

## 1.1. Local Government Partnerships

### Recent Changes

In 2015, this chapter was reformatted to become a LGP (local government partnerships) – only document.<sup>1</sup>

In 2014, the Energy Division (ED) introduced a new forum, the Stakeholder Advisory Group (StAG), to provide local governments and their partnership implementers a greater voice in matters pertaining to the local government sector’s Evaluation, Measurement, and Verification (EM&V) programming and project management decisions. In addition to local governments and partnership implementers, the StAG also includes the seven State energy efficiency (EE) program administrators, and thus also serves as the advisory body to the REN-CCA roadmap and its project activities. Together with other experts and advocates, the StAG engages in consensus-building discussions of local government-related EM&V projects via conference calls six times per year.

The StAG represents an addition to and evolution of the PCG for IOU LGPs. The PCG is an approximately every-eight-weeks forum for the investor-owned utilities (IOUs) – who oversee administration of the State’s more than 50 local government partnerships – to engage with ED and consultant staff on EM&V planning and programming decisions.

#### 1.1.1. Background

The origins of local government partnerships date to 2002. In 2002-2003, the CPUC approved local government programs for IOU contract, and some local governments (LGs) operated building retrofit programs using other public funds. In 2003-2005, the CPUC expanded funding of local government EE efforts across the four IOUs (Pacific Gas & Electric (PG&E), Southern California Edison (SCE), Southern California Gas (SoCalGas), and San Diego Gas & Electric (SDG&E)). This approval represented a major expansion in the number of LGPs and resources directed to LG-derived EE solutions.

LGPs are structured variously within the energy efficiency portfolio as city, county, and regional government-led partnerships. It is also not uncommon to have a private or non-profit implementer arrangement. Implementers are expected to handle IOU contracting issues, drive and be accountable for goal setting and achievement, disburse funds to their member LGs, and serve as the face of the partnership to the CPUC and other entities.

The 2013-2015 program cycle also marked a period of IOU expansion of the sector and growth in local agency capacity to deliver EE. In PG&E’s territory, increased emphasis on energy savings potential through small-medium-business (SMB) direct install (DI) projects unlocked and informed by its LGPs. PG&E’s ramp up of its DI-LGP integration had the IOU rethink its third-party delivery approach, enfolding it under its EE partnerships and reinforcing their regional (county-wide or multi-county) approach. SDG&E’s five partnerships, serving five partners within a single county, have collaborated closely to put forward a Regional Energy Partnership approach, that promotes knowledge transfer among the local government

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<sup>1</sup> The Institutional (State agency) Partnerships are tracked within the Commercial chapter and a companion chapter provides treatment for REN (Regional Energy Networks) – CCA (Community Choice Aggregators) evaluation plans.

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partners and agencies without formal partnerships. SCE and SoCalGas have both introduced to their LGPs new local agency DI programs and have considered various savings attribution, incentives, and co-pay arrangements there. The two IOUs have nearly identical rosters of LGPs and the two coordinate to provide both gas and electric savings opportunities to achieve deep EE savings. Recent increased IOU services to the LGPs include project management and technical support services, vendor hiring (“job order contracting”), and data tools and performance dashboards.

Because, the local government partnerships are not statewide programs the IOUs have been afforded a degree of latitude in how they administer their LGP portfolios

Variation in the IOU approaches to their LGPs evident today came about in part from the 15-year evolution of the LGPs within separate IOU territories and by way of a relatively hands-off approach to the LGPs by the CPUC until 2012. Four distinct IOU LGP models may allow for increased ability to respond to local conditions, strengths and weakness, but such variation complicates regulatory oversight and makes the task of program evaluation difficult. Additionally, recent EM&V studies and stakeholder feedback have raised questions and concerns surrounding uneven application of rules and opportunities from county to county across the State.

In response, CPUC Decision 16-08-019<sup>2</sup> clearly signaled a call for change in the way the IOUs administer their LGPs, directing that “all business plans should also include strategies for improving the consistency of LGP administration statewide.”

In the interim, the four IOUs operate their LGPs on a spectrum of resource to non-resource weighting. In this continuum PG&E has the most resource-based programs while SoCalGas and SDG&E offer entirely non-resource programs. In the middle is SCE, which treats efforts to address public buildings as resource programs. All four IOUs have some non-resource programs that address State Strategic Plan goals.

The IOU LGPs are expected to perform the following activities and deliver the following services:

1. Generate energy and demand savings through retrofits of municipal facilities;
2. Generate leads and opportunities for their IOU partners and be a source of on-the-ground information for the CPUC and other State agencies;
3. Support local agency actions that advance the California Long Term Energy Efficiency Strategic Plan’s goals;
4. Exchange best practices and peer-to-peer knowledge transfer to allow for statewide expedited replication of successful approaches and to avoid projects whose approaches have not found success elsewhere;
5. Initiate discussions with community decision makers and local agency gatekeepers to advance the State’s climate and energy goals; and
6. Initiate discussions with their community constituents to advance the State’s climate and energy goals.

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<sup>2</sup> Findings of Law, No. 53, p. 104, August 18, 2016, <http://docs.cpuc.ca.gov/SearchRes.aspx?docformat=ALL&DocID=166232537>

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LGP program changes and expansion in the 2015 and 2016 program years include the introduction of three new LGPs in the southern part of the State. Two are joint SCE-SoCalGas LGPs, North Orange County and SANBAG<sup>3</sup>; and the SCE-only High Desert LGP serves communities including and around Barstow and Victorville. In addition, three County partnerships with SCE, formerly within the State Partnerships grouping, were moved to LGPs: County of Los Angeles, County of Riverside, and County of San Bernardino. As a result, these three counties are now expected to be counted and treated consistently as LGPs by SCE, something SoCalGas has always done. Additionally, SCE and SCG have been moving their LGPs to more a regional-solutions model and have several consolidation efforts underway to more closely tie together proximate partner communities. These IOUs’ former joint LGP, City of Beaumont, folded in 2016, citing a severe municipal budget crisis. In 2016, PG&E graduated to full LGP status a number of provisional partnerships out of its LGEAR incubator program to full partnership status.<sup>4</sup>

Table 1 presents the 2013-2015 *ex ante* first year savings and expenditures for the local government partnerships and for overarching programs in support of the partnerships

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<sup>3</sup> San Bernardino Associated Governments

<sup>44</sup> Local Government Energy Action Resources (LGEAR) 2016 graduates consist of six LGPs serving the counties of Butte, Colusa, Glenn, Kings, Merced, San Joaquin, Shasta, Stanislaus, Sutter, Tehama, Tulare, Yolo, and Yuba.

**Table 1. 2013-2015 Local Government Partnerships and Overarching Programs in Support of Partnerships Savings and Expenditures**

IOU	Program ID	Program Name	2013-2014 Program Cycle				2015 Program Cycle			
			Energy Savings (kWh)	Demand Reduction (kW)	Gas Savings (Therm)	Program Expenditures	Energy Savings (kWh)	Demand Reduction (kW)	Gas Savings (Therm)	Program Expenditures
<b>Local Government Partnerships</b>										
PGE	PGE211009	East Bay	33,275,881	2,087	78,715	18,533,923	11,611,123	2,027	-21,952	6,719,111
PGE	PGE211024	San Francisco	17,095,271	3,419	68,537	12,939,113	8,067,907	1,428	-36,579	6,611,788
PGE	PGE211023	Silicon Valley	10,990,217	1,205	60,821	7,588,513	13,253,706	939	-22,213	4,609,175
PGE	PGE211010	Fresno	7,767,630	1,167	9,315	3,872,751	7,551,318	1,426	-55,910	3,130,833
PGE	PGE211007	Association of Monterey Bay Area Governments (AMBAG)	11,487,200	1,744	16,323	7,915,038	9,648,466	1,080	-26,487	4,213,849
PGE	PGE211011	Kern	12,140,256	2,108	-61,048	5,102,079	6,251,049	952	-41,842	2,811,185
PGE	PGE211021	Sierra Nevada	7,707,383	1,006	-19,858	5,268,446	3,454,852	540	-12,484	1,954,601
PGE	PGE211019	San Mateo County	7,597,881	782	-11,575	4,641,507	5,619,083	656	-6,747	2,625,108
PGE	PGE211022	Sonoma County	4,841,733	660	10,768	2,877,636	5,603,896	805	-4,233	2,226,417
PGE	PGE211016	Redwood Coast	2,843,992	489	-12,952	3,208,554	2,585,340	516	-19,727	1,474,416
PGE	PGE211013	Marin County	2,402,056	275	-5,588	2,664,877	3,251,093	396	199,693	1,179,302
PGE	PGE211020	Santa Barbara	5,148,092	610	-22,289	2,280,433	1,512,118	261	-14,021	966,840
PGE	PGE211018	San Luis Obispo Co.	4,954,875	728	-25,379	2,802,162	1,061,729	189	-7,770	878,220
PGE	PGE211015	Napa County	2,331,780	299	-1,277	1,327,911	576,830	128	-265	519,326
PGE	PGE211012	Madera	919,490	148	-2,899	481,361	901,601	144	-4,146	436,007
PGE	PGE211014	Mendocino County	937,747	128	552	748,926	1,149,922	156	-2,062	626,591
SCE	SCE-13-L-002G	Community ELP	5,680,339	856	-3,432	2,935,326	1,760,320	154	7,381	1,610,971
SCE	SCE-13-L-002L	Orange County Cities ELP	3,229,388	630	2,261	1,302,767	356,445	27	0	626,572
SCE	SCE-13-L-003C	County of Los Angeles ELP	5,961,644	767	86,431	2,050,213	3,389,868	333	-594	1,805,796

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SCE	SCE-13-L-002N	San Joaquin Valley ELP	2,196,733	372	-3,314	1,468,943	175,510	25	-158	629,974
SCE	SCE-13-L-002O	South Bay ELP	1,781,504	288	-3,474	2,350,869	521,190	42	-245	1,125,351
SCE	SCE-13-L-002Q	Ventura County ELP	4,002,476	561	-3,553	1,739,493	327,750	11	0	726,815
SCE	SCE-13-L-002F	Gateway Cities ELP	947,749	90	-815	751,051	283,703	3	-44	339,031
SCE	SCE-13-L-002M	San Gabriel Valley ELP	2,872,891	367	-1,483	1,545,826	1,087,771	60	-543	707,493
SCE	SCE-13-L-003E	County of San Bernardino ELP	1,020,650	181	199	706,226	444,692	153	101	650,202
SCE	SCE-13-L-003D	County of Riverside ELP	845,988	117	629	504,081	102,453	22	0	191,456
SCE	SCE-13-L-002J	Desert Cities ELP	2,517,897	421	-1,652	856,843	1,118,472	164	-580	953,948
SCE	SCE-13-L-002R	Western Riverside ELP	770,444	100	-1,020	708,784	236,661	53	-16	313,006
SCE	SCE-13-L-002P	South Santa Barbara County ELP	905,070	208	-2,440	976,832	396,051	17	0	335,175
SCE	SCE-13-L-002D	City of Santa Ana ELP	1,251,546	120	-417	629,900	573,297	3	0	387,827
SCE	SCE-13-L-002B	City of Long Beach ELP	711,637	125	-489	416,260	161,679	49	-80	228,600
SCE	SCE-13-L-002C	City of Redlands ELP	759,070	140	-990	462,088	65,687	6	0	99,558
SCE	SCE-13-L-002T	West Side ELP	653,082	142	-1,620	549,926	23,179	0	0	163,476
SCE	SCE-13-L-002K	Kern County ELP	550,234	130	-3,194	802,453	8,328	1	-51	87,084
SCE	SCE-13-L-002H	Eastern Sierra ELP	108,658	28	-1,123	365,223	21,379	10	-23	176,237
SCE	SCE-13-L-002S	City of Adelanto ELP	2,294,258	271	-714	541,385	166,892	46	-1,388	286,465
SCE	SCE-13-L-002A	City of Beaumont ELP	37,850	9	-85	138,717	0	0	0	51,969
SCE	SCE-13-L-002E	City of Simi Valley ELP	82,151	6	-5	154,730	11,545	2	0	77,406
SCG	SCG3777	San Gabriel Valley COG Partnership	0	0	0	133,024	0	0	0	116,053
SCG	SCG3742	LA County Partnership	0	0	0	185,575	0	0	0	138,376
SCG	SCG3783	Western Riverside ELP	0	0	0	131,668	0	0	0	126,310

