</b></p>	<p>Statewide Lighting Market Transformation Program (LMT) establishes processes through</p>	
<p>SW <u>Sub</u>-programs:  <b>Lighting Technology Advancement;</b>  <b>Lighting Education and Information;</b>  <b>Lighting Market Transformation</b></p>	<p>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>IOU Comments: After the joint LMT PPM meeting on 9/21, additional emails and communications took place to provide clarifications from IOUs, ED and consultants. Below you will find our latest thoughts and suggestions based on these exchanges.</p> <p>The LMT PPMs should address the two primary activities:</p> <ol style="list-style-type: none"> <li>1. Developing and revising pipeline plans (i.e., per targeted measure), and</li> <li>2. Leveraging IOU programs, government partners, and industry partners to implement the strategies in the pipeline plans.</li> </ol> <p>The Pipeline Plans are the core of the Lighting Market Transformation Program. All the collaboration, coordination, and leveraging decisions and activities support the strategies within the Pipeline Plans.</p> <p>The pipeline plan describes the following in the context of market sectors:</p> <ul style="list-style-type: none"> <li>• The best practice technology or system,</li> <li>• The opportunities associated with the best practice technology or system,</li> <li>• The barriers to the best practice technology or system, by market sector</li> <li>• “The Strategy” for the best practice technology or system</li> <li>• The estimated timeline for “the Strategy” based on the best information at the time, <ul style="list-style-type: none"> <li>○ The pipeline plan is not a static plan, it will need to adapt to changing conditions in the market, new regulations, etc.</li> </ul> </li> </ul>

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“The Strategy” describes the necessary coordinated activities with statewide IOU programs, ED/CPUC, government partners, and industry partners.

- Example, LMT to leverage and coordinate with:
  - ET to evaluate technology with respect to technology assessments, scaled field placement, etc.,
  - EE to develop pilot programs for technology,
  - WE&T to develop and deliver training on new technologies,
  - Energy Centers to develop and provide displays, technology fact sheets, and courses,
  - Industry to present and distribute conference presentations or white papers

CA EESP Goals/Strategies Addressed by SW <u>Program</u> :	CA EESP Ref. pp. #
<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 13, p.3
<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 13, p.3
<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 13, p.3
<p><u>Goal 4.</u> Develop research, development and demonstration (RD&amp;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&amp;D portfolio of technologies that will support a 60-80% statewide reduction in electrical lighting energy consumption by 2020.</p>	Section 13, p.3

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Short-term (2010-2012) "SMART" <u>Sub-program Objectives:</u>	Source (SP, AL, DR, PIP, or Staff)*	IOU Comments
<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) <b>Note: is this the definition of Pipeline Plan?</b></p>	<p>AL (IOU PPM spreadsheet)</p>	<p>IOUs propose modifying Objective-1 to the following:  Formalize a process by which the IOUs can rapidly introduce advanced lighting solutions and emerging technologies to the marketplace and improve existing lighting programs in the 2011 June Lighting Market 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>IOUs propose modifying Objective-2 to the following:  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 bi-annually (i.e., what's new and available by when (MM/YY), which will use available information from all IOU and external parties).</p> <p>IOU Rationale: This key activity will provide improved access to information and education regarding existing and emerging lighting technologies among end-users (i.e., leveraging existing web access/WET/MEO, etc.), IOU staff, equipment suppliers, lighting designers, and equipment installation contractors.</p> <p>Milestones: (1) Develop a lighting technology roadmap (i.e., what's new and available by when (MM/YY), using available information from all IOU and external parties) by January 2011 and update bi-annually.</p>

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		<p>For example, the purpose of this technology roadmap is to develop an at-a-glance understanding of what technologies/measures could be available and by when, in the context of the product life cycle.</p> <p>(2) Develop a communication plan to make the lighting technology roadmap and pipeline plans available to all concerned by July 2011, update annually in the LMT June Report.</p> <p>(3) Leverage available on-line resources (i.e., MEO/OBG/CPUC portal sites) to provide content information such as pattern books and best practices for general access, and report progress in annual LMT June Report.</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>IOUs propose modifying Objective-3 to the following:</p> <p>(1) 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>(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.</p> <p>Milestones:</p> <p>(1) Identify strategic options for each pipeline plan and make them available as part of the pipeline</p>

