Application: 26-03-xx
(CPUC #940)
Exhibit #: 4
Date: March 16, 2026
Witness(es): Various

SOUTHERN CALIFORNIA REGIONAL ENERGY NETWORK

TOTAL BENEFIT METRIC

EXHIBIT 4

SoCalREN

SOUTHERN CALIFORNIA REGIONAL ENERGY NETWORK
ENERGY EFFICIENCY 2028-2035 STRATEGIC BUSINESS PLAN AND 2028-2031 PORTFOLIO PLAN

TABLE OF CONTENTS

Chapter	Title	Witness
Exhibit 1	**SOCALREN 2028-2035 STRATEGIC BUSINESS PLAN AND 2028–2031 PORTFOLIO PLAN**	
1	EXECUTIVE SUMMARY	Minh Le
2	PORTFOLIO SUMMARY	Lujuana Medina
3	PORTFOLIO STRATEGIES	Lujuana Medina
4	FORECAST METHODOLOGY & ZERO-BASED BUDGETING	Minh Le
5	PORTFOLIO MANAGEMENT	Lujuana Medina
6	SEGMENTATION AND SECTOR STRATEGY	Lujuana Medina
7	PORTFOLIO COORDINATION	Lujuana Medina
8	STAKEHOLDER ENGAGEMENT	Lujuana Medina
9	EVALUATION, MEASUREMENT, AND VERIFICATION	Minh Le
10	COST AND COST RECOVERY	Lujuana Medina
11	RECOMMENDATIONSD FOR NEW OR MODIFIED EE POLICY	Lujuana Medina
Appendix A	SECTOR-LEVEL LOGIC MODELS	Lujuana Medina

SOUTHERN CALIFORNIA REGIONAL ENERGY NETWORK
ENERGY EFFICIENCY 2028-2035 STRATEGIC BUSINESS PLAN AND 2028-2031 PORTFOLIO PLAN

TABLE OF CONTENTS

Chapter	Title	Witness
Exhibit 2	**SOCALREN 2028–2035 PORTFOLIO PLAN PROGRAM CARDS**	
1	AGRICULTURE SECTOR	Lujuana Medina
2	COMMERCIAL SECTOR	Lujuana Medina
3	CROSS-CUTTING COMMUNITY-BASED SECTOR	Lujuana Medina
4	CROSS-CUTTING FINANCE SECTOR	Lujuana Medina
5	CROSS-CUTTING WE&T SECTOR	Lujuana Medina
6	PUBLIC SECTOR	Lujuana Medina
7	RESIDENTIAL SECTOR	Lujuana Medina
Exhibit 3	**SOCALREN'S RESPONSES, PURSUANT TO ENERGY DIVISION TEMPLATE**	
1	SOCALREN'S ENERGY EFFICIENCY APPLICATION TABLES, PURSUANT TO ENERGY DIVISION TEMPLATE	Minh Le
Exhibit 4	**REN TOTAL BENEFIT METRIC**	Lujuana Medina
1	BACKGROUND AND OVERVIEW	Lujuana Medina
2	RTB TECHNICAL METHODOLOGY	Lujuana Medina
3	RECOMMENDATIONS FOR COMMISSION ADOPTION AND IMPLEMENTATION	Lujuana Medina

SOUTHERN CALIFORNIA REGIONAL ENERGY NETWORK
ENERGY EFFICIENCY 2028-2035 STRATEGIC BUSINESS PLAN AND 2028-2031 PORTFOLIO PLAN

TABLE OF CONTENTS

Chapter	Title	Witness
Exhibit 5	**SOCALREN'S RESPONSE TO D.23-06-055 OP 2 RECOMMENDED EDITS TO JOINT PA WORKING GROUP "STATEWIDE ENERGY EFFICIENCY PROGRAM ASSESSMENT CRITERIA" D.23-06-055 OP2 STATEWIDE ASSESSMENT FRAMEWORK DATED FEBRUARY 12, 2026**	**Lujuana Medina**
1	SOCALREN RECOMMENDATION FOR ANNUAL SECTOR STATEWIDE PROGRAM ASSESSMENT	Lujuana Medina
2	SOCALREN SUGGESTED EDITS TO THE JOINT PA WORKING GROUP D.23-06-055 OP2 STATEWIDE ASSESSMENT FRAMEWORK	Lujuana Medina