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			Energy Savings (kWh)	Demand Reduction (kW)	Gas Savings (Therm)	Program Expenditures	Energy Savings (kWh)	Demand Reduction (kW)	Gas Savings (Therm)	Program Expenditures
SCG	SCG3754	Ventura County ELP	0	0	0	182,956	0	0	0	92,825
SCG	SCG3776	Gateway Cities ELP	0	0	0	93,421	0	0	0	63,584
SCG	SCG3747	South Bay Cities ELP	0	0	0	274,840	0	0	0	252,363
SCG	SCG3744	Riverside County ELP	0	0	0	132,516	0	0	0	58,199
SCG	SCG3745	San Bernardino County ELP	0	0	0	150,041	0	0	0	53,912
SCG	SCG3750	Orange County ELP	0	0	0	135,404	0	0	0	63,531
SCG	SCG3752	Community ELP	0	0	0	232,981	0	0	0	143,856
SCG	SCG3783	Western Riverside ELP	0	0	0	131,668	0	0	0	126,310
SCG	SCG3746	Santa Barbara County ELP	0	0	0	164,005	0	0	0	83,261
SCG	SCG3748	San Luis Obispo County ELP	0	0	0	207,641	0	0	0	109,753
SCG	SCG3743	Kern County ELP	0	0	0	198,990	0	0	0	72,650
SCG	SCG3749	San Joaquin Valley ELP	0	0	0	129,458	0	0	0	89,649
SCG	SCG3778	City of Santa Ana ELP	0	0	0	59,065	0	0	0	58,407
SCG	SCG3781	City of Redlands Pilots	0	0	0	63,198	0	0	0	32,131
SCG	SCG3782	City of Beaumont Programs	0	0	0	73,385	0	0	0	31,398
SCG	SCG3780	City of Simi Valley ELP	0	0	0	42,025	0	0	0	22,205
SCG	SCG3779	West Side Cities ELP	0	0	0	17,711	0	0	0	35,340
SCG	SCG3753	Desert Cities ELP	0	0	0	26,384	0	0	0	10,645
SDGE	SDGE3272	City of Chula Vista ELP	0	0	0	2,829,767	0	0	0	832,044
SDGE	SDGE3273	City of San Diego ELP	0	0	0	2,816,067	0	0	0	1,238,464
SDGE	SDGE3274	County of San Diego ELP	0	0	0	1,821,924	0	0	0	993,870
SDGE	SDGE3275	Port of San Diego ELP	0	0	0	1,648,462	0	0	0	830,008

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IOU	Program ID	Program Name	2013-2014 Program Cycle				2015 Program Cycle			
			Energy Savings (kWh)	Demand Reduction (kW)	Gas Savings (Therm)	Program Expenditures	Energy Savings (kWh)	Demand Reduction (kW)	Gas Savings (Therm)	Program Expenditures
SDGE	SDGE3276	SANDAG ELP	0	0	0	1,420,521	0	0	0	721,814
<b>Local Government Partnership Subtotal</b>			<b>171,622,743</b>	<b>22,781</b>	<b>141,863</b>	<b>117,513,863</b>	<b>93,332,902</b>	<b>12,824</b>	<b>-72,984</b>	<b>58,954,141</b>
<b>Programs Supporting Partnerships</b>										
PGE	PGE2110051	Local Government Energy Action Resources (LGEAR)	21,854,898	2,073	-62,795	16,586,232	20,369,565	3,145	-118,971	10,810,840
PGE	PGE2110052	Strategic Energy Resources	0	0	0	4,080,843	0	0	0	7,508,767
SCE	SCE-13-L-002U	Local Government Strategic Planning Pilot Program	0	0	0	7,222,334	0	0	0	3,221,345
SCE	SCE-13-L-002Rollup	ELP Program	0	0	0	249,327	0	0	0	-26,209
SCE	SCE-13-L-002I	ELP Strategic Support	0	0	0	4,318,945	0	0	0	566,156
SCG	SCG3774	LGP-LG Regional Resource Placeholder	0	0	0	523,307	0	0	0	337,172
SCG	SCG3773	New Partnership Programs	0	0	0	98,748	0	0	0	-523
SCG	SCG3755	Local Government Energy Efficiency Pilots	0	0	0	0	0	0	0	1,926
SCG	SCG3751	LGP-SEEC Partnership	0	0	0	205,761	0	0	0	167,230
SDGE	SDGE3278	LGP-Emerging Cities Partnership	0	0	0	397,305	0	0	0	412,408
SDGE	SDGE3277	LGP-SEEC Partnership	0	0	0	609,147	0	0	0	-2,496
<b>Programs Supporting Partnerships Subtotal</b>			<b>21,854,898</b>	<b>2,073</b>	<b>-62,795</b>	<b>34,291,949</b>	<b>20,369,565</b>	<b>3,145</b>	<b>-118,971</b>	<b>22,996,616</b>
<b>Total Local Government Partnerships ('000s)</b>			<b>193,478</b>	<b>25</b>	<b>79</b>	<b>151,806</b>	<b>113,702</b>	<b>16</b>	<b>-192</b>	<b>81,951</b>
<b>Total EE Portfolio ('000s)</b>			<b>6,829,335</b>	<b>1,110</b>	<b>100,790</b>	<b>1,636,984</b>	<b>5,904,569</b>	<b>1,336</b>	<b>45,742</b>	<b>1,203,733</b>
<b>Percentage of Total EE Portfolio</b>			<b>3%</b>	<b>2%</b>	<b>0.08%</b>	<b>9%</b>	<b>2%</b>	<b>1%</b>	<b>-0.42%</b>	<b>7%</b>

### **1.1.2. Conditions Affecting Local Government Partnerships**

With the U.S. economy continuing to gain transaction in its long recovery from the Great Recession, local agencies have begun to rebound from the staff layoffs that began in late 2008 and persisted until about mid-2013. The upshot of the improved economic outlook is that local agencies may be in a better position to elevate energy efficiency efforts as a priority and to put resources toward the State’s climate goals. Still, some local governments in California continue to struggle financially and their ability to deliver beyond core public health and safety services remains constrained.

Challenges in obtaining quality and affordable program evaluations within the IOU LGP sector include the absence of statewide program uniformity with four IOU models with inconsistent attribution of energy savings, subpar data collection and reporting, and a vast and diverse sector made up of approximately 50 LGPs representing nearly all California counties except those without energy service by the four IOUs. Thus, a starting point for effective evaluation of this sector would be to recognize and comprehend each IOU’s approach to how it administers its LGP programs.

Through 2012, the LGPs were the sole ratepayer-funded EE delivery vehicle leveraging and targeting California local agencies. In late 2012, the CPUC approved two new non-IOU delivery models (See REN-CCA roadmap chapter below at **Section 1.2**).

Energy Division anticipates that an important future CPUC need may be useful research to address remaining unresolved questions regarding the appropriateness of some division of the EE market among the three PA types. As a response, Energy Division is proposing a new process evaluation within the LGP roadmap (detailed in **Section 1.1.7** below) to conduct a gap analysis that would, among other things, examine IOU cooperation with the other PAs through the LGP lens. The LGP lens approach to appraising the existing condition of multiple PAs simultaneously operating in the local government space would seek to determine whether the LGPs -- as a mature program -- should serve as the marquee ratepayer-supported EE offering in the local government space. Additionally, because the LGPs have some unique and exclusive features, it would serve to learn if the LGPs warrant program revisions to ensure commensurate local agency commitment and performance expectations. Also, Energy Division is interested to learn whether codifying the LGP programs at this stage in their maturity would be useful to fully capture opportunities and preserve the LGPs’ position as model leaders for innovation in the EE space.



### 1.1.3. 2013-2015 Local Government Partnerships EM&V Studies

Table 2 presents the ongoing EM&V studies and budgets funded through the 2013-2015 cycle. It includes funding for projects that have not yet started, but for which budgets were set aside from the 2013-2015 allocation.

**Table 2. 2013-2015 Local Government Partnerships EM&V Studies, Budgets, and Expected Dates of Completion**

2013-2015 Study Area/Title	Study Type	Study Manager	Budget	Completion Date
<b>Studies In Progress</b>				
PY 2013-2015 LGP Impact Evaluation	Impact	Energy Division	\$230,000	Q2 2017
Local Government Partnerships Process Study: Assessing the LGP – DI Nexus	Process	IOU (SCE)	\$418,000	Q4 2017
Targeted Process Evaluation of IOU Local Government Partnerships	Process	IOU (SCE)	\$490,000	Q4 2016
Process and Effectiveness Evaluation of SCE Energy Leader Model		IOU (SCE)	\$225,000	Q4 2016

### 1.1.4. 2013-2015 Local Government Partnerships EM&V Study Descriptions

This section provides short descriptions, objectives, and key research questions of each of the 2013-2015 studies.