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		<p>plan, and report in the annual LMT June Report.</p> <p>(2) Identify the unique conditions (i.e., Codes &amp; STDs, market saturation) for each pipeline plan, to determine when program intervention would no longer be necessary, and report annually in LMT June Report.</p>
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Short-term <u>Sub-program</u> PPMs:	Source (SP, AL, DR, PIP, or Staff)*	Metric Type (2a or 2b)**	Baselin e Study Requir ed (Y/N)	IOU Comments
<p>PPM 1: ED-proposal: Number of Best Practice technology, systems, and approaches program helps identify;</p> <p><b>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.</b></p> <p>Draft Objectives around program’s awareness- building activities PPM1a) Leveraging partner program’s increasing of awareness and use of these <b>(this leveraging and AKA-building assessed in these partner programs- move PPM Advanced Lighting, all non-res, basic lighting, some partnerships, 3<sup>rd</sup> party programs). LMT staff will facilitate communication internally and externally on promising technologies.</b></p> <p>PPM1b) Building AKA amongst market actors (via white papers, etc).</p>	Staff	2b	Y	<p>IOUs propose modifying PPM-1 to following (For Objectives-1, -2, and -3:</p> <p>Complete milestones described in Objective-1, Objective-2, and Objective-3 above, as Y/N metric, in the annual LMT June Report.</p> <p>(2a metric)</p> <p>(1) Develop a lighting technology roadmap (i.e., what’s new and available by when (MM/YY), using available information from all IOU and external parties) by January 2011 and update bi-annually.</p> <p>For example, the purpose of this technology roadmap is to develop an at-a-glance understanding of what technologies/measures could be available and by when, in the context of the product life cycle.</p> <p>(2) Develop a communication plan to make the</p>

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				<p>lighting technology roadmap, pipeline plans, and technology resource information available via the statewide MEO portal by July 2011, update annually.</p> <p>(3) Identify strategic options for each pipeline plan and make them available as part of the pipeline plan, and report in the annual LMT June Report.</p> <p>(4) Identify the unique conditions (i.e., Codes &amp; STDs, market saturation) for each pipeline plan, to determine when program intervention would no longer be necessary, and report annually in LMT June Report.</p> <p>(5) Identify the unique conditions (i.e., Codes &amp; STDs, market saturation) for each pipeline plan, to determine when program intervention would no longer be necessary, and report annually in LMT June Report.</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>IOUs propose modifying PPM-2 to following (For Objective-1):</p> <p>Number of recommended projects initiated and completed, with findings and recommendations (i.e., this is a tracking of lighting related projects for ET, Advanced Lighting and 3<sup>rd</sup> parties).</p> <p>(2a metric)</p> <p>IOU rationale: These projects may require an extended period of time to complete as defined by the LMT process. It makes more sense to track project progress overtime.</p>
<p>PPM 3: Length of time from when a technology graduates from the ET program to when it's integrated into a core IOU program.</p>	Staff	2b	N	<p>IOUs recommend deleting PPM-3.</p>

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				IOU Rationale: We would like to add this PPM back once the LMT program is fully developed and implemented. IOUs will like to reassess this PPM with ED for 2013-2015.
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/P&G&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	<del>IOUs recommend deleting PPM-4.</del>  IOU Rationale: We would like to add this PPM back once the LMT program is fully developed and implemented. IOUs would like to reassess this PPM with ED for 2013-2015.
PPM 5: Number of products introduced into the lighting market via the LMT program	Staff	2a	N	IOUs recommend modifying PPM-5 to following (For Objective-1):  <del># of EE lighting measures added, removed, or updated as a result of LMT activities and influence, and report in annual LMT June Report.</del>  (2a metric)
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	<del>IOUs recommend deleting PPM-6.</del>  IOU Rationale: We would like to add this PPM back once the LMT program is fully developed and implemented. IOUs will like to reassess this PPM with ED for 2013-2015. LMT will work with market actors and other programs, but LMT is a strategic function rather than program implementation of measures.
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.				<b><u>Please refer to IOU comments next to program mission statement.</u></b>

\*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.

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Long-Term (2013-2020) "SMART" Sub-program Objectives:	Source (SP, AL, DR, PIP, or Staff)*	IOU Comments
Objective 1: By 2020, 100% of new and retrofit lighting installations will meet best practices.	SP (Lighting chapter, Goal 2 Result, p.3)	IOU Comments: This objective will need additional definition so it can be operationalized. These definitions may differ from consumer versus non-consumer applications so these definitions need to be at the sector level.  It is best to identify the short list of best practices that we would like to advance for each cycle of 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)	IOU Comment: Same comment as above, since lighting preferences and best practices may change over time. Again, These sweeping terms will need to be clearly defined before measurement can take 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)	

\*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 Comments
MT Indicator 1: Percentage of total lighting sales comprised of Best Practice technologies (by sector)	Staff	3	Y	IOU Comments: We recommend developing definitions for "Best Practice Technology" in a changing environment. We also recommend developing definition for "sector"  IOU assessment of priority: High



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<p>MT Indicator 2: Number of technologies (by sector) for which market transformation is achieved (as defined by the program)</p>	<p>Staff</p>	<p>3</p>	<p>N</p>	<p>OK                  IOU Comments: IOUs recommend developing definition for "sector."                  IOU assessment of priority: High</p>
<p>MT Indicator 3: Number of technologies by sector that no longer require IOU program interventions</p>	<p>Staff</p>	<p>3</p>	<p>N</p>	<p>IOU assessment of priority: Low, at this time. We may wish to focus measurement resources elsewhere for now.</p>

\*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.