

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA**

Application of Southern California Edison Company (U338E) for Approval of Energy Efficiency Rolling Portfolio Business Plan.

Application 17-01-013  
(Filed January 17, 2017)

And Related Matters.

Application 17-01-014  
Application 17-01-015  
Application 17-01-016  
Application 17-01-017

**THE COUNTY OF LOS ANGELES, SOUTHERN CALIFORNIA REGIONAL ENERGY NETWORK (CPUC #940) ENERGY EFFICIENCY BUSINESS PLAN REVISED SECTOR-LEVEL METRIC PROPOSALS**

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For the Southern California Regional Energy Network

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## I. INTRODUCTION

On January 17, 2017, Southern California Edison Company (SCE), San Diego Gas & Electric Company (SDG&E), Pacific Gas and Electric Company (PG&E), Southern California Gas Company (SoCalGas), and Marin Clean Energy (MCE) each filed an application seeking approval of their proposed Energy Efficiency Business Plan covering program years 2018-2025. On January 23, 2017, the Bay Area Regional Energy Network (BayREN), Southern California Regional Energy Network (SoCalREN), and the Tri-County Regional Energy Network (3C-REN) submitted their proposed Energy Efficiency Business Plans by motion filed within one or more of the Energy Efficiency Business Plan application proceedings, consistent with the procedures set forth by the Commission in R.13-11-005. On April 14, 2017, the Commission issued a joint *Scoping Memo and Ruling of Assigned Commissioner and Administrative Law Judges* (“Joint Ruling”) in this consolidated proceeding, seeking supplemental information from all Energy Efficiency (EE) Business Plan proponents by May 15, 2017, and for Program Administrators (PAs) to file revised sector-level metric proposals by June 26, 2017.<sup>1</sup> The Commission indicated in this Scoping Memo that a separate ruling would be issued with a staff proposal of suggested metrics that would need further refinement in consultation with PAs and other parties.<sup>2</sup> This ruling would also accompany a Commission staff-hosted workshop that would allow for discussion on the staff-proposed metrics. On May 10, 2017, the Commission issued an *Administrative Law Judge’s Ruling Seeking Comment on Energy Efficiency Business Plan Metrics* (“Metrics Ruling”).<sup>3</sup> Then on May 26, 2017, Energy Division staff hosted a public workshop to discuss the staff-proposed metrics.<sup>4</sup> Energy Division and parties in attendance felt that the discussion warranted additional dialogue and so the California Energy Efficiency Coordinating Committee (CAEECC) facilitated two more metrics meetings that allowed more in-depth discussions on each sector covered under the PAs’ Business Plans. These CAEECC meetings were held on June 14, 2017 and June 30, 2017. On June 9, 2017, Administrative Law Judges’ Ruling Modifying Schedule (“Modified Schedule Ruling”) was issued extending the deadline for PAs’ submittal of revised metrics to July 14, 2017.<sup>5</sup>

Pursuant to that Modified Schedule Ruling, SoCalREN respectfully submits comments addressing policy concerns around the Energy Efficiency Business Plan proposed metrics and submits revised sector-level metrics for SoCalREN’s 2018-2025 Energy Efficiency Business Plan.

## II. FUTURE IOU DATA ACCESSIBILITY IMPERATIVE TO NON-IOU PA PORTFOLIO ADMINISTRATION

In SoCalREN’s Motion for Approval of its Energy Efficiency Rolling Portfolio Business proposed metrics were designed with the acknowledgement that consumption data and other customer penetration data are non-existent for non-IOU PAs. However, through participation in

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<sup>1</sup> Assigned Commissioner’s and Administrative Law Judge Scoping Memo and Ruling (Joint Ruling), A.17-01-013, dated April 14, 2017.

<sup>2</sup> *ibid.*

<sup>3</sup> Administrative Law Judge’s Ruling Seeking Comment on Energy Efficiency Business Plan Metrics, A.17-01-013, dated May 10, 2017.

<sup>4</sup> CPUC Public Workshop: Energy Efficiency Business Plans Metrics, held on May 26, 2017 at the CPUC.

<sup>5</sup> Administrative Law Judges’ Ruling Modifying Schedule, A.17-01-013 (et al.), dated June 9, 2017.

stakeholder forums and discussions with Commission staff, access to data is imperative to appropriately monitor and track the progress of implemented strategies. Data can easily and objectively assist in identifying when strategies are not meeting the design objectives or when strategies are successful and should be scaled.

SoCalREN acknowledges that current civil legislation prohibits sharing, disclosing, or otherwise making customer usage data accessible to any third party without the customer's express consent and requires conspicuous disclosure of with whom such data will be shared and how it will be used. SoCalREN also supports the Commission's desire to have portfolio and sector-level metrics that rely on data used in program implementation by which portfolio oversight can be conducted and progress assessed over time. SoCalREN recognizes the Commission's challenging balance between protecting consumer privacy while gaining meaningful insight through data but believes there exists avenues or conduits that through collaboration with the IOUs could assist in meeting this challenge. For instance, notifications on energy efficiency applications, pilot participants MOUs and or MOUs with IOUs for aggregate data. These are just some examples and there may exist many more collaboration opportunities that would assist PAs in meeting their data needs. SoCalREN urges that the Commission ardently encourage IOU PAs to identify these avenues of collaboration with their partner non-IOU PAs in data sharing.

### **III. SOCIALREN ENERGY EFFICIENCY SECTOR-LEVEL REVISED METRICS**

SoCalREN submits to the Commission the Metric Ruling Common Metrics<sup>6</sup> as well as SoCalREN's proposed 2018 - 2025 Energy Efficiency Business Plan revised metrics by sector and cross-cutting segment based on Commission feedback. The following guiding principles governed the development and adoption of each metric covered in this document:<sup>7</sup>

- Be used and useful by Program Administrators to manage their portfolio
- Be timely
- Rely on data used in program implementation
- Be simple to understand and clear of any subjectivity
- Be output-based
- Have a readily interpretable meaning, with context added if needed
- Not be a replacement for evaluation, measurement, and verification (EM&V)
- Have longevity

SoCalREN also emphasizes that the metrics in this document are not a replacement for EM&V, as the Commission acknowledges in the *Administrative Law Judge's Ruling Seeking Comment on Energy Efficiency Business Plan Metrics (Metrics Ruling)*, issued on May 10, 2017.<sup>8</sup>

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<sup>6</sup> Administrative Law Judge's Ruling Seeking Comment on Energy Efficiency Business Plan Metrics, A.17-01-013, dated May 10, 2017. pp. 6-12.; Commission Staff clarifications for the revised sector-level metrics that PAs are to file on July 14th, per the May 10th and June 9th ALJ Rulings in A.17-01-013, electronically issued on July 10, 2017.