<b>Study Title:</b> PY 2013-2015 Impact Evaluation of LGPs	<b>Budget:</b> \$230,000
<b>Expected Completion Date:</b> Q2 2017	<b>Study Manager:</b> Energy Division <b>Consultant Preparer:</b> ITRON
<b>Description:</b> This study would develop <i>ex post</i> savings estimates of net and gross savings values for the LGP programs for the 2013-2015 period. The evaluation would focus on high uncertainty measures or key measure-parameters (e.g., operating hours for LED lamps) and rely on a combination of new data collection, and existing data from relevant 2010-12 and 2013-14 impact evaluations. The study team would combine a 2013-2014 impact evaluation with the 2015 impact evaluation of LGPs; however, interim results would be developed prior to the completion of this study to focus on 2013-14 participation. This study would be conducted under the LGP/REN Nonresidential Downstream Impact Evaluation Work Order.	
<b>Objectives:</b> <ul style="list-style-type: none"> <li>• Estimate LGP program group-specific gross impact parameters for measures with high uncertainty that are significant contributors to the LGP programs;</li> <li>• Estimate net-to-gross ratios (NTGRs) for the LGP programs as a whole and for key grouping of LGP programs (such as by program administrator, and/or by delivery mechanism [e.g., direct install versus non-direct install]); and</li> <li>• To increase the reliability of results, this evaluation combined funding of the 2013-2014 impact assessment with the 2015 evaluation so the study would span 2013-2015 participants.</li> </ul>	
<b>Key Research Questions:</b> <ul style="list-style-type: none"> <li>• What are the <i>ex post</i> gross savings values for LGP programs?</li> <li>• What are the NTGRs for LGP programs?</li> <li>• Sempra IOUs treat their LGPs entirely as non-resource programs. How is this arrangement working out? Does it allow for adequate tracking and performance evaluability of the Sempra LGPs? Does the arrangement create any challenges in comparing the IOUs across territories or measuring the statewide contribution of the LGPs across the IOUs?</li> <li>• Sempra IOUs claim some savings from the LGPs within their core programs. What is the quantity of these savings? Where do the savings appear? How are they tracked and reported? How evaluable are these savings?</li> </ul>	
<b>Potential EM&amp;V Methods:</b> Telephone surveys to develop NTGRs, on-site verification, and monitoring to estimate key parameters for high uncertainty measures. These data would include a combination of new data collection, and existing data from relevant 2010-12 and 2013-14 CPUC impact evaluations.	

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<b>Study Title:</b> Local Government Partnerships Process Study: Assessing the LGP-DI Nexus	<b>Budget:</b> \$418,000
<b>Expected Completion Date:</b> Q4 2017	<b>Study Manager:</b> Energy Division <b>Consultant Preparer:</b> Research Into Action
<p><b>Description:</b> An examination of how the IOUs can more fully capture the potential of Direct Install (DI) and the appropriate level of involvement and control by their local government partnerships.</p> <p>The study would conduct a comparative analysis of PG&amp;E’s partners’ experience with DI vis-a-vis those LGPs administered by SCE, SCG, and SDG&amp;E, to better understand local agency and implementer roles and ability to inform DI projects; authority, decision making, and data sharing power dynamics; and equitability of opportunities, eligible measures, and qualifying EE sectors/targets.</p> <p>The study would conduct a focused analysis on PG&amp;E partners’ experience with DI to better understand how certain designated LGPs serve as lead shot-caller to implement, direct, and hire-and-fire DI implementers and how this arrangement may result in synergies, cost considerations, ability to capture deeper EE and fair share, as well as non-EE benefits such as local work force and economic development.</p> <p>The study would conduct a comparative analysis among PG&amp;E partners to determine if the self-directed LGP DI experience could be appropriately replicated to additional high-performing LGPs within the IOU territory.</p> <p>The study would conduct a comparative analysis between existing PG&amp;E partners having a self-directed LGP DI arrangement with select LGPs in the SCE and SDG&amp;E territories to determine whether the limited PG&amp;E LGP-directed DI experience could be appropriately replicated statewide.</p> <p>The study would examine whether certain PG&amp;E partner calls for a right of first refusal (ROFR) to allow LGPs priority to conduct DI projects over third-party vendors is warranted; and what the implications within the territory and statewide would be of a rule change.</p> <p>Additionally, the study may include treatment of a handful of DI programs that interface with LGPs is small including Moderate Income Direct Install (MIDI), manufactured homes, lodging, casinos, tribal lands, vintners, and others. The study would allow for a deeper understanding of the direct install program component of the LGPs to specifically inform on:</p> <ul style="list-style-type: none"> <li>• The level of influence of the DI component on customers to completing additional and more comprehensive follow-on installations of energy efficiency measures; and</li> <li>• The importance of the DI component in encouraging customers to participate in other LGP or utility programs.</li> </ul> <p>The study would examine various DI models in place at each IOU, the result of IOU trials and innovations such as required co-pays, and IOU-local government co-branding marketing efforts, all of which would provide the CPUC a better understanding of the ties and co-dependencies between DI and LGPs, and whether small commercial savings is an appropriate LGP requirement.</p>	
<p><b>Objectives:</b>          Improve CPUC understanding of DI and LGP coordination, potential, and opportunity.</p>	
<p><b>Research Questions:</b></p> <ul style="list-style-type: none"> <li>• How can the comprehensiveness of DI programs be improved and what, if any, contribution can the LGPs make toward this goal?</li> <li>• What are potential solutions to a shortage of qualified energy auditors who can perform comprehensive energy audits beyond lighting or single measures?</li> <li>•</li> <li>• What can be done to improve matters for small businesses which may have difficulty finding contractors to complete comprehensive energy audits?</li> <li>• What risk is associated with the LGPs’ existing over-reliance on lighting-only programs to achieve</li> </ul>	

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<b>Study Title:</b> Local Government Partnerships Process Study: Assessing the LGP-DI Nexus	<b>Budget:</b> \$418,000
<p>savings? What might be a good divestment and diversification strategy and what costs might be associated with any change of approach?</p> <ul style="list-style-type: none"> <li>• What are solutions to reported failure of DI vendors to uniformly make use of provided energy audit checklists, and what role might LGPs have in being part of the solution?</li> <li>•</li> <li>• What are consequences of the status quo (the lack of uniform adoption of the checklist) and are reported lack of uniform energy audits and savings. across program vendors significant?</li> <li>• Can common non-lighting measures such as refrigeration and VFDs serve as adequate diversification of SMB DI programs or are more and more varied measures installed warranted?</li> <li>•</li> <li>• What are the repercussions of installing only measure offered through a given DI program (as opposed to a comprehensive and/or independent facility energy audit to identify all opportunities?</li> <li>• What strategies and solutions can be identified and implemented to counter SMB perceptions and barriers surrounding more complex measures, (higher cost, longer paybacks)?</li> </ul> <ul style="list-style-type: none"> <li>• What barriers exist and what accommodation or relief might be appropriate, warranted, or available with regard to barriers to bundling, Title 24 updates, and existing conditions as baseline conditions? How might AB 802’s directives affect support or conflict with existing rules and offer relief, if any? Are DI projects typically adequately informed by and capturing the full benefit of the LGPs in whose region they service?</li> <li>• Are DI projects contributing to stranded energy savings that go unrealized and/or cream skimming? And if so, what could be done to correct this condition?</li> <li>• Would there be benefit to consistent IOUs attribution of DI program savings and budgets to their LGPs?</li> <li>• Should LGP implementers be the gatekeepers for existing no-cost municipal DI offerings made available directly to LGs to allow for decision-making ability to put forward a regional vision?</li> <li>• Should LGPs have some say in the goals or hiring and firing of the 3P program DI providers given their budget and savings ties?</li> <li>• Should there be an onramp period for advanced LGPs with DI implementation experience to have some first right of refusal?</li> <li>• What are existing barriers to LGPs coordinating Utility DI programs?</li> <li>• What is the track record of DI 3P implementers with accommodating LGPs in terms of responsiveness to LGP requests, sharing data, and program coordination?</li> <li>• How do the LGPs serve as the marketing arm of the DI, 3P, and IOU core programs? What would be the impact if LGP marketing of these programs were eliminated? What is the extent of duplication between these efforts and statewide ME&amp;O efforts?</li> <li>• What types of marketing and outreach activities are presently undertaken by LGPs and to what degree do the program designs originate with the IOUs?</li> <li>• To what degree is an LGP’s marketing approach shaped by its level of control of the DI programs in its region?</li> <li>• What has been the overall community engagement and uptake rates, referrals to DI/3P/core programs, and resulting savings?</li> </ul>	
<p><b>Potential EM&amp;V Methods:</b> Investigate through field visits, interviews, financial and data analysis, cause and effect. Interviews with all parties within the LGP-DI community. Data requests and review of public filings. [<i>This study would be coordinated with the DI study being completed in the small-medium commercial sector</i>]</p>	

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<b>Study Title:</b> Targeted Process Evaluation of IOU Local Government Partnerships	<b>Budget:</b> \$490,000
<b>Expected Completion Date:</b> Q4 2016:	<b>Study Manager:</b> SCE <b>Consultant Preparer:</b> Research Into Action
<b>Description:</b> PY 2013-2014 phase of ongoing process assessments of LGP activities, performance, and savings targets achievements. Budget includes both 2013-2014 funds (\$365,000) and funds for a market assessment to aid post-2014 program design (\$125,000).	
<p><b>Objectives:</b> The IOUs have proposed within this study to identify a set of high-priority LGPs activities that would undergo a process evaluation. This approach would identify a handful of LGPs to examine every year or two within a process study. It is expected that the process assessment scope would include municipal retrofits and Strategic Plan support activities, which have not yet been evaluated and which are non-duplicative with existing study efforts.</p> <p>In order to better facilitate this endeavor, the IOUs propose that determining common criteria by which LGPs can be categorized is a necessary precursor. This PY 2013-2014 would derive such LGP category criteria.</p> <p>It is expected that this Targeted Process Evaluation would be the first in a series of Rolling Targeted Process Evaluations, which would focus on the municipal building retrofits and Strategic Plan support activities components of the LGPs. These program areas have not yet been thoroughly evaluated; this study would assure that any duplication with existing study efforts would be minimized.</p>	
<p><b>Key Research Questions:</b></p> <ul style="list-style-type: none"> <li>• How can LGPs be categorized to facilitate appropriate comparisons (“apples-to-apples”)? Would IOU program management benefit from a customization of these statewide standard categories? If so, in what way?</li> <li>• At a high level, what have been LGPs’ primary achievements and challenges? How do achievements and challenges differ by LGP category?</li> <li>• What are common LGP program processes? How do these practices differ by LGP category?</li> <li>• What processes appear most effective? How do these practices differ by LGP category?</li> <li>• What are opportunities for the IOUs to improve program outcomes? Do the individual IOUs need customized metrics and milestones?</li> <li>• For each Strategic Plan menu item, why have the IOUs struggled with assessing program performance and reporting results? Would each IOU benefit from having a customized Strategic Plan menu?</li> <li>• How can IOUs improve project performance reporting such as building type, building vintage, and building square footage to better inform the how the LGPs are contributing to State goals?</li> <li>• How many local governments have some type of Energy Management System (EMS)? How have they been using them? What achievements have the use of an EMS enabled? How many local governments link EMS data to other databases?</li> <li>• How have the LGs shared resources across areas and regions? Are significant LGP-to-LGP knowledge transfer lines of communication established?</li> <li>• To what extent do ratepayer dollars fund local government staff positions? Are staff positions within joint powers authorities or councils of governments?</li> </ul>	

<b>Study Title:</b> Process and Effectiveness Evaluation of SCE’s Energy Leader Model (SCE)	<b>Budget:</b> \$225,000
<b>Expected Completion Date:</b> Q4 2016	<b>Study Manager:</b> IOU (SCE) <b>Consultant Preparer:</b> Research Into Action
<b>Description:</b> Process Evaluation	
<b>Objective:</b> Study would be the first broad evaluation of the SCE Energy Leader Program (ELP) model since it was introduced in 2008. SCE seeks to demonstrate that the ELP is well received by the partners and results in its intended effect of building capacity via gradually paying greater incentive levels based on certain LG accomplishments. The CPUC	