EXHIBIT 4: REN TOTAL BENEFIT METRIC

CONTENTS

Exhibit 4: REN Total Benefit Metric....3
A. Background and Overview....3
B. RTB Technical Methodology....3
1. Benefit Groups and Categories....4
2. Research-Based Valuation Development....4
3. Integration of REN Program Data....5
4. Benefit Estimation and Monetization....6
5. Portfolio-Level Aggregation: REN TOTAL BENEFIT METRIC....6
C. Recommendations for Commission Adoption: Framework and Implementation....7

Exhibit 4: REN Total Benefit Metric

A. Background and Overview

In alignment with the 2024 California State Auditor's report[1] highlighting the need for enhanced oversight of energy efficiency programs, the Southern California Regional Energy Network (SoCalREN) proposes the California Public Utilities Commission ("the Commission" or CPUC) consider formal adoption of a benefit calculation framework for California's RENs. While the current Total System Benefit (TSB) metric captures essential grid impacts, it does not account for the extensive participant, partner, and community benefits that are central to the mission of the RENs as well as alignment with CPUC Equity mandates[2]. To ensure a comprehensive evaluation of portfolio performance, SoCalREN has developed a specialized benefits calculator to output a REN Total Benefit (RTB) metric that is additive to the TSB metric, providing a more comprehensive picture of ratepayer value.

The RTB metric quantifies value across a broad range of categories starting with direct economic impacts such as bill savings, local wage growth, and increased community spending. It also accounts for the financial support provided through incentives and grants, as well as property improvements that add value and increase resiliency. By monetizing these factors, the full economic reach of REN programs is made understandable and visible to regulators and the public. In addition to financial data, the RTB metric captures the essential social and environmental impacts generated by REN programs. This includes public health improvements related to indoor air quality and social determinates of health, as well as community resiliency through wildfire recovery support and emergency preparedness. The RTB metric also calculates the value of natural resource conservation and environmental benefits from avoided greenhouse gas (GHG) emissions.

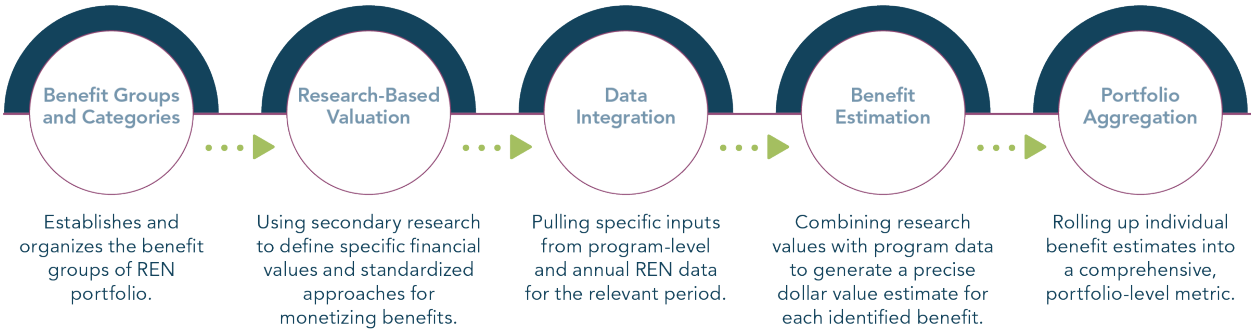
B. RTB Technical Methodology

The methodology for calculating the RTB metric involves a rigorous four-step process designed to ensure data-driven results. A visual demonstration of this process is provided in Figure 1, followed by a detailed description of each stage.