<sup>7</sup> *Ibid.* pp. 3-4.

<sup>8</sup> *Ibid.*

Each table under each sector contains sector-level metrics, as well as baselines, targets and notes. The contents of each table are based on the best available information at the time of the filing, and should be revised as new information becomes available. In addition, where data wasn't available, notes are provided detailing justification for why and anticipated planned activities to fulfill any missing information.

**A. SoCalREN Residential Sector Metrics**

SoCalREN is submitting its residential sector metrics, with details split for both single-family (SF) and multi-family (MF) to ensure alignment with the Metric Ruling. This presentation differs slightly with our business plan which provided both sub-segments collectively. In certain cases, including upstream programs, SF and MF designations are not available and an arbitrary split of savings, participants, etc. may limit the accuracy and utility of particular metrics. As a result, all single-family and multi-family metrics measure the impacts of downstream programs only, unless otherwise noted. In several cases, SoCalREN also provides overall residential metrics, which capture single-family and multi-family residential offerings unless otherwise noted.

It is important to note that past data collection systems have been built to report out by program, not by segment (i.e. SF or MF sub-groups within a sector). As such, past data does not always align well with the CPUC's requests and the PAs have been asked to use any available proxy values to form estimates. SoCalREN and implementers will need to adjust future data collection to accommodate these new requirements. SoCalREN is working with its vendors to collect data that better aligns with the CPUC-requested metrics.

Below are the residential metrics, as well as baselines, targets and notes. The contents of the table are based on the best available information at the time of the filing, and should be revised as new information becomes available.

**1) SoCalREN Residential Single-Family Sector-Level Metrics**

Table 1 below includes both the Metric Ruling Common Metrics as well as SoCalREN's proposed metrics from its filed 2018-2025 Energy Efficiency Business Plan; this designation is provided in the first column of Table 1.

**Table 1. SoCalREN's Residential Single-Family Sector Goals and Metrics**

Metric Type	Metric #	Metrics	Baseline (Data from 2016)	Metric Source	Short Term Target (2018 - 2020)	Mid Term Target (2021 - 2023)	Long Term Target (2024 - 2025)
<b>Capturing Energy Savings</b>  <i>(Common Metric and Proposed in SoCalREN BP)</i>	SF-1	Electricity Savings	378,294 Net kWh/yr  (445,051 Gross kWh/yr)	Annual Ex Ante Net Savings from Program Tracking Database (PTDB)	459,140 Net kWh/yr  (540,164 Gross kWh/yr)	584,641 Net kWh/yr  (687,812 Gross kWh/yr)	792,636 Net kWh/yr  (932,513 Gross kWh/yr)
	SF-2	Demand Savings	622 Net kW/yr  (732 Gross kW/yr)		755 Net kW/yr  (889 Gross kW/yr)	962 Net kW/yr  (1,132 Gross kW/yr)	1,304 Net kW/yr  (1,534 Gross kW/yr)
	SF-3	Therms savings	35,468 Net therms/yr  (41,727 Gross therms/yr)		43,048 Net therms/yr  (50,644 Gross therms/yr)	54,814 Net therms/yr  (64,487 Gross therms/yr)	74,315 Net therms/yr  (87,430 Gross therms/yr)
<b>Greenhouse Gas Emissions</b>	SF-4	Greenhouse gasses (MT CO2eq) Net kWh savings	<i>This Metric was recently added in July 10, 2017 ED Guidance; Further direction is still needed; PAs will be updating this metric after discussions with Commission staff.</i>				

Metric Type	Metric #	Metrics	Baseline (Data from 2016)	Metric Source	Short Term Target (2018 - 2020)	Mid Term Target (2021 - 2023)	Long Term Target (2024 - 2025)
<i>(Common Metric)</i>							
<b>Depth of Interventions <sup>2</sup></b>	SF-5	Average electric savings per participant	570.58 kWh	Gross savings/total participants	5% increase	10% increase	15% increase
<i>(Common Metric)</i>	SF-6	Average demand savings per participant	.94 kW		5% increase	10% increase	15% increase
	SF-7	Average gas savings per participant	53.50 therms		5% increase	10% increase	15% increase
<b>Penetration of energy efficiency programs in the eligible market <sup>3</sup></b>	SF-8	Percent of participation relative to the eligible population	0.0212%	<u>Numerator:</u> <sup>3</sup> Target Time Frame Average total savings divided by per participant savings <u>Denominator:</u> <sup>4</sup> Target Time Frame Average and extrapolation of SoCalGas data	0.022%	0.024%	0.028%
<i>(Common Metric)</i>	SF-9	Percent of participation in disadvantaged communities	31%	<u>Numerator:</u> Total # of new projects completed in DAC (PTDB) <u>Denominator:</u> Total number of projects to date completed (PTDB)	15% increase	20% increase	25% increase
	SF-10	Percent of participation defined as Hard-To-Reach	69%	Total percent of participation captured in PTDB	10%	15%	20%
<b>Cost per unit saved <sup>6</sup></b>	SF-11	Levelized cost of energy efficiency per kWh  (\$/Electricity Saved)	\$1.02/kWh (PAC)  \$1.95/kWh (TRC)	Cost Effectiveness Tool (CET) value from filed annual savings report	5% reduction (PAC)	5% reduction (PAC)	N/A (PAC)
<i>(Common Metric and Proposed in SoCalREN BP)</i>					1% reduction (TRC)	1% reduction (TRC)	N/A (TRC)
	SF-12	Levelized cost of energy efficiency per kW  (\$/Demand Saved)	N/A		N/A (PAC)	N/A (PAC)	N/A (PAC)
	SF-13	Levelized cost of energy efficiency per Therm  (\$/Therms saved)	\$10.90/Therm (PAC)  \$20.7/Therms (TRC)	5% reduction (PAC)	5% reduction (PAC)	N/A (PAC)	
				1% reduction (TRC)	1% reduction (TRC)	N/A (TRC)	
<b>Energy Intensity</b>	SF-14	Average energy use intensity of single family homes	7,545 kWh/home  413 Therms/home		5% reduction	5% reduction	5% reduction
<i>(Common Metric)</i>							
<b>Public agency action in Residential Communities</b>	SF-15	Cumulative number of projects completed within DAC public agencies <sup>7</sup>	21	Program Tracking Databases	2 new DAC public agencies per year	3 new DAC public agencies per year	4 new DAC public agencies per year
<i>(Proposed in SoCalREN BP)</i>							
<b>Program Participation Through Local Engagement <sup>9</sup></b>	SF-16	Number of engagements with "Hard-To-Reach" program participants	11,166	Program Tracking Databases	2,000 additional engagements per year	3,000 additional engagements per year	4,000 additional engagements per year
<i>(Proposed in SoCalREN BP)</i>							