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<b>Study Title:</b> Process and Effectiveness Evaluation of SCE’s Energy Leader Model (SCE)	<b>Budget:</b> \$225,000
seeks to learn whether the ELP effectively administers opportunities as LGP success is demonstrated. CPUC seeks to understand whether some Statewide graduated LGP model is warranted.	
<p><b>Key Research Questions:</b></p> <ul style="list-style-type: none"> <li>• What are the value, merit, and effectiveness of SCE’s ELP model in motivating achievements of, and building capacity within LGs?</li> <li>• What are the factors driving success? How can SCE build on its success to improve the program? What elements, if any, might be appropriate to extend statewide or, conversely, to discontinue?</li> <li>• How do SCE-provided technical experts facilitate capacity and savings in LGs?</li> <li>• What is current LG capacity? What is the likelihood that the ELP model offers a viable strategy for increasing that capacity? Are some LGs or types of LGs more likely to benefit from the ELP program model?<sup>5</sup></li> </ul>	
<p><b>EM&amp;V Methods:</b></p> <ul style="list-style-type: none"> <li>• Review of program documents and records</li> <li>• In-depth interviews with three to four key SCE and SCG program staff</li> <li>• In-depth interviews with up to 20 program staff and contractors from SCE and SCG<sup>6</sup></li> <li>• Interviews with contacts for up to 18 sampled LGs</li> </ul>	

### 1.1.5. 2016 and Beyond Local Government Partnerships EM&V Studies

**Proposed 2016 Energy Division Budget:** \$1,676,664 (2016-2017)

The Local Government Partnerships roadmap (this EM&V Plan chapter) has received new two-year (2016 and 2017) funding in the amount of \$1.6 million for Energy Division-led studies. This funding is made available to conduct impact, process and market studies and evaluations to improve understanding and implementation of LGP programs and activities.

Besides noting the challenges in evaluating LGPs described above, the proposed studies described within this roadmap document call for careful consideration of the differences in size, available resources, and level of experience among local governments as well as their geographic, socioeconomic, and political variations.

The LGP PY 2013-2014 Value and Effectiveness Study Report (completed in 2015) left some core study questions unaddressed, that may be able to be answered in future studies. Specifically, the Value and Effectiveness Study did not fully address two prescribed research questions due to, in part, small sample sizes. A more ambitious future evaluation study might, therefore, be able to resolve these remaining research questions:

- Can a predictive tool be developed to identify LGs that have the highest potential for success as sponsors of Strategic Plan goals? Does this correlate with effective implementation?
- Across California, how does the IOUs’ program administration of their LGP portfolios affect the LGs’ ability to meet Strategic Plan goals?

<sup>5</sup> Excerpted from the RIA Research Plan, September 10, 2015, pp. 2-3.

<sup>6</sup> A review of SCE and SCG program documents indicates that nine staff members are involved in managing SCE’s non-institutional partnerships, and eight staff members involved in managing SCG’s partnerships.

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The LGP PY 2013-2014 Value and Effectiveness Study Report also brought to light the condition that SDG&E accounts for the majority of the State’s spending in the LGP Strategic Plan area. SDG&E program staff responds that their LGP program model is one that is centered around delivering Strategic Plan activities and elevating these efforts as the priority for the partnerships. As noted above in the proposed scope for the LGP Impact Study, Sempra IOUs treat their LGPs as non-resource programs, an arrangement that makes impact evaluation of the Sempra LGPs (problematic, (this is noted in the ED-led, ITRON-prepared study in progress and why the impact study addresses SCE and PG&E LGPs only).

Additionally, the LGP PY 2013-2014 Value and Effectiveness Study Report identified new research questions that could be future topics for investigation within future program evaluations. These potential new future study questions include:

- What are appropriate consequences or penalties for Strategic Plan project failure by the LGPs?
- How are the IOUs encouraging LGPs to follow through on their completed Climate Action Plans to ensure they are adopted and implemented? What has been the effect of this IOU practice of monitoring, follow up, and encouragement (if they exist) on the LGPs?
- What local agency contribution might be appropriate to fund Strategic Plan projects?
- Is a change to the LG Strategic Plan program model warranted such that routine Climate Action Plans could be funded via a “small grant” program while more ambitious project proposals with the potential for replicability, knowledge transfer, and innovation would be treated as Strategic Plan pilots and reserved for qualified and experienced LGPs?
- If changes to the LG Strategic Plan program model as described above are warranted, what competency requirements should be demonstrated by LGPs to graduate from “small grant” program eligibility to qualifying to apply for a Strategic Plan pilot project?
- What criteria do the IOUs employ in ranking and selecting Strategic Plan projects and is the process impartial and justified?
- Are non-resource program efforts, which include the LG Strategic Plan projects (addressing GHG reduction, climate change, reach codes, and data management, among others) as important as or subordinate to the goal of achieving direct energy savings?
- Do those IOUs that treat their LGPs as non-resource programs (e.g., SDG&E and SoCalGas) enjoy any competitive advantage to advancing Strategic Plan Projects and claiming a greater share of the available statewide funding pie?
- What new questions might be raised by the ITRON impact study of the LGPs in progress and what cost-effectiveness considerations should the Energy Division prioritize for additional evaluation? As described above, an impact evaluation of the LGPs is scheduled to be completed in 2017, and these findings may highlight additional challenges that the LGPs face regarding program cost-effectiveness and overall savings impacts. Therefore, documenting these effects would continue to be an important component of future research studies in this program area.
- How can the Energy Division ensure that the Sempra LGPs are appropriately treated within an impact evaluation given their non-resource character? Can the Energy Division make special accommodation and apply some unconventional approach to appraise the Sempra LGPs within an impact study and effectively gauge these programs’ cost effectiveness?

The Energy Division has a special interest in better understanding how LGP Marketing, Education & Outreach (ME&O) efforts function both as Strategic Plan efforts and as outreach activities to promote IOU DI and core resource programs. ED counts two categories of ME&O here, which are in addition to statewide ME&O efforts. How are these efforts coordinated to ensure a consistent, non-duplicative

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message? Does any double counting of benefit occur? Another theme for possible exploration within future LGP studies would be to assess the overall effectiveness of the IOU marketing and outreach strategies that leverage LGP community networks to promote energy efficiency to their constituents. Research to date has not fully explained how these activities are being deployed, and what if any duplication exists with statewide ME&O efforts. Research questions that could potentially frame a future LGP study are:

- How do these marketing and outreach activities vary by IOU or LGP implementer?
- What types of marketing methods and strategies have been the most and least effective? Do these results vary by sector or program model?
- How are marketing and outreach activities tracked within this sector? What additional ME&O data should be tracked, in order to inform future evaluations and decision-making?
- What are the awareness levels of these activities?
- What are the engagement points, and is there effective follow-up to encourage project completion?

**Proposed Program Administrator Budget:** \$395,000 (2016 and 2017)

The Investor Owned Utilities plan to focus their evaluation efforts on the systematic review of the local government partnership portfolio with a second wave of process evaluations. They have started this with a two part “rolling” process evaluation described below..

Table 3 details the proposed studies that rely on 2016 and 2017 program year funding.

**Table 3.. . 2016 and Beyond Proposed Local Government Partnerships EM&V Studies, Budgets, and Dates of Completion (PY 2016 program funds)**

2016-2017 Study Area/Title	Study Type	Study Manager	Budget	Completion Date
<b>Studies Proposed, but not yet Scoped</b>				
Local Government Partnerships Process Study: Comparative Analysis of Select Large Regional LGPs	Process	Energy Division	\$350,000	Q4 2018
Local Government Partnerships Process Study: Assessing Implementer Autonomy, Communication, and Decision-making in the Context of IOU and Local Agency Officials	Process	Energy Division	\$250,000	Q4 2018
Local Government Partnerships Process Study: Gap Analysis	Process	Energy Division	\$285,000	Q4 2018
Applied Impact Analysis of the Sempra LGPs – Gauging Cost-effectiveness of the Non-resource LGPs;	Impact	Energy Division	\$125,000	Q4 2018
Other Impact Evaluation Needs (TBD)	Impact	Energy Division	\$590,000	TBD
Local Government Partnerships Rolling Process Evaluations: First Wave	Process	IOU (SCG)	\$295,000	Q2 2017

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2016-2017 Study Area/Title	Study Type	Study Manager	Budget	Completion Date
Local Government Partnerships Rolling Process Evaluations: Second Wave	Process	IOU	\$100,000	Q1 2018

### 1.1.6. 2016 and Beyond Local Government Partnerships EM&V Study Descriptions

This section provides short descriptions, objectives, and key research questions of each of the Local Government Partnership EM&V studies which would be funded with 2016 and 2017 EM&V budgets planned for this sector.

<b>Study Title:</b> Local Government Partnerships Process Study: Comparative Analysis of Select Large Regional LGPs	<b>Budget:</b> \$350,000
<b>Expected Completion Date:</b> Q4 2018	<b>Study Manager:</b> Energy Division
<b>Description:</b> This process study would probe practices, performance, and organization of a handful of large multijurisdictional regional LGPs and compare methods, resources, and decision-maker commitment to better understand how a LGP implementer can put forward and effective regional vision and lead member LGs effectively. It’s expected that this study would build upon findings that come out of the LGP-DI Nexus process study.	
<b>Objectives:</b> Improve Energy Division understanding of Select Large Regional LGPs	
<b>Key Research Questions:</b>	
<ul style="list-style-type: none"> <li>• How do LGP implementers teach, develop capacity in, and lead a course for EE achievement among their member agencies?</li> <li>• How do LGPs intervene and respond differently to member agencies of different ability, resource availability, and local leader commitment to create a consistent member roster and put forward a coordinated regional vision?</li> <li>• Is there a correlation between population served and ability to make a contribution to the State’s EE efforts?</li> <li>• Is there a correlation between population served and ability to deliver EE, innovate, serve as effective regional leader, and contribute to the statewide EE conversation?</li> <li>• What attributes and predictors are linked to high-performing regional LGPs?</li> </ul>	
<b>EM&amp;V Data Collection Methods:</b> TBD	

<b>Study Title:</b> Local Government Partnerships Process Study: Assessing Implementer Autonomy, Communication, and Decision-Making Authority in the Context of IOU and Local Agency Officials	<b>Budget:</b> \$250,000
<b>Expected Completion Date:</b> Q4 2018	<b>Study Manager:</b> Energy Division
<b>Description:</b> This study would combine two deferred process studies that treated the decision-making role and authority of LGP implementers, and the effect of outside communication flows and relationships between IOUs and local agency officials on the LGPs and their ability to fulfill their mission and function effectively and efficiently.	
<b>Objective:</b> Improve Energy Division’s understanding of LGP implementer importance and value in serving as a conduit for IOU communication and directives to partner local governments.	
<ul style="list-style-type: none"> <li>• Learn if IOU program rule changes are duly noticed and adequately made known to their partners</li> <li>• Learn how partner understanding of new CPUC or IOU rules could be improved and how failure to fully understand may negatively impact program implementation</li> <li>• Improve Energy Division’s understanding of IOU communication with local government officials and how such engagement impacts the ability of LGPs to deliver cost-effective EE.</li> <li>• Improve Energy Division’s understanding of the effects of IOU staff serving as local government officials and</li> </ul>	



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<b>Study Title:</b> Local Government Partnerships Process Study: Assessing Implementer Autonomy, Communication, and Decision-Making Authority in the Context of IOU and Local Agency Officials	<b>Budget:</b> \$250,000
<p>whether some restrictions are warranted.                  Examine whether limitations on certain communications or required disclosures are appropriate for IOU communication local government elected leaders and high-level public agency staff.</p>	
<b>Key Research Questions:</b> TBD	
<b>EM&amp;V Data Collection Methods:</b> TBD	
<b>Objectives:</b> Improve Energy Division understanding of the role of the LGP implementer and LGP opportunities to contribute to their program assignments. Gauge LGPs well as satisfaction levels with existing contract arrangements, resource levels, and assigned markets and measures.	