[1] California State Auditor, *The California Public Utilities Commission—Without Improving Its Oversight, the Benefits of Energy Efficiency Programs May Not Be Worth Their Cost to Ratepayers* (Report 2023-127, March 2025). Available at: https://www.auditor.ca.gov/reports/2023-127/

[2] California Public Utilities Commission, *Environmental and Social Justice Action Plan, Version 2.0* (April 2022).

Figure 1. REN Total Benefit Calculation Methodology



1. Benefit Groups and Categories

The first stage establishes the benefit groups of a REN portfolio and then organizes benefits into three Groups, listed below, and ten Benefit Types:

- Participants: The people, agencies, or organizations directly receiving equipment or services.
- Partners: The contractors and organizations that help deliver services.
- Communities: The geographic areas (municipalities, counties) where participants operate.

Figure 2. The 10 benefit types span financial, health, environmental, and community dimensions.

2. Research-Based Valuation Development

The second stage establishes the financial valuation structure by identifying appropriate monetary values for each benefit category. This step relies exclusively on secondary research, including commonly

accepted economic multipliers, social cost values, avoided cost frameworks, health impact valuations, and standard methods used in environmental economics.

Where direct monetary valuation is possible, parameters are defined using the most conservative defensible values to avoid overstating benefits. For example, estimates of economic multipliers may draw from labor economics literature on local job creation, while avoided emissions valuations may rely on standardized social cost of carbon or air pollutant damage cost estimates.

In instances where monetization is not currently possible due to insufficient research consensus or data limitations (e.g., some measures of community resilience, educational outcomes, or qualitative housing stability impacts), the framework requires documentation of the benefit, an articulation of its likely causal pathway, and a recommended approach for future valuation work.

Table 1. Valuation Factors and Sources Used for Initial RTB Model

Benefit Category	Valuation Approach	Key Parameters	Notes
Cost Savings	Measured with energy/water O&M savings	$/kWh, $/therm, $/gallon	Highly monetizable
Local Economy	Regional economic multipliers	Output x Multiplier	Monetizable with standard assumptions
Health	Damage cost per pollutant avoided	$/ton	Monetizable, high uncertainty
Community Wellbeing	Proxy valuations	Varied	Partially monetizable

3. Integration of REN Program Data

Once valuation factors are established, program-specific data is integrated into the model. This includes quantitative information such as:

- participation counts;
- project characteristics;
- retrofit scopes;
- incentives and grants secured;
- energy and water savings;

- workforce training hours or certifications;
- building type and demographic attributes;
- implementation timelines; and,
- community-level indicators for disadvantaged or hard-to-reach populations.

The integration step relies on a data-cleaning and validation process to ensure internal consistency. Where program data is incomplete, conservative interpolation methods are applied, and all assumptions must be documented in a methodological appendix. This stage ensures that each benefit type is grounded in an empirical input rather than a purely theoretical estimate, enabling defensible benefit calculations.

4. Benefit Estimation and Monetization

With valuation factors and program data in place, the model computes benefit estimates by multiplying program data inputs by the associated valuation parameter. For example:

- Bill savings are derived by multiplying estimated kWh/therm reductions by avoided utility rates or cost factors.
- Local wage creation is calculated by applying labor coefficients to project spending on installation or technical assistance.
- Improved indoor air quality benefits may be monetized by estimating avoided medical costs or productivity impacts linked to pollutant reductions.
- Greenhouse gas reductions are monetized using a selected social cost estimate.

Each benefit category is calculated independently. Where multiple causal pathways exist (e.g., building rehabilitation leading to both housing stability and improved mental health outcomes), benefits are calculated in a way that avoids double-counting by applying attribution rules.

5. Portfolio-Level Aggregation: REN TOTAL BENEFIT METRIC

Once all benefit estimates are generated, they are aggregated into the portfolio-level RTB figure which includes the TSB if applicable. This aggregation is sensitive to sectoral differences; for example, outcomes from public agency facility upgrades may differ substantially from those in multifamily housing or small businesses.