**METRIC TABLE DEFINITIONS:**

**Disadvantaged Communities (DAC)** – SoCalREN utilized SB 535 CalEPA Disadvantaged Communities (DAC) list to determine by zip code the number of participants qualified under DAC; SoCalREN notes this definition will be expanded in the future to include Zip codes that meet at least one of these criteria: 1) High unemployment zip code where unemployment rate is at least 150% of the median unemployment rate for the county or for the state or 2) Low income zip code where average household income is 50% below Area Median Income (AMI). A disadvantaged worker can also be a referral from collaborating CBOs, state agencies, etc.; SoCalREN will incorporate this data collection through its program implementation.

**Hard-to-Reach (HTR):** Hard to reach markets are defined based on the criteria identified in Resolution G-3497. A customer is defined as hard to reach if they meet two of the following criteria, as long as one of them is geography.

- Language: primary language spoken is other than English
- Geography: businesses or homes in areas other than the United States Office of Management and Budget Combined Statistical Areas of the San Francisco Bay Area, the Greater Los Angeles Area and the Greater Sacramento Area or the Office of Management and Budget Metropolitan Statistical Areas of San Diego County
- Income: those customers who qualify for the California Alternative Rates for Energy (CARE) or the Family Electric Rate Assistance Program (FERA) and/or

Metric Type	Metric #	Metrics	Baseline (Data from 2016)	Metric Source	Short Term Target (2018 - 2020)	Mid Term Target (2021 - 2023)	Long Term Target (2024 - 2025)
<ul style="list-style-type: none"> <li>Housing Type: multi-family and mobile home tenants (rent and lease)</li> </ul>							
<b>PTDB</b> - means data is from SoCalREN's Program Tracking Database							
<b>NOTES ON HOW TARGETS WERE SET:</b>							
Targets are set based on the need to meet increasing goals while observing the need to maintain administrative efficiencies and budget restraints. However, due to new or changing implementation structures, and other portfolio/program changes, flexibility will be required to adapt to any new paradigms. Sector metrics and targets may change over the 8-year rolling portfolio cycle, as SoCalREN and its implementers deliver programs and learn more about market characteristics and responsiveness to intervention strategies.							
<b>TABLE FOOTNOTES:</b>							
<sup>(1)</sup> Metric will be the first year annualized reported gas, electric, and demand savings, gross and net; Short and Mid Term Targets are 3 year average (2018-2020); NTG used was the EUC-Default value of 0.70; Long Term targets are 2 year average (2018-2020); NTG used was the EUC-Default value of 0.70;							
<sup>(2)</sup> Baseline is Annual Avg 2015-2016 Actuals from program data;							
<sup>(3)</sup> SoCalGas provided SoCalREN, SoCalGas's total number of SF customers for 2016							
<sup>(4)</sup> Short and Mid Term Targets are 3 year average (2018-2020), total savings divided by per participant savings; Long Term targets are 2 year average (2018-2020), total savings divided by per participant savings;							
<sup>(5)</sup> Short and Mid Term Targets are 3 year average (2018-2020) and extrapolation of SoCalGas data; Long Term targets are 2 year average (2018-2020), and extrapolation of SoCalGas data;							
<sup>(6)</sup> Levelized costs represent discounted lifecycle savings using Program Administrator Costs. Stakeholders agreed to use the PAC test in a June 30, 2017 California Energy Efficiency Coordinating Committee (CAEECC) meeting. Additionally, this test is the best metric for showing the success of managing the portfolio as all costs are within SoCalREN's control.							
<sup>(7)</sup> Public Agencies include but are not limited to: city, county departments, water-waste facilities, etc.							
<sup>(8)</sup> SoCalREN defines engagement as any point of contact made to HTR participants through any mixed media communication or through personal encounters such as workshops.							

## 2) SoCalREN Residential Multi-Family Sector-Level Metrics

Table 2 below includes both the Metric Ruling Common metrics as well as SoCalREN's proposed metrics from its filed 2018-2025 Energy Efficiency Business Plan, this designation is provided in the first column of Table 2. As a Regional Energy Network, certain data is not readily available; for this reason some metrics under the "energy intensity" category utilized a proxy source as a placeholder until SoCalREN can inquire and receive more recent and approximate data from its partner utilities.