<b>Study Title:</b> Applied Impact Analysis of the Sempra LGPs – Gauging Cost-effectiveness of the Non-resource LGPs	<b>Budget:</b> \$125,000
<b>Expected Completion Date:</b> Q4 2018	<b>Study Manager:</b> Energy Division
<b>Description:</b> This study would address several areas within and related to	
<b>Objective:</b> Ensure the State’s fully captures the potential of the local government’s sector to deliver energy savings from non resource activities	
<b>Key Research Questions:</b>	
<ul style="list-style-type: none"> <li>• Are the non resource activities documenting meaningful and measurable metrics</li> <li>• What have been the accomplishments to date from Sempra’s LGP?</li> </ul>	
<b>EM&amp;V Data Collection Methods:</b> TBD	

<b>Study Title:</b> Local Government Partnerships Rolling Comprehensive Process Evaluations: First Wave	<b>Budget:</b> \$295,000
<b>Expected Completion Date:</b> Q2 2017	<b>Study Manager:</b> IOU
<p><b>Description:</b> Each IOU will conduct comprehensive process evaluations on several of its LGPs each year, which it is thought would add some depth to an evaluation. By rotating to a new IOU each year, it is thought that each LGP in an IOU service territory will receive a comprehensive process evaluation every four or five years. Each IOU will oversee the evaluations for its own LGPs.</p> <p>One common scope of work will be used for all individual process evaluations of LGPs so that findings can be compared year after year. The specific number of LGPs to be evaluated in each year will depend on the available budget each year. To avoid duplication with existing studies, at the start of each process evaluation, the IOUs will research and disclose those issues addressed by other LGP evaluation studies either planned or in progress.</p> <p>For 2015, the LGPs that will be evaluated through this process are:</p> <p>PG&amp;E:</p> <ul style="list-style-type: none"> <li>• Association of Monterey Bay Area Governments (AMBAG)</li> <li>• San Luis Obispo County (implemented with SCG)</li> <li>• San Mateo County</li> <li>• Sierra Nevada</li> <li>• Valley Innovative Energy Watch (VIEW, jointly implemented with SCE and SCG)</li> </ul> <p>SCE/SCG:</p> <ul style="list-style-type: none"> <li>• Los Angeles County</li> <li>• Riverside County</li> <li>• San Bernardino County</li> </ul>	

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<b>Study Title:</b> Local Government Partnerships Rolling Comprehensive Process Evaluations: First Wave	<b>Budget:</b> \$295,000
SDG&E:	
<ul style="list-style-type: none"> <li>• City of Chula Vista</li> </ul>	
<p><b>Objectives:</b> 1) Provide full documentation of each LGP’s suite of activities at the time of the evaluation; 2) Provide customized recommendations to each LGP on how they can improve their progress towards their filed program objectives, taking into account the unique nature of each local government; 3) Gauge and track customer satisfaction with each evaluated LGP; 4) Document how each LGP has adopted and implemented the recommendations from the previous process evaluation.</p>	
<p><b>Key Research Questions:</b> Based upon study areas described in the California Evaluation Framework (2004) the following will be examined</p> <ul style="list-style-type: none"> <li>• How well does each partner (IOU, implementer, local government) understand its respective roles and responsibilities? How can they better collaborate together?</li> <li>• Program design, goal setting, common vision, and the improvement process,</li> <li>• Program staffing, staff skills, training, management and operations, institutional set-up,</li> <li>• Program information and information support systems,</li> <li>• Program targeting, marketing, and outreach efforts,</li> <li>• Program theories, theory assumptions, and key theory relationships – especially their causal relationships,</li> <li>• Program timing and timelines,</li> <li>• Participant satisfaction (both overall and individual components that interact with the participant in order for these to be assessed),</li> <li>• Quality control procedures and processes,</li> <li>• Reasons for unexpected low (or high) participation rates,</li> <li>• Reasons for overly high free riders, or too low a level of market effects, free- drivers or spillover,</li> <li>• Use of new practices or best practices, and intended or unanticipated market effects, among others.</li> <li>• And additional local research issues to be determined at the time of the project initiation meeting.</li> </ul>	
<p><b>EM&amp;V Data Collection Methods:</b> TBD but will conform to process evaluation methods per the California Evaluation Framework (2004)</p>	

<b>Study Title:</b> Local Government Partnerships Rolling Comprehensive Process Evaluations: Second Wave	<b>Budget:</b> \$100,000
<b>Expected Completion Date:</b> Q1 2018	<b>Study Manager:</b> IOU
<p><b>Description:</b> This is a continuation of the Local Government Partnerships Rolling Comprehensive Process Evaluations, using the same scope of work with each wave budgeted annually. Please see the Description section in the First Wave study description.</p> <p>For the 2016 program year, the number of LGPs to be evaluated is yet to be determined.</p>	
<p><b>Objectives:</b> This is a continuation of the Local Government Partnerships Rolling Comprehensive Process Evaluations, using the same scope of work with each wave budgeted annually. Please see the Objectives section in the First Wave study description.</p>	

**Key Research Questions:** This is a continuation of the Local Government Partnerships Rolling Comprehensive Process Evaluations, using the same scope of work with each wave budgeted separately. Please see the Key Research Questions section in the First Wave study description.

**EM&V Data Collection Methods:** This is a continuation of the Local Government Partnerships Rolling Comprehensive Process Evaluations, using the same scope of work with each wave budgeted annually. Please see the PY2015 Comprehensive Process Evaluation plan for the common scope of work and data collection methods, available at:  
<http://www.energydataweb.com/cpucFiles/pdaDocs/1590/FINAL%20Research%20Plan%20-%20LGP%20Process%20Evaluations%20-%20clean.pdf>

## ***Ex Ante* Updates**

Programs and activities in this sector use ex ante savings estimates and should be aware of updates to these estimates and studies needed to improve the savings estimates. However, a section on *ex ante* updates is not included in this chapter. The studies planned in this sector would not likely be designed to directly inform updates to ex ante savings estimates. Please see the customer specific research plans for discussion of updates to ex ante savings estimates.

### **1.1.7. Related EM&V Studies that Inform Evaluation of Local Government Partnerships**

There are dozens of related EM&V studies planned or ongoing that may touch on local government themes. Table 4, below, lists the other studies that may be of interest to local governments. To find out more about these studies, reference the specific roadmap indicated where the related study resides and and look up the study description by funding cycle.

**Table 4. TO BE UPDATED UPON COMPLETION OF PUBLIC COMMENT PROCESS Other Studies that Inform IOU LGP Evaluation**

N	Funding Cycle	Roadmap	Study Name	Study Type	Study Lead	Study Budget	Estimated Completion Dates	Notes on Study Relevant to LGPs
1	2013-2014	Finance	Impact Evaluation #1 – Cross-Cutting and Attribution Research	Impact	Energy Division	\$350,000	Q1 2016	Would consider the attribution analysis method for local finance programs
2	2013-2014	Finance	Process Evaluation #2A – HERO Loan Program	Process	IOU	\$200,000	Q2 2016	Expects to look at the role of local governments in this program
3	2013-2014	HVAC	Market Assessment to Identify Baselines and Barriers for Existing HVAC Conditions, Building Permit and Title 24 Compliance	Market	Energy Division	\$1,450,000	Q3 2016	Evaluators may phone or go onsite to local government permit departments to pull permits
4	2015	HVAC	HVAC Permitting Characterization	Process	IOU (SCG)	\$60,000	Q4 2016	Look at whether IOUs could perform outreach to municipalities through LGPs for better permitting system
5	2015	Residential	12 – EUC-HU Process Evaluation Phase 2	Process	IOU (PG&E)	\$150,000	Q3 2016	Plans to interview local governments involved in the home retrofit and renovation marketplace
6	2013-2014	Commercial	2013-2014 Impact Evaluation of Deemed, Direct Installation and Third Party Programs	Impact	Energy Division	\$500,000	Q2 2017	Impacts would include some measures installed within areas covered by the LGPs, although not specific to LGPs
7	2013-2014	Commercial	Direct Install Process Evaluation	Process	Energy Division	\$300,000	Q2 2016	Expected to be rolled into a single study using both 2013-2014 and 2015 funds. See 2015 Direct Install Process Evaluation study below.
8	2013-2014	Commercial	3P Program Value and Effectiveness Study	Process	Energy Division	\$600,000	Q4 2015	Study may cover third-party programs who service LGPs.
9	2015	Commercial	2015 Impact Evaluation of Deemed, Direct Installation and Third Party Programs	Impact	Energy Division	\$500,000	Q2 2017	Impacts would include some measures installed within areas covered by the LGPs, although not specific to LGPs
10	2015	Commercial	2015 Direct Install Process Evaluation	Process	Energy Division	\$360,000	Q2 2016	Rolled into a single study using both 2013-2014 and 2015 funds. Goal is to characterize DI programs. The LGP survey collected some information regarding DI during the recent Internet survey with local governments. The overlap between LGPs and 3Ps and how they work together are of particular interest in this evaluation and would include examining overall bene-fits of offering DI through the LGPs and 3Ps.

## 1.2. Regional Energy Networks and Community Choice Aggregators

### 1.2.1. Background

The 2016 update of the EM&V Plan provides for this roadmap chapter to present the State’s efforts to track and evaluate Regional Energy Network (REN) pilots and Community Choice Aggregators (CCAs). This update represents the second revision since this roadmap chapter was introduced in Q2 2015. The two non-IOU program administrators (PAs) represent an increasingly important position within the EE portfolio and are viewed as innovation drivers, giving special attention to targeting hard-to-reach niche markets and other untapped opportunities. At present, this chapter covers EE programs administered by the Bay Area Regional Energy Network, the Southern California Regional Energy Network, and Marin Clean Energy. These three PAs have representation within the Commission’s EM&V programming and structure via the REN-CCA PCG-2, established in 2014. The REN-CCA PCG-2 and this stand-alone RENS-CCAs chapter of the EM&V General Plan are Energy Division’s efforts to grant the non-IOU PAs their own EM&V programming forum on a level with what has traditionally existed for the IOUs.