The aggregation process is designed to allow disaggregation for reporting, enabling the Commission to examine benefits by sector, geography, or benefit type. This supports internal and external performance

reviews, enabling regulators to track REN programs over time, benchmark expected outcomes, and align investment decisions with long-term equity and decarbonization goals.

Figure 3. REN Total Benefit Metric

RTB Calculator Structure and Documentation

The calculator consists of two main components that are utilized together:

1. **Excel Tool:** A file organized into input, assumption, calculation, and output tabs. It accepts program-specific inputs (participation, savings, incentives) and generates non-energy benefit values and a combined RTB metric by sector and benefit type. The current tool is a SoCalREN specific tool but could be replicated by other RENs.
2. **Narrative Methods Document:** The primary reference for methodology, data sources, and key assumptions. It provides sufficient detail for stakeholders and decision-makers to evaluate, challenge, or refine methodological choices. This document serves as a way for stakeholders to review, weigh in, and utilize SoCalREN's existing work.

Benefit values can be broken out by sector (Public, Residential, Commercial, WE&T), benefit type (e.g., Cost Savings, Health, Direct Financial Support), and time horizon (first-year vs. lifecycle).

C. Recommendations for Commission Adoption: Framework and Implementation

SoCalREN is proposing that the REN Total Benefit be utilized similar to the TSB set forth as a portfolio metric and utilized to track IOU PA performance. The RTB would be proposed in each REN's rolling portfolio application with an annual forecast for each year within the application period. Forecasts would then be reviewed and approved by the Commission. The Commission and each REN could then track annual performances based on their respective forecasts.

Successful implementation of this framework will require a collaborative, transparent approach. SoCalREN recommends that the Commission direct the SoCalREN to lead a stakeholder working group process to ensure transparency and public accessibility of the calculator and its data inputs. This stakeholder process will include discussion on the methodology and how it can be applied to other PAs portfolios. The stakeholder process would include other Program Administrators, external stakeholders,

and energy division staff. Following this stakeholder engagement, the final framework would be filed by the RENs for formal Commission approval.

Proposed Timeline for Implementation

SoCalREN is proposing that the Commission direct REN program administrators to submit in their next portfolio applications a TSB goal that will be adopted in the next proceeding later this year. For the program years between now and the beginning of the next application cycle (filed in 2030, BP '32-'36), the REN program administrators would work to establish their supporting data to be included in their metric and include a forecast in the 2029 MCAL. This will allow adequate time for the stakeholder process and for REN PAs to align portfolios towards the proposed RTB metric.

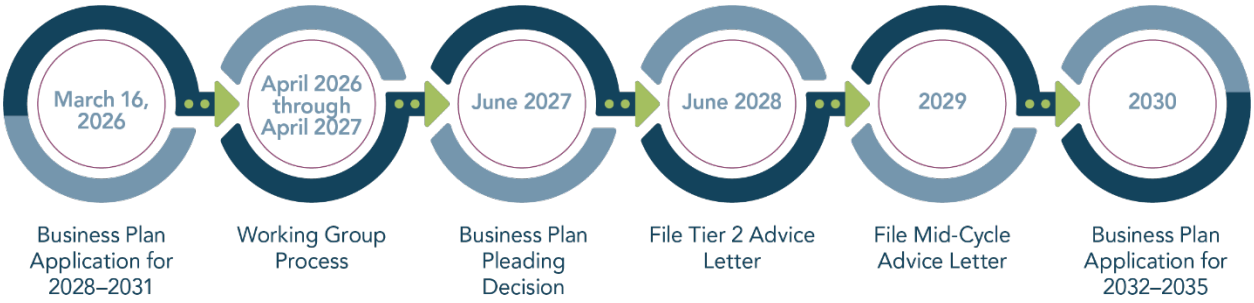



Figure 4. Proposed Timeline for RTB Metric Implementation