**Table 2. SoCalREN's Residential Multi-Family Sector Goals and Metrics**

Metric Type	Metric #	Metrics	Baseline (Data from 2016)	Metric Source	Short Term Target (2018 - 2020)	Mid Term Target (2021 - 2023)	Long Term Target (2024 - 2025)
<b>Capturing Energy Savings</b>  <i>(Common Metric and Proposed in SoCalREN BP)</i>	MF-1	Electricity Savings	980,487 Net kWh/yr  (1,153,515 Gross kWh/yr)	Annual Ex Ante Net Savings from Program Tracking Database (PTDB)	2,049,812 Net kWh/yr  (2,411,544 Gross kWh/yr)	2,610,107 Net kWh/yr  (3,070,714 Gross kWh/yr)	3,538,695 Net kWh/yr  (4,163,171 Gross kWh/yr)
	MF-2	Demand Savings	295 Net kW/yr  (347 Gross kW/yr)		616 Net kW/yr  (725 Gross kW/yr)	785 Net kW/yr  (923 Gross kW/yr)	1,064 Net kW/yr  (1,251 Gross kW/yr)
	MF-3	Therms savings	35,336 Net therms/yr  (41,572 Gross therms/yr)		73,874 Net therms/yr  (86,911 Gross therms/yr)	94,067 Net therms/yr  (110,667 Gross therms/yr)	127,533 Net therms/yr  (150,038 Gross therms/yr)
<b>Depth of Interventions <sup>1</sup></b>  <i>(Common Metric)</i>	MF-4	Average electric savings per Participant	121,423 kWh	Gross savings/total participants	5% increase	10% increase	15% increase
	MF-5	Average demand savings per Participant	37 kW		5% increase	10% increase	15% increase
	MF-6	Average gas savings per participant	4,376 Therms		5% increase	10% increase	15% increase
	MF-7	Energy savings (kWh, kw, therms) per square foot	0.64932 kWh/sq ft  0.00020 kW/sq ft  0.0234 Therm/sq ft	Numerator: # of Units per project PTDB  Denominator: average square footage is taken from the 2009 RASS data,	5% increase	10% increase	15% increase

Metric Type	Metric #	Metrics	Baseline (Data from 2016)	Metric Source	Short Term Target (2018 - 2020)	Mid Term Target (2021 - 2023)	Long Term Target (2024 - 2025)
<b>Penetration of energy efficiency programs in the eligible market <sup>1</sup></b>  <i>(Common Metric)</i>	MF-8	Percent of participation relative to eligible population (by unit, and property)	0.0762%	<u>Numerator:</u> Total # of projects participating in the program (PTBD) <u>Denominator:</u> Total Multifamily eligible population based on 2009 RASS SoCalGas data	0.1341%	0.1508%	0.1736%
	MF-9	Percent of square feet of eligible population participating (by property)	0.0762%	<u>Numerator:</u> average square footage is taken from the 2009 RASS data <u>Denominator:</u> Total Multifamily eligible population based on 2009 RASS SoCalGas data	0.1341%	0.1508%	0.1736%
<b>Cost per unit saved <sup>1</sup></b>  <i>(Common Metric and Proposed in SoCalREN BP)</i>	MF-10	Levelized cost of energy efficiency per kWh	\$1.97/kWh (PAC)		7% reduction (PAC)	7% reduction (PAC)	N/A (PAC)
		(\$/Electricity Saved)	\$1.91/kWh (TRC)		1% reduction (TRC)	1% reduction (TRC)	N/A (TRC)
	MF-11	Levelized cost of energy efficiency per kW	N/A		N/A (PAC)	N/A (PAC)	N/A (PAC)
		(\$/Demand Saved)			N/A (TRC)	N/A (TRC)	N/A (TRC)
	MF-12	Levelized cost of energy efficiency per kW	\$63.03/Therm (PAC)		7% reduction (PAC)	7% reduction (PAC)	N/A (PAC)
		(\$/Therms saved)	\$61.35/Therms (TRC)		1% reduction (TRC)	1% reduction (TRC)	N/A (TRC)
<b>Energy Intensity</b>  <i>(Common Metric)</i>	MF-13	Average energy use intensity of multifamily buildings (average usage per square foot)	4.35 kWh/Sq ft  2.92 Therms/Sq ft		5% reduction	5% reduction	5% reduction
	MF-14	Average energy use intensity of multifamily units	4,346 kWh/unit  2,924 Therms/unit		5% reduction	5% reduction	5% reduction

**METRIC TABLE DEFINITIONS:**

**PTDB** - means data is from SoCalREN's Program Tracking Database

**Multifamily** – is defined as 4 or more units.

**NOTES ON HOW TARGETS WERE SET:**

Targets are set based on the need to meet increasing goals while observing the need to maintain administrative efficiencies and budget restraints. However, due to new or changing implementation structures, and other portfolio/program changes, flexibility will be required to adapt to any new paradigms. Sector metrics and targets may change over the 8-year rolling portfolio cycle, as SoCalREN and its implementers deliver programs and learn more about market characteristics and responsiveness to intervention strategies.

**TABLE FOOTNOTES:**

<sup>(1)</sup> Square foot data (for the numerator) has not been collected to date;

**B. SoCalREN Public Sector Metrics**

The SoCalREN public sector program has successfully provided comprehensive one-stop energy efficiency non-resource strategies to increase adoption of energy efficiency by public agencies. SoCalREN public sector non-resource strategies focus on the design and development of Zero-Net-Energy (ZNE)<sup>9</sup> communities and creating appropriate metrics and milestones to measure progress so that public agencies can move beyond individual building-by-building solutions to community-wide solutions that consider all sources and uses of energy within their boundaries.

<sup>9</sup> SoCalREN defines ZNE as is a building with zero net electricity demand.



SoCalREN is submitting its public sector metrics, which include the Metric Ruling Common Metrics as well as SoCalREN’s proposed metrics from its filed 2018-2025 Energy Efficiency Business Plan. These metrics include details that encompass a range of measures, including energy savings (from IOU incentive-eligible projects), continued program growth and expansion to reach the majority of the public sector market, customer satisfaction, service to hard-to-reach and disadvantaged communities, workforce development support, public sector capacity and expertise, and alignment with CPUC, CEC, and state goals.

It is important to note that past data collection systems have been built to report out by program, not by segment or sector. As such, past data does not always align well with the CPUC’s requests and the PAs have been asked to use any available proxy values to form estimates. SoCalREN and implementers will need to adjust future data collection to accommodate these new requirements. SoCalREN is working with its vendors to collect data that better aligns with the CPUC-requested metrics.

Below are the public sector metrics, as well as baselines, targets and notes. The contents of the table are based on the best available information at the time of the filing, and should be revised as new information becomes available.