In addition, all seven of the state’s PAs share in discussion of local government-related EE EM&V projects as members of the Energy Division’s Stakeholder Advisory Group (StAG) a stakeholder group of interested parties, experts, and advocates who meet by conference call every eight weeks.

### RENs Background

In Guidance Decision 12-05-015, the CPUC requested that proposed REN pilots demonstrate in the applications the extent to which their activities:

- Leverage additional state and federal resources so that energy efficiency programs are offered at lower costs to ratepayers,
- Address the water/energy nexus,
- Develop and deploy new and existing technologies,
- Address workforce training issues, and
- Address hard-to-reach customer segments such as low to moderate residential households and small- to medium-sized businesses.<sup>7</sup>

In Decision D.12-11-015 (November 2012), the CPUC evaluated the RENs proposals according to three criteria:

1. Provide activities that utilities cannot or do not intend to undertake,
2. Pilot activities where there is no current utility program offering, and where there is potential for scalability to a broader geographic reach, if successful, and
3. Pilot activities in hard-to-reach markets, whether or not there is a current utility program that may overlap.<sup>8</sup>

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<sup>7</sup> D.12-05-015, page 149-150.

<sup>8</sup> D.12-11-015, page 17.

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The CPUC approved both the Bay Area Regional Energy Network (BayREN), encompassing the nine Bay Area counties, and the Southern California Regional Energy Network (SoCalREN), which serves the counties of Los Angeles, San Bernardino, Riverside, Ventura, Inyo, Imperial, and Mono, as well as portions of Orange, Kern, Tulare, Santa Barbara and Kings. The Decision also outlined the relationship between the RENs and the IOUs. Specifically, RENs are reliant on the IOUs for program spending reimbursement, but are independent of IOUs for program design and delivery. The RENs as pilots are at present ineligible to direct their own ratepayer-funded EM&V work. Described below is an in-progress EM&V study that assesses the RENs’ value and effectiveness and that is being overseen by the Energy Division. A companion Energy Division-led RENs impact assessment is also near completion. Combined, these two REN studies cover and inform PY 2013-2015 program activities.

As described below in **Section 1.2.2.**, the RENs are newly authorized to administer ratepayer-funded EE programs as a Program Administrator.

### **CCA Background**

Marin Clean Energy (MCE) is authorized to administer ratepayer-funded EE programs as a Program Administrator. As the first CCA in California to undertake energy efficiency efforts, MCE is eligible but has so far not initiated an EM&V study.

Since the CPUC first authorized MCE in 2012 to administer EE programs, it has enjoyed healthy growth, and has annexed new service territory (the City of Richmond and Unincorporated Napa County) into the CCA. Table 5. below presents the *ex ante* first year savings and expenditures of the RENs and MCE for 2013-2015.

### **1.2.2. New Regulatory Developments Affecting REN and CCA EM&V Activities**

In August 2016, the CPUC revised its rules to codify and allow for a funding stream for CCAs to conduct their own process evaluations. Relatedly, the same CPUC rulemaking also modified rules for RENs to lift the prohibition on RENs conducting their own process evaluations and identified a source of ratepayer funds for these efforts.<sup>9</sup>

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<sup>9</sup> “EM&V budgets for non-IOU program administrators, including CCAs and RENs, should be allocated from among the up to 40 percent of the EM&V budget that goes to program administrators, on a proportional basis (based on each program administrator’s total program budget) within the utility service areas where the non-IOU administrators operate.” Decision 16-08-019, August 18, 2016, Conclusions of Law No. 70, p. 107  
<http://docs.cpuc.ca.gov/SearchRes.aspx?docformat=ALL&DocID=166232537>

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**Table 5. 2013-2015 Regional Energy Networks and Community Choice Aggregator\* Savings and Expenditures**

Program Administrator	2013-2014 Program Cycle				2015 Program Cycle			
	Energy Savings (MWh)	Demand Savings (MW)	Gas Savings (Mtherms)	Program Expenditures (\$000's)	Energy Savings (MWh)	Demand Savings (MW)	Gas Savings (Mtherms)	Program Expenditures (\$000's)
Bay Area Regional Energy Network (BayREN)	1,923	1	238	\$33,980	3,988	1	350	\$16,747
Marin Clean Energy (MCE)	892	0	6	\$1,643	1,569	0	38	\$1,564
Southern California Regional Energy Network (SoCalREN)	466	0	26	\$25,011	1,506	1	69	\$20,968
<b>RENs and MCE Total</b>	3,281	1	270	60,635	7,062	2	457	39,280
<b>Total EE Portfolio</b>	6,829,335	1,110	100,790	1,636,984	5,904,569	1,336	45,742	1,203,733
Percentage of Total EE Portfolio	0.05%	0.08%	0.27%	4%	0.12%	0.17%	1%	3%

### 1.2.3. Considerations for Local - Regional Government EE Coordination

The REN pilots (see D. 12-11-015 for details) and the Marin Clean Energy CCA program operation in the local government space calls for careful coordination between the IOUs and these new PA portfolios to avoid customer confusion and program redundancy.<sup>10</sup>

With this in mind, and with the RENs remaining for now in the status of provisional pilots, the CPUC has placed a special emphasis on more and rapid EM&V of the RENs to better understand their long-term prospects to drive California’s EE goals, by way of savings achieved, and by way of their ability to grow capacity among the local agencies they serve. The CPUC policy change described above in **Section 1.2.2** to allow RENs to conduct process studies should serve as a useful addition for contributing to the existing body of knowledge on RENs.

Table 6, below, outlines related EM&V studies outside of this roadmap chapter that are programmed or in progress that may contribute to the understanding of the RENs (and CCAs). Some of the more anticipated studies would include study areas such as Code and Standards, Financing Programs, and the single-family Residential Home Upgrade Program.

Energy Division, as the entity tasked with completing impact studies for the EE portfolio has a special obligation to deliver timely and useful REN evaluation reports that probe savings achieved, cost-effectiveness, and other pertinent bottom-line issues. In response, ED with the help of its consultant

<sup>10</sup> Combined, the three PAs offer EE services to some seven million households, which is about 70 percent of the population serviced within the combined IOU service territory.

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preparers has completed one 2013-2014 impact assessment and is has in progress a 2013-2015 impact evaluation whose completion is expected before summer 2017.

The CPUC has made available an additional \$838,332 in 2016 program year funds for Energy Division to complete a “third-wave” of evaluation for the RENs and CCAs.

As outlined above in **Section 1.2.1**, the RENs were conceived with an idea of putting additional resources toward existing community-level gaps, which LGPs had not consistently or fully addressed. Thus, the RENs were approved and are evaluated according to qualifying compliance criteria. Four years after the RENs and MCE emerged as new EE Program Administrators (PAs), and as the CPUC has in hand some of the more fundamental data, it may wish to move to the broader issue of how or whether to set additional parameters for each of the three types of EE PAs operating in California (IOU, CCA, and REN).

Energy Division anticipates that an important future CPUC need may be useful research to address remaining resolved questions regarding the appropriateness of some division of the EE market among the three PA types. As a response, Energy Division is proposing a new process evaluation within the LGP roadmap (in **Section 1.2.1** above) to conduct a gap analysis that would, among other things, examine REN-CCA-IOU cooperation through the LGP lens. The LGP lens approach to appraising the existing condition of multiple PAs simultaneously operating in the local government space would seek to determine whether the LGPs, as a mature program, warrant revisions to ensure the LGP programs preserve their position as model leaders for innovation in the EE space. Thus, one sees that LGPs and RENs-CCAs, although within treated separately within their own roadmap chapters, remain fairly intertwined when it comes to program delivery and planning.

As with the RENs, Energy Division expects the CPUC policy change described above in Section 1.2.2 (to establish a defined funding allocation for CCAs to conduct process studies) would enable MCE to supplement Energy Division capacity to deliver evaluation findings on their CCA experience. This leverage of Energy Division capacity should grow understanding of this emerging Program Administrator and other CCAs who may come forward to request CPUC approval to conduct EE programs with ratepayer funds.



### 1.2.4. 2013-2015 RENs and CCA EM&V Studies

Table 6 shows three Energy Division-led studies funded with 2013-2015 funds expected to be completed in 2017.

**Table 6. 2013-2015 Regional Energy Networks and Community Choice Aggregator EM&V Studies, Budgets, and Expected Dates of Completion**

2013-2015 Study Area/Title	Study Type	Study Manager	Budget	Completion Date
<b>Studies In Progress</b>				
PY 2013-2015 REN Impact Evaluation	Impact	Energy Division	\$215,000	Q2 2017
PY 2013-2015 RENs Process Study: More Fully Assessing Program Efforts and Future Potential	Process		\$250,000	Q4 2017
Market Scalability Study of the RENs and MCE Multifamily Programs	Process		\$110,000	Q4 2017

### 1.2.5. 2013-2015 RENs and CCA EM&V Study Descriptions

This section details CPUC-programmed funding to address evaluation needs for program years through 2015.

<b>Study Title:</b> PY 2013-2015 REN Impact Evaluation	<b>Budget:</b> \$215,000
<b>Expected Completion Date:</b> Q2 2017	<b>Study Manager:</b> Energy Division <b>Consultant Preparer:</b> APEX
<b>Description:</b> This study would conduct an ex post analysis on the REN programs. The study would focus on the program-measure combinations that contribute the highest level of uncertainty in the lifecycle net savings values for the portfolio of RENs’ programs. Activities for the multifamily whole building projects include calibrated simulation models, onsite visits, and baseline and net of free-ridership assessment. For the analysis of REN single-family Home Upgrade programs, the study would estimate gross savings impacts using a pooled fixed-effects billing analysis approach. To assess changes in energy usage and aid in comparison across years, the billing analysis would follow an approach similar to the one developed for the 2013-2014 REN home upgrade impact evaluation.	
<b>Objectives:</b>	
<ul style="list-style-type: none"> <li>Estimate key impact parameters (e.g., NTGRs or gross realization rates) for REN multifamily and single family programs.</li> </ul>	
<b>Key Research Questions:</b>	
<ul style="list-style-type: none"> <li>What are the gross energy and demand savings (therms, kWh, kW) achieved by the BayREN and SoCalREN programs?</li> <li>What are the net energy and demand savings achieved by the programs?</li> <li>How can the RENs improve their ex ante savings claims so that they align with ex post values?</li> </ul>	
<b>Potential EM&amp;V Methods:</b> Telephone surveys to develop NTGRs, onsite visits, calibrated simulation models, and billing analysis to estimate gross savings values	

<b>Study Title:</b> PY 2013-2015 RENs Process Study: More Fully Assessing Program Efforts and Future Potential	<b>Budget:</b> \$250,000
<b>Expected Completion Date:</b> Q4 2017	<b>Study Manager:</b> Energy Division <b>Consultant Preparer:</b> TBD
<b>Description:</b> Process evaluation	
<b>Objective:</b> Further enhance understanding of benefit of Regional Energy Network pilots. This study would answer	