**Table 3. SoCalREN’s Public Sector Goals and Metrics**

Metric Type	Metric #	Metrics	Baseline (Data from 2016)	Metric Source	Short Term Target (2018 - 2020)	Mid Term Target (2021 - 2023)	Long Term Target (2024 - 2025)
<b>Capturing Energy Savings</b> <sup>1</sup> <i>(Common Metric and Proposed in SoCalREN BP)</i>	PS-1	Electricity Savings	10,130,000 kWh	Annual Ex Ante Net Savings from Program Tracking Database (PTDB)	10,000,000 kWh/yr	15,000,000 kWh/yr	15,000,000 kWh/yr
	PS-2	Demand Savings	937 kW		2,300 kW/yr	3,400 kW/yr	3,400 kW/yr
	PS-3	Therms savings	46,000 Therms		133,000 Therms/yr	169,000 Therms/yr	229,000 Therms/yr
<b>Greenhouse Gas Emissions</b> <i>(Common Metric)</i>	PS-4	Greenhouse gasses (MT CO2eq) Net kWh savings	<i>This Metric was recently added in July 10, 2017 ED Guidance; Further direction is still needed; PAs will be updating this metric after discussions with Commission staff.</i>				
<b>Depth of Interventions</b> <sup>2, 3</sup> <i>(Common Metric)</i>	PS-5	Average electric savings per project	160,426 kWh	<u>Numerator:</u> Gross electric savings <u>Denominator:</u> Number of projects with kWh savings (PTDB) in 2016	5% increase	15% increase	20% increase
	PS-6	Average demand savings per project	13 kW	<u>Numerator:</u> Gross demand savings <u>Denominator:</u> Number of projects with kWh savings (PTDB) in 2016	10% increase	15% increase	20% increase
	PS-7	Average gas savings per project	258 Therms	<u>Numerator:</u> Gross therm savings <u>Denominator:</u> Number of projects with kWh savings (PTDB) in 2016	10% increase	15% increase	20% increase
	PS-8	Average annual electric savings per project building floor plan area	<i>(please see footnotes)</i>	<u>Numerator:</u> Gross kWh value from building project savings metric <u>Denominator:</u> Total Square Foot covered by building projects with savings (PTDB)	<i>(Not feasible to set at this time)</i>	<i>(Not feasible to set at this time)</i>	<i>(Not feasible to set at this time)</i>
	PS-9	Average annual demand savings per project building floor plan area	<i>(please see footnotes)</i>	<u>Numerator:</u> Gross kW value from building project savings metric <u>Denominator:</u> Total Square Foot covered by building	<i>(Not feasible to set at this time)</i>	<i>(Not feasible to set at this time)</i>	<i>(Not feasible to set at this time)</i>



Metric Type	Metric #	Metrics	Baseline (Data from 2016)	Metric Source	Short Term Target (2018 - 2020)	Mid Term Target (2021 - 2023)	Long Term Target (2024 - 2025)
				projects with savings (PTDB)			
	PS-10	Average annual therm savings per project building floor plan area	<i>(please see footnotes)</i>	<u>Numerator:</u> Gross therm value from building project savings metric <u>Denominator:</u> Total Square Foot covered by building projects with savings (PTDB)	<i>(Not feasible to set at this time)</i>	<i>(Not feasible to set at this time)</i>	<i>(Not feasible to set at this time)</i>
	PS-11	Average annual electric savings per annual flow through project water/wastewater facilities	<i>(please see footnotes)</i>	<u>Numerator:</u> Gross kWh value from water/wastewater facilities savings metric <u>Denominator:</u> Total annual flow covered by water/wastewater facility projects with savings (PTDB)	<i>(Not feasible to set at this time)</i>	<i>(Not feasible to set at this time)</i>	<i>(Not feasible to set at this time)</i>
	PS-12	Average annual demand savings per annual flow through project water/wastewater facilities	<i>(please see footnotes)</i>	<u>Numerator:</u> Gross kW value from water/wastewater facilities savings metric <u>Denominator:</u> Total annual flow covered by water/wastewater facility projects with savings (PTDB)	<i>(Not feasible to set at this time)</i>	<i>(Not feasible to set at this time)</i>	<i>(Not feasible to set at this time)</i>
	PS-13	Average annual therm savings per annual flow through project water/wastewater facilities	<i>(please see footnotes)</i>	<u>Numerator:</u> Gross Therms value from water/wastewater facilities savings metric <u>Denominator:</u> Total annual flow covered by water/wastewater facility projects with savings (PTDB)	<i>(Not feasible to set at this time)</i>	<i>(Not feasible to set at this time)</i>	<i>(Not feasible to set at this time)</i>
<b>Penetration of energy efficiency programs and benchmarking in the eligible market</b> <sup>4,5</sup>  <i>(Common Metric)</i>	PS-14	Percent of Public Sector accounts participating in programs	<i>(please see footnotes)</i>	<u>Numerator:</u> Number of unique premise/accounts IDs (customers in PTDB) <u>Denominator:</u> Number of unique premise/accounts IDs (customers) from CIS	<i>(Not feasible to set at this time)</i>	<i>(Not feasible to set at this time)</i>	<i>(Not feasible to set at this time)</i>
	PS-15	Percent of estimated floorplan area of all Public Sector buildings participating in building programs	<i>(please see footnotes)</i>	<u>Numerator:</u> Total Square Foot covered by projects with savings (PTDB) <u>Denominator:</u> Total commercial square foot from CEC	<i>(Not feasible to set at this time)</i>	<i>(Not feasible to set at this time)</i>	<i>(Not feasible to set at this time)</i>
	PS-16	Percent of Public Sector water/wastewater flow enrolled in water/wastewater programs	<i>(please see footnotes)</i>	Numerator: Total water/wastewater flows covered by projects with savings (PTDB) Denominator: Total Public Sector water/wastewater flows	<i>(Not feasible to set at this time)</i>	<i>(Not feasible to set at this time)</i>	<i>(Not feasible to set at this time)</i>
<b>Cost per unit saved</b> <sup>6</sup>  <i>(Common Metric and Proposed in SoCalREN BP)</i>	PS-17	Levelized cost of energy efficiency per kWh  (\$/Electricity Saved)	<i>Not applicable, please see footnotes</i>				
	PS-18	Levelized cost of energy efficiency per kW  (\$/Demand Saved)					