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<b>Study Title:</b> PY 2013-2015 RENs Process Study: More Fully Assessing Program Efforts and Future Potential	<b>Budget:</b> \$250,000
<p>remaining questions not addressed in the PY 2013-2014 study. The study would be meant to inform the appropriateness of REN next steps and program expansion to inform the CPUC’s direction on the issue, including whether continued probationary status is warranted, whether the RENs should be made permanent, and whether new REN applications would be invited. Proposed study would also address program areas that the PY 2013-2014 evaluation study did not cover including the Regional Energy Center public agency technical assistance, and Water-Energy Nexus efforts. The study would consider how RENs may be driving innovation within EE in California and would attempt to characterize spillover benefit from this new program administrator.</p>	
<p><b>Key Research Questions:</b></p> <ul style="list-style-type: none"> <li>• How valuable and easy to use do customers find the SoCalREN Enterprise Energy Management Information System (EEMIS) and Community Energy Efficiency Project Management System (CEEPMS) software?</li> <li>• What would be the cost to scale up EEMIS training and support to a statewide level?           <ul style="list-style-type: none"> <li>○ How do program administrators (RENs) get the most of the state government programs, and what are their advantages (to offering energy efficiency programs)?</li> <li>○ Provide a comparison of goals vs. actual results for resource and non-resource activities;</li> <li>○ Assessing the most effective role of RENs play as program administrators?</li> <li>○ How do program administrators (RENs) get the most of the state government programs, and what are their advantages (to offering energy efficiency programs)?</li> <li>○ Document the progress of the recommendations made in the previous Value and Effectiveness Study for the RENs (ODC recommendation);</li> <li>○ Systematically gather additional data specific to customer and contractor confusion</li> </ul> </li> <li>• An impact evaluation that replicates the non-resource assessment verification analysis with additional program years and non-resource databases and attempt an attribution analysis in order to quantify the benefits of the non-resource activities (Itron recommendation); and           <ul style="list-style-type: none"> <li>○ The value of the metrics currently tracked for non-resource programs is questionable as they are not linked directly back to specific program goals.?</li> </ul> </li> </ul>	
<p><b>Potential EM&amp;V Methods:</b> Secondary data collection and analysis</p>	

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<b>Study Title:</b> Market Scalability Study of the RENs and MCE Multifamily Programs	<b>Budget:</b> \$110,000
<b>Expected Completion Date:</b> Q4 2017	<b>Study Manager:</b> Energy Division <b>Consultant Preparer:</b> ITRON
<b>Description:</b> This study would characterize the presence of multi-family properties in both REN and MCE territories in order to determine the market potential of the REN multi-family whole building programs and MCE’s multi-family rebate program. This study would apply historical program and project costs to the service areas to determine potential ratepayer costs to reach threshold market penetration goals.	
<b>Objective:</b> To improve program design, implementation and outreach activities/outputs and outcomes as they relate to savings, cost-effectiveness, etc.	
<b>Key Research Questions:</b> <ul style="list-style-type: none"> <li>• What are the common characteristics of the properties that have not been treated by the MF programs? Are these characteristics indicative of barriers to participation?</li> <li>• What have the RENs and MCE accomplished with their multi-family properties and what would it take to reach 10, 20, and 30% of market area?</li> <li>• Would it be cost-effective to scale these programs up? At this point the TRCs of their programs are well below 1.</li> <li>• What are the vintages, building characteristics, owner profiles, and measure needs of the buildings that have been treated by the programs? In which areas are the buildings located that have participated in the program – are they in lower income areas?</li> <li>• How many MF buildings are in the REN and MCE service areas that could still be served by the programs?</li> <li>• Since MCE’s program is designed more like the IOU MFEER programs, should the study take a different approach to examining the scalability of MCE’s program compared to the whole building programs offered by the RENs?</li> </ul>	
<b>Potential EM&amp;V Methods:</b> Secondary data collection and analysis	

### 1.2.6. 2016 and Beyond REN and CCA EM&V Studies

**Proposed Energy Division Budget:** \$1,676,664 (2016 and 2017)

The Regional Energy Network and Community Choice Aggregator roadmap (this EM&V Plan chapter) has received new two-year (2016 and 2017) funding in the amount of \$1.6 million for Energy Division-led studies. This funding is made available to program new impact, process and market studies and evaluations to improve understanding and implementation of REN and CCA programs and activities. These proposed budgets for these studies are summarized in Table 7.

The PY 2013-2014 Value and Effectiveness Study of the RENs identified several areas for additional investigation in future studies. These questions have been incorporated into the proposed RENs study described above and titled *PY2015 RENs Process Study: More Fully Assessing Program Efforts and Future Potential*.

Additional potential future study questions for RENs that do not fit into a programmed study include:

- How valuable and easy to use do customers find the SoCalREN Enterprise Energy Management Information System (EEMIS) and Community Energy Efficiency Project Management System (CEEPMS) software?
- What would be the cost to scale up EEMIS training and support to a statewide level?

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- How do program administrators (RENs) get the most of the state government programs, and what are their advantages (to offering energy efficiency programs)?
- Systematically gather additional data specific to customer and contractor confusion

**Proposed Program Administrator Budgets: TBD**

The Regional Energy Network and Community Choice Aggregator evaluation funding was approved, but the mechanics of the transfer of funds has proven challenging. Energy Division staff are working with the REN and CCA implenters to resolve the issue per Commission direction. At the time of this draft, the final budgets for the REN and CCAs was not reconciled. The budgets will be clarified in the final version of the master plan. Some early concepts for studies are provided below. Further detail on study plans will be shared as they are developed further.

This section proposes future REN-CCA studies to assess project efforts through 2017 to be funded with 2015- 2017 budget funds.

**Table 7. 2016 and Beyond Proposed Local Government Partnerships EM&V Studies, Budgets, and Dates of Completion (PY 2016 program funds)**

2016-2017 Study Area/Title	Study Type	Study Manager	Budget	Completion Date
<b>Candidate Study Concepts and Placeholders</b>				
PY 2016-2017 Enhancing and Enabling Replicability Potential and Other Non-quantified Benefits of the Non-IOU PAs.	Process	Energy Division	\$250,000	Q2 2018
PY 2016-2017 EM&V Metastudy of Non-IOU PAs' Evaluation Efforts	Process	Energy Division	\$250,000	Q2 2018
PY 2016-2017 Local Agency Internal EE/Sustainability Fund Proliferation Market Assessment	Process	Energy Division	\$250,000	Q2 2018
PY 2016-2017: REN/CCA Field Impact Evaluations	Impact	Energy Division	\$850,000	Q4 2018
PY 2016-2017 Process Study of SoCalREN EE Programs	Process	SoCalREN	TBD	Q2 2018
PY 2016-2017 Process Study of BayREN EE Programs	Process	BayREN	~\$275,617	Q2 2018
PY 2016-2017 Process Study of MCE EE Programs	Process	MCE	~\$114,518	Q2 2018

**1.2.7. 2016 and Beyond REN and CCA EM&V Study Descriptions**

<b>Study Title:</b> Enhancing and Enabling Replicability Potential and Other Non-quantified Benefits of the Non-IOU PAs.	<b>Budget:</b> \$250,000
<b>Expected Completion Date:</b> Q2 2018	<b>Study Manager:</b> Energy Division <b>Consultant Preparer:</b> TBD
<b>Description:</b> <i>Enhancing and Enabling Replicability Potential and Other Non-quantified Benefits of the Non-IOU PAs.</i> This study would propose to examine REN and CCA efforts to date that demonstrate whether these PAs' provide capacity-building and knowledge-transfer to other regional entities interested in borrowing know-how and lessons learned to initiate their own EE PAs. The study would also attempt to assess and capture <i>non-quantified benefits that contribute to the State's goals. Examples might include solar, DR, EV, Alison Canyon Emergency Response, and other non-ratepayer-funded program such as PACE that may directly or indirectly support and advance the State's energy</i>	

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<b>Study Title:</b> Enhancing and Enabling Replicability Potential and Other Non-quantified Benefits of the Non-IOU PAs.	<b>Budget:</b> \$250,000
<i>and climate goals.</i>	
<b>Objective:</b> TBD	
<b>Key Research Questions:</b> To be scoped; it should build upon the findings from the previous process evaluations in this area.	
<b>Potential EM&amp;V Methods:</b> TBD	

<b>Study Title:</b> PY 2016-2017 EM&V Metastudy of Non-IOU PAs’ Evaluation Efforts	<b>Budget:</b> \$250,000
<b>Expected Completion Date:</b> Q2 2018	<b>Study Manager:</b> Energy Division <b>Consultant Preparer:</b> TBD
<b>Description:</b> <i>EM&amp;V Metastudy of Non-IOU PAs’ Evaluation Efforts.</i> As the RENs and PAs begin non-direct program efforts and take on for the first time EM&V efforts as lead agency, ED is interested to monitor their learning curve and ensure they have resources and feedback to improve effectiveness and performance.	
<b>Objective:</b> TBD	
<b>Key Research Questions:</b> To be scoped <ul style="list-style-type: none"> <li>• Provide a comparison of goals vs. actual results for resource and non-resource activities;</li> <li>• How do program administrators (RENs) get the most of the state government programs, and what are their advantages (to offering energy efficiency programs)?</li> </ul>	
<b>Potential EM&amp;V Methods:</b> TBD	

<b>Study Title:</b> PY 2016-2017 <i>Local Agency Internal EE/Sustainability Fund Proliferation Market Assessment</i>	<b>Budget:</b> \$250,000
<b>Expected Completion Date:</b> Q2 2018	<b>Study Manager:</b> Energy Division <b>Consultant Preparer:</b> TBD
<b>Description:</b> How can RENs and CCAs enable local agencies to require their departments to be held accountable for paying for the energy they consume? What solutions can be tested and replicated that would allow muni departments to capture energy cost savings to replenish their operating budgets? What strategies could RENs and CCAs employ to have local agency energy cost savings and incentives and rebates support an internal EE/Sustainability fund to allow for accelerate muni EE retrofit projects.	
<b>Objective:</b> TBD	
<b>Key Research Questions:</b> <ul style="list-style-type: none"> <li>• To be scoped</li> </ul>	
<b>Potential EM&amp;V Methods:</b> TBD	

<b>Study Title:</b> PY 2016-2017 <i>Impact Evaluation of the RENs and CCAs</i>	<b>Budget:</b> \$850,000
<b>Expected Completion Date:</b> Q4 2018	<b>Study Manager:</b> Energy Division <b>Consultant Preparer:</b> TBD

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**Description:** *Conduct an impact evaluation of the REN and CCA activities in coordination with other impact evaluations of similar programs in the portfolio.*: This evaluation would continue to build on the current impact evaluation to determine if savings estimates are correct and appropriate for the resource programs and assess performance of program activities implemented in 2016 and beyond

**Objective:** TBD

**Key Research Questions:**

- An impact evaluation that replicates the non-resource assessment verification analysis with additional program years and non-resource databases and attempt an attribution analysis in order to quantify the benefits of the non-resource activities (Itron recommendation); and
- The value of the metrics currently tracked for non-resource programs is questionable as they are not linked directly back to specific program goals.
- Conduct traditional impact evaluation activities of verifying deemed and custom savings claims through field verification for resource programs.