Metric Type	Metric #	Metrics	Baseline (Data from 2016)	Metric Source	Short Term Target (2018 - 2020)	Mid Term Target (2021 - 2023)	Long Term Target (2024 - 2025)
	PS-19	Levelized cost of energy efficiency per kW  (\$/Therms saved)					
<b>Investment in energy efficiency</b> <sup>7</sup>  (Common Metric)	PS-20	Total program-backed financing distributed to Public Sector customers requiring repayment	\$12,351,000	Total Contractor investment	10%	15%	20%
<b>Energy Intensity</b> <sup>8</sup>  (Common Metric)	PS-21	Average energy use intensity of all Public Sector buildings	SoCalREN has no data to determine a baseline and no good proxy data (please see notes)	<u>Numerator:</u> Total buildings covered by projects with savings (PTDB) <u>Denominator:</u> Total commercial buildings over 50,000 Square Foot from CEC (5,755)	To be determined in 2018 once number of participants with benchmarking paid for by EE funds is known.		
	PS-22	Percent of Public Sector buildings with current benchmark					
	PS-23	Percent of floorplan area of all Public Sector buildings with current benchmark					
<b>Public Agencies Participation</b> <sup>9</sup>  (Proposed in SoCalREN BP)	PS-24	Percent of Public Agencies participating in energy efficiency	42	<u>Numerator:</u> SoCalREN PTDB <u>Denominator:</u> Total number of eligible SoCalREN agencies as of 2018	10% (20 new public agencies per year)	20% (30 new public agencies per year)	40% (45 new public agencies per year)
<b>Public Agencies Action through Engagement</b>  (Proposed in SoCalREN BP)	PS-25	# of ZNE retrofits as a percentage of public agency existing building	Currently not tracked; baseline would begin at 0	<u>Numerator:</u> SoCalREN PTDB <u>Denominator:</u> Total number of eligible SoCalREN agencies as of 2018	4	10	20
	PS-26	Percent of masterplans completed /to the total number of masterplans	Currently not tracked; baseline would begin at 0	<u>Numerator:</u> # of Master plans completed (PTDB) <u>Denominator:</u> Total number of master plans completed to date	2	4	6
	PS-27	Percent of local governments adopting model and reach codes, standards, and policies.	New compliance strategy; baseline would begin at 0	<u>Numerator:</u> # of LG adopting reach codes (PTDB) <u>Denominator:</u> 220 local governments (permitting authorities) within SoCalREN territory	1%	5%	10%

**METRIC TABLE DEFINITIONS:**

**Zero Net Energy (ZNE)** – zero net electricity demand in building;

**NOTES ON HOW TARGETS WERE SET:**

SoCalREN public sector program has successfully provided comprehensive one-stop energy efficiency services to increase adoption of energy efficiency by public agencies. Targets are set based on the need to meet increasing goals while observing the need to maintain administrative efficiencies. However, due to new or changing implementation structures, and other portfolio/program changes, flexibility will be required to adapt to any new paradigms. Sector metrics and targets may change over the 8-year rolling portfolio cycle, as SoCalREN and its implementers deliver programs and learn more about market characteristics and responsiveness to intervention strategies.

**TABLE FOOTNOTES:**

<sup>(1)</sup> The savings provided in this table are estimated attributable savings that are later claimed by SoCalREN's partner IOUs; The proposed savings values are based on actual performance data from the SoCalREN Public Agency Program related to completed projects and verified energy savings through December 31, 2016

<sup>(2)</sup> Square foot data (for the numerator) has not been collected to date. There is no proxy data for building projects square footage as it is not tracked in current public program implementation. SoCalREN will update the baseline after a year of data collection.

<sup>(3)</sup> Total flow data (for the denominator) has not been collected to date. SoCalREN will update the baseline after a year of data collection.

<sup>(4)</sup> Currently, SoCalREN does not have access to the Denominator, number of unique premise/accounts IDs (customers) from CIS. In the future, SoCalREN hopes to collaborate with its partner IOUs to obtain data that can be utilized for this metric.

<sup>(5)</sup> Square foot data (for the numerator) has not been collected to date. There is no current proxy data for public building projects square footage as it is not tracked in current public program implementation. SoCalREN plans to include in its implementation plans square footage tracking. SoCalREN will update the baseline after a year of data collection.

<sup>(6)</sup> SoCalREN's Public sector strategies are currently all non-resource;

<sup>(7)</sup> SoCalREN public sector programs do not include program-backed financing for public sector customers. SoCalREN utilizes here the best proxy value based on known contractor investment;

<sup>(8)</sup> SoCalREN does not currently possess or have access to this data that would allow reporting on these metrics. However, given new AB 802 benchmarking requirements SoCalREN will look to identifying available data and will update these metrics as it is made available.

<sup>(9)</sup> Percent targets are based on 647 eligible public agencies within SoCalREN territory;

### ***1) SoCalREN Public Sector-Level Future Data Collection***

As noted in Table 3 above some Metric Ruling Common Metrics were not available to be provided at this time due to the lack of availability data. However, SoCalREN does believe the metrics hold significant value and if metrics become formally adopted by the Commission, SoCalREN will track and report the following public sector data to apprise the CPUC and stakeholders of its progress:

- Square footage of each project
- Project specific building or facility type within public sector offerings
- # of ZNE projects completed
- water/wastewater flow enrolled in water/wastewater programs
- public building benchmarking data

### **C. SoCalREN Codes & Standard Compliance Metrics**

As a non-resource program that drives energy savings to SCE and SoCalGas, SoCalREN's C&S Compliance Enhancement progress reporting will focus on qualitative metrics associated with our established goals. The specific goals of the SoCalREN Compliance Enhancement Program are to:

- Provide codes and standards community members with actionable resources that address their specific role in advancing the state's ZNE goals. C&S community members are listed and described in Appendix C. Resources may include informational fact sheets or case studies, webinars, in-person workshops or trainings, Energy Code Coach services, etc.
- Support public agencies and external codes and standards stakeholders to adopt, implement and enforce advanced energy codes, standards and policies that pave the way for improved building performance and ZNE new construction. SoCalREN will target specific public agency staff and external stakeholders to promote the adoption and implementation of advanced energy codes and policies. Targeted staff will likely include sustainability managers, sustainability and/or resiliency officers, building officials, public works officials, facilities managers, emergency response offices, planning/development offices and public information officials. External stakeholders will likely include architects and designers, planners, energy consultants and builders.
- Assist public agencies in collecting and using C&S related data to inform future G&G reduction strategies. For example, should a local government adopt and implement advanced energy codes and policies, SoCalREN will work with them to track the energy savings above and beyond the baseline energy code associated with compliant building projects. This data can inform future reach code revisions and education and outreach activities (e.g. case studies for designers).

SoCalREN is submitting its codes and standards compliance enhancement metrics. These metrics only include SoCalREN's proposed metrics from its filed 2018-2025 Energy Efficiency Business Plan. The Metrics Ruling did provide C&S metrics but were limited to savings and advocacy metrics which are not part of SoCalREN's C&S strategies. SoCalREN's strategies as

mentioned above are limited to compliance enhancement which are not currently in the scope of the Metrics Ruling.

Below are the C&S Compliance Enhancement cross-cutting metrics, as well as baselines, targets and notes. The contents of the table are based on the best available information at the time of the filing, and should be revised as new information becomes available.

**Table 4. SoCalREN’s Codes & Standard Compliance Cross-Cutting Goals and Metrics**

Metric Type	Metric #	Metric	Baseline <sup>1</sup>	Metric Source	Short Term Target (2018-2020)	Mid Term Target (2021-2023)	Long Term Target (2024-2025)
<b>Compliance</b> <i>(Proposed in SoCalREN BP)</i>	C&S -1	Percent of local governments using C&S resources <sup>1</sup>	228 local governments in SoCalREN territory	Agency activities/Needs Assessment	10% of local governments in SoCalREN territory	20% of local governments in SoCalREN territory	30% of local governments in SoCalREN territory
	C&S-2	Percent of local governments adopting advanced codes, standards, and policies	228 local governments in SoCalREN territory	Agency activities	10% of local governments in SoCalREN territory	20% of local governments in SoCalREN territory	30% of local governments in SoCalREN territory
	C&S-2	Percent of local governments using energy data to inform C&S activities	228 local governments in SoCalREN territory	Agency activities	10% of local governments in SoCalREN territory	20% of local governments in SoCalREN territory	30% of local governments in SoCalREN territory
<p><b>NOTES ON HOW TARGETS WERE SET:</b> Codes &amp; Standards Compliance are new strategies not previously within SoCalREN’s portfolio. Targets were developed based on providing incremental value over the 8-year period to C&amp;S Community members. As noted, a needs assessment will need to be conducted. Targets set now are of moderate value due to these being new implemented strategies.</p> <p><b>TABLE FOOTNOTES:</b> <sup>(1)</sup> Baseline is currently zero due to SoCalREN has not previously provided these offerings in its portfolio; However the number of local governments in SoCalREN territory is provided for context. <sup>(2)</sup> Resources are to be identified once the C&amp;S needs assessment is completed by SoCalREN;</p>							

**1) SoCalREN C&S Needs Assessment to Support Metrics**

Because this is SoCalREN’s first experience with C&S activities, there exists an initial need to assess what resources are needed in the C&S community. In reference to SoCalREN’s metric C&S-1 in Table 4, SoCalREN will need to first assess the needs of C&S community members. SoCalREN will perform a needs assessment similar to BayREN’s C&S program in 2013 which will assess specific gaps in code enforcement capacity among compliance stakeholders. This assessment will allow SoCalREN to better approximate the number of resources being utilized and the type by local government agencies. As we begin to develop resources to address identified gaps, the following will be tracked:

- The number of outreach, education, and tools (i.e. resources) provided to C&S stakeholders.
- The percent of local governments in SoCalREN territory that consistently use the resources provided.
- The percent of local governments participating in facilitated events, e.g., Technical Advisory Committees, Working Groups, Councils of Governments events, surveys and polls, etc.
- The percent of local governments engaged via outreach activities.
- The percent of local governments in SoCalREN territory that adopt and implement advanced codes and use energy and C&S–related data to inform adoption and implementation of such standards.
- The number of external C&S stakeholders (i.e. non-local government staff) engaged via outreach activities.
- The percent of local governments collecting C&S-related energy data.

- The percent of local governments using C&S-related energy data to inform GHG reduction activities.

**D. SoCalREN Workforce Education and Training Metrics**

SoCalREN envisions a reliable, diverse, and highly-skilled labor force, one that is able to deliver high-quality EE services to all segments of the Southern California ratepayer community as a result of a comprehensive regional and effective workforce education and training infrastructure. As a non-resource strategy that drives energy savings to SCE and SoCalGas, SoCalREN’s Workforce Education and Training (WE&T) proposed Business Plan metrics focus on qualitative metrics associated with established goals. SoCalREN’s WE&T strategies include metrics that cut across both primary sectors, specifically SoCalREN’s residential and public sectors.

The metrics below are broken out into (1) collaboration-based metrics that leverage outside partnerships, and (2) penetration of training and diversity of participants metrics.

Below in Table 6, SoCalREN provides the Metric Ruling Common Metrics, as well as SoCalREN’s proposed metrics from its filed 2018-2025 Energy Efficiency Business Plan. The contents of the table are based on the best available information at the time of the filing, and should be revised as new information becomes available.