**Potential EM&V Methods:** TBD but likely a billing analysis comparison between participants and non participants; review of program records and databases as well as field measurement.

<b>Study Title:</b> PY 2016-2017 Process Study of SoCalREN Energy EE Programs	<b>Budget:</b> TBD
<b>Expected Completion Date:</b> Q2 2018	<b>Study Manager:</b> SoCalREN <b>Consultant Preparer:</b> TBD
<b>Description:</b> This study would identify the overall effectiveness of program operations	
<b>Objective:</b> To document the effectiveness of this program design.	
<b>Key Research Questions:</b>	
<ul style="list-style-type: none"> <li>▪ What are customer satisfaction and program ratings for the program operations?</li> <li>▪ How effective the program is in prompting energy efficiency actions by public agencies?</li> <li>▪ Measure how the program is leading to adoption of model codes, standards and policies supporting EE and ZNE by local governments</li> <li>▪ Assess the extent to which program actions are assisting local governments in mobilizing and supporting EE and ZNE actions by their constituents.</li> <li>• Assessing the most effective role of RENS play as program administrators.</li> <li>• In addition, the SoCalREN will review past EM&amp;V recommendations on IOU Local Government Partnership (LGP) programs to further identify additional future evaluations that also should be studied.</li> </ul>	
<b>Potential EM&amp;V Methods:</b> TBD: customer surveys, in-depth interviews, review of program materials and records	

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<b>Study Title:</b> PY 2016-2017 Process Study of BayREN Energy EE Programs	<b>Budget:</b> Annual Budget: 275,617
<b>Expected Completion Date:</b> Q2 2018	<b>Study Manager:</b> BayREN <b>Consultant Preparer:</b> TBD
<b>Description:</b> This study would conduct evaluations that seek to verify the non-resource benefits of programs such as the Small & Medium Commercial Building Performance Advisor and C&S Program efforts to promote energy code best practices. In addition, BayREN may seek to identify processes and procedures that would allow current non-resource programs (e.g., PAYS, C&S electronic tools) to transition to resource programs. .	
<b>Objective:</b> To conduct process evaluations regarding the effectiveness of BayREN’s program offerings.	
<b>Key Research Questions:</b>	
<ul style="list-style-type: none"> <li>• Document the progress of the recommendations made in the previous Value and Effectiveness Study for the RENs (ODC recommendation);</li> <li>•</li> </ul>	
<b>Potential EM&amp;V Methods:</b> TBD: customer surveys, in-depth interviews, review of program materials and records	

<b>Study Title:</b> PY 2016-2017 Process Study of Marin Clean Energy EE Programs	<b>Budget:</b> TBD: MCE’s 2017 EM&V funding request is \$18,176 and the retrospective 2013-2016 EM&V funding request is \$96,342.
<b>Expected Completion Date:</b> Q2 2018	<b>Study Manager:</b> MCE <b>Consultant Preparer:</b> TBD
<b>Description:</b> Conduct process evaluation to provide a deeper understanding of the effectiveness of its program operations.	
<b>Objective:</b>	
<ul style="list-style-type: none"> <li>▪ Understanding the role of incentives vs. technical assistance in generating project in the Multifamily Sector. Testing brand awareness of MCE as an energy efficiency resource in our service territory.</li> <li>▪ Understanding customer motivation in the small commercial sector – effectiveness of contractor vs. vendor driven model, how recent changes to incentive levels affected participation rates.</li> <li>▪ Impact assessment of small commercial projects using metered energy data.</li> </ul>	
<b>Key Research Questions:</b>	
<ul style="list-style-type: none"> <li>▪ TBD</li> </ul>	
<b>Potential EM&amp;V Methods:</b> TBD	

### *Ex Ante Update*

Programs and activities in this sector use ex ante savings estimates and should be aware of updates to these estimates and studies needed to improve the savings estimates. However, a section on ex ante updates is not included in this chapter. The studies planned in this sector would not likely be designed to directly inform updates to ex ante savings estimates. Please see the customer specific research plans for discussion of updates to ex ante savings estimates.

### 1.2.8. Active Programs and Related EM&V Studies that Inform Evaluation of RENs and CCAs

The current list of programs proposed for the RENs and CCAs are presented in Table 8; and set the scope for analysis that may be needed in the 2016 and beyond evaluations .

**Table 8: Revised and Proposed Budgets for 2016-2017- REN and CCA**

IOU	Program ID	Program Name	2016 Revised Budgets	2017 Proposed Budgets
<b>Regional Energy Networks/Community Choice Aggregator</b>				
BayREN	BAYREN01	Single Family	8,494,484	7,173,249
BayREN	BAYREN02	Multifamily	6,476,600	6,476,600
BayREN	BAYREN03	Codes and Standards	1,492,087	1,274,500
BayREN	BAYREN04	Financing	1,535,351	1,612,651
SoCalREN	SCR-EUC-A1	Local Marketing and Outreach	1,806,827	1,636,372
SoCalREN	SCR-EUC-A2	Green Building Labeling	1,161,721	1,005,000
SoCalREN	SCR-EUC-A3	Flex Path Incentives	5,206,770	2,307,154
SoCalREN	SCR-EUC-A4	Contractor Outreach and Training	1,770,399	507,125
SoCalREN	SCR-EUC-A5	Multifamily Incentives	11,932,034	4,771,901
SoCalREN	SCR-EUC-A6	Low-Income Single Family Residential	199,802	350,000
SoCalREN	SCR-FIN-B1	Public Building Loan Loss Reserve	680,637	100,000
SoCalREN	SCR-FIN-B2	EUC Residential Loan Loss Reserve	3,519,109	1,737,500
SoCalREN	SCR-FIN-B4	Non-Residential PACE	2,525,271	705,750
SoCalREN	SCR-FIN-B5	Public Agency Revolving Loan Fund	54,234	236,000
SoCalREN	SCR-REC-C1	Aggregated Regional Procurement	50,189	3,355,771
SoCalREN	SCR-REC-C2	Integrated Comprehensive Whole Building Retrofits	7,225,310	3,328,601
SoCalREN	SCR-REC-C3	Regional Climate Action and Energy Plan	421,957	395,120
SoCalREN	SCR-REC-C4	Water-Energy Nexus	0	253,893
SoCalREN	SCR-REC-C5	Regional Energy Project Tracking and Permitting (CEPMS)	50,189	138,735
SoCalREN	SCR-REC-C6	Marketing, Outreach, Education, and Training	933,137	672,078
SoCalREN	SCR-REC-C7	Workforce Development	613,417	150,000
MCE	MCE 01	Multi-Family	667,555	667,555
MCE	MCE 02	Small Commercial	658,711	658,711
MCE	MCE 03	Single Family	233,050	233,050
MCE	MCE 04	Financing Pilots	27,031	27,031
<b>Regional Energy Networks/Community Choice Aggregator Subtotal ('000s)</b>			<b>57,736</b>	<b>39,774</b>
<b>Total EE Portfolio ('000s)*</b>			<b>1,301,346</b>	<b>928,136</b>
<b>Percentage of Total EE Portfolio</b>			<b>4%</b>	<b>4%</b>
*NOTE: The 2016 and 2017 budgets include Codes and Standards program budgets but not Low Income Energy Efficiency program budgets with the exception of PG&E, which includes both				



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There are dozens of EM&V studies planned or ongoing studies that may inform but are outside of the programmed studies included in this roadmap and which may relate to the RENs or MCE. Table 9 below, lists the other studies that may be of interest to the RENs or CCA. To find out more about these studies, go to the specific roadmap shown in the table and look in the study description area by funding cycle.

**Table 9. Other Studies that Relate to or Cover RENs and CCA Program Activities**

N	Funding Cycle	Roadmap	Study Name	Study Type	Study Lead	Study Budget	Estimated Completion Date	Notes on Study Relevant to RENs or CCA
1	2013-2014	Codes & Standards	Compliance Improvement Process Evaluation for IOU Statewide Program and BayREN Codes and Standards Program	Process	Energy Division	\$180,000	Q4 2013	Assessment of the BayREN delivery of their compliance improvement activities
2	2013-2014	Finance	Impact Evaluation #1 – Cross-Cutting and Attribution Research	Impact	Energy Division	\$350,000	Q2 2016	Would consider the attribution analysis for local finance programs run by CCA and RENs
3	2013-2014	Finance	Impact Evaluation #3 – Regional Pilot/Program Study	Impact	Energy Division	\$250,000	Q4 2016	Gross and net evaluation for regional finance programs run by CCA and RENs
4	2013-2014	Finance	Impact Evaluation #4 – Statewide Pilots; (4a) Evaluability Assessment and Study Planning and (4b) Impact Study	Impact	Energy Division	\$800,000	Q4 2016 for 4a and Q4 2017 for \$b	Determine data available for evaluation and calculate gross and net energy savings from each financing pilot, including those run by CCA and RENs.
5	2013-2014	Marketing Education and Outreach (ME&O)	Cross-cutting Process Evaluation	Process	Energy Division	\$900,000	Q1 2016	Plans to provide feedback on ME&O efforts conducted by CSE, the IOUs, and the RENs
6	2013-2014	Residential	3A – Impact Evaluation of Comparative Energy Usage Report Problems	Impact	Energy Division	\$584,342	2014 and 2015	Includes MCE comparative feedback programs
7	2013-2014	Residential	6B – Focused Impact Evaluation of MF-EUC/MIDI & MFEER	Impact	Energy Division	\$200,000	Q1 2016	Looks at data collection by RENs to support program impacts
8	2013-2014	Residential	8B – Focused Impact Evaluation for SF-WH Home Upgrade Basic/Flex Program	Impact	Energy Division	\$300,000	2015-2016	Looks at data collection by RENs to support program impacts
9	2013-2014	Residential	6A – MF-EUC/MIDI Pilots & MFEER Program Change Process Evaluation	Process	IOUs	\$250,000	2014	Looks at interactions with RENs

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N	Funding Cycle	Roadmap	Study Name	Study Type	Study Lead	Study Budget	Estimated Completion Date	Notes on Study Relevant to RENs or CCA
10	2013-2014	Residential	8A – Focused Process Evaluations for SF WH Home Upgrade Program Change	Process	IOUs	\$250,000	2014	Looks at interactions with RENs
11	2015	Residential	3A – Impact Evaluation of Home Energy Report Initiatives (includes Marin Clean Energy program)	Impact	Energy Division	\$420,000 which includes a \$75K budget for Marin Clean Energy	Q4 2016	Includes MCE comparative feedback programs
12	2015	Residential	8B – 2015 Residential Whole House Upgrade Impact Evaluation	Impact	Energy Division	\$550,000 with \$200K of this budget for RENs	Q3 2017	Includes all REN Upgrade projects for both upgrade packages.