**Table 5. SoCalREN’s WE&T Cross-Cutting Goals and Metrics**

Metric Type	Metric #	Metrics	Baseline	Metric Source	Short Term Target (1-3 years)	Mid Term Target (4-6 years)	Long Term Target (7-8+ years)
<b>Leveraging effective partnerships</b> <i>(Common Metric)</i>	WE&T -1	Number of partnership by sector <sup>1</sup>	38	Program tracking from training registration data, certified payroll, or workforce training and case management system (PTDB)	10	20	30
<b>Penetration of training and diversity of participants</b> <i>(Common Metric)</i>	WE&T -2	Number of participants by sector <sup>2</sup>	419	Program tracking from training registration data, certified payroll, or workforce training and case management system (PTDB)	10% increase/yr	10% increase/yr	10% increase/yr
<i>(Common Metric and Proposed in SoCalREN BP)</i>	WE&T -3	Percent of participation relative to eligible target population for curriculum <sup>3</sup>	(please see footnotes)	<u>Numerator:</u> # of Participants in PTDB <u>Denominator:</u> Determined from the TBD workforce/ market analysis.	<i>(Not feasible to set at this time)</i>	<i>(Not feasible to set at this time)</i>	<i>(Not feasible to set at this time)</i>
<i>(Proposed in SoCalREN BP)</i>	WE&T -4	Percent of disadvantaged participants trained (ID by zip code)	57%	<u>Numerator:</u> # of Participants of DAC/DAW (PTDB) <u>Denominator:</u> Determined from the TBD workforce/ market analysis.	65%	75%	85%
<i>(Proposed in SoCalREN BP)</i>	WE&T -5	Percentage of offerings that DVBE	Baseline defined by evaluating WE&T program data and documentation	WE&T program data and documentation	20% increase in offerings that reach disadvantaged workers	25% increase in offerings that reach disadvantaged workers	50% increase in offerings that reach disadvantaged workers
	WE&T -6	Percentage of offerings delivered through strategic partnerships with other core education providers	Current percentage of partnership delivery; WE&T program data and documentation	WE&T program data and documentation	Evaluation criteria defined and measurement to establish baseline begins	20% increase in offerings delivered through strategic partnerships as defined	25% increase in offerings delivered through strategic

Metric Type	Metric #	Metrics	Baseline	Metric Source	Short Term Target (1-3 years)	Mid Term Target (4-6 years)	Long Term Target (7-8+ years)
							partnerships as defined
<b>Training Impact</b>  <i>(Proposed in SoCalREN BP)</i>	WE&T -7	Percentage of knowledge gain as a result of course participation	Current percentage of knowledge gain; N/A (new metric)	WE&T program data and documentation; pre- and post-course surveys that target key course learning objectives	20% increase in measured knowledge gain as a result of course participation	25% increase in measured knowledge gain as a result of course participation	30% increase in measured knowledge gain as a result of course participation
	WE&T -8	Training impact, based on number of projects and contract value	N/A (new metric)	WE&T program data and documentation	Evaluation criteria defined and measurement to establish baseline begins	15% increase in training impact, based on number and contract value	20% increase in training impact, based on number and contract value
	WE&T -9	Percentage of offerings that target or promote measures and programs that yield savings	N/A (new metric)	WE&T program data and documentation	Evaluation criteria defined and measurement to establish baseline begins	10% increase in offerings that target or promote measures and programs that yield savings	20% increase in offerings that target or promote measures and programs that yield savings

**METRIC TABLE DEFINITIONS:**

**PTDB** - Program tracking from training registration data, certified payroll, or workforce training and case management system;

**NOTES ON HOW TARGETS WERE SET:**

Targets are set based on the need to meet increasing demands and needs of disadvantage communities and disadvantage workers while observing the need to maintain administrative efficiencies and budget restraints. However, due to new or changing implementation structures, and other portfolio/program changes, flexibility will be required to adapt to any new paradigms. Sector metrics and targets may change over the 8-year rolling portfolio cycle, as SoCalREN and its implementers deliver programs and learn more about market characteristics and responsiveness to intervention strategies.

**TABLE FOOTNOTES:**

<sup>(1)</sup> This metric includes the follow sub sectors: Workforce Education and Training Organizations, Workforce Support Services, SBE/DVBE Training , SBE/DVBE Technical Assistance SBE/DVBE Associations;

<sup>(2)</sup> This metric includes: Electrical trade contractors, HVAC Trade contractor, Specialty Trade Contractors and Youth Career Technical Education Students;

<sup>(3)</sup> Currently SoCalREN does not have the available information but will update these values once a full workforce and market analysis is completed;

#### IV. DISADVANTAGED AND HARD-TO-REACH MARKETS NEED TO BE FORMALLY DEFINED

SoCalREN appreciates the Commission’s efforts to monitor and capture the progress of activities that fulfill disadvantaged communities and hard-to-reach markets. The Metric Ruling proposed various metrics that assist in capturing the progress of meeting disadvantaged communities and hard-to-reach markets’ needs through PAs’ energy efficiency business plan portfolios. Through recent stakeholder forum discussions addressing these metrics (such as the ones had in the CAEECC Metric meetings),<sup>10</sup> repetitive concerns arose around the definition and consistencies of disadvantaged communities and hard-to-reach markets. For metrics to provide appropriate context to external stakeholders, clear and consistent definitions of the targeted subject to be measured is imperative. SoCalREN recommends that the Commission provide clarification on the definition of disadvantaged communities and maintain consistency on that definition across proceedings when possible.

<sup>10</sup> CAEECC Metric Meetings were publicly held on June, 14, 2017 and June 30, 2017; these meeting were utilized discuss in a public forum clarifications and concerns regarding EE business plan metrics with Commission Staff. Notes to these meetings can be found at [www.caeecc.org](http://www.caeecc.org).

SoCalREN also agrees with NRDC’s Opening Comments of the Joint Ruling Attachment B, that the potential overlap in the definition of hard-to-reach customers could plague PAs and should be addressed in the implementation planning phase to ensure that energy efficiency programs are specifically targeted to meet the needs of hard-to-reach customers.<sup>11</sup> SoCalREN additionally recommends that the issue of “hard-to-reach customers” be included within the scope of this proceeding.

## V. CONCLUSION

SoCalREN appreciates the opportunity to provide revised sector metrics regarding its Energy Efficiency Rolling Portfolio Business Plan and respectfully requests the Commission consider SoCalREN’s Motion for Approval of its Energy Efficiency Rolling Portfolio Business Plan based on the revisions provided.

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Respectfully submitted,

/s/ Demetra J. McBride

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<sup>11</sup> NRDC Comments on Scoping Memo and Ruling of Assigned Commissioner and Administrative Law Judges, dated June 22, 2017. p. 10